LB≡BW

Breaking New Ground

Disclosure report 2020

Disclosure report 2020

Contents

Key figures for the LBBW Group

EUR million	31/12/2020	30/09/2020
Available capital[1]		
Common equity Tier 1 (CET 1) capital	12,415	12,111
CET1 fully loaded	12,195	12,032
Tier 1 capital (T1)	13,641	13,337
T1 fully loaded	12,939	12,776
Own funds (T1 + T2)	18,741	18,419
Own funds fully loaded	18,753	18,385
Risk weighted assets (amounts) [1]		
Total risk (RWA)	82,112	81,477
Total risk (RWA) – fully loaded	82,331	81,544
Risk-based capital ratios as percentage of RWA		
Common equity Tier 1 capital ratio in %	15.1	14.9
CET1 ratio fully loaded in %	14.8	14.8
T1 capital ratio in %	16.6	16.4
T1 ratio fully loaded in %	15.7	15.7
Total capital ratio in %	22.8	22.6
Total capital ratio fully loaded in %	22.8	22.5
Additional capital buffer requirements as percentage of RWA		
Capital conservation buffer requirement in %	2.5	2.5
Countercyclical capital buffer requirement in %	0.0	0.0
Supplementary requirements for G-SIB or O-SIB in %	0.8	1.0
Total CET1 buffer requirements in %	3.3	3.5
Available CET 1 after meeting minimum capital requirements in %	7.4	6.8
Leverage ratio		
Leverage ratio total exposure measure	289,880	305,035
Leverage ratio in %	4.7	4.4
Leverage ratio fully loaded in %	4.5	4.2
Liquidity coverage ratio		
Total HQLA	66,494	61,731
Total net cash outflows	46,814	44,889
LCR in % [2]	141.9	137.4

1 Unlike in the annual report, in the disclosure report the figures are published after the resolution on profit appropriation by the shareholders' meeting.
2 The LCR is calculated by taking the average liquidity coverage ratios of the last twelve months before the end of each quarter.

1 General requirements (Article 431 – 434 CRR)

The Basel Committee on Banking Supervision (BCBS) has published a comprehensive package of reforms known as »Basel III« for the purpose of reinforcing regulation, supervision and risk management in the banking sector.

The Basel rules have been implemented as European law in Regulation (EU) No. 575/2013 of the European Parliament and of the Council (CRR – Capital Requirements Regulation). The rules contained in the supplementary Directive 2013/36/EU (CRD IV – Capital Requirements Directive) were transposed into German national law with the publication of the CRD IV Implementation Act.

The Basel Committee on Banking Supervision published further disclosure requirements under the title of »BCBS 309«, a large part of which was implemented into European law in Guideline EBA/GL/2016/11 published by the European Banking Authority (EBA).

EBA Guidelines EBA/GL/2017/01 on LCR disclosure are published in the report to complement the disclosure of liquidity risk management under Article 435 CRR, as are the EBA Guidelines EBA/GL/2018/10 on »non-performing loans«. The supervisory relief that regulators require to be published during the COVID-19 pandemic under the EBA Guidelines EB/GL/2020/07 is also included in this report.

Landesbank Baden-Württemberg (LBBW) prepares the disclosure report in aggregate form at group level in its function as a parent company in order to comply with the currently applicable requirements pursuant to Part Eight of the CRR in conjunction with EBA/GL/2016/11 and EBA/GL/2017/01. This report is based on the International Financial Reporting Standards (IFRS).

In addition, the separate financial statements prepared in accordance with the German Commercial Code (|Handelsgesetzbuch – HGB) and the remuneration report required under the Remuneration Ordinance for Institutions (Instituts-Vergütungsverordnung), which also includes the disclosures required under Article 450 CRR, as well as the country-by-country report in accordance with section 26a(1) sentence 2 of the German Banking Act (Kreditwesengesetz - KWG) and the results of the quantitative analysis for global systemically relevant institutions as required by Commission Implementing Regulation (EU) No. 1030/2014, are published on LBBW's website.

According to a resolution of the Bundesbank's Expert panel of disclosure requirements, it is up to the banks whether they complete credit risk templates using COREP or FINREP data. Where FINREP data is used, this is indicated explicitly.

As required by EBA/GL/2016/11, changes to figures are commented on at the time the tables in question are published. There are thus various observation periods for comments.

The figures published in the disclosure report have been rounded to the next million in accordance with commercial principles. Figures under EUR 500,000 are therefore shown as »0«. If there is no amount for the item in question, this is shown with »–«. Accordingly, rounding differences may arise through aggregation.

2 Risk management (Article 435 CRR)

2.1 Risk-oriented integrated bank management

Risk is managed as part of LBBW's strategy, LBBW law and its articles of association. Any risks along with related earnings opportunities and growth potential will be entered into in a deliberate and controlled manner, in the context of precisely defined risk tolerance. Particular focus is given to capital and liquidity management.

Clearly defined organizational and operational structures, internal control processes, the risk management and control structures and process-independent internal auditing ensure that business operations are in line with the strategy.

The processes, procedures and methods are regularly reviewed to ensure their adequacy and developed further. These reviews also take account of and implement the findings of the statutory auditor, the Group Auditing division and the European Central Bank (ECB)'s Supervisory Review and Evaluation Process (SREP).

Material types of risk

An annual Group risk inventory is initially used to ensure that all material types of risk at LBBW are identified and thus made available for management and monitoring.

The overall risk profile of the LBBW Group is ascertained on this basis and is presented to the Board of Managing Directors for approval. Risk measurement of the principal subsidiaries from a risk point of view is based on the transparency principle; i.e. the types of risk identified as material are integrated in the Group-wide risk measurement of the respective type of risk for the principal subsidiaries. LBBW shows companies whose risks are regarded as immaterial in investment risk.

The following material risk types have been identified:

- Counterparty risks
- Market price risks
- Liquidity risks
- Operational risks
- Development risks
- Real estate risks
- Investment risks
- Reputation risks
- Business risks
- Model risks

Specific risk strategies are created for all types of risk that are material from a Group perspective. In addition, a concentration analysis is conducted for these risks to identify key vulnerabilities. As well as concentration effects within the respective type of risk (»intra-risk concentration«), this also takes into account effects between different types of risk (»inter-risk concentration«).

The pension risk is no longer considered material. Details on this can be found in chapter 2.3 »LBBW Group – risk situation«.

Risk strategy and risk tolerance

The Board of Managing Directors and the Risk Committee risk stipulate the principles of the risk management system for all types of risk identified as material by defining risk strategies that are consistent with LBBW's business strategy.

Risk strategy guidelines are defined in the Group risk strategy, which applies to the entire Group and across all risk types, in accordance with the Minimum Requirements for Risk Management (MaRisk) and relevant European requirements.

In this context, the Group risk strategy defines specifications on risk appetite from both qualitative and quantitative points of view that are to be observed in all business activities.

In terms of capital, the quantitative part of risk appetite sets out concrete specifications in the form of thresholds for LBBW's material economic and regulatory steering parameters – specifications are set out for times of normal business operations and well as under stress conditions. Compliance with the specifications is ensured in part by escalation processes based on a traffic light systems and regular stress tests. As part of the quantitative risk appetite, the strategic limit system operationalizes the requirements and objectives defined in the business strategy for all material risk types included in the risk inventory.

The liquidity risk tolerance caps the liquidity risk in the narrower meaning (i.e. it limits the risk of failing to meet payment obligations. Further information on this subject can be found in chapter 15 »Liquidity coverage ratio«.

The risk guidelines form the qualitative element of risk appetite. They constitute the main strategic principles and rules of conduct that are used for weighing up risks and opportunities within the LBBW Group. They contribute to the creation of a uniform risk culture and form the framework for the precise organization of processes and methods of risk management. This qualitative element of risk appetite is complemented by further guidelines, e.g. in the form of a »Code of Conduct and Ethics« which applies to all employees throughout the entire Group.

The sustainability policy in place at the LBBW Group must be observed. The LBBW Group seeks to act in the best long-term interests of its customers and stakeholders. To implement the sustainability policy, the organizational unit sets out sustainability and environmental social governance standards for all divisions.

In addition, the specific risk strategies approved for each material risk type document the current and target risk profile of LBBW, specify customer-, product- and market-specific guidelines and thus establish regulations for managing the risks identified deliberately and in a controlled manner in order to leverage the opportunities these create, taking into account risk-return considerations. Additional information on the specific risk strategies is provided in the chapters on the respective risk type.

For 2021, the non-financial risks are combined in a single risk strategy and now also include the interdisciplinary topic of ESG risks (environmental, social and governance).

Risk capital and liquidity management

The aim of this process is to secure adequate capital and liquidity, both in times of normal business operations and under stress conditions, and thus to safeguard the permanent viability of the LBBW Group. For normal business operations, the focus is on achieving the corporate objectives, while provisions for adequate stress resistance are made under stress conditions.

Medium-term planning

Medium-term planning, which is performed once per year, comprises economic and regulatory perspectives. The planning connects these two perspectives and acts as a link between the strategic framework and integrated bank management throughout the year. The planning period covers five years. Planning is based on expected macroeconomic developments, in particular taking into account the COVID-19 situation and planned business operations under these circumstances.

Planning thus lays the foundations for monitoring targets set at all management levels. Within the management areas and dimensions, deviations from targets are then analyzed, reported and – where necessary – measures to achieve these targets are agreed on, implemented and observed throughout the year.

In addition, compliance with the internal targets is ensured over the same period of time, including for an adverse development in the COVID-19 situation.

Economic perspective

To ensure adequate capitalization from an economic point of view, risks across all material types of risk and subsidiaries are compiled throughout the Group and compared with the economic capital (aggregate risk cover).

The internal monitoring of risk-bearing capacity (RBC) using binding targets and tolerance levels ensures LBBW Group has adequate economic capital both in times of normal business operations as well as under stress conditions. At present, focus here is on potential developments in the COVID-19 pandemic compared to other conceivable scenarios. Risks within the framework of the LBBW Group's risk-bearing capacity are described before possible measures to limit risks (so-called gross presentation).

At LBBW, aggregate risk cover (ARC, corresponds to risk coverage potential as per MaRisk) denotes the equity restricted according to economic criteria which is available to cover unexpected losses. In addition to equity (as per IFRS including revaluation reserves), the realized income statement result in accordance with IFRS is considered a component of aggregate risk cover. Conservative deductions are also taken into consideration on account of regulatory requirements.

Economic capital is calculated as a uniform risk measure at the highest level. This is deemed to constitute the amount of capital necessary to cover the risk exposure resulting from LBBW's business activities. In contrast with the capital backing stipulated by the regulatory bodies, it is quantified as value-at-risk (VaR) at a confidence level of 99.9% and a one-year holding period using an own risk model for lending, market price, real estate, development, investment and operational risks. Other risks (reputations, business and model risks) are quantified using simplified procedures.

The upper risk limit for economic capital (economic capital limit) as part of the quantitative risk tolerance represents the Group-wide overarching limit for all relevant quantified risk types. This limit reflects the maximum willingness of the LBBW Group to accept risk. In keeping with the conservative principle underlying risk tolerance, it is below the aggregate risk cover and thus provides scope for risks arising from unforeseeable stress situations. On the basis of the upper economic capital limit, economic capital limits are defined for the various directly quantified risk types and for the other risks not quantified within a model approach.

By contrast, the liquidity risks (within the meaning of the risk of not meeting payment obligations) are managed and limited in accordance with the quantitative and procedural rules defined in the liquidity risk tolerance. Further information can be found in chapter 15 »Liquidity coverage ratio«. The model risks are managed entirely via the model risk management process and the tools described in the corresponding chapter.

Regulatory perspective

Apart from the economic perspective, LBBW's risk appetite and management concept also includes the regulatory steering group. The purpose of this steering group is to ensure that internal thresholds for regulatory capital and liquidity ratios are observed at all times. The ongoing monitoring process encompasses regular target/actual comparisons and a forecast process and ensures that corporate objectives (and thus also regulatory minimum requirements) are achieved or met in the long term.

The LBBW Group bases the coordination and definition of its internal targets particularly on its CET 1 capital ratio (ratio of Tier 1 capital net of additional Tier 1 capital to risk exposure values) and the total capital ratio after full implementation of the CRR/CRD IV requirements (»fully loaded«).

Stress tests

In addition to risk measurement tools and statistical indicators based on historical data, various stress scenarios play an important part in risk assessment. They analyze in advance the impact of possible more severe economic volatility in the future and market crises in order to establish whether LBBW is able to withstand extreme situations.

These scenarios are designed using various criteria: LBBW accounts for specific scenarios regarding the further development of the COVID-19 pandemic and for general stress scenarios with exceptional but plausible events of different degrees of severity and scenarios that threaten the existence of the bank within the context of reorganization planning. The stress scenarios are defined either for several years or one year. The basis for the stress tests is the risk inventory that specifically analyses LBBW's vulnerabilities from a holistic perspective, therefore creating the basis for a comprehensive scenario analysis.

The scenarios are arranged in such a way that they take into consideration the impact on economic and regulatory capital and on the liquidity situation. In addition, the scenarios are defined with a particular focus on LBBW's risk concentrations. These complex macroeconomic scenarios, which address multiple risk types, are also supplemented by simple sensitivity analyses.

Medium term planning takes into account adverse scenarios both in top-down and in bottom-up planning. The scenarios are designed and parameters set on the basis of assumptions about the macroeconomic environment. The scenarios are designed over a five-year period. They also take into account the interdependency of the real economy and the financial economy. The aim is to assess the feasibility of implementing medium-term planning under unfavorable market conditions and to demonstrate a clear link between risk tolerance, business strategy and the capital and liquidity plan.

Monitoring and escalation using tolerance and recovery thresholds

Effective monitoring of LBBW's capital and liquidity situation using established parameters and timely escalation in the event of potential bottlenecks are based on corresponding thresholds, escalation procedures and escalation methods for all material economic and regulatory steering parameters.

LBBW uses a multi-stage procedure that differentiates between purely internal thresholds and recovery thresholds. The limits and thresholds apply to the current value of the respective steering parameters and to the value under simulated stress conditions and are above the minimum regulatory requirements. Monitoring is carried out at Group level and at various lower management levels.

2.2 Risk management processes, organization and reporting

Risk management and reporting

LBBW's risk management and monitoring is based on the guidelines of the risk strategy and the defined limits and approval powers.

At LBBW, transactions can only be entered into within clearly defined limits or approval powers and in accordance with the principles of the risk strategy. Within the defined framework, risk management decisions are made by the departments with portfolio responsibilities in the first line of defense and monitored by central Group Risk Control, maintaining the separation of functions. The risk control and risk management system set up for this purpose covers all material risks and the details specific to the risk types.

Potential concentration of risk receives particular attention. At LBBW, appropriate processes are used to identify and to deliberately manage risk concentration. Risks to the Group's going concern status must be excluded. Corresponding monitoring processes (e.g. report on risk concentrations, stress tests) and limits (e.g. sector and country limits) are available for the purpose of monitoring this strategic requirement.

An overview of the structure and individual elements of the risk management system of LBBW is given in the following chart. Additional information on this is provided in the chapters of the annual report on the respective risk type.

Risk management structure

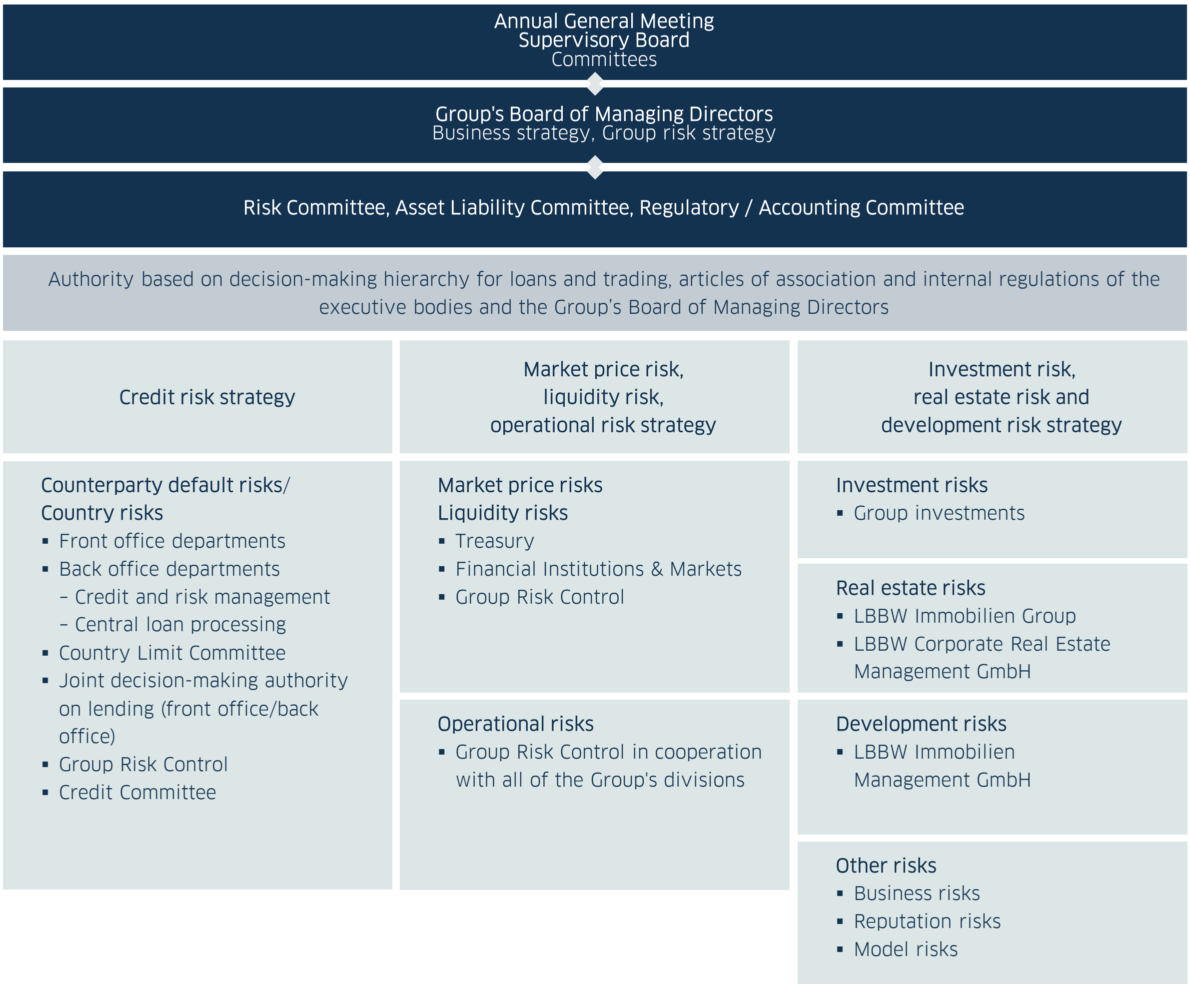

Figure 1: LBBW – risk management structure and elements

Committees and reporting

The members of the Group's Board of Managing Directors with responsibility for managing risks are supported in their decision-making by corporate bodies and a comprehensive risk and subject-specific reporting system. The overall risk report and the report to the Asset Liability Committee (ALCo) thus form the reporting system relevant to risk within the context of the requirements of MaRisk.

The »Executive Risk Committee«, a monitoring body, comprises the board members with responsibility for real estate and project financing, capital markets business and asset management/international business, risk management, compliance and auditing, the department head of Finance/Strategy and divisional managers from Group Risk Control, Compliance, Financial Controlling, front office and key market areas. As an advisory committee, it prepares decisions for the Board of Managing Directors and supports it in risk monitoring, risk methodology and risk strategy for the Group as a whole. The monthly overall risk report and other reports prepared on specific issues as required form the basis for this.

The control committee »ALCo« also has an advisory role and works on preparing decisions for the Group's Board of Managing Directors. The focus of the Asset Liability Committee is on strategic resource management for the Group as a whole. It supports the Board of Managing Directors, among other things in structuring the balance sheet, managing capital and liquidity as well as in funding and managing market price risks. The Committee comprises the divisional managers with responsibility for capital markets business and Asset Management/International Business, risk management, compliance and auditing, the divisional director of Finance/Strategy and divisional managers from Group Risk Control, Financial Controlling and Treasury.

The Regulatory/Accounting Committee evaluates at an early stage the requirements of the large number of provisions of banking supervisory law and accounting that are relevant for management purposes and takes the measures required. The Committee includes the divisional managers with responsibility for capital markets business and Asset Management/International Business, risk management, compliance and auditing, the divisional directors from Information Technology, Finance/Strategy and divisional managers from Legal, Group Risk Control, Compliance, Finance, Financial Controlling, Group Auditing, Treasury and front office.

Processes of adjustment

New types of trading and credit product at LBBW are subject to a New Product Process that ensures the product is included in LBBW's various systems, such as accounting or Group risk control. Any potential legal consequences are also assessed.

The main focus is on products from the Capital Market Business division. If it is not possible to fully integrate the products into the model immediately, a step-by-step approach is taken in which the products are initially traded only under very strict supervision.

In the case of material changes in the set-up and procedural organization and in the IT systems, LBBW analyzes the potential effects on control procedures and control intensity within the framework of a predefined standard process.

Process-independent monitoring

The Group Auditing division, which operates as the third line of defense, is a process-independent division that monitors the operations and business workflows, risk management and control and the internal control system (ICS) with the aim of safeguarding LBBW's assets and boosting its operating performance. The Group Auditing division exercises its duties autonomously. The Board of Managing Directors is informed of the results of audits in written audit reports, which are discussed with the audited operating units. The Group Auditing division also monitors the measures taken in response to the audit findings.

The auditing activities of the Group Auditing division are generally based on an audit schedule, approved annually by the Board of Managing Directors, on the basis of a long-term risk-oriented plan, which records all the activities and processes of the LBBW Group, allowing for risk weighting in a reasonable period, but always within three years.

There was one change to the head of the internal audit functions in the past financial year. There were no changes in the heads of either the internal control functions, the risk management function and the compliance function.

Statement by the Board of Managing Directors

The Board of Managing Directors of LBBW regards the risk management procedures pursuant to Article 435 (1) e and f CRR as fundamentally appropriate in light of the type, scope, complexity and risk content of the business activities and the business strategy. The structure takes account of MaRisk and other relevant statements by national and international regulatory authorities. All the principal risks are included in the risk management procedures. The processes, procedures and methods are regularly reviewed to ensure their adequacy and permanently developed further. These reviews also consider and implement the findings of the statutory auditor and the Group Auditing division, as well as any comments made in the context of the SREP process of the European Central Bank (ECB). Key figures and an overview of the bank's risk profile are described briefly in the chapter below. The risk declaration was approved by the Group's Board of Managing Directors.

2.3 LBBW Group – risk situation

LBBW Group – risk-bearing capacity

	31/12/2020		31/12/2019	
EUR million	**Absolute[1]**	**Utilization in %**	**Absolute[1]**	**Utilization in %**
Aggregate risk cover	11,808	55	12,116	59
Economic capital limit[2]	10,000	65	10,000	71
Correlated total economic capital	6,447		7,126	
of which:				
diversification effects	– 663		– 483	
counterparty risk	3,969		3,692	
market price risk	1,948		2,341	
investment risk	38		43	
operational risk	588		655	
development risk	122		153	
real estate risk	131		121	
Other risks[3]	314		604	

1 99.9% confidence level/1 year holding period
2 Individual risk types are capped by means of economic capital limits.
3 Other risks (especially reputation, business and model risks)

Figure 2: LBBW Group – risk-bearing capacity

The economic capital declined by EUR 0.7bn compared to year-end 2019. The reduction in the market price risk reflects methodological optimization measures that resolved the risk of overexposure. As part of a further change to the methodology, the interest-based components of pension risk, which were previously part of Other risks, were included in full under market price risk. The remaining non-interest components (e.g. change to employee mortality) were classified as immaterial. The improvements described in calculating the market price risk make up for the increase from integrating the pension risks. Another improvement resulted from the revised methodology for the diversification effect between the risk types. This was offset chiefly by the first-time recognition of Group concentration in counterparty risk (previously recognized under other risks).

The aggregate risk cover declined by EUR 0.3bn compared to the end of 2019 to EUR 11.8bn. This decrease was due primarily to existing maturities and expected maturities for silent partners' contributions and participation rights over a one-year period. By contrast, subordinated liabilities and AT1 capital in accordance with the ECB's ICAAP guidelines are not taken into account for the aggregate risk cover, whereas these are still recognized as regulatory own funds without restriction for the regulatory perspective.

To sum up, it can be stated that the risk-bearing capacity of the LBBW Group was maintained at the reporting dates during the entire 2020 financial year. The stress resistance required in terms of permanent viability was also maintained at all times.

The economic capital limit at Group level was observed at the reporting dates.

Details on regulatory key figures are provided in LBBW's 2020 annual report in the sections on financial position and performance, the notes and in chapter 15 »Liquidity coverage ratio«.

Potential additional effects of the COVID-19 pandemic on LBBW's economic and regulatory key figures are regularly analyzed and assessed in the stress scenarios. Nevertheless, the rapid development of the COVID-19 pandemic means that precise forecasting is very limited.

In counterparty risk, the past financial year saw the portfolio deteriorate in individual sectors, with further negative effects on the portfolio expected. Market volatility in the first half of 2020 triggered by the COVID-19 pandemic has not so far affected economic capital in market price risk, as the model includes parameters for crisis volatility. It did, however, have an impact on value-at-risk for market risks. Changes were made to individual risk management methods on account of regulatory relief during the pandemic. The following chapters provide additional information.

An assessment of the issue for LBBW's liquidity situation can be found in chapter 15 »Liquidity coverage ratio«.

2.4 Corporate governance rules

The maximum number of directorships which members of the Board of Managing Directors and the Supervisory Board may hold is determined by the German Banking Act (KWG). Under Section 25c of the German Banking Act, the managers of a systemically significant CRR institution are not permitted to act as the managing director of another company or to be a member of the management or supervisory body of more than two companies.

For this purpose, multiple directorships count as a single one if they are held with companies,

- that belong to the same group within the meaning of Article 4 (1) no. 138 of Regulation (EU) no. 575/2013
- that belong to the same institutional protection system or
- in which the institution holds a significant share.

A significant share is deemed to arise in particular if at least 10% of the capital and/or voting rights of the company accrue to the CRR institution either directly or indirectly.

Under Section 25d of the German Banking Act, the members of the supervisory body of a systemically significant CRR institution are not permitted to simultaneously act as the managing director of another company or to be a member of the management or supervisory body of more than two companies. Similarly, a person who is a member of the management or supervisory body of more than four companies is disqualified from being a member of the supervisory body of a CRR institution.

Members of the Landesbank Baden-Württemberg Board of Managing Directors comply with the maximum number of directorships permitted under the German Banking Act. The members of the Supervisory Board have been duly informed of the maximum number of directorships permitted under the German Banking Act.

LBBW observes the requirements under Section 25c (2) No. 1 and Section 25d (3) No. 1 and 2 of the German Banking Act with respect to the non-compatibility of management and supervisory directorships.

	Number of directorships held in management and/or supervisory bodies in accordance with the rules pursuant to Section 25d (3) KWG	Number of directorships of management and/or supervisory bodies held in other undertakings, irrespective of whether the undertaking in question pursues commercial objectives or not
Jörg Armborst	1	0
Jens Baumgarten	1	0
Christian Brand	3	2
Wolfgang Dietz	2	9
Helmut Himmelsbach	1	0
Gabriele Kellermann	3	4
Bettina Kies-Hartmann	2	1
Sabine Lehmann	1	0
Fritz Kuhn	1	9
Dr. Fritz Oesterle	2	2
Martin Peters	2	69
Prof. Wolfgang Reinhart	3	4
Christian Rogg	1	0
B. Jutta Schneider	3	2
Peter Schneider	4	9
Edith Sitzmann	0	4
Wiebke Sommer	1	0
Dr. Florian Stegmann	4	6
Dr. Jutta Stuible-Treder	2	1
Burkhard Wittmacher	3	3
Norbert Zipf	1	0

Figure 3: Number of directorships held by members of the Supervisory Board in management and/or supervisory bodies as per 31 December 2020 (Article 435 (2) (a) CRR)

	Number of directorships held in management and/or supervisory bodies in accordance with the rules pursuant to Section 25c (3) KWG	Number of directorships of management and/or supervisory bodies held in other undertakings, irrespective of whether the undertaking in question pursues commercial objectives or not
Rainer Neske	2	2
Karl Manfred Lochner	2	6
Dr. Christian Ricken	3	5
Thorsten Schönenberger	2	2
Volker Wirth	1	6

Figure 4: Number of directorships held by members of the Board of Managing Directors in management and/or supervisory bodies as per 31 Dec. 2020 (Article 435 (2) (a) CRR)

Section 25c of the German Banking Act stipulates that managing directors must hold the necessary professional qualifications, be trustworthy and dedicate sufficient time to performing their functions. They are assumed to possess the necessary professional qualifications if they have sufficient theoretical and practical knowledge of the business concerned as well as managerial experience.

The Board of Managing Directors consists of several members. The members of the Board of Managing Directors are appointed for a maximum period of five years, after which they may be reappointed. A resolution approving the re-appointment of members of the Board of Managing Directors must be passed no earlier than twelve and no later than six months before the expiry of the previous appointment. In exceptional cases, the Supervisory Board may also pass a resolution approving an appointment or re-appointment beyond this.

The selection process is governed by the statutory provisions contained in the German Banking Act and the bylaws of the Executive Committee, which performs the duties of a nomination committee in accordance with Section 25d (11) of the German Banking Act.

Under these rules, the Executive Committee is responsible for preparing the Supervisory Board's decisions on the appointment and dismissal of the members of the Board of Managing Directors as well as long-term successor planning for the Board of Managing Directors. To this end, it particularly identifies candidates for a position on the Board of Managing Directors and, in doing so, takes account of the balance and diversity of the knowledge, skills and experience of all the members of the Board of Managing Directors, prepares a job description with a candidate profile and specifies the amount of time required for performing the task.

LBBW's Supervisory Board takes into account the following aspects of diversity when selecting suitable candidates for the Board of Managing Directors and the Supervisory Board:

- Educational and professional background
- Gender
- Age

On account of the national focus of its customer and market structure, there is no need for the Board of Managing Directors or the Supervisory Board at LBBW to have an international nature. The various diversity aspects and their relevance to LBBW are reassessed regularly, at least once a year, to ensure they remain up to date.

When appointing members, LBBW takes into account the widest possible spectrum of educational and professional backgrounds and experience in relation to bodies' key activities. The aim of this is to bring together people with diverse occupational and educational backgrounds in the Board of Managing Directors and the Supervisory Board. Using this concept for a balanced and diverse composition, the Supervisory Board aims to ensure members are highly suitable at an individual level and that LBBW's management and supervision incorporates as many diverse perspectives and experience as possible.

On account of its legal form, LBBW is not subject to national requirements that require targets to be set regarding the share of women in the Board of Managing Directors and Supervisory Board as set out in the German act on equal participation of men and women in leadership positions in the private sector and in public service (*Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst*). The Executive Committee has set the Supervisory Board the target of encouraging a greater proportion of women, as well as a strategy for reaching this target. The target for a minimum percentage of women on the Supervisory Board and Board of Managing Directors at LBBW is to be maintained at the current level for the time being. In order to boost the proportion of women in upper management, including the Board of Managing Directors, LBBW has introduced measures to promote women in management positions.

LBBW aims for a balanced range of ages within the Board as a whole (Board of Managing Directors and Supervisory Board), so as to ensure continuity in the committee's work and smooth successor planning. The articles of association set an age limit for the Board of Managing Directors. No individual should be over 65 years of age when appointed, although an exemption to this may be granted in justified cases.

Information on the diversity strategy is also published in LBBW's 2020 annual report.

The professional background of the members of the Board of Managing Directors is described in detail on LBBW's website.

LBBW's Supervisory Board has 21 members. The Chairman and Deputy Chairman of the Supervisory Board are elected from the Supervisory Board's own number on the basis of a proposal made by the shareholders' meeting in the absence of any requirements to the contrary in the Landesbank Baden-Württemberg Act. The members of the Supervisory Board must be reliable, possess the necessary expertise to assess and monitor the Bank's business in the performance of their supervisory duties and have sufficient time to perform their duties. They are not bound by any instructions. They must perform their duties impartially and responsibly.

At least one member of the Supervisory Board must possess expertise in the areas of accounting and the auditing of financial statements.

In the absence of any requirements to the contrary in the Landesbank Baden-Württemberg Act, the members of the Supervisory Board cannot be appointed for a period exceeding the conclusion of the annual general meeting at which a resolution is passed to ratify the activities of the Supervisory Board for the fourth year after the commencement of their term of office. Repeated appointments are possible. Upon the expiry of their term of office, the members of the Supervisory Board continue to perform their duties until the new Supervisory Board has convened.

The selection process is governed by the statutory provisions contained in the German Banking Act and the bylaws of the Executive Committee, which performs the duties of a nomination committee in accordance with Section 25d (11) of the German Banking Act.

Under these rules, the Executive Committee is responsible for preparing proposals for the election of members of the Supervisory Board who are not appointed by employees. To this end, the Executive Committee takes account of the balance and variety of knowledge, capabilities and experience of all the members of the Supervisory Board, prepares a job description with a candidate profile and specifies the amount of time required for performing the task. The members of the Supervisory Board are elected by the shareholders' meeting unless they are required to be elected by the employee representatives and in the absence of any requirements to the contrary in the Landesbank Baden-Württemberg Act. The owners have the right to submit nominations.

Moreover, the Executive Committee has defined a target for encouraging a greater proportion of women on the Supervisory Board as well as a strategy for reaching this target.

Furthermore, the Executive Committee assists the Supervisory Board with the regular evaluation, which must be conducted at least once a year, of the structure, size, composition and performance of the Board of Managing Directors and the Supervisory Board and submits relevant recommendations to the Supervisory Board. In doing so, the Executive Board ensures that individual persons or groups are unable to exert any influence on the decision-making processes within the Board of Managing Directors liable to have an adverse effect on the Bank.

In addition, the Executive Committee assists the Supervisory Board with the regular evaluation, which must be conducted at least once a year, of knowledge, skills and experience.

In addition, in accordance with Section 25d (11) sentence 2 no. 3 and 4 KWG, the Supervisory Board has established a process for the regular evaluation of the overall Board of Managing Directors.

Each member of the board must have an up-to-date understanding of LBBW’s business model and the related risks. This also includes an adequate understanding of areas for which the individual member is not directly or solely responsible but for which he/she is jointly responsible with another member. Each member must clearly understand LBBW’s governance regulations, his/her role, responsibilities, the Group structure and any potential conflicts of interest arising from this. In addition, all members must have the skills to put a suitable corporate culture into practice.

As a basis for assessing professional qualifications, target requirements in the form of job profiles for the Supervisory Board and the Board of Managing Directors have been established on the basis of roles and responsibilities. The job profiles describe the responsibilities of the respective positions and the professional and personal requirements that LBBW considers to be met for the current members of the Board of Managing Directors and Supervisory Board.

Key professional requirements for members of the Board of Managing Directors:

- Ideally a degree or equivalent qualification in banking (in particular, economics, banking or law)
- Managerial authorization in accordance with the German Banking Act (KWG)
- Many years of relevant professional and management experience at a bank
- Knowledge of legal and regulatory requirements and banking regulation
- Knowledge and practical experience in integrated bank management and internal governance

Key personal requirements for members of the Board of Managing Directors:

- Leadership skills, highly motivated and genuine personality combined with team focus
- High level of personal integrity, loyalty, excellent reputation
- Strategic vision, negotiating skills, ability to deal with criticism and conflict, good judgment, decisive
- Strong communication skills, convincing nature and strong focus on customers and quality

Key professional requirements for members of the Supervisory Board:

- Ideally a degree or vocational apprenticeship
- Good knowledge of banking, financial services, financial markets and the financial sector
- Good knowledge of legal and regulatory requirements and banking regulation
- Good knowledge of LBBW's strategic focus and business areas
- Efficient and effective monitoring skills
- General understanding of accounting and auditing issues

Personal requirements for members of the Supervisory Board:

- Analytical skills, structured approach and good judgment
- High level of personal integrity, loyalty and excellent reputation
- Strategic vision, strong communication skills and willingness to develop skills
- Ability to critically analyze and scrutinize reports

Practical experience from previous positions and theoretical knowledge acquired through training is to be taken into account when evaluating individual suitability. Knowledge and skills that the member of the Board of Managing Directors or Supervisory Board can demonstrate he/she acquired while working for LBBW are also to be considered.

Based on the assessment carried out by the Supervisory Board, the structure, size, composition and performance of the Board of Directors as well as its knowledge, skills and experience were deemed to meet the requirements in law and under the articles of association.

Members of the Supervisory Board and of Board of Directors regularly take part in training events in order to keep up their professional qualifications and ensure they have the necessary expertise.

The Supervisory Board has established a Risk Committee from its own number. The Risk Committee comprises eight members. It elects a Chairman and a Deputy Chairman from its own number. The Chairman and the Deputy Chairman of the Risk Committee must possess banking expertise. The Risk Committee is managed by the Chairman or, in his absence, the Deputy Chairman.

In a total of eleven meetings, the Risk Committee held in-depth discussions on the Bank's risk situation and risk management as well as its exposure for which reporting duties apply in accordance with the law, the articles of association and the bylaws, granting its approval where this was required in individual cases. Specifically, the Committee dealt with the Bank's credit, market price, liquidity, equity investment, legal, reputation and operational risks, which together with calculations of the Bank's risk-bearing capacity formed part of the regular risk reports of the Board of Managing Directors. Over and above this, the Committee confirmed that the incentives set by the remuneration system take account of the risk, capital and liquidity structure of the Landesbank as well as of the probability and due dates of earnings. The Risk Committee discussed the business strategy and, based on this, the uniform Group, market price and liquidity risk strategy and operational risk strategy with the Board of Managing Directors. Various portfolios were examined in detail in the light of economic or regulatory developments. The Board of Managing Directors regularly informed the Risk Committee of the latest developments in the COVID-19 pandemic and its impact on business performance.

The Chairman of the Committee regularly reported to the members of the Supervisory Board on the Risk Committee's activities and the resolutions which it passed.

At its meetings, the Board of Managing Directors was kept regularly informed in detail and with minimum delay of LBBW's risk situation and risk management as well as the exposures requiring approval under the Bank's rules and, where necessary, granted its approval.

3 Scope (Article 436 CRR)

Unless otherwise indicated, all disclosures in this report relate to the regulatory basis of consolidation of the LBBW Group in accordance with Section 10a of the German Banking Act in conjunction with Article 18 et seqq.CRR as at 31 December 2020.

3.1 Application of waiver rule

At the request of LBBW, the ECB upheld in April 2016 the option provided for in Article 7 (3) CRR, under which individual institutions may be excluded if organizational and procedural requirements of certain regulations for own funds and regulatory reporting at an institution level are satisfied (waiver rules). In its function as a parent company of LBBW Group, LBBW is exempt from the reporting requirements on solvency, leverage ratio and large exposures at institution level for the duration of the waiver. Only IFRS group reporting shall be prepared for this report.

There is no materially legal or factual impediment within LBBW Group to the immediate transfer of own funds or repayment of liabilities between LBBW as parent company and its subsidiaries

As at 31 December 2020, no non-consolidated subsidiary had less than the prescribed own funds.

3.2 Differences between the basis of consolidation in regulatory and regulatory terms

Differences in the IFRS basis of consolidation particularly arise with regard to the following aspects:

- Companies outside the financial sector are also consolidated in the IFRS consolidated financial statements if it is possible to exercise control in accordance with IFRS. However, these companies are outside the regulatory basis of consolidation.
- Conversely, companies which do not meet the consolidation criteria in accordance with IFRS or are not consolidated due to their minor significance are also included in the basis of consolidation in accordance with CRR.

In the following table, the main companies included in the regulatory basis of consolidation in accordance with Article 436 CRR are classified according to the type of business and its regulatory treatment and are shown alongside their classification in the basis of consolidation under IFRS. Equity investments in entities in the financial sector not consolidated under the regulatory framework are taken into account in the threshold method. No deduction from own funds was necessary in the year under review. Both bases of consolidation include numerous further companies which, however, are not disclosed here due to their immateriality. The companies are classified on the basis of the definitions set out in Article 4 CRR.

Name of the entity	Consolidation method for accounting purposes	Consolidation method for regulatory purposes				Description of the entity
		Full consolidation	Proportional consolidation	Neither consolidated nor deducted	Deducted	
Landesbank Baden-Württemberg	Full consolidation	X				Credit institution
MMV Bank GmbH	Full consolidation	X				Credit institution
Hypo Vorarlberg Bank AG	At equity/accounted for using the equity method			X		Credit institution
LBBW Asset Management Investmentgesellschaft mbH	Full consolidation	X				Asset management company
LBBW México S.A. de C.V.	Full consolidation	X				Credit institution
LBBW Venture Capital GmbH	Full consolidation	X				Credit institution
Süd Beteiligungen GmbH	Full consolidation	X				Credit institution
SüdFactoring GmbH	Full consolidation	X				Credit institution
SüdLeasing GmbH	Full consolidation	X				Credit institution
Austria Beteiligungsgesellschaft mbH	Full consolidation	X				Credit institution
German Centre for Industry and Trade GmbH Beteiligungsgesellschaft	Full consolidation	X				Credit institution
LBBW US Real Estate Investment LLC	Full consolidation	X				Credit institution
Zweite LBBW US Real Estate GmbH	Full consolidation	X				Credit institution
LBBW Leasing GmbH i. L.	Full consolidation	X				Credit institution
LBBW Immobilien-Holding GmbH	Full consolidation	X				Credit institution
LBBW Corporate Real Estate Management GmbH	Full consolidation	X				Ancillary services undertaking
LBBW Service GmbH	Full consolidation	X				Ancillary services undertaking

Figure 5: EU LI3 – Description of the differences in the basis of consolidation entity by entity (Article 436 (b) CRR)

Reconciliation statement of items within the accounting and regulatory basis of consolidation

The disclosure requirements call for a full reconciliation of the published annual financial statements with data in accordance FINREP and moreover with data in accordance with COREP.

For FINREP, accounting figures will be used in accordance with the regulatory basis of consolidation; for COREP, the figures in question will be calculated in accordance with regulatory rules. The FinRep figures are reported in accordance with the respective CoRep types of risk. Market price risk transactions are not reported more than once if they are reported under different types of risk in the CoRep report.

	Carrying values, as reported in the published annual financial statements	Carrying values under the scope of regulatory consolidation	Carrying values of items:				
EUR million			**Subject to the credit risk framework**	**Subject to the CCR framework**	**Subject to the securitization framework**	**Subject to the market risk framework**	**Not subject to capital requirements or subject to deduction from own funds**
Assets							
Cash and cash equivalents	13,650	13,647	13,647	-	-	6,296	-
Financial assets measured at amortized cost:	177,502	175,250	174,150	-	1,093	32,889	-
Of which: Loans and advances to banks	68,465	68,258	68,258	-	-	9,687	-
Of which: Loans and advances to customers	108,116	106,072	105,375	-	689	23,020	-
Of which: Debentures and other fixed-income securities	921	921	517	-	404	182	-
Financial assets measured at fair value through other comprehensive income	34,810	35,279	35,239	-	39	3,250	2
Financial assets designated at fair value	1,132	1,132	1,132	-	-	-	-
Financial assets mandatorily measured at fair value through profit or loss	42,185	42,712	4,162	24,597	1	38,523	3
Shares in investments accounted for using the equity method	261	-	-	-	-	-	-
Portfolio hedge adjustment attributable to assets	1,039	1,039	-	-	-	-	1,039
Non-current assets and disposal groups held for sale	2	2	2	-	-	-	-
Intangible assets	178	178	-	-	-	-	178
Investment property	796	73	73	-	-	-	-
Property and equipment	790	734	734	-	-	0	-
Current income tax assets	118	116	116	-	-	3	-
Deferred income tax assets	1,107	1,133	930	-	-	5	203
Other assets	2,878	2,187	2,175	-	-	260	12
Total assets as at 31 Dec. 2020	*276,449*	*273,482*	*232,361*	*24,597*	*1,132*	*81,227*	*1,436*
Total assets as at 31 Dec. 2019	*256,630*	*254,383*	*216,004*	*21,407*	*652*	*81,856*	*2,785*

EUR million	Carrying values, as reported in the published annual financial statements	Carrying values under the scope of regulatory consolidation	Carrying values of items: Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitization framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from own funds
Equity and liabilities							
Financial liabilities measured at amortized cost	221,627	218,981	-	-	-	47,588	171,392
Of which: Deposits from banks	78,765	77,956	-	-	-	15,882	62,075
Of which: Deposits from customers	95,288	95,472	-	-	-	18,106	77,367
Of which: Securitized liabilities	41,834	39,812	-	-	-	12,603	27,209
Of which: subordinated capital	5,740	5,740	-	-	-	998	4,743
Financial liabilities designated at fair value	6,509	6,509	-	-	-	2,096	4,413
Financial liabilities mandatorily measured at fair value through profit or loss	28,815	28,815	-	21,488	-	22,000	413
Portfolio hedge adjustment attributable to liabilities	693	693	-	-	-	-	693
Provisions	2,523	2,433	-	-	-	1	2,432
Liabilities from disposal groups	-	-	-	-	-	-	-
Current income tax liabilities	49	43	-	-	-	2	41
Deferred income tax liabilities	24	4	-	-	-	-	4
Other liabilities	2,217	1,931	-	-	-	1	1,930
Equity	13,992	14,074	-	-	-	-	14,074
Total equity and liabilities as at 31 Dec. 2020	*276,449*	*273,482*	-	*21,488*	-	*71,688*	*195,393*
Total equity and liabilities as at 31 Dec. 2019	*256,630*	*254,383*	-	*18,934*	-	*51,115*	*190,936*

Figure 6: EU LI1-Differences between accounting and regulatory basis of consolidation and mapping of financial statement categories with regulatory risk categories (Article 436 (b) CRR)

Explanation of the differences arising from the reconciliation statement

EUR million	Total	Items subject to: Credit risk framework	CCR framework	Securitization framework
Asset carrying amount under the basis of regulatory consolidation (as per template EU LI1)	**258,090**	**232,361**	**24,597**	**1,132**
Equity and liabilities carrying amount under the regulatory basis of consolidation (as per template EU LI1)	**21,488**	**-**	**21,488**	**-**
Total net amount under the regulatory basis of consolidation	258,090	232,361	24,597	1,132
Off-balance-sheet amounts	62,664	62,664	-	-
CCR – differences due to different netting rules	– 7,072	-	– 7,072	-
CCR – differences in the measurement of the derivatives	9,561	-	9,561	-
CCR – other differences in measurement	– 138	-	– 138	-
CR – differences in the measurement of securities financing transactions	26,923	26,923	-	-
CR – differences due to different valuation approaches	2,018	2,018	-	-
SEC – off-balance-sheet positions and derivatives	2,551	-	-	2,551
SEC – other differences in measurement	– 1	-	-	– 1
Exposure amounts considered for regulatory purposes 31 Dec. 2020	*354,597*	*323,967*	*26,948*	*3,683*
Exposure amounts considered for regulatory purposes 31 Dec. 2019	*322,945*	*296,604*	*22,351*	*3,990*

Figures 7: EU LI2 – Main sources of differences between regulatory exposure amounts and carrying amounts in the annual financial statements (Article 436 (b) CRR)

Exposure amounts considered for regulatory purposes

- in the credit framework consist of on-balance-sheet and off-balance-sheet items, the securities financing activities of the CRSA and IRB, investments reported under IRB, other non-credit obligation assets and the default fund contributions of a central counterparty (CCP)
- in the CCR framework consist of the combined derivative positions in the CRSA and IRB approach
- in the securitization framework include securitizations pursuant to
  - SEC-ERBA (Securitization – External Ratings Based Approach)
  - SEC-IAA (Securitization – Internal Assessment Approach)
  - SEC-SA (Securitization – Standardized Approach).

The total of the carrying amounts under the regulatory scope of consolidation, reported in template EU LI2 cannot be reconciled directly with the figures shown in Template EU LI1, since market-risk framework positions are not included in EU LI2.

In order to comply with the requirements for a prudent valuation in accordance with Article 105 and Article 34 CRR, LBBW regularly calculates various valuation reserves that adhere to the principle of prudent valuation. All positions measured at fair value are taken into account and the total valuation adjustments are deducted from common equity Tier 1 capital. These include adjustments for market price uncertainty, netting costs, model risks, as yet unearned risk premiums, concentration positions as well as administrative expenses and operational risks.

In order to quantify market price uncertainty and netting costs, LBBW uses an accuracy aim of 90%. LBBW uses a price approach for securities. To this end, the bid and offer prices of various price-makers are analyzed on a quarterly basis and a price level is determined at which there is a 90% probability that the positions in question can be liquidated. LBBW uses a sensitive approach for derivatives. To this end, market price uncertainty and netting costs are calculated by the multiplication of net sensitivity for each risk factor (interest rate delta, interest rate vega, FX delta, FX vega, equity delta, equity vega and credit delta) against a risk factor and the uncertainty inherent to the risk factor in question.

A valuation adjustment is made for model risks if there are no reliably observed market price parameters. This adjustment is measured based on suitable alternative models or calibrations. The basic assumption in this case is strictly that there is a 90% probability that the valuation adjustments made will be sufficient to cover potential losses in the event of a liquidation of the transactions.

»As yet unearned risk premiums« are an estimate of uncertainty in relation to the counterparty credit risk (CVA) in the case of derivatives.

A »concentrated position« is defined as an exposure which cannot demonstrably be liquidated within the space of 10 days. The 10-day holding period is defined in Article 365 CRR on value-at-risk calculation. In order to determine a concentration, LBBW's own position is set against the volumes traded in the market. A valuation adjustment is made for the remaining exposure for positions which cannot be liquidated completely within the 10-day period. The adjustment is calculated for bond, interest-rate, credit and equity positions. An adjustment is made for future administrative costs for positions for which either market price uncertainty or netting costs cannot be calculated, or which are highly illiquid, require continuous additional hedging or which are complex. Administrative costs factor in continued costs over the period until the positions in question can be liquidated.

A valuation adjustment of 10% of the sum of market price uncertainty and netting costs is applied for operational risks in line with the definition in Article 17 (3) of the Commission Delegated Regulation (EU) 2016/101.

4 Own funds and capital requirements (Articles 437 and 438 CRR)

4.1 Structure of own funds and applicable transitional provisions

LBBW has been phasing in IFRS 9 since March 2020, which is causing a temporary increase in common equity Tier 1 capital. LBBW is therefore required to disclose the following values both applying and not applying the transitional provisions.

Ratios in %	31/12/2020	30/09/2020
Available capital (amounts)		
Common equity Tier 1 (CET 1) capital	12,415	12,111
Common equity Tier 1 (CET 1) capital not applying transitional provisions for IFRS 9 or similar expected credit losses	12,140	12,032
Tier 1 capital	13,641	13,337
Tier 1 capital not applying transitional provisions for IFRS 9 or similar expected credit losses	13,366	13,258
Total capital	18,741	18,419
Total capital not applying transitional provisions for IFRS 9 or similar expected credit losses	18,724	18,410
Risk weighted assets		
Total amount of risk weighted assets	82,112	81,477
Total amount of risk weighted assets not applying transitional provisions for IFRS 9 or similar expected credit losses	82,390	81,544
Capital ratios		
CET 1 capital (as a percentage of the total risk exposure amount)	15.1	14.9
CET 1 (as a percentage of the total risk exposure amount) not applying transitional provisions for IFRS 9 or similar expected credit losses	14.7	14.8
Tier 1 capital (as a percentage of the total risk exposure amount)	16.6	16.4
Tier 1 capital (as a percentage of the total risk exposure amount) not applying transitional provisions for IFRS 9 or similar expected credit losses	16.2	16.3
Total capital (as a percentage of the total risk exposure amount)	22.8	22.6
Total capital (as a percentage of the total risk exposure amount) not applying transitional provisions for IFRS 9 or similar expected credit losses	22.7	22.6
Leverage ratio		
Leverage ratio total exposure measure	289,880	305,035
Leverage ratio	4.7	4.4
Leverage ratio not applying transitional provisions for IFRS 9 or similar expected capital losses	4.6	4.3

Figure 8: Comparison of own funds and capital and leverage ratio applying and not applying transitional provisions for IFRS 9 in conjunction with Article 473a CRR II.

The following table sets out the LBBW Group's own funds pursuant to IFRS as well as the applicable deductions and transitional provisions in accordance with Commission Implementing Regulation (EU) No. 1423/2013 of 20 December 2013.

The »Reference« column in Figure 9 reconciles the components of the Bank's own funds under CRR with the balance sheet. Figure 10 shows the relevant items of the balance sheet with figures according to IFRS and FINREP (Financial Reporting).

EUR million Capital instruments [1]	Amount on the day of disclosure 31/12/2020	Reference to Articles in Regulation (EU) No. 575/2013	Amounts which come within the scope of Regulation (EU) No. 575/2013 or prescribed residual amount in accordance with Regulation (EU) No. 575/2013	Amount on 31/12/2019	Reference
Common equity Tier 1 capital: instruments and reserves					
Capital instruments and related premiums	11,724	26 (1), 27, 28, 29, EBA directory in accordance with Article 26 (3)		11,724	j + k
of which share capital	3,484			3,484	
Retained earnings	831	26 (1) (c)		641	l
Cumulative comprehensive income (and other reserves comprising unrealized gains and losses under the applicable accounting standards)	293	26 (1)		389	m + n + o
Fund for general banking risks	-	26 (1) (f)	-	-	
Items as defined in Article 484 (3) plus the related premium no longer eligible for inclusion in CET 1	-	486 (2)		-	
Government capital allocations subject to grandfathering rights until 1 January 2018	-	483 (2)		-	
Non-controlling interests (admissible amount in consolidated CET 1)	-	84, 479, 480		-	
Independently audited interim gains less all foreseeable charges or dividends	26	26 (2)		-	
Common equity Tier 1 (CET 1) capital before regulatory adjustments	*12,874*			*12,755*	
Common equity Tier 1 (CET 1) capital: regulatory adjustments					
Additional measurement adjustments (negative amount)	- 197	34, 105		- 236	
Intangible assets (less corresponding tax liabilities) (negative amount)	- 178	36 (1) (b), 37, 472 (4)		- 264	a + b
Deferred tax assets whose recoverability depends on future profitability, except those arising from temporary differences (less corresponding tax liabilities if the conditions contained in Article 38 (3) are satisfied) (negative amount)	- 83	36 (1) (c), 38, 472 (5)		- 93	c
Reserves from gains or losses from the fair-value measurement of cash flow hedges	-	33 (a)		-	
Negative amounts from the calculation of expected losses	- 6	36 (1) (d), 40, 150		- 197	
Increase in equity capital arising from securitized assets (negative amount)	-	32 (1)		-	
Gains or losses arising from changes in the Bank's own credit rating from own liabilities measured at fair value	- 13	33 (b)		- 14	
Gains and losses from derivative liabilities measured at fair value arising from the Bank's own credit risk	- 68	33 (c)		- 56	
Defined benefit pension fund assets (negative amount)	0	36 (1) (e), 41, 472 (7)		0	
Direct and indirect holdings by an institution of its own common equity Tier 1 instruments (negative amount)	-	36 (1) (f), 42, 472 (8)		-	
Holdings of common equity Tier 1 instruments of financial sector entities where those entities have a reciprocal cross-holding with the institution designed to artificially inflate the institution's own funds (negative amount)	-	36 (1) (g), 44, 472 (9)		-	

EUR million Capital instruments [1]	Amount on the day of disclosure 31/12/2020	Reference to Articles in Regulation (EU) No. 575/2013	Amounts which come within the scope of Regulation (EU) No. 575/2013 or prescribed residual amount in accordance with Regulation (EU) No. 575/2013	Amount on 31/12/2019	Reference
Direct and indirect holdings by the institution of common equity Tier 1 instruments of financial sector entities where the institution does not have a significant investment in those entities (less than 10% and less eligible sales positions) (negative amount)	-	36 (1) (h), 43, 45, 46, 49 (2) (3), 79, 472 (11)		-	
Direct, indirect and synthetic holdings by the institution of common equity Tier 1 instruments of financial sector entities where the institution has a significant investment in those entities (more than 10% and less eligible sales positions) (negative amount)	-	36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79, 470, 472 (11)		-	
Exposure amount of the following items which qualify for a risk weight of 1250%, where the institution deducts that exposure amount from the amount of common equity Tier 1 items as an alternative	-	36 (1) (k)		-	
Deferred tax assets that rely on future profitability arising from temporary differences (in excess of the 10% threshold, less corresponding tax liabilities if the conditions set forth in Article 38 (3) are satisfied) (negative amount)	-	36 (1) (c), 38, 48 (1) (a), 470, 472 (5)		-	
Amount in excess of the 17.65% threshold (negative amount)	-	48 (1)		-	
of which direct and indirect holdings by the institution of common equity Tier 1 instruments of financial sector entities where the institution has a significant investment in those entities	-	36 (1) (i), 48 (1) (b), 470, 472 (11)		-	
of which deferred tax assets that rely on future profitability arising from temporary differences	-	36 (1) (c), 38, 48 (1) (a), 470, 472 (11)		-	
Losses for the current financial year (negative amount)	-	36 (1) (a), 472 (3)		-	
Any foreseeable tax charge relating to common equity Tier 1 capital (negative amount)	-	36 (1) (l)		-	
Regulatory adjustments to common equity Tier 1 capital with respect to amounts subject to pre-CRR treatment	-			-	
Regulatory adjustments to common equity Tier 1 capital with respect to the introduction of IFRS 9, Article 437a CRR	275				
Prudential adjustments in connection with unrealized gains and losses in accordance with Article 467 and 468	- 55			-	
of which deductions and filters for unrealized losses from debt instruments	-			-	Sub-amount n
of which deductions and filters for unrealized losses from risk exposures to governments classified as »available for sale«	-			-	
of which deductions and filters for unrealized gains from equity investments	-			-	m
of which deductions and filters for reserves for currency translation differences	-			-	o
Amount to be deducted from or added to Common Equity Tier 1 in connection with additional deductions and filters and in accordance with the necessary pre-CRR deductions	- 133	481		- 104	
of which: irrevocable payment obligations for the bank levy and deposit insurance to DSGV	- 133			- 104	
Amount of items required to be deducted from additional Tier 1 items that exceeds the additional Tier 1 capital of the institution (negative amount)	-	36 (1) (j)		-	
Regulatory adjustments to common equity Tier 1 (CET 1) capital as a whole	*- 458*			*- 964*	
Common equity Tier 1 (CET 1) capital	*12,415*			*11,790*	
Additional Tier 1 (AT1): instruments					
Capital instruments and related premiums	744	51, 52		744	p

EUR million Capital instruments [1]	Amount on the day of disclosure 31/12/2020	Reference to Articles in Regulation (EU) No. 575/2013	Amounts which come within the scope of Regulation (EU) No. 575/2013 or prescribed residual amount in accordance with Regulation (EU) No. 575/2013	Amount on 31/12/2019	Reference
Amount of items as defined in Article 484 (4) plus the related premium no longer eligible for inclusion in AT1	482	486 (3)		723	h
Government capital allocations subject to grandfathering rights until 1 January 2018		483 (3)			
Qualifying CET 1 instruments counting towards consolidated AT1 (including the non-controlling interests not already mentioned above) which have been issued by subsidiaries and are held by third parties		85, 86, 480			
Additional Tier 1 (AT1) capital before regulatory adjustments	*1,226*			*1,467*	
Additional Tier 1 (AT1) capital: regulatory adjustments					
Direct and indirect holdings by an institution of its own additional Tier 1 instruments (negative amount)	-	52 (1) (b), 56 (a), 57, 475 (2)		-	
Holdings of additional Tier 1 instruments of financial sector entities where those entities have a reciprocal cross holding with the institution designed to artificially inflate the institution's own funds (negative amount).	-	56 (b), 58, 475 (3)		-	
Direct and indirect holdings by the institution of additional Tier 1 instruments of financial sector entities where the institution does not have a significant investment in those entities (less than 10% and less eligible sales positions) (negative amount)	-	56 (c), 59, 60, 79, 475 (4)		-	
Direct and indirect holdings by the institution of additional Tier 1 instruments of financial sector entities where the institution has a significant investment in those entities (more than 10% and less eligible sales positions) (negative amount)	-	56 (d), 59, 79, 475 (4)		-	
Regulatory adjustments to additional Tier 1 with respect to amounts subject to pre-CRR treatment and treatment during the transitional period for which transitional provisions apply under Regulation (EU) No. 575/2013 (i.e. CRR residual amounts)	-			-	
Residual amounts to be deducted from additional Tier 1 capital with respect to items to be deducted from CET 1 capital during the transitional period provided for in Article 472 of Regulation (EU) No. 575/2013	-	472, 472 (3) (a), 472 (a), 472 (6), 472 (8) (a), 472 (9), 472 (10) (a), 472 (11) (a)		-	
of which material interim losses (net)	-			-	
of which intangible assets	-			-	Partial amount (a + b)
of which shortfall of provisions for expected losses	-			-	
Residual amounts to be deducted from additional Tier 1 capital with respect to items to be deducted from CET 1 capital during the transitional period provided for in Article 475 of Regulation (EU) No. 575/2013	-	477, 477 (3), 477 (4) (a)		-	
Amount to be deducted from or added to additional Tier 1 in connection with additional deductions and filters and in accordance with the necessary pre-CRR deductions	-	467, 468, 481		-	
Amount of items required to be deducted from Tier 2 items that exceeds the Tier 2 capital of the institution (negative amount)	-	56		-	
Regulatory adjustments to additional Tier 1 (AT1) as a whole	-			-	
Additional Tier 1 (AT1)	*1,226*			*1,467*	
Tier 1 (T1 = CET 1 + AT1)	*13,641*			*13,257*	
Tier 2 (T2): Instruments and reserves					
Capital instruments and related premiums	*5,032*	*62, 63*		*5,123*	*e + f + g + i*

EUR million Capital instruments [1]	Amount on the day of disclosure 31/12/2020	Reference to Articles in Regulation (EU) No. 575/2013	Amounts which come within the scope of Regulation (EU) No. 575/2013 or prescribed residual amount in accordance with Regulation (EU) No. 575/2013	Amount on 31/12/2019	Reference
Amount of items as defined in Article 484 (5) plus the related premium no longer eligible for inclusion in T2		486 (4)			
Government capital allocations subject to grandfathering rights until 1 January 2018		483 (4)			
Qualifying own funds instruments counting towards consolidated Tier 2 capital (including the non-controlling interests and AT1 instruments not already mentioned above) which have been issued by subsidiaries and are held by third parties		87, 88, 480			
Credit risk adjustments	351	62 (c) and (d)		136	
Tier 2 (T2) before regulatory adjustments	*5,383*			*5,260*	
Tier 2 (T2): regulatory adjustments					
Direct and indirect holdings by an institution of its own Tier 2 instruments and subordinated loans (negative amount)	- 25	63 (b) (i), 66 (a), 67, 477 (2)	0	- 25	
Holdings of Tier 2 instruments and subordinated loans of financial sector entities where those entities have a reciprocal cross holding with the institution designed to inflate artificially the institution's own funds (negative amount)	-	66 (b), 68, 477 (3)		-	
Direct and indirect holdings by the institution of Tier 2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (less than 10% and less eligible sales positions) (negative amount)	-	66 (c), 69, 70, 79, 477 (4)		-	
Direct and indirect holdings by the institution of Tier 2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (less eligible sales positions) (negative amount)	-			-	
Regulatory adjustments to Tier 2 with respect to amounts subject to pre-CRR treatment and treatment during the transitional period subject to phase out arrangements as described in Regulation (EU) No. 575/2013 (i.e. CRR residual amounts)	-			-	
Residual amounts to be deducted from Tier 2 capital with respect to items to be deducted from CET 1 items during the transitional period provided for in Article 472 of Regulation (EU) No. 575/2013	-			-	
of which material interim losses (net)	-			-	
of which intangible assets	-			-	
of which shortfall of provisions for expected losses	-			-	
Residual amounts to be deducted from Tier 2 capital with respect to items to be deducted from CET 1 items during the transitional period provided for in Article 475 of Regulation (EU) No. 575/2013	-			-	

EUR million **Capital instruments** [1]	Amount on the day of disclosure 31/12/2020	Reference to Articles in Regulation (EU) No. 575/2013	Amounts which come within the scope of Regulation (EU) No. 575/2013 or prescribed residual amount in accordance with Regulation (EU) No. 575/2013	Amount on 31/12/2019	Reference
Amount to be deducted from or added to Tier 2 capital in connection with additional deductions and filters and in accordance with the necessary pre-CRR deductions	-			-	
Regulatory adjustments to common equity Tier 1 capital with respect to the introduction of IFRS 9, Article 437a CRR	- 258				
Regulatory adjustments to Tier 2 (T2) capital as a whole	*- 283*			*- 25*	
Tier 2 (T2) capital as a whole	*5,100*			*5,235*	
Total capital (TC = T1 + T2)	*18,741*			*18,492*	
Risk weighted assets with respect to amounts subject to pre-CRR treatment and treatment during the transitional period which are subject to phase out arrangements as described in Regulation (EU) No. 575/2013 (i.e. CRR residual amounts)	-			-	
of which items not deducted from Tier 2 capital	-			-	
of which indirect holdings in the institution's own Tier 2 instruments	-			-	
Total risk weighted assets [1]	*82,112*			*80,484*	
Capital ratios and buffers					
CET 1 capital ratio (expressed as a percentage of the total risk exposure amount)	15.1	92 (2) (a), 465		14.6	
T1 capital ratio (expressed as a percentage of the total risk exposure amount)	16.6	92 (2) (b), 465		16.5	
Total capital ratio (expressed as a percentage of the total risk exposure amount)	22.8	92 (2) (c)		23.0	
Institution-specific capital buffer requirement (minimum required CET 1 capital ratio in accordance with Article 92 (1) (a) plus the required capital conservation buffer and countercyclical capital buffer, systemic risk buffer and buffer for systemically relevant institutions (G-SRI or A-SRI), expressed as a percentage of the total risk exposure amount)	7.8	CRD 128, 129, 130		8.1	
of which capital conservation buffer	2.5			2.5	
of which countercyclical capital buffer	0.0			0.1	
of which systemic risk buffer					
of which buffer for global systemically relevant institutions (G-SRIs) or other systemically relevant institutions (A-SRIs)	0.8			1.0	
CET 1 available for the buffers (expressed as a percentage of the total risk exposure amount)	10.6	CRD 128		10.2	
Amounts below the thresholds for deductions (before risk weighting)					
Direct and indirect holdings by the institution of instruments of financial sector entities where the institution does not have a significant investment in those entities (less than 10% and less eligible sales positions)	533	36 (1) (h), 45, 46, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)		489	
Direct and indirect holdings by the institution of CET 1 instruments of financial sector entities where the institution has a significant investment in those entities (more than 10% and less eligible sales positions)	320	36 (1) (i), 45, 48, 470, 472 (11)		710	
Deferred tax assets that rely on future profitability arising from temporary differences (under the 10% threshold, less corresponding tax liabilities if the conditions set forth in Article 38 (3) are satisfied) (negative amount)	930	36 (1) (c), 38, 48, 470, 472 (c)		996	d
Applicable caps for the inclusion of impairments in Tier 2					

EUR million Capital instruments [1]	Amount on the day of disclosure 31/12/2020	Reference to Articles in Regulation (EU) No. 575/2013	Amounts which come within the scope of Regulation (EU) No. 575/2013 or prescribed residual amount in accordance with Regulation (EU) No. 575/2013	Amount on 31/12/2019	Reference
Credit risk adjustments eligible for inclusion in Tier 2 for risk exposure values to which the standard approach is applied (before application of the cap)	-	62		-	
Cap for the inclusion of credit risk adjustments in Tier 2 capital under the standard approach	126	62		139	
Credit risk adjustments eligible for inclusion in Tier 2 capital for risk exposure values to which the approach based on internal assessments is applied (before application of the cap)	473	62		136	
Cap on the inclusion of credit risk adjustments in Tier 2 capital under the approach based on internal assessments	351	62		348	
Equity instruments subject to phase-out arrangements (only applicable from 1 January 2014 until 1 January 2022)					
Current cap on CET 1 instruments subject to phase-out arrangements	-	484 (3), 486 (2) and (5)		-	
Amount excluded from CET 1 due to cap (amount in excess of the cap after repayments and maturities)	-	484 (3), 486 (2) and (5)		-	
Current cap on AT1 instruments subject to phase-out arrangements	482	484 (4), 486 (3) and (5)		723	
Amount excluded from AT1 due to cap (amount in excess of the cap after repayments and maturities)	- 398	484 (4), 486 (3) and (5)		- 197	
Current cap on T2 instruments subject to phase-out arrangements	-	484 (5), 486 (4) and (5)		-	
Amount excluded from T2 due to cap (amount in excess of the cap after repayments and maturities)	-	484 (5), 486 (4) and (5)		-	

1 Unlike in the annual report, in the disclosure report the figures are published after the resolution on profit appropriation by the shareholders' meeting.

Figure 9: Capital instruments and deductions pursuant to Implementing Regulation (EU) 1423/2013

The LBBW Group's own funds are made up of

- Common equity Tier 1 (CET 1) capital, which comprises the following items:
  - paid-in capital
  - share premiums (capital reserves)
  - retained earnings
  - other eligible reserves (including revaluation reserves)
- Additional Tier 1 (AT1) capital, which comprises the following items:
  - Silent partners' contributions
  - Subordinated AT1 bonds
- Tier 2 (T2) capital, which comprises the following items:
  - long-term subordinated liabilities (and related premiums)
  - participation rights (and related premiums).

Tier 2 capital must be amortized to the day in the five years prior to maturity under the applicable rules.

The disclosures required under Article 437 (1) (b) CRR on the main features of all capital instruments issued are set out in a separate document entitled “»Main features of capital instruments«, which is also found under »Investor Relations – Financial Information and Reports – Disclosure Reports« on the LBBW website. The full terms and conditions of subordinated bearer instruments pursuant to Article 437 (1)(c) CRR are published in the »LBBW Markets Portal« under »Startseite Privatkunden –

Themen – Rechtliches – Nachrangemissionen – Endgültige Bedingungen« (available in German only). The relevant terms and conditions for subordinated registered securities and silent partners' contributions can be viewed at LBBW's main offices in Stuttgart during normal office hours.

Explanation of changes from 2019 to 2020:
The LBBW Group's common equity Tier 1 capital increased year on year. This was essentially a result of the addition of the net profit for 2019 to common equity Tier 1 capital after deducting the amount intended for distribution. Furthermore, the reduction in the IRB shortfall and intangible assets when approving the 2019 annual financial statements also increased CET1. Higher actuarial losses were offset by a rise in revaluation reserves at equity investments. This year, an application was made to include the year-end gains for the 2020 financial year in accordance with Article 26 (2) CRR. In connection with this, the deductions in intangible assets in particular again saw a decrease in comparison to the previous year. On balance, the use of the transitional provisions for the effects from the first-time adoption of IFRS 9 and the transitional provisions for the revaluation reserves of central government debt instruments measured at fair value also increased common equity Tier 1 capital.

Additional Tier 1 capital decreased due to the transitional provisions, which allow silent partners' contributions to be included only to a limited extent. Tier 2 capital also declined, a result primarily of maturities and the amortization to the day of Tier 2 capital components. Other items included the development of USD and SGD exchange rates and the first-time adoption effects to be deducted from Tier 2 capital in accordance with IFRS 9. This was offset by the inclusion of silent partners' contributions under the transitional provisions, which no longer meet the conditions for AT1 in accordance with CRR but instead only the conditions for T2. The valuation adjustment excess also increased Tier 2 capital.

The changes impacting on CET 1 capital have an effect on all capital ratios. An increase in additional Tier 1 has an impact on the CET 1 capital ratio and the total capital ratio. The issue of Tier 2 capital only had a positive effect on the total capital ratio. The calculation of capital ratios does not include any elements of own funds calculated on a basis other than that stipulated in the CRR (Article 437 (1) (f) CRR).

The development of total risk is shown in more detail in figure 14.

4.2 Reconciliation of own fund components

The following table compares the components of the Bank's own funds relevant for the CRR report on the basis of the accounting and regulatory bases of consolidation. It only includes those items of the balance sheet which are relevant for the calculation of the Bank's own funds in accordance with CRR. Accordingly, it does not show all the components reported on the face of the balance sheet.

	In accordance with the IFRS consolidated financial statements		In accordance with FINREP		
EUR million	**31/12/2020**	**31/12/2019**	**31/12/2020**	**31/12/2019**	**Reference**
Assets					
Intangible assets	**178**	**198**	**178**	**197**	
Of which: goodwill	-	-	-	-	a
Of which: other intangible assets	178	198	178	197	b
Deferred income tax assets	**1,107**	**1,089**	**1,133**	**1,112**	
Of which: from unused tax losses	83	93	74	84	c
Of which: from temporary differences	1,024	996	1,059	1,028	d
Equity and liabilities					
Financial liabilities designated at fair value	**6,509**	**6,757**	**6,509**	**6,757**	
Of which: subordinated liabilities	673	776	673	776	e
Of which: capital generated from profit-participation rights	114	121	114	121	f
Subordinated capital	**5,740**	**6,123**	**5,740**	**6,123**	
Of which: subordinated liabilities	4,672	4,927	4,672	4,927	g
Of which: typical silent partners' contributions	950	1,085	950	1,085	h
Of which: capital generated from profit-participation rights	117	111	117	111	i
Equity	**13,992**	**13,923**	**14,074**	**14,006**	
Of which: share capital	3,484	3,484	3,484	3,484	j
Of which: capital reserve	8,240	8,240	8,240	8,240	k
Of which: retained earnings	1,243	824	1,090	641	l
Of which: other income	74	155	331	393	
Of which revaluation reserve	22	121	290	379	
Of which revaluation reserve for equity investments	- 40	185	229	444	m
Of which revaluation reserve for debt instruments	61	- 64	61	-64	n
Of which currency translation reserve	15	30	3	10	o
Of which: additional equity components (Additional Tier 1)	745	745	745	745	p

Figure 10: Reconciliation of the Bank's own funds (Article 437 (1) (a) CRR)

4.3 Internal capital management

For a description of internal capital management, please refer to chapter 2.1, »Risk-oriented integrated bank management«.

4.4 Countercyclical capital buffer

The institution-specific countercyclical capital buffer shall be published in the disclosure report pursuant to Commission Delegated Regulation (EU) No. 2015/1555.

The countercyclical capital buffer may be imposed by a duly authorized authority of member states of the European Economic Area (EEA) and by non-member countries. The buffer is generally 0% to 2.5% of the own funds requirements resulting from this country. When calculating the countercyclical capital buffer, the own funds requirements allocated to the exposure classes central governments, regional governments and local authorities, other public-sector agencies, multilateral development banks, international organizations and banks, are excluded. With this buffer, the risk exposures located in this country and not covered by the exemption must also be backed by CET 1 capital. The CET 1 capital cover of the total countercyclical capital buffer of all relevant countries is capped at 2.5%.

The countries that had a countercyclical capital buffer as at 31 December 2020 are shown in the following table.

	Countercyclical capital buffer in %	
Country	**31/12/2020**	**30/06/2020**
Bulgaria	0.50	0.50
Hong Kong	1.00	1.00
Luxembourg	0.25	0.25
Norway	1.00	1.00
Slovakia	1.00	1.50
Czech Republic	0.50	1.00

Figure 11: Countercyclical capital buffer

The countries with the greatest risk exposure and those that imposed a countercyclical capital buffer in 2020 are shown in the following table.

EUR million	General credit risk exposures		Risk exposures in the trading book			Capital requirements					
Breakdown by country	Risk exposure value KSA	Risk exposure value IRB	Total of purchase and sales positions in the trading book	Values of risk exposures in the trading book (internal models)	Securitization of risk exposure	Of which: general credit risk exposures	Of which: Risk exposures in the trading book	Of which: securitization positions	Total	Weighting of the own fund requirements per country in %	Countercyclical capital buffer ratio in %
Germany	16,990	69,970	4,684	-	3,215	3,379	117	68	3,563	69.59	-
France	14	1,023	1,007	-	147	40	19	4	63	1.22	-
United Kingdom	33	2,103	1,414	-	30	85	21	1	107	2.10	-
Ireland	41	419	700	-	-	20	56	-	76	1.48	-
Luxembourg	31	4,569	772	-	-	183	17	-	200	3.90	0.01
Mexico	380	59	9	-	-	35	0	-	35	0.68	-
Netherlands	50	2,952	402	-	-	99	15	-	114	2.22	-
Austria	39	1,969	53	-	-	68	1	-	69	1.34	-
Switzerland	79	1,848	303	-	38	77	8	1	86	1.68	-
USA	62	15,523	321	-	192	376	10	9	395	7.71	-
Bulgaria	0	-	-	-	-	0	-	-	0	0.00	0.00
Hong Kong	1	247	73	-	-	12	3	-	15	0.30	0.00
Norway	3	2,938	107	-	-	32	1	-	33	0.65	0.01
Slovakia	1	-	2	-	-	0	0	-	0	0.00	0.00
Czech Republic	10	23	6	-	-	2	-	-	2	0.03	0.00
Other countries	312	10,366	2,513	-	60	308	53	2	362	7.08	0.00
Total 31 Dec. 2020	*18,045*	*114,007*	*12,367*	-	*3,682*	*4,716*	*320*	*84*	*5,120*	*100.00*	*0.02*
Total 30 June 2020	*18,444*	*120,574*	*15,187*	-	*3,663*	*4,784*	*372*	*103*	*5,259*	*100.00*	*0.02*

Figure 12: Determining the institution-specific countercyclical capital buffer (pursuant to Article 140 CRD)

LBBW's institution-specific countercyclical capital buffer is as follows:

Institution-specific countercyclical capital buffer	31/12/2020	30/06/2020
Total risk exposure in EUR m	82,112	83,678
Institution-specific ratio of countercyclical capital buffer in percent	0.02	0.02
Requirements of the institution-specific countercyclical capital buffer in EUR m	16	15

Figure 13: Institution-specific countercyclical capital buffer (Article 140 CRD)

4.5 Own funds requirements

Since the implementation of the new disclosure requirements pursuant to BCBS 309 as per 31 December 2017, own fund requirements for credit risks without CCR must be reported in accordance with the credit risk standardized approach (CRSA) or with the internal ratings-based approach (IRB) and split by counterparty default risk.

LBBW uses the internal ratings-based approach (foundation IRB approach) approved by the Federal Financial Supervisory Authority (BaFin) for calculating the own funds requirements for counterparty risks arising from the main exposure classes.

Since 1 January 2018, equity exposures have been reported exclusively under the IRB approach. If a rating is available, this is reported in accordance with the internal rating. Otherwise, the simple risk weighted approach is applied with the corresponding risk weight. Significant investments in financial sector entities must be risk-weighted at 250%.

The own funds requirements for securitization transactions take place in accordance with the securitization regulations applicable in full since 1 January 2019,. A distinction is made between SEC-ERBA (Securitization – External Ratings-Based Approach), SEC-IAA (Securitization – Internal Assessment Approach) and SEC-SA (Securitization – Standardized Approach).

The own funds requirements for market price risks for the general interest rate risk, general share price risk and associated option price risks of LBBW (Bank) are calculated based on an internal market price risk model also approved by the regulatory authority. Since 31 December 2011, this has also included the own funds requirements for stressed VaR. The other market price risks are calculated using the standard approach.

Own funds requirements for operational risks are calculated using the standard approach.

Significant investments in financial sector entities to which a 250% risk weight must be applied along with deferred taxes resulting from temporary differences are reported in the line »Amounts below the thresholds for deductions«.

The following table sets out the risk weighted assets and own funds requirements for risk types that are relevant from a prudential point of view.

A breakdown by exposure class is provided as follows:

- Credit risks in CRSA, section 5.2
- Credit risks in IRB, chapter 5.3
- Counterparty credit risk, section 7

	RWA		Minimum capital requirements	
EUR million	**31/12/2020**	**30/09/2020**	**31/12/2020**	**30/09/2020**
Credit risk (excl. CCR)	*63,252*	*62,793*	*5,060*	*5,023*
Of which under the standardized approach (CRS)	10,009	10,172	801	814
Of which under the foundation IRB approach (FIRB)	51,774	51,162	4,142	4,093
Of which under the advanced IRB approach (AIRB)	-	-	-	-
Of which equity in the IRB approach using the simple risk weighted approach or the IMA	1,468	1,460	117	117
Counterparty credit risk (CCR)	*3,919*	*3,840*	*313*	*307*
Of which under the mark-to-market	2,472	2,469	198	197
Of which under original exposure	-	-	-	-
Of which under the standardized method	-	-	-	-
Of which under the internal model method (IMM)	-	-	-	-
Of which risk-weighted exposure amount for contributions to the default fund for a CCP	310	218	25	17
Of which CVA	1,137	1,153	91	92
Settlement risk	*2*	*0*	*0*	*0*
Securitization exposures in the banking book (after application of the cap)	*1,048*	*1,256*	*84*	*100*
Of which under external ratings-based approach (SEC-ERBA)	40	40	3	3
Of which under the internal assessment approach (SEC-IAA)	803	1,102	64	88
Of which under the standardized approach (SEC- SA)	206	114	16	9
Market risk	*5,951*	*5,700*	*476*	*456*
Of which under the standardized approach	3,075	2,587	246	207
Of which under IMA	2,876	3,113	230	249
Large exposures	-	-	-	-
Operational risk	*4,815*	*4,745*	*385*	*380*
Of which under the basic indicator approach	-	-	-	-
Of which under the standardized approach	4,815	4,745	385	380
Of which under the advanced measurement approach	-	-	-	-
Amounts below the thresholds for deductions (subject to 250 % risk weight)	*3,125*	*3,142*	*250*	*251*
Adjustment of floor	-		-	-
Total risk	*82,112*	*81,477*	*6,569*	*6,518*

Figure 14: EU OV1 – Overview of risk weighted assets (RWA) (Article 438 (c) to (f) CRR)

Total risk rose slightly compared to the previous quarter as a result of new transactions and cyclically driven rating premiums for exposures measured in accordance with the internal rating approach. The rise in the total risk exposure amount for market price risks was also due to entering into new transactions.

EUR million	Specialized lending exposures					
Remaining maturity/Regulatory categories	On-balance-sheet amount	Off-balance-sheet amount	Risk weight	Exposure amount	RWA	Expected losses
Category 1						
Less than 2.5 years	-	2	50%	1	1	-
Equal to or more than 2.5 years	-	0	70%	0	0	0
Category 2						
Less than 2.5 years	66	0	70%	66	46	0
Equal to or more than 2.5 years	50	12	90%	59	53	0
Category 3						
Less than 2.5 years	1	0	115%	1	1	0
Equal to or more than 2.5 years	50	2	115%	52	59	1
Category 4						
Less than 2.5 years	-	-	250%	-	-	-
Equal to or more than 2.5 years	-	-	250%	-	-	-
Category 5						
Less than 2.5 years	-	-	-	-	-	-
Equal to or more than 2.5 years	-	-	-	-	-	-
Total 31 December 2020	*167*	*17*		*179*	*160*	*2*
Less than 2.5 years	67	2		68	48	0
Equal to or more than 2.5 years	100	14		111	112	2
Total 30 June 2020	*244*	*18*	-	*247*	*188*	*2*

Equities under the simple risk-weighted approach

Categories	On-balance-sheet amount	Off-balance-sheet amount	Risk weight in %	Exposure amount	RWA	Capital requirements
Private equity exposures	738	-	190%	738	1,402	1,122
Exchange traded equity exposures	23	-	290%	23	65	52
Other equity exposures	0	-	370%	0	1	1
Total 31 December 2020	*761*	-		*761*	*1,468*	*1,175*
Total 30 June 2020	*762*	-		*762*	*1,467*	*117*

Figure 15: EU CR10 – IRB specialized lending exposures and equity investments with a fixed risk weight

LBBW does not have any equity investments in insurance companies, hence no disclosure requirement of template EU INS1.

5 Credit risk (Articles 442, 444, 452 CRR)

5.1 Counterparty risk management

Management for limiting the counterparty risk is implemented as an integrated process at LBBW and can be broken down into the three main components of risk measurement, risk monitoring and reporting as well as risk management:

Risk measurement

In order to measure risk, LBBW uses an extensive range of instruments involving quantitative measuring procedures. These are subject to ongoing quality control and undergo permanent development.

Risk classification procedure

LBBW uses specific rating and risk classification procedures for all relevant business activities. These procedures quantify the probability of default (PD) of the individual investments. For this purpose, the counterparty risk is calculated both including and excluding the transfer risk.

The quality of the risk classification procedures in use is reviewed regularly and procedures are refined if necessary. These procedures are maintained and updated by independently LBBW or in cooperation with Rating Service Unit GmbH & Co. KG (RSU - an associated company of the Landesbanken) or Sparkassen Rating und Risikosysteme GmbH (SR - a subsidiary of Deutscher Sparkassen- und Giroverband - DSGV).

Most of the portfolio is valued using internal rating procedures which have been approved for the Internal Ratings Based Approach (IRBA) by the banking supervisor. The ratings are therefore not only used for internal management purposes but also to measure the regulatory capital requirements.

Evaluating collateral

Collateral is evaluated on the basis of its market value, which is reviewed regularly and on an ad hoc basis and adjusted in the event of any change in the relevant factors. Loss given default (LGD) is estimated on the basis of the valuation of the individual items of collateral. In this respect, differentiated estimates are calculated for liquidation rates (average proceeds expected from the liquidation of collateral) and for recovery rates (proportion of the proceeds from the unsecured portion of a receivable). The estimates are based on empirical values and pool data recorded by the Bank itself and in cooperation with savings banks and other Landesbanken.

Exposure at default

Whereas exposure is tied to a specific date (exposure at default, EAD) for reporting purposes, potential future exposure is calculated to determine the CVaR and the utilization of internal limits, e.g. in the case of derivatives. This is calculated for the most part on the basis of fair values and add-ons. The add-on calculation takes account of the remaining maturity, product type and market factors (interest, currency etc.). Netting and collateral agreements are used for reducing risk. The capital charges for issuer risks held in the trading book take account of the settlement payments and actual fair value losses as a result of default (jump-to-default method). The (modified) nominals are used for issuer and reference debtor risks from securities and holdings in the banking book.

Expected losses, value adjustments and credit value adjustments

The expected loss (EL) – as an indicator that depends on customer creditworthiness, an estimation of the loss at default and the expected exposure at default – provides the basis for the level of the standard risk costs. In preliminary costing at the individual transaction level, these are included in the calculation of risk-adequate loan terms. The concept of the expected loss is also used in connection with the calculation of impairments (as per IFRS 9): For transactions in which creditworthiness has deteriorated significantly since conclusion, it is the EL over the entire residual term (level 2), otherwise it is the EL for one year (level 1). In the case of specific loan loss provisions (SLLP), the present values of the expected cash flows (including proceeds from the liquidation of collateral) are calculated and allowances for losses on loans and advances are made on the basis of uniform standards applied throughout the Group.

The market price of the counterparty risk of OTC derivatives accounted for at fair value is measured using the so-called credit value adjustment (CVA). This is included in LBBW's income statement as a valuation adjustment. The credit ratings of the counterparty and of LBBW are taken into consideration.

Credit value-at-risk

At LBBW, unexpected loss or credit value-at-risk (CVaR) represents the potential present value loss of a portfolio above its expected loss. A credit portfolio model that takes the defaults as well as rating migration into account is used to calculate this value. The borrowers are assigned corresponding default and migration probabilities, on the basis of their ratings. The CVaR is calculated using a Monte Carlo simulation approach and takes into consideration correlations between borrowers as well as borrower, sector and country concentrations. LBBW's loan portfolio model is subjected continuously to a validation program that is independent of the model development.

CVaR is used as the parameter for economic capital used for counterparty risks in the risk-bearing capacity analysis and in LBBW's management. CVaR and economic capital are determined using a confidence level of 99.9% and time horizon of one year.

Risk concentrations and stress tests

Risk concentration is partly measured using the CVaR by way of concentration thresholds. Group Risk Control proposes concentration risk thresholds for individual borrowers as well as at sector level; these are set by the Board of Managing Directors. The thresholds are reviewed annually and adjusted if necessary, depending on the development of the loan portfolio and the risk-bearing capacity.

In addition, extensive stress scenarios – particularly in the light of possible concentration risks – are calculated at LBBW Group level to analyze possible changes in LBBW's portfolio or specific rating procedures arising from potential developments (e.g. sector crises) or the market environment. Counterparty risks are included in scenarios covering multiple risk types.

As well as the operative limit systems, explicit concentration limits are in place for individual exposures and sectors to limit concentration risks.

Risk monitoring and reporting

Individual transaction level

Risk management at the level of individual exposures is the responsibility of the back office divisions. These are organized separately from the front office divisions, in line with the regulatory requirements. Clear responsibilities and appropriate experience and expertise are ensured in the back office divisions by a customer or sector-specific organizational structure. Credit decisions are made in a system of graded competencies, which are regulated in the Bank's decision-making systems.

As part of risk monitoring, the risk managers responsible continuously check compliance with the limits granted as well as any changes in information of relevance for credit ratings. This includes monitoring any irregularities in account behavior, evaluating company news and observing macroeconomic and sector trends. In cases in which market data can be observed for a given company, a market data-based system is additionally used according to requirements.

A system is in place for the early detection of risks, comprising procedural regulations and system-generated signals, whose goal it is to detect any deterioration in credit ratings at an early stage.

The early detection of any deterioration in credit ratings allows appropriate countermeasures, e.g. additional collateral or pre-emptive restructuring, to be taken in consultation with the customer. Depending on the level of risk, problem assets are classified as cases requiring observation, intensified support, restructuring or liquidation and are dealt with by the departments responsible. LBBW aims to minimize losses through successful restructuring activities, in line with the Bank's own interests and those of its customers.

Portfolio level

Counterparty risk is monitored at the portfolio level in the Group Risk Control division, which, from an organizational point of view, is separate from the front and operational back office divisions. This division is responsible for ensuring the suitability of rating procedures, measuring counterparty risk, monitoring counterparty credit, country and sector limits and drawing up risk reports.

The respective utilization of the exposure and CVaR limits set is shown in the monthly overall risk report, among other things. The following also applies:

- Compliance with country limits is monitored on a daily basis with a special limit system.
- The portfolio of financials has an overall limit.
- Sector risks arising from the corporates portfolio are restricted and monitored through the stipulation of sector-specific limits. The limit system is based on a risk-oriented sector key designed specifically for this purpose, which combines sector segments that have a high loss dependence along the value chain. For example, mechanical engineering companies whose products are sold predominantly to customers from the automotive industry are also assigned to the automotive industry.

An ad hoc reporting process is implemented for significant and extraordinary events for specific reporting to the decision-makers in charge. The most important periodic reports are as follows:

- The overall risk report presented monthly in the Executive Risk Committee, which includes details about the risk situation at the portfolio level and compliance with the material limits. Portfolio analyses additionally report on the risk situation of individual sectors and risk concentrations, for example.
- The half-yearly in-depth sector reports with detailed information on the sector situation, portfolio structure and important customers in each sector.

Risk management

Counterparty risks are managed, in particular, through the requirements of the credit risk strategy, through the economic capital allocation to sub-portfolios with the aid of the CVaR, and by avoiding and reducing concentration risks at the level of sectors, countries and individual counterparties.

Individual transaction level

As a rule, the upper limits on the individual transaction level are set individually by the respective authorized person responsible for the front office or back office divisions. This upper limit is taken into account for all risk-relevant transactions by a customer or borrower unit or group of connected clients. A material part of managing individual transactions involves monitoring compliance with the quantitative and qualitative requirements defined in the credit risk strategy. This determines the underlying terms and conditions for LBBW's lending business on the basis of the business strategy and in the light of the Group risk strategy. Particular attention is paid to avoiding concentration risks.

From an economic point of view, the question of whether a transaction will produce an adequate profit on a risk-adjusted basis is a key consideration before entering into business; for this reason, preliminary costing of all individual transactions is compulsory. In addition to the historical interest rate and the bank levy, the components in the preliminary costing comprise cover for expected loss (risk range), interest on equity to be held in case of unexpected losses (capital range) and cover for liquidity and processing costs. The results form the basis of business management at customer level.

Sub-portfolio level

The risk management measures differ depending on the respective sub-portfolio level:

- Country limits are determined by the Board of Managing Directors, based on the proposals of the Country Limit Committee. If the country limit is almost fully utilized, the affected front and back office divisions are notified and if the limit is exceeded a ban on business is imposed. If country credit ratings deteriorate, limits are reduced and/or suspended. Wind-down targets also exist for countries that are the focus of particular attention.
- The limitation on the portfolios of financial institutions and corporates sectors triggers controlling measures such as hedging transactions to reduce risk or a ban on new business etc. if certain thresholds are exceeded.
- At the business area or sub-business area level, risks are limited through measures to ensure adherence to the portfolio guidelines of the credit risk strategy with regard to upper limits, rating structures and the portfolio quality, among others.

Total portfolio level

In the management of the Group's credit portfolio, the limit in particular for the economic capital for counterparty risks based on the CVaR is allocated to the sectors. A traffic light system recognizes at an early stage if limits are close to being fully utilized and corresponding measures are initiated. In addition, the results of the stress tests provide indications of potentially dangerous risk constellations, which may require measures to be taken.

5.2 Applying the standardized approach to credit risks

External credit rating assessments from the following ratings agencies are applied to calculate regulatory capital requirements under the credit risk standardized approach:

- Standard & Poor’s Ratings Services
- Moody’s Investors Service
- Fitch Ratings Ltd.

These are applied on a standardized basis for all relevant CRSA exposure classes.

Where a credit assessment exists for the position of an exposure in CRSA, it is used to determine the risk weight to be assigned to the position (Article 139 (1) CRR). Where no such rating exists, the risk is weighted using the credit assessment for a comparable exposure or using a general credit assessment for the issuer (Article 139 (2) CRR).

Comparable exposures are exposures which must be met by the same obligor of the CRSA exposure and for which a credit assessment exists for a specific issuing program.

At LBBW, possible further (comparable) exposures to the same obligor with an issuer or issue credit assessment are calculated automatically using customer-related information. The reporting software uses predefined selection criteria to assign an external rating to the exposure.

In all other cases, the exposures are treated as unrated.

LBBW uses the allocation prescribed by the EBA pursuant to CRR when mapping the credit assessments of external credit assessment institutions with the credit quality steps under the Standardized Approach.

Quality steps	Standard & Poor's Ratings Services	Fitch Ratings Ltd.	Moody's Investors Service
1	AAA to AA-	AAA to AA-	Aaa to Aa3
2	A + to A-	A + to A-	A1 to A3
3	BBB + to BBB-	BBB + to BBB-	Baa1 to Baa3
4	BB + to BB-	BB + to BB-	Ba1 to Ba3
5	B + to B-	B + to B-	B1 to B3
6	CCC + and lower	CCC + and lower	Caa1 and lower

Figure 16: Long-term credit assessments pursuant to Commission Implementing Regulation (EU) 2016/1799 of 7 October 2016

In the following table, CRSA exposure at default (EAD) is reported after credit risk mitigation and credit conversion factors. Exposures are broken down by risk category and risk weight. The table does not include 2%, 4%, 250%, 370% or »Deducted« risk weights, since LBBW has no exposures in any of these risk weight categories. Exposures for which there is no credit assessment from a recognized external rating assessment institution and which therefore have no specific risk weight pursuant to Articles 113 to 134 CRR, are included in the column »of which without rating«.

EUR million	Risk weight in %											
Exposure classes	0	10	20	35	50	70	75	100	150	1250	Other	Total	Of which unrated
Central governments or central banks	170	-	-	-	-	-	-	0	-	-	-	170	170
Regional governments or local authorities	1,075	-	9	-	-	-	-	-	-	-	-	1,083	1,075
Public-sector entities	20	-	354	-	-	-	-	0	-	-	-	374	26
Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-	-
International organizations	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	32,199	-	449	-	20	-	-	1	-	0	-	32,668	32,618
Corporates	431	-	888	112	499	265	-	3,255	0	2	-	5,451	3,945
Retail business	-	-	-	-	-	-	6,323	-	-	-	-	6,323	6,323
Secured by mortgages on immovable property	-	-	-	3,911	123	-	-	-	-	-	-	4,034	4,034
Exposures in default	-	-	-	-	-	-	-	49	60	-	-	109	109
Items associated with particularly high risk	-	-	-	-	-	-	-	-	21	-	-	21	21
Covered bonds	15	53	-	-	-	-	-	-	-	-	-	68	15
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-
Undertakings for collective investment	2	-	-	-	-	-	-	-	-	-	26	28	28
Equity exposures	-	-	-	-	-	-	-	-	-	-	-	-	-
Other items	5	-	-	-	-	-	-	78	-	-	-	83	83
Total 31 Dec. 2020	*33,916*	*53*	*1,700*	*4,023*	*642*	*265*	*6,323*	*3,383*	*81*	*2*	*26*	*50,413*	*48,447*
Total 30 June 2020	*35,090*	*53*	*1,452*	*4,312*	*612*	*268*	*6,212*	*3,585*	*86*	*0*	-	*51,670*	*50,091*

Figure 17: EU CR5 – CRSA – Breakdown by risk category and risk weight (Article 444 (e) CRR))

5.3 Use of the IRB approach to credit risk (Article 452 CRR)

Since 1 January 2008, LBBW has been permitted by BaFin to apply the basic IRB approach to both the Bank and the entire LBBW Group. As of this date, regulatory capital backing is based on the following rating systems in line with the IRB approach:

- Banks
- Country and transfer risks
- Insurance companies
- Project finance
- Corporates
- International real estate finance
- Sparkassen-ImmobiliengeschäftsRating
- DSGV-Haftungsverbund
- Sparkassen-StandardRating
- Leasing
- Leveraged finance
- Aircraft finance
- International administrative authorities
- Funds
- Fixed risk weight approach for specialized lending (slotting criteria)

The CRS approach is used for all other portfolios of LBBW (Bank) and all other companies included in the regulatory basis of consolidation of the LBBW Group with the exception of the equity investment portfolio. The IRB approach is applied to the investment portfolios of all subsidiaries.

With the existing cover, the materially significant portfolios are treated under the IRB approach.

Description of the internal rating procedures

As a general rule, LBBW's internal rating procedures can be divided into two categories, regardless of their actual use in the IRBA:

- Scorecard-based rating procedures

A scorecard procedure is a standardized measurement method. These procedures involve the measurement of quantitative and qualitative factors in the light of liability relationships. Finally, transferals and warning signals are included in the rating result.

- Simulation-based rating procedures

In contrast to a scorecard-based rating procedure, which estimates the probability of default on the basis of the current status of factors, a simulation-based rating generates scenarios for the future net cash flows of, for example, a special-purpose vehicle (SPV). This takes account of the entire term and structure of the exposure. In addition, the simulation also includes macroeconomic scenarios (e.g. inclusion of interest and exchange rates) where relevant.

The following table describes the various rating procedures in detail.

Business area	Subgroup	Rating/assessment procedures	Methodology
Private and investment customers	Employed natural persons	Sparkassen KundenScoring (SKS)	Scorecard-based rating procedure
	Private customers with main cash flow from renting and leasing	Segment real estate compact rating in Sparkassen Immobilienrating	Simulation-based rating procedure
Corporate customers	Basic customers	Sparkassen StandardRating plus customer compact rating (CCR)	Scorecard-based rating procedure
	Business customers	Sparkassen StandardRating plus customer compact rating (CCR)	Scorecard-based rating procedure
	Corporate customers	Sparkassen StandardRating plus customer compact rating (CCR)	Scorecard-based rating procedure
	Start-ups	Sparkassen StandardRating plus customer compact rating (CCR)	Scorecard-based rating procedure
	Leasing customers	Scoring of leasing customers Rating of leasing customers	Scorecard-based rating procedure
	Corporate customers/key accounts	Rating for corporates	Scorecard-based rating procedure
	Non-profit organizations	Basic RCP (risk classification procedure)	Expert-based procedure
Project and specialized lending exposures	National commercial real estate	Sparkassen Immobilienrating	Simulation-based rating procedure
	International commercial real estate	Rating for international commercial real estate (ICRE)	Simulation-based rating procedure
		Where applicable RCP slotting criteria approach	Slotting criteria
	Open-end real estate funds	Sparkassen Immobilienrating	Scorecard-based rating procedure
	Aircraft finance	Airlines: rating for corporates	Scorecard-based rating procedure
		SPC: rating for aircraft finance	Simulation-based rating procedure
		Where applicable RCP slotting criteria approach	Slotting criteria
	Other project finance	Rating for project finance	Simulation-based rating procedure
		Where applicable RCP slotting criteria approach	Slotting criteria
	SPC real estate leasing	Rating for leasing refinancing	Simulation-based rating procedure
	Leveraged finance	Rating for leveraged finance	Scorecard-based rating procedure

Business area	Subgroup	Rating/assessment procedures	Methodology
Wholesale	Banks	Rating for banks	Scorecard-based rating procedure
		Rating for DSGV-Haftungsverbund	Simulation-based rating procedure
	Insurance companies	Rating for insurance companies	Scorecard-based rating procedure
	Leasing companies	Rating for leasing companies	Scorecard-based rating procedure
	National (German) administrative authorities/public-sector loans	Rating inheritance	n/a
	International administrative authorities	Rating for international administrative authorities	Scorecard-based rating procedure
	Municipal corporations	Sparkassen StandardRating	Scorecard-based rating procedure
		Corporates rating	Scorecard-based rating procedure
		Basic RCP	Expert-based procedure
	Sovereigns & transfer risks	Rating for country and transfer risks	Scorecard-based rating procedure
	Government-supported enterprises (GSE)	Rating for government supported enterprises	Scorecard-based rating procedure
	Funds (individual funds)	Rating procedure for funds	Scorecard-based rating procedure
Corporate Items	Strategic equity investments	Suitable rating in each case (bank equity investments rated with bank rating etc.) in the absence of any reason to dispense with a rating	Dependent on procedure
		Otherwise basic RCP	Expert-based procedure

Figure 18: LBBW's internal rating procedures (Article 452 (b) (i) CRR).

All rating procedures result in a one-year probability of default in local currency (local currency PD). All rating methods yield a one-year local-currency PD. Any transfer risk is taken into account in a separate foreign currency (FC) rating. These PDs are transferred to a rating class using the master scale applied uniformly within Sparkassen-Finanzgruppe. The master scale comprises a total of 18 rating classes; of these, the first class is broken down into a further eight sub-classes and the last class before the default classes into a maximum of three sub-classes, depending on the rating procedure. Ratings 16 to 18 indicate default.

		LBBW rating master scale	Probability of default (%)
Ratings	Investment grade	1(AAAA)	0.00
		1(AAA)	0.01
		1(AA+)	0.02
		1(AA)	0.03
		1(AA-)	0.04
		1(A+)	0.05
		1(A)	0.07
		1(A-)	0.09
		2	0.12
		3	0.17
		4	0.26
		5	0.39
	Speculative grade	6	0.59
		7	0.88
		8	1.32
		9	1.98
		10	2.96
		11	4.44
		12	6.67
		13	10.00
		14	15.00
		15	20.00
		15B[1]	30.00
		15C[1]	45.00
	Default classes	16	100.00
		17	100.00
		18	100.00

1) Ratings 15(B) and 15(C) are currently used only for the following rating methodologies: Sparkassen KundenScoring, Sparkassen KundenKompaktRating, Sparkassen StandardRating, leveraged finance rating, scoring and rating for leasing customers.

Figure 19: LBBW rating master scale (Article 452 (b) (i) CRR)

Further use of internal estimates

LBBW's internal rating procedures are important instruments in the credit process and in credit risk management. The rating results are incorporated in the lending process as a component of the credit application and the basis for calculating competency levels. In addition, the ratings are used as parameters in the credit risk strategy and for determining the level of attention required.

The ratings form the basis for integrated bank management consisting of portfolio management, pricing, capital allocation, stress-testing and risk-bearing capacity and are used as input for the calculation of allowances for losses on loans and advances under IFRS.

Control mechanisms for the rating systems

Responsibility within LBBW for the rating systems lies with Credit Risk Control. Credit Risk Control plays the role of the credit risk control unit stipulated by Article 190 CRR and is responsible in particular for the design, selection, introduction, ongoing monitoring and performance of rating systems.

The credit risk control unit reports to senior management no less than half-yearly on the performance of the internal rating procedures and processes. The forecasting quality is measured by a comparison of the model forecasts with defaults which have occurred (backtesting). Key criteria are calibration (is the expected portfolio default rate (mean PD) consistent with the actual defaults?) and precision (does the rating method correctly separate good from bad customers?). Key findings from the rating process validation (ongoing rating controlling process and current local checks carried out by the Credit Risk Control Unit) are presented as part of the report on the performance of the ratings systems.

The Credit Risk Control Unit informs senior management annually of ratings-based analyses of the credit risk profile in accordance with Article 189 (3) CRR. Reporting must include, as a minimum, the» risk profile by grade«, migration across grades and a comparison of realized default rates per grade with expected default rates.

The majority of the rating procedures used by LBBW were developed in joint projects, whose joint activities were placed on an independent legal and organizational foundation through the establishment of Sparkassen Rating und Risikosysteme GmbH, Berlin (SR) and RSU Rating Service Unit GmbH & Co. KG, Munich (RSU). SR is responsible for processes for national companies and business clients, private customers and commercial real estate financing. All other jointly developed procedures are regularly reviewed and, if necessary, adjusted by RSU with the assistance of LBBW's employees.

The rating systems of LBBW are subject to a regular review process by the Counterparty Risk Control Unit (CRCU), the central element of which is conducted under the guidance of RSU or SR (this activity has been outsourced in line with Section 25b of the German Banking Act and disclosed accordingly). Data is derived from the RSU data pool (Landesbanks' pool data) and the SR data pool (data pooled by the Landesbanks and savings banks).

The core element of the review process is the annual validation in the independent valuation unit (IVU), the central task of which is backtesting, benchmarking and checking the model design and data quality. The results are submitted to a working group comprising methodology experts from all member institutions, which is responsible for independently reviewing the validation and ensuring the consistency of the methods used for all processes in all modules. Validation involves confirming, adjusting or optimizing the rating procedure and its parameter estimates as necessary. Before introducing modified procedures, LBBW performs a test to ensure that they are representative. In turn, this ensures that the rating procedures are also accurate and valid for the LBBW portfolio and can therefore be applied without restriction. Senior management is informed of the results of the pool validation in the case of every rating process. It decides on whether the validation results can be put into practice. In addition, the correct use of rating systems is analyzed and evaluated extensively by a rating controlling process at LBBW, which also initiates and monitors any adjustments that may be required. Reports to that effect are sent on a quarterly basis to senior management and the management tiers below them of all relevant units of the Bank.

The review, validation and further development of the rating procedures are checked by the respective Internal Auditing units as independent units at RSU, SR and LBBW. Please note the introduction of an independent validation unit at the respective companies and at LBBW from 2018. In the case of LBBW, Internal Auditing also reviews the rating systems and their operations at least once a year in accordance with Article 191 CRR. The review includes checking compliance with all minimum requirements in accordance with Articles 142 to 191 CRR. This includes, among other things, a review of the correct application of the rating procedures, the efficacy of the internal control system and an assessment of the written policy.

Process of allocating items or borrowers to rating classes or risk pools

The exposure classes are determined electronically at a system level downstream from the operational booking systems. As a rule, each transaction included in an IRBA portfolio is allocated to an exposure class normally on the basis of the rating procedure applied. If a clear allocation using the rating procedure is not possible, exposure classes are distinguished on the basis of additional information, such as customer group allocation or transaction-specific information such as collateral.

The following section describes the rating procedures used for the individual exposure classes and the area of applicability. Allocation forms a key aspect of capital backing activities.

Central governments and central banks exposure class

Country and transfer risks are measured using a special rating procedure at LBBW. The key aspects entail the economic situation, the political environment as well as the domestic and foreign trade situation of the country in question. The rating procedure for country and transfer risks is used to classify exposures which are allocated to the IRBA exposure class »Central governments and central banks« in accordance with Article 147 (3) CRR and Articles 115 (2), 115 (4), 116 (4), 117 (2) and 118 CRR.

The rating methodology currently in use was developed at pool level by RSU in cooperation with the Landesbanken. It was developed following a statistical approach (mainly comparison with external ratings, plus factoring in internal default history). Expert assessments were also taken into account in order to ensure the economic plausibility of the model results.

RSU is also in charge of (further) developing the rating methodology in cooperation with the Landesbanken. Its (further) development is based on the data pool of many diverse institutions. The data pool mostly includes data from the institutions' internal systems, e.g. input values and default experiences over time. The analyses carried out as part of the regular care and validation at pool level are made available by RSU.

Banks exposure class

The rating procedure for banks is applied to all borrowers which are allocated to the IRBA exposure class »Banks« under Article 147 (4) CRR and in the light of Articles 4 (1) Sentences 1, 2, 3, 115 (2) and (4), 116 (4), 117 and 119 (5) CRR. The purpose of the rating procedure for banks is to measure counterparty risks of banks worldwide. In terms of content, their use is limited to banks that mostly perform typical banking transactions (material interpretation of the term "bank"). Thus, bank holdings, home savings and loan associations, state finance agencies, financial and finance companies and financial service providers should also be rated with the banks module, regardless of their legal form, assuming they mostly perform typical banking transactions. Similarly, institutions which do not hold a banking permit but primarily engage de facto in quasi-banking business are rated with this procedure. Furthermore, only entities that are subject to regulation and therefore operate in a supervised environment are covered by this rating.

In accordance with Article 107 (3) CRR, non-EU investment firms, credit institutions, exchanges and clearing houses are treated as exposures to an institution only if the requirements applied to that entity are at least equivalent to those applied in the EU. If their requirements are not equivalent, they are treated as corporates.

Corporates exposure class

The rating systems for corporate clients classify obligors assigned to IRBA exposure class »corporates« in accordance with Article 147 (7) CRR. The corporates rating is applied to a substantial part of the portfolio. Large domestic customers with consolidated sales of more than EUR 100m and all international corporate customers are assessed using the "corporates" rating. Domestic borrowers with sales of less than EUR 100m are rated using the Sparkassen StandardRating methodology and are included in the »Corporates« exposure class. Customers are also assigned to the ratings procedure of the »Corporates« exposure class, e.g. customers assessed with the rating procedure for insurance companies. The purpose of the rating procedure for insurance companies is to measure their counterparty risk. For this purpose, »Insurance companies« also include companies that generate most of their income from typical insurance transactions, which also includes bancassurance providers.

Transactions to which the single funds rating method is applied are also assigned to the »Corporates« exposure class.

Corporates exposure class: specialized lending exposures

The rating systems for specialized lending exposures are applied to obligors which are also assigned to the »Specialized lending exposures« IRBA exposure class in accordance with Article 147 (8) CRR. They form a subclass of the »Corporates« exposure class.

Ratings for project finance are normally based on the cash flow generated or the user/beneficiary of the results of the project. Compared with other types of specialized lending exposures, project finance is distinguished by the fact that net cash is generated from a narrowly defined activity rather than from several parallel business models. The simulation-based rating process is based on an economic model which reflects cause-and-effect correlations. Cash flows, the value of the item being financed, factors specific to the transaction as well as macroeconomic factors are used as major risk drivers in the simulation. The results of the simulation are transformed, calibrated and adjusted using qualitative factors.

Real estate lending business where the loan is serviced solely from income in the form of rental, lease or sales proceeds arising from the financed item is also assigned to the specialized lending exposures subclass. The rating procedure developed for this is based on the total international commercial real estate finance business if the property being financed is located abroad. The simulation-based rating process is based on an economic model which reflects cause-and-effect correlations. Cash flows, the value of the item being financed, factors specific to the transaction as well as macroeconomic factors are used as major risk drivers in the simulation. The results of the simulation are transformed, calibrated and adjusted using qualitative factors.

The rating procedure for aircraft finance is applied to finance for special-purpose vehicles (SPVs) and to direct loans to airlines in which there is a direct link to the financed asset (direct asset-linked loan, “virtual SPVs”). All financing coming within the scope of the rating procedure for aircraft finance is assigned to the specialized lending exposures exposure class. The simulation-based rating process is based on an economic model which reflects cause-and-effect correlations. Cash flows are not the main source of risk in the case of aircraft finance. Instead, the value of the aircraft, the default probability of the airlines and factors specific to the transaction as well as macroeconomic factors are used as major risk drivers in the simulation.

Corporates/specialized lending exposures exposure class: SME check

Under Article 147 (5) (a) (ii) CRR, the customer's (consolidated) annual sales are used as a size indicator (SME threshold).

Corporates are classified as SMEs if they have annual sales of EUR 50m or less.

Equity investment exposure class

Equity investments are handled by a special organizational unit. Depending on the type of equity investment, the same rating procedures can be used as for the exposure classes stated above. System allocations and product numbers ensure that they can be clearly identified and assigned to the aforementioned exposure classes or to the »Equity investments« exposure class in accordance with Article 147 (6) CRR.

Retail business exposure class

LBBW exposure positions which are classified as retail business are not currently allocated using the IRB approach.

Coverage of exposure at default (EAD) reported under IRB

The following table gives an overview of the coverage of exposures (EAD) with an approved IRB rating method at Group level. The percentage distribution here is based on the EaD after collateralization and credit risk mitigation.

In % Exposure class	CRSA	IRB	IRB implementation plan	Total
Central governments	0.5	23.9	28.8	24.4
Institutions	11.5	23.7	32.9[1]	35.2
Corporates – SMEs	0.0	3.4	4.0	3.4
Corporates – other	1.8	24.5	26.5	26.3
Corporates – specialized lending	0.0	6.5	7.8	6.5
Retail business	3.3	0.0	0.0	3.3
Securitizations	0.0	0.0	0.0[2]	0.0
Other assets excl. loan commitments	0.0	0.5	0.0[3]	0.6
Equity exposures	0.0	0.4	0.0[4]	0.4
Overall result	*17.2*	*82.8*	*100.0*	*100.0*

1 Under Section 13 (4) No. 1) in conjunction with Section 13 (5) SolvV, inclusion of transactions with borrowers under the IRB model which belong to the Sparkassen Group-internal cross-guarantee system and to which a risk weight of 0 applies in the calculation of own funds requirements under CRSA. Under Section 13 (2) No. 8 SolvV, transactions with central counterparties are excluded from the basis of calculation for the IRB coverage ratio
2 Since the new securitization regulations have been binding, securitizations are not to be assigned to the IRBA or the CRSA.
3 Under Section 13 (2) No. 3 SolvV, other assets not relating to credit are excluded from the basis of assessment for the IRB coverage ratio
4 Under Section 13 (2) No. 1 SolvV, equity investments are excluded from the basis of assessment for the calculation of the IRB coverage ratio

Figure 20: IRBA coverage in relation to the LBBW Group's exposure (EaD) (Article 452 (a) CRR in conjunction with Guidelines on disclosure requirements sub-section 103).

The following table shows IRB credit risk exposures by exposure class and PD ranges set by the regulator. RWA density is the ratio of risk weighted assets to exposures after taking into account credit conversion factors and credit risk mitigation.

Balance sheet receivables in the »Banks« and »Corporates« exposure classes declined slightly in comparison to the previous period (reporting date: 30 June 2020). This is essentially due to lower business volumes in the third quarter.

EUR million Exposure class/PD range	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF in %	EAD post CRM and post CCF	Average PD in %	Number of obligors
Central governments and central banks						
0.00 to <0.15	54,887	4,394	75.27	62,639	0.00	2,097
0.15 to <0.25	150	-	-	150	0.17	1
0.25 to <0.50	134	-	-	134	0.32	2
0.50 to <0.75	120	39	-	102	0.59	2
0.75 to <2.50	0	7	48.57	0	1.40	4
2.50 to <10.00	60	57	75.00	2	4.45	3
10.00 to <100.00	0	-	-	9	10.00	-
100.00 (Default)	0	-	-	-	-	-
Sub-total 31 Dec. 2020	*55,350*	*4,496*	*74.58*	*63,037*	*0.01*	*2,109*
Sub-total 30 June 2020	*55,221*	*3,641*	*59.89*	*61,376*	*0.00*	*2,100*
Institutions						
0.00 to <0.15	41,625	1,589	54.95	42,615	0.06	295
0.15 to <0.25	3,066	48	42.19	2,808	0.17	28
0.25 to <0.50	1,066	54	19.44	1,077	0.27	45
0.50 to <0.75	113	48	8.58	117	0.59	15
0.75 to <2.50	118	8	49.19	122	1.51	14
2.50 to <10.00	7	1	21.24	7	2.96	6
10.00 to <100.00	73	12	29.77	25	11.78	10
100.00 (Default)	1	-	-	1	100.00	2
Sub-total 31 Dec. 2020	*46,068*	*1,760*	*52.01*	*46,772*	*0.09*	*415*
Sub-total 30 June 2020	*48,554*	*1,875*	*48.02*	*49,258*	*0.09*	*426*
Corporates – SMEs						
0.00 to <0.15	4,107	1,563	18.82	4,336	0.08	3,196
0.15 to <0.25	853	291	24.18	894	0.17	745
0.25 to <0.50	2,157	725	26.40	2,291	0.32	1,754
0.50 to <0.75	919	339	30.73	944	0.59	843
0.75 to <2.50	1,093	474	26.88	1,043	1.27	1,388
2.50 to <10.00	306	134	27.62	253	3.73	381
10.00 to <100.00	205	55	43.13	86	14.95	223
100.00 (Default)	136	72	49.58	148	100.00	150
Sub-total 31 Dec. 2020	*9,777*	*3,653*	*24.20*	*9,994*	*2.02*	*8,680*
Sub-total 30 June 2020	*9,133*	*3,770*	*27.38*	*9,559*	*2.25*	*8,742*

	Average LGD in %	Average maturity	RWA	RWA density in %	Expected loss	Value adjustments and provisions
	44.48	894	794	1.27	1	– 2
	45.00	900	64	42.55	0	0
	45.00	900	80	59.60	0	0
	45.00	900	81	79.41	0	– 1
	45.00	900	1	134.24	0	0
	45.00	900	4	152.90	0	0
	45.00	900	19	204.67	0	0
	-	-	-	-	-	-
	44.48	*894*	*1,042*	*1.65*	*2*	*– 3*
	44.51	*900*	*891*	*1.45*	*1*	*– 2*
	18.31	651	4,222	9.91	5	– 6
	10.42	552	262	9.32	0	0
	24.96	733	330	30.69	1	0
	13.87	531	31	26.59	0	0
	19.85	709	58	47.32	0	0
	45.00	900	9	136.64	0	– 1
	27.21	900	34	132.36	1	– 1
	45.00	900	0	-	0	– 1
	17.99	*647*	*4,945*	*10.57*	*8*	*– 9*
	17.89	*640*	*5,285*	*10.73*	*8*	*– 3*
	39.23	900	782	18.04	1	– 1
	41.25	900	275	30.77	1	– 1
	40.57	900	951	41.51	3	– 2
	41.33	900	531	56.22	2	– 2
	43.57	900	856	82.09	6	– 9
	34.82	900	237	93.77	3	– 5
	42.92	900	149	172.72	6	– 6
	44.67	900	0	-	66	– 73
	40.37	*900*	*3,780*	*37.83*	*88*	*– 99*
	40.56	*900*	*3,673*	*38.42*	*97*	*– 82*

EUR million Exposure class/PD range	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF in %	EAD post CRM and post CCF	Average PD in %	Number of obligors
Corporates – specialized lending						
0.00 to <0.15	6,942	901	75.35	7,596	0.08	335
0.15 to <0.25	2,510	249	73.82	2,421	0.17	104
0.25 to <0.50	4,585	488	66.20	4,854	0.30	130
0.50 to <0.75	1,629	239	75.48	1,808	0.59	38
0.75 to <2.50	1,757	170	71.76	1,875	1.12	76
2.50 to <10.00	695	44	75.57	691	3.01	14
10.00 to <100.00	472	-	-	314	14.90	20
100.00 (Default)	0	-	-	0	100.00	1
Sub-total 31 Dec. 2020	*18,590*	*2,091*	*72.76*	*19,558*	*0.63*	*718*
Sub-total 30 June 2020	*18,115*	*2,385*	*72.53*	*19,323*	*0.75*	*747*
Corporates – other						
0.00 to <0.15	26,008	16,930	38.05	32,405	0.08	1,654
0.15 to <0.25	6,795	8,631	39.81	10,069	0.17	954
0.25 to <0.50	9,288	9,620	47.22	13,587	0.31	1,571
0.50 to <0.75	2,158	1,711	44.05	2,606	0.59	461
0.75 to <2.50	4,404	3,012	43.64	4,727	1.28	914
2.50 to <10.00	1,960	900	43.75	1,751	3.95	343
10.00 to <100.00	1,106	377	36.09	621	17.28	198
100.00 (Default)	841	192	51.14	852	100.00	272
Sub-total 31 Dec. 2020	*52,560*	*41,373*	*41.37*	*66,617*	*1.78*	*6,367*
Sub-total 30 June 2020	*57,371*	*37,641*	*43.32*	*70,903*	*1.96*	*6,541*
Equity exposures under IRB approach						
0.00 to <0.15	40	-	-	40	0.11	5
0.15 to <0.25	2	-	-	2	0.18	2
0.25 to <0.50	11	-	-	11	0.31	10
0.50 to <0.75	0	-	-	0	0.00	-
0.75 to <2.50	16	-	-	16	1.32	1
2.50 to <10.00	0	-	-	0	3.26	1
10.00 to <100.00	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-
Sub-total 31 Dec. 2020	*69*	*-*	*-*	*69*	*0.44*	*19*
Sub-total 30 June 2020	*80*	*-*	*-*	*80*	*0.31*	*20*
Total (all portfolios) 31 Dec. 2020	*182,414*	*53,374*	*44.58*	*206,047*	*0.76*	*18,245*
Total (all portfolios) 30 June 2020	*188,473*	*49,311*	*44.92*	*210,498*	*0.85*	*18,576*

	Average LGD in %	Average maturity	RWA	RWA density in %	Expected loss	Value adjustments and provisions
	40.75	900	1,751	23.05	2	– 2
	41.33	900	895	36.95	2	– 2
	41.99	900	2,504	51.58	6	– 9
	41.63	900	1,288	71.22	4	– 8
	43.77	900	1,815	96.80	9	– 12
	44.87	900	936	135.55	9	– 17
	44.17	900	707	225.28	21	– 21
	45.00	900	0	-	0	0
	41.70	*900*	*9,894*	*50.59*	*54*	*– 72*
	41.85	*900*	*9,937*	*51.42*	*64*	*– 38*
	35.65	727	7,096	21.90	10	– 8
	42.01	859	4,197	41.68	8	– 303
	44.05	891	8,107	59.66	20	– 17
	44.46	900	2,131	81.75	7	– 14
	44.45	900	5,043	106.69	29	– 103
	31.84	672	1,825	104.20	22	– 48
	40.31	900	1,356	218.54	47	– 55
	44.31	900	0	-	377	– 433
	39.35	*797*	*29,755*	*44.67*	*520*	*– 982*
	38.94	*773*	*29,823*	*42.06*	*605*	*– 615*
	65.00	1,800	31	77.27	0	-
	65.00	1,800	2	129.17	0	-
	65.00	1,800	14	127.35	0	-
	-	-	-	-	-	-
	65.00	1,800	49	306.63	0	-
	65.00	1,800	0	248.36	0	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	65.00	*1,800*	*97*	*140.53*	*0*	-
	65.00	*1,800*	*102*	*128.29*	*0*	-
	36.35	*807*	*49,514*	*24.03*	*673*	*– 1,164*
	35.98	*796*	*49,711*	*23.62*	*776*	*– 740*

Figure 21: EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range (Article 452 (e) to (g) CRR)

The following table shows the weighted average PD, arithmetic average PD by obligors, number of obligors at the beginning and end of the reporting period, the number of obligors who defaulted, new customers who defaulted in the reporting year and the average default rate of the last five years, shown in line with the combined PD ranges and by exposure class.

EUR million		External rating					Number of obligors				
Exposure class	PD range	Moody's	Standard and Poor's	Fitch	Weighted average PD in %	Arithmetic average PD by obligor in %	End of the previous year	End of the year	Defaulted obligors in the year	Of which new obligors	Average historical annual default rate in %
Central governments and central banks											
Investment grade	0.00% – 0.10%	Aaa – A3	AAA – A-	AAA – A	0.00	0.00	2,079	2,096	-	-	-
Investment grade	0.11% – 0.48%	Baa1 – Baa3	BBB + – BBB-	A- – BBB	0.15	0.27	3	4	-	-	-
Speculative grade	0.49% – 24.49%	Ba1 – B3	BB + – B-	BBB- – B-	1.44	2.83	8	9	-	-	-
Speculative grade	24.50% – 99.99%	Caa1 – Caa3	CCC + – C	CCC + – C	-	-	-	-	-	-	-
Default classes	100.00%	Ca – C	SD – D	RD – D	-	-	-	-	-	-	-
Total					*0.01*		*2,090*	*2,109*	-	-	
Institutions											
Investment grade	0.00% – 0.10%	Aaa – A3	AAA – A-	AAA – A	0.06	0.08	268	243	-	-	-
Investment grade	0.11% – 0.48%	Baa1 – Baa3	BBB + – BBB-	A- – BBB	0.16	0.22	113	125	-	-	0.36
Speculative grade	0.49% – 24.49%	Ba1 – B3	BB + – B-	BBB- – B-	2.11	3.92	36	45	-	-	-
Speculative grade	24.50% – 99.99%	Caa1 – Caa3	CCC + – C	CCC + – C	-	-	-	-	-	-	-
Default classes	100.00%	Ca – C	SD – D	RD – D	100.00	100.00	1	2	-	-	-
Total					*0.09*		*418*	*415*	-	-	
Corporates – SMEs											
Investment grade	0.00% – 0.10%	Aaa – A3	AAA – A-	AAA – A	0.06	0.07	2,229	2,450	-	-	-
Investment grade	0.11% – 0.48%	Baa1 – Baa3	BBB + – BBB-	A- – BBB	0.24	0.26	2,897	3,245	1	-	0.08
Speculative grade	0.49% – 24.49%	Ba1 – B3	BB + – B-	BBB- – B-	1.64	2.48	2,797	2,797	4	-	1.51
Speculative grade	24.50% – 99.99%	Caa1 – Caa3	CCC + – C	CCC + – C	36.47	45.39	20	38	-	-	7.41
Default classes	100.00%	Ca – C	SD – D	RD – D	100.00	100.00	180	150	-	-	-
Total					*2.02*		*8,123*	*8,680*	*5*	-	

EUR million		External rating					Number of obligors				
Exposure class	PD range	Moody's	Standard and Poor's	Fitch	Weighted average PD in %	Arithmetic average PD by obligor in %	End of the previous year	End of the year	Defaulted obligors in the year	Of which new obligors	Average historical annual default rate in %
Corporates – specialized lending											
Investment grade	0.00% – 0.10%	Aaa – A3	AAA – A-	AAA – A	0.05	0.06	274	249	-	-	-
Investment grade	0.11% – 0.48%	Baa1 – Baa3	BBB + – BBB-	A- – BBB	0.22	0.23	294	320	1	-	0.36
Speculative grade	0.49% – 24.49%	Ba1 – B3	BB + – B-	BBB- – B-	2.12	3.03	171	148	-	-	2.90
Speculative grade	24.50% – 99.99%	Caa1 – Caa3	CCC + – C	CCC + – C	-	-	-	-	-	-	-
Default classes	100.00%	Ca – C	SD – D	RD – D	100.00	100.00	7	1	-	-	-
Total					*0.63*		*746*	*718*	*1*	-	
Corporates – other											
Investment grade	0.00% – 0.10%	Aaa – A3	AAA – A-	AAA – A	0.06	0.09	1,177	1,007	-	-	0.04
Investment grade	0.11% – 0.48%	Baa1 – Baa3	BBB + – BBB-	A- – BBB	0.22	0.31	3,500	3,172	-	-	0.09
Speculative grade	0.49% – 24.49%	Ba1 – B3	BB + – B-	BBB- – B-	2.59	3.48	2,290	1,881	1	-	2.14
Speculative grade	24.50% – 99.99%	Caa1 – Caa3	CCC + – C	CCC + – C	45.00	45.00	1	35	-	-	-
Default classes	100.00%	Ca – C	SD – D	RD – D	100.00	100.00	313	272	-	-	-
Total					*1.78*		*7,281*	*6,367*	*1*	-	
IRBA equity exposures											
Investment grade	0.00% – 0.10%	Aaa – A3	AAA – A-	AAA – A	0.09	0.09	4	4	-	-	-
Investment grade	0.11% – 0.48%	Baa1 – Baa3	BBB + – BBB-	A- – BBB	0.17	0.41	15	13	-	-	-
Speculative grade	0.49% – 24.49%	Ba1 – B3	BB + – B-	BBB- – B-	1.33	3.61	5	2	-	-	-
Speculative grade	24.50% – 99.99%	Caa1 – Caa3	CCC + – C	CCC + – C	-	-	1	-	-	-	-
Default classes	100.00%	Ca – C	SD – D	RD – D	-	-	-	-	-	-	-
Total					*0.44*		*25*	*19*	-	-	

Figure 22: EU CR9 – Backtesting of probability of default (PD) per exposure class (Article 452 (i) CRR).

The following table shows the change in RWAs of risk exposures under the IRB approach as at 31 December 2020 within the last quarter.

EUR million	RWA amounts	Capital requirements
RWAs 30 September 2020	*55,502*	*4,440*
Asset size	– 330	– 26
Asset quality	1,193	95
Model updates	111	9
Methodology and policy	-	-
Acquisitions and disposals	-	-
Foreign exchange movements	– 227	– 18
Other	– 150	– 12
RWAs 31 December 2020	*56,100*	*4,488*

Figure 23: EU CR8 – RWA flow statements of credit risks under the IRB approach (Article 438 (d) CRR and Article 92 (3) (a) CRR)

»Amount of risk exposures« shows the organic change in the journal, including new business and outstanding receivables. »Asset quality« shows the changes in the measured quality of the investments resulting from changes to the obligor risk such as changes to the ratings or similar effects. »Model updates« show changes resulting from implementing models, changes to the scope of the model and model improvements. »Methodology and policy« show changes caused by adjustments to calculation methods resulting from changes to regulatory policies. »Acquisitions and disposals« show changes to the size of the book resulting from acquisitions or disposals of companies. »Foreign exchange movements« show changes arising from fluctuating exchange rates. »Other« shows all further changes which cannot be explicitly allocated to one of the exposures listed.

5.4 List of risk exposures

The tables in this chapter list credit risks not including counterparty default risks.

The following table shows the total and average amount of net exposures at the end of the reporting period and as an average for the reporting period after allowances for losses on loans and advances. The figures are broken down by risk approach and exposure class.

Unlike in the previous year, current write-downs are included in net exposures.
Total and average amounts in the IRB exposure class »Central governments and central banks« increased in comparison to the previous year (31 December 2019), mainly due to the rise in deposits with central banks. The upturn in the »Institutes« IRB exposure class chiefly reflects growth in securities financing transactions and business concluded primarily in the first half of the year.

In particular, the rise in deposits with central banks and securities financing transactions is also reflected in the increase in the geographic breakdown for »Germany« and the »US«. In the breakdown by sector, this can be seen in the »Central banks and banks« sector.

The two tables below show risk exposures after allowances for losses on loans and advances. The first table provides a break-down by country, geographic area and exposure class in accordance with CRR. Significant countries which are listed separately are defined as countries in which LBBW has an exposure of over EUR 1bn. »Other countries« are listed separately in the country allocation in the Appendix.

The second table provides a break-down by sector and exposure class in accordance with CRR. The grouping of exposures by industry is in accordance with the Bundesbank industry key which was applicable in 2020. Activities which are especially relevant to LBBW have been removed from the industry classification and are shown separately. »Other manufacturing« includes manufacturing activities whose individual volume does not exceed 1% of total risk exposure. »Other industries« includes all Bundesbank industries whose individual volume does not exceed 1% of total risk exposure.

EUR million Exposure class	Net value of risk exposures at the end of the reporting period 31/12/2020	 31/12/2019	Average net value of risk exposures over the reporting period 01/01/2020 – 31/12/2020	 01/01/2019 – 31/12/2019
Central governments or central banks	60,774	46,110	60,769	52,577
Institutions	65,615	54,220	69,111	61,626
Corporates	135,478	133,311	136,852	139,415
Of which specialized lending exposures	20,931	20,077	20,794	21,043
Of which SMEs	13,661	10,528	12,711	10,534
Retail business	-	-	-	-
Of which secured by mortgages on immovable property	-	-	-	-
Of which SMEs	-	-	-	-
Of which non-SMEs	-	-	-	-
Of which qualified, revolving	-	-	-	-
Of which other retail	-	-	-	-
Of which SMEs	-	-	-	-
Of which non-SMEs	-	-	-	-
Equity exposures	1,158	1,583	1,261	1,592
Other non-credit obligation assets	1,642	1,900	1,624	2,211
Total amount under IRB approach	*264,667*	*237,123*	*269,616*	*257,422*
Central governments or central banks	7	6	5	3
Regional governments or local authorities	140	129	157	194
Public-sector entities	1,386	572	946	492
Multilateral development banks	-	-	-	-
International organizations	-	-	-	-
Institutions	35,311	33,875	35,877	31,279
Corporates	7,631	8,491	8,426	8,730
Of which SMEs	1,613	1,780	1,635	1,963
Retail business	9,640	9,609	9,685	9,168
Of which SMEs	3,202	2,118	3,248	1,913
Secured by mortgages on immovable property	4,039	4,282	4,209	4,332
Of which SMEs	386	129	391	130
Exposures in default	121	99	126	104
Items exposed to particularly high risk	21	32	22	48
Covered bonds	68	15	55	12
Institutions and corporates with a short-term credit assessment	-	-	5	0
Undertakings for collective investment	28	18	22	4
Equity exposures	-	-	-	-
Other items	83	77	60	73
Total amount under the Standardized Approach	*58,473*	*57,205*	*59,596*	*54,439*
Total amount	*323,140*	*294,329*	*329,212*	*311,861*

Figure 24: EU CRB-B – Total and average amount of exposures (Article 442 (c) CRR)

EUR million Exposure class	Total Europe	Ger-many	Den-mark	Finland	France	United King-dom	Italy	Luxem-bourg	Nether-lands	Norway	Austria	Sweden
Central governments or central banks	52,472	46,591	517	26	77	286	1,029	-	-	88	1,322	-
Institutions	56,170	9,960	840	1,229	14,175	15,832	9	3,493	1,674	-	1,675	1,972
Corporates	113,345	87,556	231	239	1,061	1,965	182	4,726	3,332	2,930	2,569	327
Of which specialized lending exposures	15,733	5,965	28	77	431	1,602	64	4,105	941	108	56	124
Of which SMEs	13,404	12,971	-	15	76	7	3	54	11	-	20	1
Retail business	-	-	-	-	-	-	-	-	-	-	-	-
Of which secured by mortgages on immova-ble property	-	-	-	-	-	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-	-	-	-	-	-
Of which qualified, re-volving	-	-	-	-	-	-	-	-	-	-	-	-
Of which other retail	-	-	-	-	-	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	1,105	1,095	-	-	0	1	-	0	-	-	-	-
Other non-credit obliga-tion assets	1,524	1,452	-	-	-	3	-	-	27	-	-	-
Total amount under IRB approach	*224,617*	*146,655*	*1,589*	*1,494*	*15,313*	*18,087*	*1,220*	*8,219*	*5,033*	*3,017*	*5,567*	*2,299*
Central governments or central banks	7	6	0	1	-	-	-	-	-	0	-	0
Regional governments or local authorities	140	140	-	-	-	-	-	-	-	-	-	-
Public-sector entities	1,386	1,386	-	-	-	-	-	-	-	-	-	-
Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-
International organiza-tions	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	35,252	35,148	-	-	0	25	-	-	77	0	1	-
Corporates	6,752	5,731	5	13	46	63	70	49	160	11	62	14
Of which SMEs	1,598	1,551	-	-	-	4	-	-	13	-	3	-
Retail business	9,616	9,545	0	0	9	2	2	1	1	0	4	0
Of which SMEs	3,197	3,192	-	0	0	0	0	0	0	-	0	-
Secured by mortgages on immovable property	4,021	3,989	0	-	2	3	1	1	1	0	2	0
Of which SMEs	385	384	-	-	-	0	-	-	-	-	0	-
Exposures in default	120	116	-	0	0	0	0	2	0	0	0	0
Items associated with particularly high risk	21	21	-	-	-	-	-	-	-	-	-	-
Covered bonds	15	15	-	-	-	-	-	-	-	-	-	-
Institutions and corpo-rates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-
Undertakings for collec-tive investment	28	28	-	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	-	-	-	-
Other items	81	77	-	-	-	-	-	-	-	-	-	-
Total amount under the Standardized Approach	*57,439*	*56,202*	*5*	*14*	*58*	*93*	*73*	*53*	*240*	*12*	*68*	*15*
Total 31 Dec. 2020	*282,055*	*202,857*	*1,594*	*1,508*	*15,370*	*18,180*	*1,293*	*8,273*	*5,273*	*3,029*	*5,635*	*2,314*
Total 31 Dec. 2019	*263,609*	*191,292*	*1,335*	*1,367*	*15,494*	*15,223*	*1,363*	*6,157*	*4,700*	*3,007*	*4,256*	*1,830*

	Switzer-land	Other countries – Europe	Total America	Canada	USA	Other countries – America	Total Asia/Pa-cific re-gion	Australia	Republic of Korea	Other countries – Asia/Pa-cific re-gion [1]	Total Other countries – Other	Other countries – Other	Total
	610	1,926	6,374	-	6,100	275	1,834	-	663	1,171	93	93	60,774
	3,378	1,932	6,212	3,673	2,486	53	3,233	1,537	590	1,106	0	0	65,615
	2,801	5,424	17,183	654	15,786	743	4,296	288	345	3,663	654	654	135,478
	24	2,207	5,060	621	4,210	228	138	-	-	138	-	-	20,931
	148	98	139	-	16	123	117	-	1	116	-	-	13,661
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	7	2	50	-	33	17	2	-	-	2	1	1	1,158
	43	0	85	-	84	0	32	-	2	30	-	-	1,642
	6,839	*9,284*	*29,905*	*4,327*	*24,490*	*1,088*	*9,398*	*1,825*	*1,599*	*5,974*	*747*	*747*	*264,667*
	0	0	-	-	-	-	-	-	-	-	-	-	7
	-	0	-	-	-	-	-	-	-	-	-	-	140
	-	-	0	-	-	0	-	-	-	-	-	-	1,386
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	0	1	59	-	54	5	0	-	-	0	-	-	35,311
	65	463	806	4	109	692	72	1	4	67	1	1	7,631
	6	21	0	-	0	0	15	-	-	15	-	-	1,613
	43	9	10	0	8	2	13	0	0	13	1	1	9,640
	3	1	2	0	1	1	3	0	-	3	0	0	3,202
	16	6	11	0	10	1	7	0	1	6	0	0	4,039
	1	0	0	-	0	-	-	-	-	-	-	-	386
	0	1	1	0	0	1	0			0	0	0	121
	-	-	-	-	-	-	-	-	-	-	-	-	21
	-	-	-	-	-	-	53	-	-	53	-	-	68
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	28
	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	1	-	-	1	-	-	-	-	-	-	83
	128	*479*	*887*	*4*	*181*	*702*	*145*	*2*	*5*	*138*	*2*	*2*	*58,473*
	6,967	*9,764*	*30,792*	*4,331*	*24,671*	*1,790*	*9,543*	*1,827*	*1,604*	*6,112*	*749*	*749*	*323,140*
	7,050	*10,534*	*21,447*	*2,780*	*16,765*	*1,902*	*8,516*	*1,304*	*1,573*	*5,639*	*757*	*757*	*294,329*

1 Risk exposures to China were included individually in the previous year and Australia was given under »Other countries – Asia/Pacific region«.

Figure 25: EU CRB-C – Geographic distribution of exposures (Article 442 (d) CRR)

EUR million Exposure class	Central banks and banks	Other financial institutions	Other financial and insurance services	Public administration, defense, social security	Private households	Real estate and housing	Energy supplies	Mechanical engineering
Central governments or central banks	35,639	327	1	20,755	0	87	547	-
Institutions	51,673	11,781	1,572	512	16	0	-	-
Corporates	5,067	9,662	12,245	243	1,175	30,115	6,549	6,701
Of which specialized lending exposures	-	467	-	0	137	14,558	3,834	18
Of which SMEs	-	1,291	60	18	801	5,326	182	608
Retail business	-	-	-	-	-	-	-	-
Of which secured by mortgages on immovable property	-	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-	-
Of which qualified, revolving	-	-	-	-	-	-	-	-
Of which other retail	-	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-	-
Equity exposures	6	20	0	0	0	18	-	-
Other non-credit obligation assets	-	-	-	-	340	-	-	-
Total amount under IRB approach	*92,385*	*21,790*	*13,819*	*21,510*	*1,531*	*30,220*	*7,096*	*6,701*
Central governments or central banks	5	-	0	2	-	0	-	-
Regional governments or local authorities	-	-	-	119	9	-	-	-
Public-sector entities	0	-	-	1,374	1		0	
Multilateral development banks	-	-	-	-	-	-	-	-
International organizations	-	-	-	-	-	-	-	-
Institutions	35,311	0	-	-	-	-	-	-
Corporates	57	1,015	511	33	708	275	174	181
Of which SMEs	-	4	12	0	138	84	31	14
Retail business	0	219	45	1	6,291	115	16	71
Of which SMEs	0	6	45	1	41	115	16	71
Secured by mortgages on immovable property	-	6	14	-	3,668	48	1	1
Of which SMEs	-	6	14	-	48	41	1	1
Exposures in default	-	0	0	-	24	4	1	3
Items associated with particularly high risk	-	20	-	-	-	-	-	-
Covered bonds	15	-	53	-	-	-	-	-
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-
Undertakings for collective investment	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Other items	9	-	-	-	2	-	-	-
Total amount under the Standardized Approach	*35,399*	*1,260*	*622*	*1,530*	*10,702*	*441*	*192*	*256*
Total 31 Dec. 2020	*127,785*	*23,050*	*14,441*	*23,040*	*12,233*	*30,661*	*7,288*	*6,957*
Total 31 Dec. 2019	*107,762*	*21,120*	*10,532*	*17,799*	*12,756*	*29,048*	*6,758*	*6,811*

	Automotive production including components	Other manufacturing	Professional, scientific and technical activities	Trade, maintenance and repair of motor vehicles	Information and communication	Transport and storage	Other sectors	Total
	-	-	20	-	25	289	3,084	60,774
	-	0	60	-	-	-	-	65,615
	4,517	19,368	13,965	8,297	5,077	3,225	9,271	135,478
	3	71	483	43	18	532	768	20,931
	44	1,567	736	652	167	189	2,021	13,661
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	55	-	30	-	1,029	1,158
	0	0	-	0	-	-	1,302	1,642
	4,517	*19,368*	*14,100*	*8,298*	*5,132*	*3,514*	*14,685*	*264,666*
	-	-	0	0	0	-	0	7
	-	-	-	-	-	-	11	140
	-	-	0	-	-	-	11	1,386
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	0	-	0	-	-	-	35,311
	836	915	426	612	63	378	1,445	7,631
	2	177	139	98	26	118	771	1,613
	7	529	380	448	73	186	1,259	9,640
	7	529	380	448	73	186	1,285	3,202
	0	16	105	21	15	2	144	4,039
	0	11	102	21	14	2	126	386
	1	16	2	14	0	6	49	121
	-	-	-	-	-	-	1	21
	-	-	-	-	-	-	-	68
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	28	28
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	71	83
	844	*1,476*	*914*	*1,094*	*152*	*572*	*3,018*	*58,473*
	5,361	*20,844*	*15,015*	*9,391*	*5,283*	*4,085*	*17,703*	*323,140*
	5,209	*21,740*	*14,003*	*9,829*	*5,379*	*4,077*	*21,508*	*294,329*

Figure 26: EU CRB-D – Sector risk concentrations (Article 442 (e) CRR)

The following table breaks down on-balance-sheet exposures net of allowances for losses and advances by remaining maturity and CRR exposure class. Unlike the previous tables, in accordance with the EBA Guideline, only on-balance-sheet transactions are to be reported.

EUR million	Net exposure value						
Exposure class	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total 31/12/2020	Total 31/12/2019
Central governments or central banks	8,609	20,876	3,655	23,138	-	56,277	42,690
Institutions	8,639	35,336	14,422	5,458	-	63,855	52,790
Corporates	4,915	21,044	31,803	30,734	-	88,495	88,811
Of which specialized lending exposures	42	1,583	7,985	9,217	-	18,827	17,766
Of which SMEs	283	1,115	2,466	6,169	-	10,033	7,199
Retail business	-	-	-	-	-	-	-
Of which secured by mortgages on immovable property	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-
Of which qualified, revolving	-	-	-	-	-	-	-
Of which other retail	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	1,158	1,158	1,583
Other non-credit obligation assets	-	-	-	-	1,642	1,642	1,900
Total amount under IRB approach	*22,162*	*77,255*	*49,880*	*59,330*	*2,800*	*211,428*	*187,773*
Central governments or central banks	-	0	0	0	-	0	6
Regional governments or local authorities	17	11	12	14	-	54	37
Public-sector entities	0	6	234	240	-	481	550
Multilateral development banks	-	-	-	-	-	-	-
International organizations	-	-	-	-	-	-	-
Institutions	1,166	3,785	3,782	22,481	-	31,215	31,655
Corporates	324	2,805	1,723	1,918	-	6,770	7,186
Of which SMEs	34	127	672	435	-	1,267	1,429
Retail business	264	410	2,095	3,705	-	6,474	6,305
Of which SMEs	65	152	1,773	626	-	2,615	1,741
Secured by mortgages on immovable property	16	43	302	3,667	-	4,029	4,270
Of which SMEs	7	13	70	293	-	383	127
Exposures in default	28	6	27	26	-	86	94
Items exposed to particularly high risk	21	-	-	-	-	21	32
Covered bonds	-	-	53	15	-	68	15
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
Undertakings for collective investment	-	-	-	-	28	28	18
Equity exposures	-	-	-	-	-	0	-
Other items	-	-	-	-	83	83	77
Total amount under the Standardized Approach	*1,836*	*7,066*	*8,228*	*32,066*	*111*	*49,307*	*50,245*
Total amount	*23,999*	*84,322*	*58,108*	*91,395*	*2,911*	*260,735*	*238,018*

Figure 27: EU CRB-E Breakdown of exposures by residual maturity (Article 442 (f) CRR)

5.5 Credit quality of exposures

The following tables show the credit quality of on-balance-sheet and off-balance-sheet exposures, not including counterparty credit risk, broken down by exposure class and credit risk approach. The reported credit risk adjustments are the current figures used for COREP reporting as at the reporting date 31 December 2020. Further on, there is a breakdown by sector and country.

Defaulted exposures under the CRS approach and associated impairment are shown both in the »defaulted exposures« exposure class and in the original exposure class before default. However, the figure is included only once in the total exposures under the CRS approach.

The lower volume of the »Institutes« and »Corporates« IRB exposure classes in the second half of 2020 is due primarily to transactions maturing. In the breakdown by sector, this can be seen in the »Central banks and banks« sector. In the breakdown by country, it can be observed for »Germany« and »France«. Amortization and depreciation for 2020 stemmed predominantly from a large exposure.

EUR million	Gross carrying amounts of							
Exposure class	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustments	General credit risk adjustments	Accumulated write-offs	Credit risk adjustment charges in the reporting period	Net values 31/12/2020	Net values 30/06/2020
Central governments or central banks	-	60,777	3	-	-	1	60,774	59,792
Institutions	1	65,623	9	-	-	6	65,615	74,353
Corporates	1,241	135,389	1,152	-	- 175	417	135,478	138,860
Of which specialized lending exposures	0	21,002	72	-	- 1	33	20,931	21,183
Of which SMEs	208	13,551	99	-	- 4	17	13,661	13,128
Retail business	-	-	-	-	-	-	-	
Of which secured by mortgages on immovable property	-	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-	-
Of which qualified, revolving	-	-	-	-	-	-	-	-
Of which other retail	-	-	-	-	-	-	-	-
Of which SMEs	-	-	-	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-	-	-	-
Equity exposures	-	1,158	-	-	-	-	1,158	1,163
Other assets excl. loan commitments	-	1,642	-	-	-	-	1,642	1,688
Total amount under IRB approach	*1,242*	*264,589*	*1,164*	-	*- 175*	*424*	*264,667*	*275,855*
Of which credits [1]	969	161,806	1,002	-	- 175	556	155,908	170,521
Of which debt securities [1]	-	47,961	4	-	-	2	47,957	50,680
Of which off-balance-sheet exposures [1]	263	53,134	158	-	-	64	53,239	49,247
Central governments or central banks	-	7	0	-	-	0	7	5
Regional governments or local authorities	-	140	0	-	-	0	140	139
Public-sector entities	-	1,386	1	-	-	0	1,386	514
Multilateral development banks	-	-	-	-	-	-	-	-
International organizations	-	-	-	-	-	-	-	-
Institutions	-	35,312	1	-	-	0	35,311	36,687
Corporates	119	7,648	88	-	- 2	- 10	7,679	8,820
Of which SMEs	12	1,606	5	-	-	- 11	1,613	1,494
Retail business	103	9,658	48	-	- 1	- 11	9,712	9,847
Of which SMEs	40	3,182	19	-	0	- 11	3,202	3,364
Secured by mortgages on immovable property	-	4,041	2	-	-	- 2	4,039	4,325
Of which SMEs	-	386	0	-	-	0	386	391
Exposures in default	222	-	101	-	0	- 23	121	130
Items associated with particularly high risk	-	21	-	-	-	-	21	20
Covered bonds	-	68	0	-	-	-	68	68
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-
Undertakings for collective investment	-	28	-	-	-	-	28	21
Equity exposures	-	-	-	-	-	-	-	-
Other items	-	83	-	-	-	-	83	81
Total amount under standard approach	*222*	*58,391*	*140*	-	*- 4*	*- 22*	*58,473*	*60,527*
Of which credits [1]	219	47,237	131	-	- 4	25	47,324	49,627
Of which debt securities [1]	-	1,266	0	-	-	0	1,266	1,479
Of which off-balance-sheet exposures [1]	4	9,576	6	-	-	- 8	9,573	9,015
Total	*1,464*	*322,980*	*1,304*	-	*- 178*	*402*	*323,140*	*336,382*
Of which credits [1]	1,187	209,042	1,133	-	- 178	581	209,097	220,149
Of which debt securities [1]	-	49,227	4	-	-	2	49,223	52,159
Of which off-balance-sheet exposures [1]	267	62,710	164	-	-	56	62,812	58,262

1 figures in accordance with FINREP

Figure 28: EU CR1-A - Credit quality of exposures by exposure classes and instruments (Article 442 (g) and (h) CRR)

The following table breaks down exposures by industry in accordance with CRR.

The grouping of exposures by industry is in accordance with the Bundesbank industry key which was applicable in 2020. Activities which are especially relevant to LBBW have been removed from the industry classification and are shown separately. »Other manufacturing« includes manufacturing activities whose individual volume does not exceed 1% of total risk exposure. »Other industries« includes all Bundesbank industries whose individual volume does not exceed 1% of total risk exposure.

EUR million	Gross carrying amounts of							
Industry sector	**Defaulted exposures**	**Non-defaulted exposures**	**Specific credit risk adjustments**	**General credit risk adjustments**	**Accumulated write-offs**	**Credit risk adjustment charges in the reporting period**	**Net values 31/12/2020**	**Net values 30/06/2020**
Central banks and banks	18	127,790	23		-	5	127,785	140,315
Other financial institutions	5	23,052	7		0	0	23,050	25,266
Other financial and insurance services	4	14,442	5		0	0	14,441	16,975
Public administration, defense, social security	-	23,044	4			1	23,040	19,449
Private households	44	12,218	29		0	– 2	12,233	12,682
Real estate and housing	37	30,731	107		0	58	30,661	30,104
Energy supplies	5	7,322	38		– 1	17	7,288	6,578
Mechanical engineering	136	6,905	84		– 2	25	6,957	7,016
Automotive production including components	188	5,420	247		0	80	5,361	5,467
Other manufacturing	557	20,550	263		– 5	73	20,844	20,643
Professional, scientific and technical activities	124	14,990	99		– 3	21	15,015	14,016
Trade, maintenance and repair of motor vehicles	176	9,363	147		– 1	26	9,392	10,119
Information and communication	14	5,309	39		– 159	31	5,283	5,850
Transport and storage	8	4,103	25		0	19	4,085	4,464
Other sectors	149	17,742	188		– 7	48	17,703	17,439
Total	*1,464*	*322,980*	*1,304*	-	*– 178*	*402*	*323,140*	*336,382*

Figure 29: EU CR1-B - Credit quality of exposures by industry sector (Article 442 (g) and (h) CRR)

The following table breaks down exposure by country and geographic area. Significant countries which are listed separately are defined as countries in which LBBW has an exposure of over EUR 1bn.

EUR million	Gross carrying amounts of							
Countries	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustments	General credit risk adjustments	Accumulated write-offs	Credit risk adjustment charges in the reporting period	Net values 31/12/2020	Net values 30/06/2020
Total Europe	*1,366*	*281,835*	*1,146*	-	*- 178*	*301*	*282,055*	*293,818*
Germany	1,253	202,556	952	-	- 177	166	202,857	210,780
Denmark	-	1,596	2	-	-	2	1,594	1,545
Finland	0	1,508	1	-	0	1	1,508	1,739
France	1	15,380	10	-	0	9	15,370	21,650
United Kingdom	0	18,211	31	-	0	26	18,180	17,886
Italy	0	1,294	2	-	0	1	1,293	1,225
Luxembourg	3	8,304	34	-	-	32	8,273	7,406
Netherlands	3	5,285	15	-	0	11	5,273	5,216
Norway	0	3,032	4	-	-	3	3,029	3,215
Austria	46	5,626	37	-	- 1	35	5,635	4,777
Sweden	0	2,318	4	-	-	4	2,314	2,242
Switzerland	1	6,975	9	-	0	7	6,967	7,312
Other countries – Europe	60	9,748	44	-	0	5	9,764	8,824
Total America	*80*	*30,842*	*130*	-	-	*81*	*30,792*	*32,485*
Canada	0	4,338	8	-	0	7	4,331	4,157
USA	17	24,750	95	-	0	69	24,671	26,493
Other countries – America	63	1,754	27	-	0	4	1,790	1,835
Total Asia/Pacific	*18*	*9,549*	*24*	-	-	*18*	*9,543*	*9,316*
Australia	-	1,828	1	-	0	0	1,827	1,512
Republic of Korea	-	1,605	1	-	-	1	1,604	1,678
Other countries – Asia/Pacific region	18	6,115	22	-	-	17	6,112	6,125
Total other countries	*0*	*754*	*5*	-	-	*2*	*749*	*763*
Other countries – Other	0	754	5	-	-	2	749	763
Total	*1,464*	*322,980*	*1,304*	-	*- 178*	*403*	*323,140*	*336,382*

Figure 30: EU CR1-C - Credit quality of exposure by country and geographic area (Article 442 (g) and (h) CRR)

Loss estimates and actual losses in traditional lending business

The table below compares expected and actual losses for the transactions recognized using the IRB approach in accordance with CRR. The disclosures relate to traditional lending business (excluding securities in the banking book and securitizations, also excluding derivatives) for the exposure class.

For this process, actual losses are defined as the total of direct write-downs and the net of additions and reversals of specific valuation allowances or provisions less recoveries on receivables that have been written down. Expected losses (EL) are calculated in accordance with the provisions under the IRB approach and include only lending transactions that were considered performant as at 1 January 2020 (probability of default (PD) lower than 100%).

Losses in the »Corporates« exposure class in 2020 were higher than expected due to the default of a large individual exposure.

EUR million	Period 01/01/2020 to 31/12/2020		Period 01/01/2019 to 31/12/2019		Period 01/01/2018 to 31/12/2018	
Exposure class	Expected losses (EL)	Actual losses	Expected losses (EL)	Actual losses	Expected losses (EL)	Actual losses
Central governments	1	-	2	0	1	0
Institutions	7	-	5	1	13	2
Total corporates	172	253	164	58	129	64
- of which corporates	99	234	88	50	72	26
- of which SMEs	20	18	21	5	20	12
- of which specialized lending exposures	53	1	54	3	37	26
Retail business	-	-	-	-	-	-
Total	*180*	*253*	*170*	*59*	*143*	*65*

Figure 31: Expected and actual losses in the lending business

5.6 Non-performing exposures and loans

5.6.1 Overview

Definitions

An exposure is considered a ***non-performing exposure*** if it is unlikely that the debtor will meet its commitments without realizing the collateral (unlikely to pay) or if the key exposure is more than 90 days past due. It should also be noted that LBBW states that former non-performing exposures with forbearance measures are to be classified as non-performing in the event of a 30 day delay or a new forbearance measure within the probationary period.

For the purposes of identifying non-performing exposures, the ECB's guidance on non-performing loans dated March 2017 published »UTP indicators« (unlikely to pay). These are based not so much on quantitative criteria as on events, which ultimately result in a classification as non-performing.

An UTP indicator requires that a case-by-case assessment is conducted as to whether it is a case of default - this means that it does not necessary lead to the result »default«. The following UTP indicators are used:

- Early warning criteria that result in classification as "intensive support«. Massive and permanent lack of ability to service debts (e.g. permanent loss of salary in the case of private customers).
- The sources of the borrower's recurring income are no longer available to meet the installment payment obligations.
- There are legitimate concerns regarding the borrower's ability to generate stable and sufficient cash flows in the future
- The borrower's overall level of debt has increased significantly or there is a reasonable expectation that the overall level of debt will deteriorate.
- The borrower breached the terms of a loan agreement, where these breaches are to be considered material in terms of the credit rating and result in doubts regarding full debt servicing.
- The bank has requested (additional) collateral (including a warranty or guarantee) because the credit rating has deteriorated.
- For natural persons: Default of a company wholly owned by a single natural person, where this natural person has issued a personal guarantee to the bank for all of the company's obligations.
- No impairment loss is recognized because the exposure is collateralized in full.
- Sale of a financial asset at a considerable discount due to a deterioration in the obligor's credit rating. In the case of lending fraud, if there is no other cause of default.
- If the loan agreement explicitly allows the obligor, under certain circumstances, to amend the schedule or suspend or postpone payments and the obligor is acting within its rights granted in the agreement, the reasons for the change must be analyzed.

- If the repayment of an obligation is suspended because a law allows this option or because of other legal restrictions, the reasons for exercising the option to suspend this repayment should be analyzed where possible.
- Where external databases are used (e.g. credit register, macroeconomic indicators or public sources of information), potential indications of "unlikely to pay" include:
  - The credit register records significant delays in payments to other creditors.
  - A crisis in the sector which the obligor operates, combined with a weak positioning of the obligor in this sector.
  - Disappearance of an active market for a financial asset due to the obligor encountering financial difficulties.
  - A bank receives information that a third party (in particular another bank) has initiated bankruptcy or comparable proceedings to protect the obligor.

An exposure shall be deemed to be ***defaulted*** in the sense of the regulatory definition in Article 178 CRR in connection with EBA (GL) 2016/07 when at least one of the following events has taken place:

- There has been a default in payment/overdraft of > 90 days
  The entirety of liabilities are 90 days past due if these have been significantly overdrawn for more than 90 consecutive calendar days. The liabilities to be checked as to whether they are 90 days past due comprise all liabilities from the borrower's legal relationships to the bank. The total of all of an obligor's liabilities that are past due is initially calculated at account level, followed by an aggregation at the customer level. An overdraft is when the loan drawn on a day exceeds the underlying liability. An overdraft is considered material if it accounts for more than 1% of the total amount of all of the bank's risk exposures to the borrower recognized on the balance sheet, subject to a minimum of EUR 100 (retail business) or EUR 500 (non-retail).
- There is unlikeliness to pay (doubts about obligor's creditworthiness)
  Unlikely to pay is when the bank believes that the obligor is very unlikely to meet its loan commitments in full.
- Unlikely to pay due to transfer
  The defaulting of obligors with a joint liability results in the default of individual obligors who have not already defaulted. In addition, if all individual obligors' default, this results in the default of obligors with a joint liability who have not already defaulted.
- The exposure has been rescheduled/restructured
  The aim of crisis-led, unavoidable and loss-making restructuring or rescheduling is to bring about a cure of the customer or individual exposures.
- There has been a sale of the credit obligation
  Under a sale of a credit obligation, it is sold at a considerable economic loss due to the credit rating. The reason for the sale is the prospect that payment obligations will not be met.
- It has been called/repaid
  The purpose of the bank calling the loan agreement and repaying the receivable is to settle the receivable, if necessary by sale or liquidation. Calling generally initiates the settlement phase. This also includes bullet loans after maturity, where liquidation is initiated.
- The obligor has filed for bankruptcy
  Obligors file for bankruptcy or bankruptcy proceedings are instigated within the meaning of collective enforcement under the control of a state authority to ensure that all creditors' claims are equally satisfied regarding their outstanding receivables.
- The exposure has been fully written off
  Uncollectible exposures, in particular significant direct write-downs, are written down.
- impairment
  A partial write-down is carried out or impairment is recognized as a loan loss provision for potential future losses from the credit exposure due to the credit rating if it is to be assumed that an exposure or part of an exposure is uncollectible.

A loan is considered ***forborne*** if it is classified as a forborne exposure (FBE). This applies when the following conditions are met:

- The debtor faces or is about to face financial difficulties, and
- The bank makes concessions towards the debtor which are justified by the financial difficulties.

Concessions by the bank that are justified by the debtor's financial difficulties can, as a UTP indicator, lead to a credit default within the regulatory definition and represent objective evidence of impairment. Forborne risk exposures can be classified both as performing exposures and non-performing exposures.

A risk exposure is considered ***impaired*** when there is objective evidence of impairment and when a level 3 impairment loss has been recognized in accordance with the accounting provisions in place at LBBW (IFRS). A more in-depth explanation of the provisions and methods and a detailed description of what constitutes objective evidence of impairment under IFRS 9 are provided in the next section »Credit risk adjustments«.

Transactions which are not impaired and are reported as being past due by more than 90 days at individual transaction level are mostly significant exposures for which there are objective indications for impairment, but for which an individual valuation does not lead to any provision. The estimated expected cash flows as part of this valuation are in line with and/or exceed the carrying amount, hence no impairment is required (e.g. if there is sufficient collateral).

Credit risk adjustments

Methods of loan loss provisioning

LBBW has been applying the IFRS 9 (Financial Instruments) standard, in the version adopted by the European Union, since 1 January 2018.

The IFRS 9 impairment methods cover only those financial instruments recognized in the statement of financial position at amortized cost (financial assets measured at amortized cost) and financial assets measured at fair value through other comprehensive income. These can be loans, receivables or securities, provided these are considered debt instruments. The provisions also apply to lease receivables and off-balance-sheet transactions such as sureties, financial guarantees and loan commitments, where these are not measured at fair value through profit or loss (FVR).

They do not apply to financial instruments that do not meet the cash flow criteria and equity instruments that must be measured at fair value through profit or loss (FVR) under IFRS 9 or financial instruments that are voluntarily designated for measurement at fair value through profit or loss (FVO).

The introduction of IFRS 9 replaced the incurred loss model with an expected loss model. Under this model, financial instruments are allocated to one of three loan loss provisions levels:

- Level 1: Impairment losses included at the amount of the expected losses resulting from potential loss events in the next twelve months.
  At the beginning of the transaction, the financial instruments are generally allocated to level 1.
- Level 2: Impairment losses equal to the expected losses over the entire remaining term of the financial instrument.
  If the financial instrument's default risk has significantly increased since it was recognized, the financial instrument is allocated or transferred to level 2.
- Level 3: Impairment losses of financial instruments with objective evidence of impairment, where the amount of the impairment loss is calculated as the difference between the financial instrument's gross carrying amount and the present value of the estimated cash flows. To cal-

culate expected future cash flows, different probability-weighted scenarios are used to estimate all expected payments from the financial instrument (interest and principal) and any payments from realizing collateral in terms of their amount and time at which they are received. The process for non-significant financial assets is the same as for level 2 assets (level 3 parameter-based).

Provisions for allocating levels

Assessing whether an impairment loss is measured on the basis of the expected loss over twelve months (level 1) or over the remaining term of a financial instrument (level 2) is based on three criteria (transfer criteria):

- Quantitative transfer criterion: Initially, the expected probability of default as at the reporting date is calculated based on the initial rating and expected migrations defined for specific segments. A transfer is made if the current risk evaluation is significantly worse than the expected value at this reporting date.
- »Minimum threshold« criterion: A change to the probability of default not exceeding 10 basis points compared to the initial rating is considered minor. In these cases, the impairment loss is always measured using the expected loss over twelve months. This is relevant only to financial instruments with an initial rating of up to three, as a one-notch downgrade for instruments with a rating of four or higher causes the probability of default to deteriorate by more than 10 basis points.
- »Warning signal« criterion: In the event of certain warning signals, the impairment loss of a receivable is always measured using the expected credit loss over the remaining term. These include internal warnings (e.g. under observance or seizure), 30 day delay, intensive support or forbearance measures.

If the »minimum threshold« and »warning signal« criteria are both met, priority is given to the warning signal.

Securities are exempt from the criteria listed above and are allocated to levels using current ratings. If it has an »investment grade« rating, it is allocated to level 1. In all other cases, the securities are allocated to level 2 and the impairment loss measured using the expected loss over the remaining term. The definition of »Investment grade« is based on international standards.

Financial assets for which there are already objective indications of impairment at the time of acquisition constitute another exception. These are known as »Purchased or originated credit-impaired (POCI) financial instruments«. They may be loans/receivables or securities acquired from third parties or as part of the original issue of a new financial instrument. The latter may arise, for example, as part of amending the contract if this amendment is so material that the previous financial instrument is disposed of and a new financial instrument is acquired. In these cases, the impairment loss is always measured using the expected loss over the remaining term of the financial instrument, even if recovery is expected or actually occurs. These instruments are not transferred to another level.

Current ratings, for which the probability of default is over a twelve-month period, are used for the quantitative aspects of the transfer criterion. As demonstrated by analyses as part of developing the transfer criterion, this is appropriate for assessing the default risk over the remaining term.

A financial instrument that was not impaired upon acquisition but for which there is objective evidence of impairment must be allocated to level 3.

The following events are considered objective evidence of impairment:

- material financial difficulties of the debtor
- breach of contract by the debtor, e.g. default in payment
- concessions by the bank due to financial difficulties experienced by the debtor that would not have been granted if not for the financial difficulties
- insolvency or restructuring of the debtor's funds is likely
- financial difficulties experienced by the debtor cause the loss of an active market for the financial instrument
- a financial instrument is acquired or issued at significantly below its nominal value due to loan losses

At LBBW, the definition for accounting purposes is based on the regulatory definition of default. An exposure shall be deemed to be defaulted in the sense of the regulatory definition in Article 178 CRR when at least one of the following events has taken place:

- there has been a default in payment/overdraft of > 90 days
- there is unlikeliness to pay (doubts about obligor's creditworthiness)
- unlikely to pay due to transfer
- the exposure has been rescheduled/restructured
- there has been a sale of the credit obligation
- it has been called/repaid
- the obligor has filed for bankruptcy
- the exposure has been fully written off
- impairment

If the conditions for measuring the impairment loss over the remaining term of a financial instrument (levels 2 and 3) are no longer met, an impairment loss is measured on the basis of the expected loss over twelve months (level 1).

Determining the impairment loss

For financial assets allocated to levels 1 and 2 or measured in level 3 (parameter-based), the expected loss is calculated depending on the probability of default (PD), the loss given default (LGD) and the expected exposure at default (EaD). These parameters are standardized at twelve months for level 1 financial instruments. For calculating the expected loss over the entire term, the parameters are standardized at the remaining term of the financial asset.

Regardless of the remaining term, the expected losses – calculated as the product of the three parameters listed – are discounted by the financial instrument's effective interest rate or an approximation of this at the reporting date. Significant financial assets that are already credit-impaired at the time of recognition (POCI) are exempt from this. In these cases, the effective interest rate is adjusted at the time of acquisition by taking into account the expected losses over the remaining term, meaning that no additional allowances for losses on loans and advances are to be recognized on initial recognition. The resulting, credit-adjusted effective interest rate is used for subsequent measurement.

Description of parameters:

- PD (»Probability of default«)
  Specific rating and risk classification procedures are used for all relevant business activities. These procedures quantify the probability of default for the individual exposures, which is initially standardized at twelve months. Probabilities of default for periods of several years are also calculated on the basis of long-term internal rating histories. Calculations of customer credit

ratings take into account historical, current and forward-looking information where this demonstrably improves the forecasting quality. In addition, the regulatory rating for the bank's core areas of business corporate customers and real estate financing in Germany is also adjusted for expected economic effects using macroeconomic models.

- LGD (»Loss given default«)
  The loss given default is determined largely by the likelihood of recovery and the level of collateralization for the underlying asset. The level of collateralization is the ratio of projected realization revenue for the collateral and the expected exposure at default. This is forecast individually for different types of collateral and customer groups. The estimates of the model parameters are based on empirical values and pool data recorded by the Bank itself and in cooperation with savings banks and other Landesbanken, which are assessed to ensure they are representative of LBBW. The LGD is initially standardized at twelve months. Multi-year loss ratios for defaults are also calculated using models for collateral value and EaD forecasts for each potential time the debtor defaults. As for the probability of default, forward-looking information is also taken into consideration.
- EaD (»exposure at default«)
  The expected exposure at default (EaD) is calculated using different models depending on the properties of the underlying financial instrument. The EaD of a fully paid out, non-revolving financial instrument is equal to the mean exposure in the year of default and is calculated taking into account contractual cash flows. For non-revolving financial instruments that have not yet been fully paid out at the measurement date, the expected date of full payment (full disbursement) is determined using models featuring customer and transaction-specific properties as risk factors. Payments are estimated by way of linear interpolation until the date of full disbursement and are therefore included in the EaD estimate. A separate category of models have been developed for revolving commitments. These models forecast the expected use of commitments for any time in the future until the end of the contract in question. If this is not explicitly stated, the notice period is used to determine the term. A behavior-based term that is longer than the notice period is estimated on the basis of past data only for overdraft facilities and credit cards. Model inputs include structural transaction and customer properties, the duration until default and the past drawdown pattern of the credit facility. The models are estimated on internal data using different types of regression models. Sureties that are not fully utilized in the event of default represent a special case. The at risk amount for these transactions is calculated using a credit conversion factor (CCF).

A level 3 impairment loss is determined individually for significant receivables in contrast to level 3 (parameter-based). For this, the bank used a discounted cash-flow method. The impairment requirement is calculated as the difference between the carrying amount of the asset and the net present value of the sum of all expected future cash flows (including proceeds from the sale of collateral), which are discounted by the original effective interest rate determined at the date of acquisition. Cash flows estimated to determine the need for allowances for losses on loans and advances are to be calculated using various scenarios (going concern excluding or adjusted for debt capital and gone concern) and analyst estimates weighted by probability.

Amortization and depreciation

A financial instrument is to be written down directly in the event of an actual or only partial default or loss. If no surrogate takes the place of the defaulted receivable, it is considered uncollectible. The receivable is derecognized if no recovery is expected. This is the case, for example:

- in insolvency cases where no further payments from the sale of collateral or an insolvency dividend are expected,
- terminated exposures where the outstanding receivables cannot be settled,
- fully or partial relinquishment of debt,
- sale of receivable at a loss and

- private customers who pay small installments on a high outstanding receivable after disposing of the collateral because it is assumed that the customers will not be able to repay the claim fully within the two-year period.

Exposures that are written off but remain subject to enforcement activity are processed centrally. The aim of this is to collect extraordinary income from these exposures.

Recovery and probation period

The length of the recovery and probation period depends on the reason for the default in that specific case. In the case of »restructuring« as the cause of default, this period lasts twelve months. For all other causes of default, recovery is admissible only once sustainable economic recovery is assumed. To this end, a case-by-case assessment is carried out for each recovery.

Reversal of impairment losses

A financial instrument is deemed to be impaired when there is objective evidence of impairment. If there is a reduction in the impairment requirement or if objective evidence of impairment for a receivable ceases to exist, the existing allowance for losses on loans and advances must be reversed through profit or loss. However, the reversal of the impairment loss must not exceed the carrying amount that the receivable would have had if it had not been impaired.

Sensitivity analysis of changes in material assumptions

There were no changes to material assumptions in impairment methods last year.

Unimpaired receivables more than 90 days past due came to EUR 96m at the end of 2020. Impairment is not required here due to overcollateralization.

5.6.2 Quantitative disclosures

Disclosure of non-performing exposures

The following table shows the changes in the holdings of general and specific valuation allowances against the previous period. The table shows the audited valuation allowances for 2020 under FINREP.

Amortization and depreciation for 2020 shown in the figures below stemmed predominantly from a large exposure.

EUR million	Accumulated specific credit risk adjustments	General credit risk adjustments
Opening balance 30 June 2020	*1,300*	-
Increases due to amounts set aside for estimated loan losses during the period	180	-
Decreases due to amounts reversed for estimated loan losses during the period	– 62	-
Decreases due to amounts taken against accumulated credit risk adjustments	– 31	-
Transfers between credit risk adjustments	-	-
Impact of exchange rate differences	– 3	-
Business combinations, including acquisitions and disposals of subsidiaries	-	-
Other adjustments	-	-
Closing balance 31 December 2020	*1,384*	-
Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	7	-
Specific credit risk adjustments directly recorded to the statement of profit or loss	– 156	-

Figure 32: EU CR2-A - Changes in holdings of general and specific credit risk adjustments (Article 442 (i) CRR)

The following table shows the holdings of defaulted and impaired loans and debt securities as at 31 December 2020 in accordance with FINREP.

EUR million	Gross carrying values of defaulted exposures
Opening balance 30 June 2020	*1,331*
Loans and debt securities that have defaulted or been impaired since the last reporting period	192
Returned to non-defaulted status	– 39
Amounts written off	– 179
Other changes	– 224
Closing balance 31 December 2020	*1,082*

Figure 33: EU CR2–B - Changes in the holdings of defaulted and impaired loans and debt securities (Article 442 (i) CRR)

The following table shows the past-due exposures in accordance with FINREP broken down according to the number of days of the oldest past-due exposure per customer.

	Gross carrying values					
EUR million	≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
Loans	613	40	196	45	152	231
Debt securities	-	-	-	-	-	6
Total 31 Dec. 2020	*613*	*40*	*196*	*45*	*152*	*237*
Total 30 June 2020	*203*	*66*	*321*	*69*	*140*	*216*

Figure 34: EU CR1-D - Maturity structure of past-due exposures (Article 442 (g) and (h) CRR)

The following table shows non-performing and forborne exposures according to FINREP, split by debt securities, loans and advances and off-balance-sheet exposures. Unlike in the FinRep tables, accumulated impairments are presented as positive figures both for on-balance-sheet and off-balance-sheet items. This method was selected to ensure the values can be meaningfully compared with the prior period figures.

EUR million	Gross carrying amounts of performing and non-performing exposures							Accumulated impairments and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
				Of which non-performing				On performing exposures		On non-performing exposures			
		Of which performing but past due > 30 days and <= 90 days	Of which performing, forborne		Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne	On non-performing exposures	Of which forborne exposures
Debt securities	32,035	-	-	6	6	6	-	4	-	6	-	-	-
Loans and advances	173,403	248	608	1,124	1,082	1,077	477	562	19	539	187	288	546
Off-balance-sheet exposures	68,766	-	93	255	255	152	25	166	1	111	10	5	0
Total 31 Dec. 2020	*274,204*	*248*	*701*	*1,386*	*1,343*	*1,235*	*502*	*732*	*20*	*657*	*196*	*294*	*546*
Total 30 June 2020	*259,811*	*320*	*284*	*1,611*	*1,566*	*1,460*	*506*	*468*	*11*	*838*	*231*	*287*	*163*

Figure 35: EU CR1-E - Non-performing and forborne exposures (Article 442 (g) and (i) CRR)

Disclosure of non-performing receivables

Banks whose NPL ratio is under 5% are required to disclose only tables 1, 3, 4 and 9 of the guidelines published by the European Banking Authority (EBA/GL/2018/10). By publishing this, the requirements of the ECB Guidelines on non-performing loans dated March 2017 are therefore also considered to have been met.

LBBW does not currently have any collateral resulting from bail-out purchases. It is thus not necessary to disclose template 9 of the EBA-GL.

The following table shows the credit quality of forborne exposures.

EUR million	Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral and financial guarantees received on forborne exposures	
		Non-performing forborne						
	Performing forborne		Of which defaulted	Of which impaired	On performing forborne exposures	On non-performing forborne exposures		Of which, collaterals and financial guarantees received on non-performing exposures with forbearance measures
Loans and advances	*608*	*477*	*466*	*466*	*– 19*	*– 187*	*– 546*	*– 159*
Central banks	-	-	-	-	-	-	-	-
Central governments	17	-	-	-	0	-	– 11	-
Banks	-	-	-	-	-	-	-	-
Other financial corporations	-	4	4	4	-	0	-	-
Non-financial corporations	586	458	449	449	– 19	– 183	– 522	– 149
Households	5	15	13	13	0	– 4	– 13	– 10
Debt instruments	-	-	-	-	-	-	-	-
Loan commitments granted	*93*	*25*	*25*	*25*	*– 1*	*– 10*	*– 1*	*0*
Total 31 Dec. 2020	*701*	*502*	*490*	*490*	*– 20*	*– 196*	*– 546*	*– 159*
Total 30 June 2020	*284*	*506*	*495*	*494*	*– 11*	*– 231*	*– 163*	*– 130*

Figure 36: Credit quality of forborne exposures (template 1 of EBA-GL)

The following figure shows the credit quality of non-performing and performing exposures, broken down by days past due.

EUR m	Carrying amount/nominal amount											
	Performing exposures			Non-performing exposures								
		Not past due or past due < 30 days	Past due >30 days < 90 days		Unlikely to pay that are not past due or are past due < 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
Loans and advances	*172,279*	*172,031*	*248*	*1,124*	*697*	*45*	*152*	*83*	*57*	*23*	*69*	*1,082*
Central banks	17,803	17,803	-	-	-	-	-	-	-	-	-	-
Central governments	15,737	15,735	2	-	-	-	-	-	-	-	-	-
Banks	43,124	43,121	4	18	-	-	-	17	0	1	-	18
Other financial corporations	16,696	16,684	12	6	5	0	0	0	1	0	0	6
Non-financial corporations	66,086	65,866	220	997	647	42	147	57	43	18	45	960
Of which SMEs	13,973	13,963	10	184	89	15	25	22	19	5	8	184
Households	12,833	12,822	10	103	46	3	5	9	12	4	24	97
Debt instruments	*32,028*	*32,028*	-	*6*	-	-	-	*6*	-	-	-	*6*
central banks	649	649	-	-	-	-	-	-	-	-	-	-
Central governments	4,734	4,734	-	-	-	-	-	-	-	-	-	-
Banks	23,709	23,709	-	-	-	-	-	-	-	-	-	-
Other financial corporations	2,655	2,655	-	-	-	-	-	-	-	-	-	-
Non-financial corporations	281	281	-	6	-	-	-	6	-	-	-	6
Off-balance-sheet exposures	*68,511*			*255*								*255*
Central banks	-			-								-
Central governments	2,153			-								-
Banks	11,312			-								-
Other financial corporations	5,885			-								-
Non-financial corporations	45,683			255								255
Households	3,478			0								0
Total 31 Dec. 2020	*272,818*	*204,059*	*248*	*1,386*	*697*	*45*	*152*	*89*	*57*	*23*	*69*	*1,343*
Total 30 June 2020	*258,200*	*197,481*	*320*	*1,611*	*958*	*69*	*140*	*59*	*61*	*31*	*64*	*1,566*

Figure 37: Credit quality of performing and non-performing exposures by past due days (template 3 of EBA-GL)

The following figure shows performing and performing exposures. These are shown alongside the corresponding impairment, provisions and adjustments, divided by portfolio and exposure class in accordance with FinRep.

	Carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions							Collaterals and financial guarantees received	
	Performing exposures			Non-performing exposures			Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions			Partial write-off	On performing exposures	On non-performing exposures
EUR million		Of which level 1	Of which level 2		Of which level 2	Of which level 3		Of which level 1	Of which level 2		Of which level 2	Of which level 3			
Loans and advances	*172,279*	*131,966*	*38,580*	*1,124*	*43*	*1,077*	*- 562*	*- 44*	*- 518*	*- 539*	*0*	*- 534*	*- 259*	*- 43,582*	*- 288*
Central banks	17,803	17,803	-	-	-	-	0	0	-	-	-	-	-	-	-
Central governments	15,737	14,034	58	-	-	-	- 2	- 1	- 1	-	-	-	-	- 441	-
Banks	43,124	42,445	627	18	-	18	- 5	- 3	- 2	- 15	-	- 15	-	- 537	-
Other financial corporations	16,696	14,505	2,188	6	-	6	- 18	- 3	- 15	- 2	-	- 2	- 12	- 5,093	0
Non-financial corporations	66,086	32,695	33,359	997	37	955	- 511	- 30	- 481	- 486	0	- 481	- 226	- 29,559	- 244
Of which SMEs	13,973	8,572	5,399	184	0	179	- 50	- 9	- 41	- 74	0	- 69	- 36	- 10,111	- 63
Households	12,833	10,484	2,348	103	6	97	- 26	- 6	- 20	- 36	0	- 36	- 20	- 7,950	- 44
Debt instruments	*32,028*	*31,870*	*95*	*6*	*-*	*6*	*- 4*	*- 3*	*- 1*	*- 6*	*-*	*- 6*	*-*	*-*	*-*
Central banks	649	649	-	-	-	-	0	0	-	-	-	-	-	-	-
Central governments	4,734	4,616	95	-	-	-	- 2	- 1	- 1	-	-	-	-	-	-
Banks	23,709	23,693	-	-	-	-	- 2	- 2	-	-	-	-	-	-	-
Other financial corporations	2,655	2,631	-	-	-	-	- 1	- 1	-	-	-	-	-	-	-
Non-financial corporations	281	281	-	6	-	6	0	0	-	- 6	-	- 6	-	-	-
Off-balance-sheet exposures	*68,511*	*54,194*	*7,164*	*255*	*0*	*152*	*- 166*	*- 11*	*- 155*	*- 111*	*0*	*- 75*		*- 3,506*	*- 5*
Central banks	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Central governments	2,153	2,017	4	-	-	-	0	0	0	-	-	-		- 432	-
Banks	11,312	10,893	31	-	-	-	- 1	- 1	0	-	-	-		- 196	-
Other financial corporations	5,885	4,915	164	-	-	-	- 1	0	0	-	-	-		- 52	-
Non-financial corporations	45,683	33,156	6,719	255	-	151	- 162	- 9	- 153	- 111	0	- 75		- 2,715	- 5
Households	3,478	3,213	247	0	0	0	- 3	- 1	- 2	0	0	0		- 111	0
Total 31 Dec. 2020	*272,818*	*218,030*	*45,839*	*1,386*	*43*	*1,235*	*- 732*	*- 58*	*- 675*	*- 657*	*0*	*- 615*	*- 259*	*- 47,088*	*- 294*
Total 30 June 2020	258,200	232,101	16,855	1,611	45	1,460	- 468	- 83	- 385	- 838	0	- 792	- 279	- 46,263	- 287

Figure 38: Performing and non-performing exposures and related provisions (template 4 of EBA-GL)

6 Credit risk mitigation techniques (Article 453 CRR)

6.1 Main types of collateral

Lending business
Registered liens, guarantees, financial assets and credit derivatives are recognized as risk-mitigating.

- Real estate secured by liens in Germany: These are residential real estate properties as well as office, retail and warehousing real estate.
- Real estate secured by liens abroad (France, Netherlands and United Kingdom of Great Britain (excluding Northern Ireland)): These are residential real estate properties as well as office, retail and warehousing real estate.
- Airplane registered liens included in public aircraft registers.
- Guarantees/warranties from domestic and foreign local authorities, banks and corporates, as well as guarantees mainly from government export credit insurers. These are generally guarantors with an investment-grade rating. Valuation are carried out strictly by Risk Management by way of creditworthiness checks and the assignment of a rating. Appropriate limits are set, depending on economic capacity. Guarantees/warranties taken over are included in the respective limit.
- Financial collateral: This includes
  - pledging of balances with banks and insurance companies
  - assignment of claims in connection with endowment policies
  - pledging of deposits with a daily revaluation based on closing prices of recognized stock exchanges.

Capital markets business
In addition to traditional collateral in lending business, LBBW also utilizes various hedging instruments to mitigate risk in trading and capital markets business for regulatory purposes. As at 31 December 2020, no credit derivatives were used in the banking book as part of the credit risk mitigation techniques. The following types of collateral are primarily used:

- Financial collateral (securities, cash collateral)
- Eligible guarantees
- Netting agreements for derivatives plus collateral agreements (in accordance with chapter 7, Counterparty credit risk)

The main hedging instruments used by LBBW are also employed for regulatory purposes as they satisfy the requirements of eligible credit risk mitigation techniques.

The LBBW subsidiaries do not use any credit risk mitigation techniques going beyond those of LBBW (Bank).

Credit derivatives

Credit derivatives can be eligible as unfunded credit protection and be recognized as an eligible form of credit risk mitigation. The relevant credit derivatives include the following pursuant to Article 204 (1) CRR:

- Credit default swaps
- Total return swaps
- Credit linked notes (CLN) to the extent of their cash funding, and
- Instruments that may be composed of such credit derivatives or that are economically effectively similar.

CRR gives a comprehensive list of all eligible guarantors allowed to provide guarantees as unfunded credit protection. These rules are taken into account when selecting a guarantor. Likewise, CRR requirements are complied with if they are relevant to the respective issue. The process for recognizing a credit derivative as credit protection is documented in the relevant internal rules. Legal efficacy is ensured at all times; at the same time, the underlying legal conditions are subject to ongoing observation. The guarantors (counterparties) and their default risk/creditworthiness are monitored. There are defined procedures to ensure that the risk transfer of the credit derivative is effective. As at the present reporting date, LBBW does not recognize any credit derivatives as credit risk mitigating. A disclosure pursuant to Article 453 (d) CRR is therefore not necessary.

Netting

At LBBW, risk mitigation measures in connection with derivative counterparty risk exposures are applied by means of contractual netting and collateralization agreements and the use of central counterparties (e.g. LCH Clearnet Ltd).

6.2 Principles for assessing collateral

The procedures for measuring and managing the eligible collateral are set out in the Bank's rules. The internal processes and systems ensure that collateral is only used for weighting if it meets all CRR requirements. If a significant positive correlation between the value of an item of collateral and the borrower providing the collateral is established, then collateral in question is not included. In the case of standard collateral located in Germany, the model contracts issued by Deutscher Sparkassen- und Giroverband are mostly used to mitigate legal risks. In addition, the Legal department has drafted contract templates which are used by the divisions after approval for individual cases. Legal efficacy is ensured at all times; at the same time, the underlying legal conditions are subject to ongoing observation.

The real estate property is initially valued and real estate valuations are reviewed and monitored on the basis of set methods:

- Small loans in accordance with Section 24 BelWertV (Regulation on the Determination of Mortgage Lending Value - Beleihungswertermittlungsverordnung) (property located in Germany may be used as collateral if the loan amount to be secured by the property including all previous encumbrances does not exceed EUR 400,000: The collateral is measured using a computer-aided program (LORA) which holds data on a property's location, characteristics and equipment. The market value is calculated based on normal purchase prices, taking into account property location and characteristics, as mentioned above. At the same time, a lower mortgage lending value is calculated which can be achieved on a sustained basis even in the event of a change in market conditions. The property must also be inspected.
- Residential real estate properties outside the scope of the small loans limit and commercial properties in Germany: valuation is carried out by a qualified valuer in accordance with Section 6 BelWertV. As part of the valuation, the market and mortgage lending values are calculated using separate valuation methods.

- Foreign real estate: Reports are commissioned here from external experts with local market knowledge and these are checked by OE Real Estate Valuation.
- Monitoring real estate markets: LBBW uses the market fluctuation concept of the German Banking Industry Committee (Deutsche Kreditwirtschaft (DK), in addition to the granular market fluctuation concept of vdpResearch at postcode level, to monitor the domestic real estate market in order to determine which real estate properties require a special review. LBBW uses the internal market fluctuation concept to monitor real estate markets outside Germany. Foreign real estate is also reviewed in accordance with the provisions under the CRR.
- Review of real estate valuations due to anomalies from monitoring real estate markets: Property valuations are reviewed where appropriate, if events come to notice which could have an impact on the valuation (e.g. extensive flooding) or where the market fluctuation concept shows a decline in market value over and above the limits (10% for properties for commercial use; 20% for properties for residential use).
- The market and mortgage lending values are reviewed every three years if the limit set out in Article 208 (3b) CRR is exceeded.

6.3 Management of concentration risks in the credit and collateral portfolio

In measuring the risk arising from collateral, LBBW distinguishes between collateral in traditional lending business and collateral in capital markets business.

In traditional lending business, options exist for evaluating real estate, e.g. according to region or type of use.

In the Treasury banking book, bonds (at least investment grade rating) and equities from major indices are accepted as collateral for repo and securities lending transactions. The securities are mainly HQLAs (high-quality liquid assets), which are recognized in the EU for regulatory purposes in the standard currencies EUR, USD and GBP.

In the trading book, it is primarily bonds (minimum rating B-) and equities from selected indices that are accepted as collateral for repo and securities lending transactions. Under a portfolio approach, a smaller amount of additional collateral such as equity-related products (e.g. ETFs (exchange traded funds), convertible bonds) and securitizations can also be accepted. The combined counterparty/collateral risk (gap risk) is assessed, monitored and actively managed by the trading department every day.

Concentrations of collateral for OTC derivatives are avoided by taking in mainly cash collateral (approx. 95%) in EUR (95%) and USD (5%) and first-class sovereign bonds, country bonds and corporate bonds (primarily EU). Risks are also limited by evaluating all derivatives transactions to be collateralized and securities collateral on a daily basis, by applying contractually agreed haircuts and by avoiding wrong-way risks.

The following table shows secured and unsecured exposures for exposures not including counterparty credit risk, as well as the collateral, financial guarantees and derivatives used for credit risk mitigation.

The change in secured exposures in the »Institutes« and »Corporates« IRB exposure classes results mainly from changes in holdings and from transactions maturing. This change is also shown in the figures below.

EUR million Exposure class	Exposures unsecured – carrying amount	Exposures secured – carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
Central governments or central banks	59,484	1,289	794	433	-
Institutions	29,505	36,110	32,979	396	-
Corporates	*99,161*	*36,317*	*25,589*	*5,597*	-
Of which specialized lending exposures	12,912	8,019	6,543	558	-
Of which SMEs	7,414	6,246	4,439	720	-
Retail business	-	-	-	-	-
Of which secured by mortgages on immovable property	-	-	-	-	-
Of which SMEs	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-
Of which qualified, revolving	-	-	-	-	-
Of which other retail	-	-	-	-	-
Of which SMEs	-	-	-	-	-
Of which non-SMEs	-	-	-	-	-
Equity exposures	1,158	0	-	-	-
Other non-credit obligation assets	1,642	0	-	-	-
Total amount under IRB approach - 31 December 2020	*190,951*	*73,716*	*59,362*	*6,426*	-
Of which credits[1]	105,221	56,551	45,595	4,729	-
Of which debt securities[1]	32,952	15,005	13,410	425	-
Of which off-balance-sheet exposures[1]	523	224	22	112	-
Total amount under IRB approach - 30 June 2020	*191,103*	*84,811*	*70,905*	*5,953*	-
Central governments or central banks	7	-	-	-	-
Regional governments or local authorities	132	8	0	8	-
Public-sector entities	51	1,335	276	431	-
Multilateral development banks	-	-	-	-	-
International organizations	-	-	-	-	-
Institutions	33,956	1,354	1,287	1	-
Corporates	4,530	3,101	873	2,074	-
Of which SMEs	1,409	195	19	176	-
Retail business	8,748	892	131	258	-
Of which SMEs	3,063	110	29	49	-
Secured by mortgages on immovable property	-	4,039	4,039	-	-
Of which SMEs	-	386	386	-	-
Exposures in default	102	19	10	9	-
Items associated with particularly high risk	21	0	-	-	-
Covered bonds	68	0	-	-	-
Institutions and corporates with a short-term credit assessment	-	-	-	-	-
Undertakings for collective investment	28	0	-	-	-
Equity exposures	-	-	-	-	-
Other items	83	0	-	-	-
Total amount under the standardized approach - 31 December 2020	*47,725*	*10,748*	*6,616*	*2,780*	-
of which credits[1]	39,571	7,754	5,387	1,649	-
of which debt securities[1]	468	798	773	-	-

EUR million Exposure class	Exposures unsecured – carrying amount	Exposures secured – carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
of which off-balance-sheet exposures[1]	102	19	10	9	-
Total amount under the standardized approach - 30 June 2020	*49,282*	*11,244*	*7,683*	*2,919*	-
Total 31 December 2020	*238,676*	*84,464*	*65,978*	*9,207*	-
Of which credits[1]	144,792	64,305	50,982	6,379	-
Of which debt securities[1]	33,420	15,803	14,183	425	-
Of which off-balance-sheet exposures[1]	625	242	32	121	-
Total 30 June 2020	*240,386*	*96,056*	*78,588*	*8,873*	-

1 figures in accordance with FINREP

Figure 39: EU CR3 – Credit risk mitigation techniques – overview (Article 453 (f) and (g) CRR)

6.4 Credit risk mitigation techniques under the standardized approach

The following table shows exposures to be reported before and after credit conversion factor and credit risk mitigation as well as RWA and RWA density.

EUR million	Exposures before credit conversion factor and credit risk mitigation		Exposures post credit conversion factor and credit risk mitigation		RWAs and RWA density	
Exposure class	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWA	RWA density in %
Central governments or central banks	7	-	170	-	0	0.00
Regional governments or local authorities	55	84	1,077	7	2	0.16
Public-sector entities	481	905	59	315	71	18.95
Multilateral development banks	-	-	-	-	-	-
International organizations	-	-	-	-	-	-
Institutions	31,212	4,099	30,652	2,016	105	0.32
Corporates	6,334	1,297	5,222	229	3,875	71.10
Retail business	6,465	3,175	6,086	238	4,279	67.68
Secured by mortgages on immovable property	4,030	9	4,030	5	1,403	34.77
Exposures in default	117	3	107	2	139	127.43
Exposures associated with particularly high risk	21	-	21	-	32	150.00
Covered bonds	68	-	68	-	5	7.75
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Undertakings for collective investment	28	-	28	-	20	72.75
Equity exposures	-	-	-	-	-	-
Other items	83	-	83	-	78	94.41
Total 31 December 2020	*48,900*	*9,573*	*47,603*	*2,811*	*10,009*	*19.85*
Total 30 June 2020	*51,525*	*9,001*	*49,145*	*2,545*	*10,153*	*19.64*

Figure 40: EU CR4 – Standardized approach – credit risk and impact of credit risk mitigation (Article 444 (e) CRR)

6.5 Credit risk mitigation techniques under IRB

The following section shows credit risk exposures reported under the IRB approach, excluding counter-party credit risks.

The following table shows the effect on RWAs of credit derivatives used for credit risk mitigation. Since LBBW had no credit derivatives used for credit risk mitigation in 2020, both columns are identical.

EUR million	Pre-credit derivatives RWAs		Actual RWAs	
Exposure class	**31/12/2020**	**30/06/2020**	**31/12/2020**	**30/06/2020**
Exposures under FIRB	*52,453*	*52,942*	*52,453*	*52,942*
Central governments and central banks	3,367	3,222	3,367	3,222
Institutions	5,005	5,343	5,005	5,343
Corporates – SMEs	3,924	3,805	3,924	3,805
Corporates – specialized lending	10,123	10,353	10,123	10,353
Corporates – other	30,034	30,219	30,034	30,219
Exposures under AIRB	-	-	-	-
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates – SMEs	-	-	-	-
Corporates – specialized lending	-	-	-	-
Corporates – other	-	-	-	-
Retail – secured by real estate SMEs	-	-	-	-
Retail – not secured by real estate SMEs	-	-	-	-
Retail – qualifying revolving	-	-	-	-
Retail – other SMEs	-	-	-	-
Retail – other non-SMEs	-	-	-	-
Equity exposures under IRB approach	2,374	2,372	2,374	2,372
Other assets excl. loan commitments	1,274	1,469	1,274	1,469
Total	*56,100*	*56,783*	*56,100*	*56,783*

Figure 41: EU CR7 – IRB approach – Effect on the RWAs of credit derivatives used as credit mitigation techniques (Article 453 (g) CRR)

7 Counterparty credit risk (Article 439 CRR)

Overview

According to the Recitals of Regulation (EU) No. 575/2013 of the European Parliaments and of the Council of 26 June 2013 (CRR), there is a need to impose stricter prudential requirements since the financial crisis highlighted that institutions greatly underestimated the level of counterparty credit risk associated with OTC derivatives. For this reason, the G-20 Summit in September 2009 called for more derivatives to be cleared through a central counterparty and for contracts that could not be cleared centrally to be subject to higher own funds requirements.

Accordingly, in the Basel III reforms, the Basel Committee on Banking Supervision has structured the own funds requirements in respect of counterparty credit risk in such a way that derivatives cleared through central counterparties get a preferential capitalization treatment through lower own funds backing against derivatives that are not cleared centrally, which means that there is an incentive for institutions to aim for central counterparty clearance.

In addition, institutions are expected to hold additional own funds to cover the credit valuation adjustment (CVA) risk of OTC derivatives, the CVA charge.

Counterparty credit risk

Counterparty credit risk (CCR) is the risk that the counterparty may default on amount owed in a derivative transaction as a result of no longer being able to meet its financial obligations. The amount of the counterparty credit risk depends on the exposure value at reporting date.

Regulatory definition of risk exposure value at LBBW

According to Article 4 (1) no. 50c CRR, »financial instruments« are derivative financial instruments within the meaning of the CRR. Accordingly, pursuant to Article 92 (3) (f) CRR, the risk weighted exposure amounts for the counterparty credit risk for transactions listed in Annex II are part of the total risk exposure amount. Annex II of the CRR includes a comprehensive list of transactions which have to be classified as derivatives. These are sub-divided into three categories, »Interest-rate contracts«. »Foreign-exchange contracts and contracts concerning gold« and »Contracts of a nature similar«. In accordance with both Article 111 (2) CRR and Article 166 (5) CRR, the exposure value of derivative instruments listed in Annex II shall be determined in accordance with the methods described in Section 3, Title II, Chapter 6 of the CCR. LBBW determines the exposure value in accordance with Article 274 CRR (mark-to-market method). Here, the exposure value is sum of current replacement costs and potential future credit exposure.

Capital allocation on the basis of economic capital

LBBW has defined limits at the customer level for derivatives. Capital is allocated on the basis of economic capital. However, separate limits are not defined for derivatives. Limits are defined with the generally applicable processes for limiting counterparty risks (see chapter 2 section »Economic perspective«).

Risk mitigation measures

At LBBW, in accordance with Article 295 et seqq.CRR, risk mitigation measures in connection with derivative counterparty credit risks are the signing of recognized contractual netting and collateralization agreements and the use of central counterparties. In this, LBBW complies with the requirements pursuant to Articles 296 and 297 CRR, which allow for the recognition by competent authorities of the netting agreements.

The procedure for entering into and managing contractual netting and collateralization agreements for OTC derivatives is set out in the bank's internal rules, especially in the guideline on collateral and wrong-way risks[1] and in the internal credit guidelines. In the application of these agreements, LBBW aims to use standardized contracts (e.g. Deutscher Rahmenvertrag, ISDA Master Agreement) with the relevant hedging annexes. It also takes into account the rules laid down in the European Market Infrastructure Regulation, EMIR.

Wrong-way risks (WRRs) can occur with derivatives transactions when the exposure amount from the derivative is positively correlated with the likelihood of default by the counterparty. An effective reduction of WWRs can be achieved e.g. by limiting the exposure. LBBW achieves this by concluding the bulk of its OTC derivatives business through central counterparties (CCPs) or, in bilateral transactions, by using hedging arrangements and accepting cash collateral which provide for low thresholds for additional margins and a daily valuation of customer portfolios.

In brokerage business with Sparkassen, derivatives concluded bilaterally are guaranteed by the Sparkassen.

Impact of potential LBBW rating downgrade on the collateral amount to be provided arising from bilaterally secured derivative positions

In the majority of cases, the agreements entered into do not provide for any increase in collateral in the event of an LBBW rating downgrade. However, some counterparties stipulate an incremental increase in collateral in the event of a downgrade of LBBW's rating. As at 31 December 2020, the additional funding obligation amounted to around EUR 75m in the event of a downgrade of LBBW by at least three notches in relation to LBBW's long-term rating.

Allowances for losses on loans and advances

Credit risks of derivative transactions are included in a Credit Value Adjustment (CVA). This involves adjusting the fair value of a derivative by the value of the counterparty risk.

Correlation between market price risks and credit risks

Market price risks and credit or counterparty risks are pooled using economic capital under the Group-wide economic capital limit.

The economic capital of the various types of risk is aggregated taking correlations into account. The assumed correlation between market price risks and credit risks is based on a time-series analysis. It looks at any changes in value based on LBBW's current portfolio.

Quantitative disclosures

The methods used to calculate the regulatory requirements pursuant to the CRR are shown in the following table. LBBW only uses the mark-to-market method to calculate RWA.

1 The guideline on collateral and wrong-way risk is binding for all relevant areas of LBBW in that it concerns the general handling of collateral in respect of counterparty credit risk. This framework is in part specified in the various department's work instructions.

EUR million	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWA
Mark-to-market		17,591	9,550			18,791	2,472
Original exposure	-					-	-
Standardized approach		-			-	-	-
IMM (for derivatives and securities financing transactions)			-	-	-	-	-
Of which securities financing transactions			-	-	-	-	-
Of which derivatives and long settlement transactions			-	-	-	-	-
Of which from contractual cross-product netting			-	-	-	-	-
Financial collateral simple method (for securities financing transactions)						-	-
Financial collateral comprehensive method (for securities financing transactions)						-	-
VaR for securities financing transactions						-	-
Total 31 December 2020							*2,472*
Total 30 June 2020							*2,560*

Figure 42: EU CCR1 - Analysis of counterparty credit risk by approach (Article 439 (e), (f) and (i) CRR)

The following table shows own funds requirements for the credit valuation adjustment (CVA) capital charge by approach.

EUR million	Exposure value	RWA
Total portfolio subject to the advanced method	-	-
i) VaR component (including the 3x multiplier)		-
ii) SVaR component (including the 3x multiplier)		-
All portfolios subject to the standardized method	2,391	1,137
Based on the original exposure method	-	-
Total subject to the CVA capital charge - 31 December 2020	*2,391*	*1,137*
Total subject to the CVA capital charge - 30 June 2020	*2,662*	*1,149*

Figure 43: EU CCR2 – Credit Valuation Adjustment capital charge (Article 439 (e) and (f) CRR)

The following table shows the counterparty credit risk exposures reported in the CRSA by exposure class and risk weight. The table does not include 4%, 10%, 50% or 150% risk weights, since LBBW has no exposures in any of these risk weight categories.

EUR million	**Risk weight in %**								
Exposure class	**0**	**2**	**20**	**70**	**75**	**100**	**Other**	**Total**	**Of which unrated**
Central governments or central banks	-	-	-	-	-	-	-	-	-
Regional governments or local authorities	17	-	-	-	-	-	-	17	17
Public-sector entities	-	-	-	-	-	-	-	-	-
Multilateral development banks	-	-	-	-	-	-	-	-	-
International organizations	-	-	-	-	-	-	-	-	-
Institutions	3,314	-	1	-	-	-	-	3,315	3,315
Corporates	-	-	0	0		45	0	45	45
Retail business	-	-	-	-	7	-	-	7	7
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-
Other items	-	-	-	-	-	-	-	-	-
Total 31 Dec. 2020	*3,331*	*-*	*1*	*0*	*7*	*45*	*0*	*3,383*	*3,383*
Total 30 June 2020	*2,567*	*2*	*0*	*0*	*7*	*62*	*0*	*2,639*	*2,638*

Figure 44: EU CCR3 – Standardized approach – counterparty credit risk exposures by regulatory portfolio and risk weight (Article 444 (e) CRR in conjunction with Article 92 (3) (a) and (f) CRR)

The following table provides all relevant parameters used for the calculation of counterparty credit risk capital requirements in the IRB approach. The presentation is by exposure class and by fixed PD ranges, as set by the regulator. The column »Number of obligors« shows the number of obligors of individual PDs listed in the table. The column »RWA density« refers to the ratio of risk weighted assets to exposures post credit conversion factors and credit risk mitigation.

EUR million Exposure class/PD scale	EAD post CRM	Average PD in %	Number of obligors	Average LGD in %	Average maturity	RWA	RWA density in %
Central governments or central banks							
0.00 to <0.15	10,570	0.00	130	23.94	900	0	0.00
0.15 to <0.25	-	-	-	-	-	-	-
0.25 to <0.50	-	-	-	-	-	-	-
0.50 to <0.75	-	-	-	-	-	-	-
0.75 to <2.50	-	-	-	-	-	-	-
2.50 to <10.00	-	-	-	-	-	-	-
10.00 to <100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total 31 Dec. 2020	*10,570*	*0.00*	*130*	*23.94*	*900*	*0*	*0.00*
Sub-total 30 June 2020	*10,467*	*0.00*	*134*	*23.79*	*900*	*0*	*0.00*
Institutions							
0.00 to <0.15	3,682	0.06	154	33.05	900	791	21.49
0.15 to <0.25	320	0.17	21	28.46	900	93	29.04
0.25 to <0.50	58	0.26	10	30.73	900	26	44.10
0.50 to <0.75	1	0.59	4	43.87	900	1	87.72
0.75 to <2.50	10	1.35	7	31.32	900	8	77.80
2.50 to <10.00	26	2.96	2	9.09	900	7	27.65
10.00 to <100.00	1	10.00	2	45.00	900	3	204.67
100.00 (Default)	-	-	-	-	-	-	-
Sub-total 31 Dec. 2020	*4,098*	*0.10*	*200*	*32.51*	*900*	*928*	*22.64*
Sub-total 30 June 2020	*4,112*	*0.10*	*189*	*31.49*	*900*	*913*	*22.21*
Corporates – SMEs							
0.00 to <0.15	39	0.07	87	44.86	900	8	20.41
0.15 to <0.25	5	0.17	29	45.00	900	2	33.07
0.25 to <0.50	24	0.29	83	44.94	900	10	42.64
0.50 to <0.75	36	0.59	43	45.00	900	24	66.79
0.75 to <2.50	17	1.17	65	44.92	900	14	84.14
2.50 to <10.00	1	3.62	20	45.00	900	1	111.62
10.00 to <100.00	2	10.50	7	45.00	900	3	180.70
100.00 (Default)	0	100.00	2	45.00	900	-	-
Sub-total 31 Dec. 2020	*124*	*0.56*	*336*	*44.93*	*900*	*63*	*50.34*
Sub-total 30 June 2020	*106*	*0.61*	*342*	*44.92*	*900*	*50*	*47.18*

EUR million Exposure class/PD scale	EAD post CRM	Average PD in %	Number of obligors	Average LGD in %	Average maturity	RWA	RWA density in %
Corporates – specialized lending							
0.00 to <0.15	189	0.07	73	44.97	900	46	24.45
0.15 to <0.25	56	0.17	21	45.00	900	24	42.02
0.25 to <0.50	81	0.33	28	44.96	900	48	59.68
0.50 to <0.75	102	0.59	12	45.00	900	80	78.16
0.75 to <2.50	44	1.54	18	45.00	900	49	110.10
2.50 to <10.00	0	2.96	1	45.00	900	0	135.64
10.00 to <100.00	10	16.02	5	45.00	900	23	238.37
100.00 (Default)	0	100.00	1	45.00	900	-	-
Sub-total 31 Dec. 2020	*483*	*0.69*	*159*	*44.98*	*900*	*270*	*55.93*
Sub-total 30 June 2020	*582*	*1.38*	*183*	*45.00*	*900*	*362*	*62.30*
Corporates – other							
0.00 to <0.15	619	0.08	414	39.43	900	157	25.35
0.15 to <0.25	452	0.18	189	41.46	900	186	41.24
0.25 to <0.50	404	0.31	310	44.03	900	231	57.26
0.50 to <0.75	166	0.65	77	45.00	900	137	82.53
0.75 to <2.50	181	1.39	149	45.00	900	196	108.50
2.50 to <10.00	10	4.07	30	45.00	900	15	147.95
10.00 to <100.00	55	20.45	16	45.00	900	140	252.87
100.00 (Default)	11	100.00	12	45.00	900	-	-
Sub-total 31 Dec. 2020	*1,898*	*1.50*	*1,197*	*42.13*	*900*	*1,063*	*56.00*
Sub-total 30 June 2020	*2,372*	*0.75*	*1,256*	*40.78*	*900*	*1,084*	*45.69*
Equity exposures IRB approach							
0.00 to <0.15	-	-	-	-	-	-	-
0.15 to <0.25	-	-	-	-	-	-	-
0.25 to <0.50	-	-	-	-	-	-	-
0.50 to <0.75	-	-	-	-	-	-	-
0.75 to <2.50	-	-	-	-	-	-	-
2.50 to <10.00	-	-	-	-	-	-	-
10.00 to <100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total 31 Dec. 2020	-	-	-	-	-	-	-
Sub-total 30 June 2020	-	-	-	-	-	-	-
Total 31 Dec. 2020	*17,173*	*0.21*	*2,022*	*28.74*	*900*	*2,323*	*13.53*
Total 30 June 2020	*17,638*	*0.17*	*2,104*	*28.69*	*900*	*2,410*	*13.66*

Figure 45: EU CCR4 – IRB approach – counterparty credit risk exposures by portfolio and PD range (Article 452 (e) CRR and Article 92 (3) (a) and (f) CRR)

The following table shows the impact of netting and collateral held. At LBBW, securities financing transactions are not treated in accordance with counterparty credit risk rules, but rather as secured credit business in the context of the financial collateral comprehensive method.

EUR million	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	61,733	44,142	17,591	8,126	9,465
Securities financing transactions	-	-	-	-	-
Cross-product netting	-	-	-	-	-
Total 31 December 2020	*61,733*	*44,142*	*17,591*	*8,126*	*9,465*
Total 30 June 2020	*64,334*	*46,947*	*17,386*	*8,497*	*8,889*

Figure 46: EU CCR5-A – Impact of netting and collateral held on exposure values (Article 439 (e) CRR)

The following table gives a breakdown of all types of collateral posted or received by banks to reduce counterparty credit risk.

»Segregated« means collateral that is held in a bankruptcy-remote manner within the meaning of Article 300 CRR. »Unsegregated" refers to collateral that is not held in a bankruptcy-remote manner.

	Collateral used in derivative transactions				Collateral used in securities financing transactions	
	Fair value of collateral received		Fair value of posted collateral			
EUR million	Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
Derivatives	-	8,959	2,446	7,704	-	-
Securities financing transactions	-	-	-	-	-	-
Cross-product netting	-	-	-	-	-	-
Total 31 December 2020	-	*8,959*	*2,446*	*7,704*	-	-
Total 30 June 2020	-	*9,510*	*4,100*	*8,134*	-	-

Figure 47: EU CCR5-B – Composition of collateral for exposures to counterparty credit

The following table sets out the notional amounts and fair values of the credit derivatives bought and sold for the Bank's own credit portfolio and for the trading portfolio by type of credit derivative (based on notional value). Credit derivatives from brokering activities were not used by LBBW in 2020.

EUR million	Credit derivative hedges		Other credit derivatives	
	Protection bought	Protection sold	31/12/2020	30/06/2020
Notionals				
Single-name credit default swaps	-	-	6,780	6,286
Index credit default swaps	-	-	939	1,050
Total return swaps	-	-	1,172	1,263
Credit options	-	-	-	-
Other credit derivatives	-	-	-	-
Total notionals	-	-	*8,891*	8,599
Fair values	-	-	*– 84*	– 76
Positive fair value (asset)	-	-	*99*	91
Negative fair value (liability)	-	-	*– 183*	*– 168*

Figure 48: EU CCR6 – Credit derivatives exposures (Article 439 (g) and (h) CRR)

The above table (EU CCR6) only differentiates between protection bought and protection sold in the case of credit derivative hedges. LBBW interprets the credit derivatives to be shown in these columns as credit derivatives used for hedging purposes for credit risks in the banking book. As at 31 December 2020, LBBW had no such transactions in its portfolio.

In the case of credit derivatives bought and sold for the purpose of the trading book (»Other credit derivatives« column), the exposure from protection bought and protection sold should be given as a total. The exposure from credit-linked notes is not required in the table. Fair values are shown separately as positive and negative values. There is no distinction between types of credit derivative.

Since LBBW only uses the mark-to-market method, there is no need for Table EU CCR7 RWA flow statements of counterparty credit risk exposures under the Internal Model Method (IMM).

The following table shows exposures to central counterparties (CCPs), broken down by qualifying and non-qualifying CCPs and by exposure class.

»Qualifying« means that the CCP meets the requirements outlined in Article (4) (1) (88) CRR for the settlement of derivative transactions.

EUR million	EAD post CRM		RWA	
	31/12/2020	30/06/2020	31/12/2020	30/06/2020
Exposures to qualifying CCPs (total)			*309*	244
Exposures for trades at qualifying CCPs (excl. initial margin and default fund contributions); of which	5,902	5,443	118	109
i) OTC derivatives	4,154	3,644	83	73
ii) exchange-traded derivatives	1,748	1,799	35	36
iii) securities financing transactions	-	-	-	-
iv) netting sets where cross-product netting has been approved	-	-	-	-
Segregated initial margin	2,446	4,100		
Non-segregated initial margin	52	50	1	1
Prefunded default fund contributions	1,137	1,149	190	134
Alternative calculation of own funds requirements for exposures				
Exposures to non-qualifying CCPs (total)				
Exposures for trades at non-qualifying CCPs (excl. initial margin and default fund contributions); of which	-	-	-	-
i) OTC derivatives	-	-	-	-
ii) exchange-traded derivatives	-	-	-	-
iii) securities financing transactions	-	-	-	-
iv) netting sets where cross-product netting has been approved	-	-	-	-
Segregated initial margin	-	-		
Non-segregated initial margin	-	-	-	-
Prefunded default fund contributions	-	-	-	-
Non-prefunded default fund contributions	-	-	-	-

Figure 49: EU CCR 8 – Exposures to central counterparties (Article 439 (e) and (f) CRR)

8 Market risk (Article 445 and 455 CRR)

8.1 Definition

LBBW defines market price risks as potential losses resulting from adverse changes in market prices or factors influencing prices. Market price risks are split into the categories equity, interest rates and exchange rates/commodities. The following types of market price risk arise from LBBW's business activities.

Equity risk

The equity risk reflects equity and index price movements and where applicable also equity and index volatility.

Interest rate risk

The interest rate risk is based on changes in market interest rates, yield spreads, credit spreads or even interest rate volatility. This also includes interest rate risk in the banking book (IRRBB), including interest rate risks from pension obligations.

Currency/commodity risk

In the LBBW Group, the currency/commodity risks are summarized and reported under foreign exchange risk.

8.2 Market risks in the standardized approach

LBBW calculates the capital requirements for market price risks for general interest rate and equity risk including option price risks using the Internal Model Method. Specific risks along with currency and commodity risks are calculated using the Standardized Approach.

EUR million	RWA		Capital requirements	
	31/12/2020	30/06/2020	31/12/2020	30/06/2020
Outright products				
Interest rate risk (general and specific)	2,146	1,772	172	142
Equity risk (general and specific)	103	164	8	13
Foreign exchange risk	737	408	59	33
Commodity risk	75	70	6	6
Options				
Simplified approach	-	-	-	-
Delta-plus method	13	66	1	5
Scenario approach	0	0	0	0
Securitization (specific risk)	-	-	-	-
Total	*3,075*	*2,480*	*246*	*198*

Figure 50: EU MR1 – Market risk under the standardized approach (Article 445 CRR)

8.3 Market risks under the Internal Model Method

Market price risk management

LBBW's market price risk strategy documents the strategic goals for the specific types of risk. It describes the activities exposed to market price risks and the underlying strategies for all of LBBW's relevant organizational units, branches and subsidiaries. Moreover, the market price risk strategy addresses the deliberate and controlled approach to these risks to strategically leverage the opportunities which they hold. Accordingly, it fleshes out the Bank's business strategy with regard to market price risks. It is duly specified in greater detail in organizational policies (e.g. work instructions, manuals, portfolio profiles). In addition, the guidelines on risk management form the key strategic principles and rules of conduct for evaluating risks and opportunities within the LBBW Group and thus form the basis for a uniform, company-wide understanding of corporate objectives in connection with risk management. Risk management includes all measures used for a systematic recognition, analysis, valuation, monitoring, control and avoidance/mitigation of risk.

In the case of market price risks, risk monitoring and reporting is conducted by the Market Risk Control unit which is part of Group Risk Control. Group Risk Control operates independently of trading, thus ensuring a separation of functions. Group Risk Control is answerable directly to the member of the Board of Managing Directors with responsibility for risk management and compliance (CRO).

LBBW's market risk positions are marked to the market on a daily basis by Group Risk Control. This is used as a basis for calculating business performance. Market price risks are quantified using a value-at-risk approach, which is supplemented by sensitivity measurements and stress tests. The risk ratios are addressed by means of corresponding portfolio limits which are used to cap the market price risks. A daily report featuring an overview of earnings performance and risk development is prepared in Group Risk Control.

An overall risk report is prepared each month with detailed information about earnings performance, risk development, risk concentration, economic capital and the monitoring of the economic capital limit.

The integrated bank management is supplemented by weekly stressed value-at-risk calculations. This is based on an observation period which covers a significant financial stress period. This observation period is determined at least once a year for the CRR portfolio relevant for prudential disclosures containing all the trading book positions of LBBW (Bank) excluding non-transparent investment funds. A stressed value-at-risk is also calculated for the LBBW Group. This figure is also incorporated in the scenarios applying across all risk categories and is thus relevant for risk-bearing capacity.

Inclusion in the trading book

The Internal Criteria of LBBW (including foreign branches) are the central document for the allocating positions to the trading book for the purpose of defining the trading book in accordance with Articles 102 et seqq. CRR. This document describes the general allocation criterion as well as specific details with respect to the business portfolio of LBBW (Bank), the rules for shifts between the banking book and the trading book as well as the technical methods for determining the positions. The Internal Criteria also include the following rules.

Pursuant to Article 4 (1) (86) CRR, LBBW's trading book consists of »All positions in financial instruments and commodities held by an institution either with trading intent, or in order to hedge positions held with trading intent«. According to Article 4 (1) (86) CRR, the decisive criterion for the allocation of a financial instrument or a commodity to the trading book is the trading intent or the hedging of other positions held with trading intent. This is expressed as the intent to generate income from own trading, i.e. to leverage differences between buying and selling prices or from other price, value or interest rate variations in the short term or to sell the position at short notice. Trading intent as per Article 102 (2) CRR can be demonstrated clearly based on LBBW's market-price/liquidity risk strategy along with the clearly drawn up rules on the active management and monitoring of the positions held in the trading book.

The trading strategy also includes the expected holding period (Article 103 (a) CRR). At LBBW, this period is up to one year. If positions allocated to the trading book are not resold or closed within this period, the intended purpose and the future allocation to the trading or banking book are reviewed based on the holding period concepts defined internally. In this review, trading intent can be evidenced both based on trading turnover (changes in holdings of a specific security) – which should be the main focus of attention when monitoring the holding period of securities – and on changes in sensitivities.

Apart from a review of the holding period, tradability is also reviewed. Under normal market conditions, the criteria set out in LBBW's holding-period concept shall be factored in to check the tradability and hedgeability of the positions' market risk in the trading book. These criteria refer to individual product classes respectively. The middle office of the respective trading areas is responsible for checking with the appropriate trader the tradability and hedgeability of each and every position which has exceeded the permitted holding period based on technical evaluations and taking into account the criteria mentioned earlier. Apart from answering the question of whether the position is still tradable and hedgeable, the staff in charge are required to provide detailed justification of any remaining trading intent based on an assessment of the market and of tradability and hedgeability. Monitoring the holding period and marketability takes place at the set dates, namely as per the last trading days of April and October, respectively.

Reallocation decisions in relation to individual positions which have to be switched from the trading into the banking book because the holding period has been exceeded or for any other reason defined in the Internal Criteria shall be taken in accordance with set procedures and documented in writing.

In the case of derivatives positions, the review for an allocation to the trading book is based on an analysis of whether the portfolio is being actively managed and not at individual transaction level. This process arises because it involves OTC contracts which are generally held until final maturity. The active management of a portfolio is checked based on changes in sensitivities.

Internal model in accordance with CRR

LBBW calculates value-at-risk (VaR) and stressed VaR from market price risks with a confidence level of 99% and a ten-day holding period by using the square root of time for scaling up to ten days. A parameter of 99% and one-day holding period are used for bank internal management. Both VaR and stressed VaR are calculated using a procedure based on a Monte Carlo simulation. In most cases, this enables LBBW to take into account fully measured market-induced fluctuations in value, even for complex transactions. Market data time series for the preceding 250 days are weighted equally in covariance estimates. The aforementioned stressed VaR is also used to calculate the capital requirement.

The relevant stressed VaR period is currently the period from 31 August 2008 up to 31 August 2009 and includes the worst-case period for LBBW's CRR portfolio.

LBBW's market price risk model is also uniformly used for all sub-portfolios and for the Group's subsidiaries that are integrated in Group-wide standardized management based on the value-at-risk risk indicator. In the risk-calculation simulation, the deviation of the risk factors is calculated using the following models: equity prices, FX rates and interest-rate volatility using log yields, CDS spreads and interest rates using absolute yields and equity/FX volatilities using relative yields.

Interest rate risks describe potentially negative developments in market interest rates. In addition to parallel shifts and turns in the interest curve, basic risks arising from movements in the relevant fixed-income markets relative to each other are also included in risk calculations.

Credit spread risks from securities are measured on the basis of the general and specific issuer risk. This risk category includes trading book transactions that are sensitive to creditworthiness. For the purpose of measuring general risk, these instruments are allocated to rating- and sector-dependent curves on a risk basis.

Reference borrowers are allocated to CDS sector curves for credit spread risks from credit derivatives. The allocated CDS sector curves are deflected for the general interest rate risk.

Credit spread risks account for the most significant share of LBBW's market price risk. Interest and equity risks are less significant.

LBBW's internal risk model has been approved by the competent authority for general interest rate and equity risks including option price risks in the form of volatility risks. The internal risk model for capital requirements does not include any specific risks. The own funds requirements are calculated based on the CRR portfolio, which contains all the trading book positions of LBBW (Bank) excluding investment funds that are not presented in the overview.

Backtesting and validation

LBBW's market risk model is subject to an extensive validation program in which potential model risks in the stochastics of the market factors (including distribution model, risk factor model), in the implemented measurement models and in the relevant market data are identified and their materiality assessed using customized validation analyses. The validation analyses are performed by the Risk Model and Validation organizational unit within Group Risk Control, which is independent of model development in organizational terms.

Daily backtesting is a particularly important part of the validation program. This constitutes statistical backtesting of risk predictions with hypothetical changes in portfolio value (clean backtesting) and actual changes in the portfolio value (dirty backtesting).

If the validation indicates material model risks, these are made transparent to the model developers and recipients of the reports so that the necessary model optimization measures can be initiated.

The CRR portfolio, which comprises trading transactions whose own funds requirements for general equity and interest rate risks takes place via the internal risk model, shows six outliers for the Clean P/L as at the reporting date. All outliers are a result of significant market turbulence during the COVID-19 pandemic. As approved by regulatory authorities, these outliers are not relevant for capital backing.

The table below gives an overview of the outliers.

Date	Breach in EUR million	Cause
10/03/2020	2.09	Change in credit spreads and CDS
11/03/2020	4.35	Widening of credit spreads
13/03/2020	5.08	Widening of credit spreads and change in EUR and USD yield curve
16/03/2020	20.11	Widening of credit spreads and change in EUR yield curve
17/03/2020	0.21	Widening of credit spreads
18/03/2020	27.25	Widening of credit spreads and change in EUR yield curve

Figure 51: Outliers for the Clean P/L as at the reporting date 31 December 2020

On the basis of the Dirty P/L one outlier was recorded for the CRR portfolio in the last 250 trading days. This occurred on 6 March 2020 and amounted to EUR 4.47m. It was caused by the widening of credit spreads, a considerable change in the EUR yield curve and a valuation adjustment. As per regulatory approval, this outlier is also not to be taken into account for capital backing.

Clean backtesting CRR portfolio for the period 7 January 2020 – 30 December 2020 in EUR m.

VaR parameters: 99% confidence level, 1-day holding period

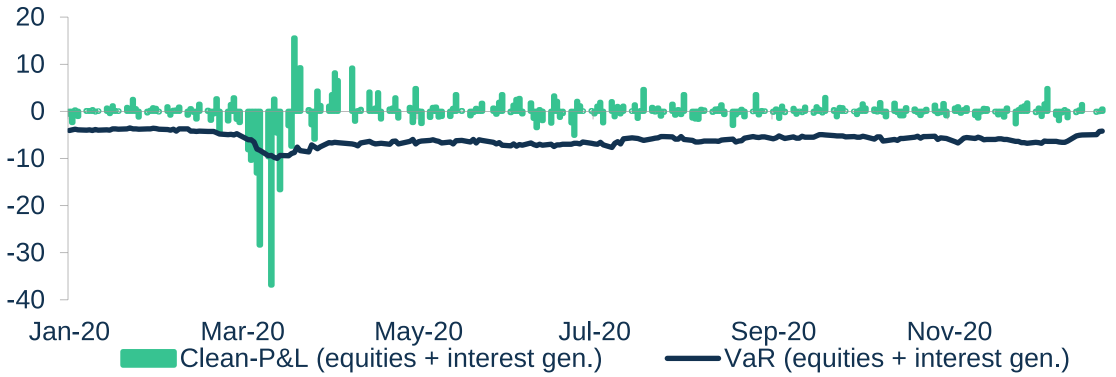

Figure 52: Value at risk of the CRR portfolio under the Internal Model Method and hypothetical buy-and-hold losses (Article 455 (g) CRR)

Dirty backtesting CRR portfolio for the period 7 January 2020 – 30 December 2020 in EUR m.

VaR parameters: 99% confidence level, 1-day holding period

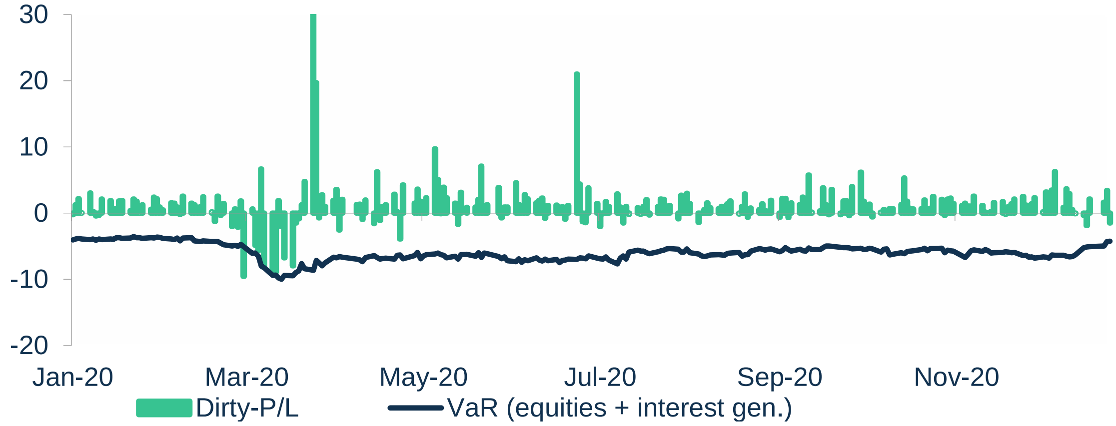

Figure 53: Value at risk of the CRR portfolio under the Internal Model Method and actual portfolio changes excluding commissions and fees (Article 455 (g) CRR).

Stress tests

Stress testing is used to examine how the value of the portfolio changes under extreme market conditions. LBBW's risk system includes historical and synthetic (self-defined) scenarios. Synthetic scenarios are based mostly on selected market factor groups such as individual and combined interest shifts. Historical scenarios were generated from the data analyses of market shocks. All scenarios serve the purpose of mapping extreme events in the financial markets on a forward-looking basis in cases in which these are not specifically included in the VaR. These scenarios are applied to the portfolio on a weekly basis together with the pre-defined market data changes and any resulting changes in the present values reported as stress test results.

At present, a scenario which simulates the 2008/2009 financial crisis is the scenario with the greatest impact on LBBW's trading book. Under this scenario, the credit spreads of financials and corporates widen particularly and EUR swap rates decrease. The scenario with the second largest impact on LBBW's trading book is that featuring an economic crisis that simulates market fluctuations from January 2009 to December 2009. Credit spreads of financials and corporates increase and interest rates fall.

Measurement of trading book positions

LBBW measures its trading book positions at market prices which are obtained on a daily basis from sources independent of trading and are especially quality-assured or which are supplied by the trading units and examined by Risk Control. Risk Control also applies consistent standards and processes for performing an independent price verification (IPV) process, in which trading prices are monitored on an independent basis.

The providers of market data used include Reuters, Bloomberg and MarkIT. If the data is not directly observable in the market, LBBW uses measurement models which incorporate parameters derived from market prices. In addition, model valuation adjustments are made in the light of the principle of caution.

Adjustments in accordance with Article 105 CRR (»prudent valuation«)

In addition, LBBW makes deductions from its regulatory own funds to allow for model risks, settlement costs, market price uncertainty, unearned credit risk premiums, operational risks, less liquid and concentration positions as well as administration expenses, cash investment and borrowing costs. These adjustments are calculated for all positions measured at fair value and deducted from common equity Tier 1. The prudent valuations are regularly reviewed in a procedure documented in writing in LBBW's rules.

Further disclosures on the use of non-observable parameters can be found in the »Notes on financial instruments« in LBBW's 2020 annual report, p. 138 et seqq.

The following table shows the components relevant for the calculation of own funds requirements for market risks that are determined using the Internal Model Method.

	RWA		Capital requirements	
EUR million	**31/12/2020**	**30/06/2020**	**31/12/2020**	**30/06/2020**
VaR (higher of values a) and b))	**790**	**1,071**	**63**	**86**
a) Previous day's VaR (Article 365 (1) CRR (VaRt-1))	170	277	14	22
b) Average of the daily VaR (Article 365 (1) CRR) on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 CRR	790	1,071	63	86
SVaR (higher of values a) and b))	**2,086**	**3,092**	**167**	**247**
a) Latest sVaR (Article 365 (2) CRR (sVaRt-1))	585	740	47	59
b) Average of the sVaR (Article 365(2) CRR) during the preceding 60 business days	2,086	3,092	167	247
IRC (higher of values a and b)	**-**	**-**	**-**	**-**
a) Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 CRR)	-	-	-	-
b) Average of the IRC number over the preceding 12 weeks	-	-	-	-
Internal model for correlation trading portfolio (higher of values a), b) and c))	**-**	**-**	**-**	**-**
a) Most recent risk number for the correlation trading portfolio (Article 377 CRR)	-	-	-	-
b) Average of the risk number for the correlation trading portfolio over the preceding 12 weeks	-	-	-	-
c) 8% of the own funds requirement in the standardized approach on the most recent risk number for the correlation trading portfolio (Article 338 (4) CRR)	-	-	-	-
Other				
Total	*2,876*	*4,164*	*230*	*333*

Figure 54: EU MR2-A – Market risk under the Internal Model Method (Article 455 (e) CRR)

The main reasons for the decline in RWA were improvements to risk mapping and the drop in market volatility in the second half of the year. Furthermore, the regulatory approval also states that no COVID-19-related backtesting outliers are to be taken into account anymore when calculating RWA.

The following table shows the holdings of VaR and of the stressed VaR as at 31 December 2020.

EUR million	VaR	sVaR	IRC	Internal model for correlation trading activities	Other	Total RWAs	Total own fund require-ments
RWAs 30 September 2020	*877*	*2,218*	-	-	-	*3,095*	*248*
Regulatory adjustments	672	1,695	-	-	-	2,367	189
RWA at the previous quarter-end (end of the day)	206	523	-	-	-	729	58
Movement in risk levels	– 33	73	-	-	-	40	3
Model updates/changes			-	-	-	-	-
Methodology and policy			-	-	-	-	-
Acquisitions and disposals			-	-	-	-	-
Foreign exchange movements			-	-	-	-	-
Other	– 5		-	-	-	– 5	0
RWAs at the end of the reporting period (end of the day)	167	596	-	-	-	763	61
Regulatory adjustments	620	1,493	-	-	-	2,113	169
RWAs 31 December 2020	*787*	*2,089*				*2,876*	*230*

Figure 55: EU MR2-B – RWA flow statement of market risk exposures under the Internal Model Method (IMM) (Article 455 (e) CRR)

The following table shows the normal VaR and stressed VaR for the trading book (99%/10 days) at institution level.

EUR million	31/12/2020	30/06/2020
VaR (10 days 99%)		
Maximum value	18	32
Average value	15	19
Minimum value	12	11
Value at the end of the reporting period	15	21
sVaR (10 day 99%)		
Maximum value	58	80
Average value	48	65
Minimum value	39	55
Value at the end of the reporting period	48	59
IRC (99.9%)		
Maximum value	-	-
Average value	-	-
Minimum value	-	-
Value at the end of the reporting period	-	-
Internal model for correlation trading activities (99.9%)		
Maximum value	-	-
Average value	-	-
Minimum value	-	-
Value at the end of the reporting period	-	-

Figure 56: EU MR3 – IMA values for trading portfolios (Article 455 (d) CRR)

9 Exposure to interest rate risk on positions not included in the trading book (Article 448 CRR)

As a matter of principle, all new customer exposures are funded on a matching maturities basis with minimum delay, based on their legal maturities. Treasury accepts further strategic positions in a framework established by the Board of Managing Directors as a whole on the basis of LBBW's business strategy. These items include risks in the form of cash flow incongruities (structural risks), risks from leveraging interest rate gaps between individual market segments (basic risk) and options risks from financial transactions entered into.

9.1 Quantification

All relevant interest-bearing and/or interest-sensitive positions in the banking book are included in measurements in accordance with LBBW's own procedures for measuring interest rate risks. These also include definitions for handling loans that mature early. The daily valuation is on an individual-transaction and portfolio basis respectively.

For variable-rate transactions with private and corporate customers (particularly deposits), records made on grounds of conditions or conduct are taken into account by using the deposit base theory in conjunction with the concept of moving averages.

Interest rate risks are measured daily using a Monte Carlo simulation. Here, changes in the value of the banking book as a whole or even for individual portfolios are specified for each currency using randomly selected interest rate scenarios. Together with the confidence level, the distribution arising from this serves to determine the VaR (confidence level of 99% and holding period of one trading day). The VaR expresses the potential loss which with 99% probability will not be exceeded within a trading day. The calculated risks of the banking book are taken into account in risk-bearing capacity on the basis of the relevant parameterization.

In addition to daily reporting, further stress and worst-case scenarios are calculated on a weekly basis. All scenarios help to show the future effects of extreme events on the financial markets which are not sufficiently presented in the VaR normal impact event on the respective book. Extreme historic market fluctuations and self-defined scenarios are used in this respect.

9.2 Interest rate risks in the banking book

Under regulatory requirements, the effect of an interest-rate shock on the economic value must be disclosed in the banking book. This involves a parallel shift in the yield curve in accordance with EBA/GL/2018/02. The change in customer behavior was also simulated when assessing the impact. In the »Parallel fall in interest rates« scenario, each currency has a lower interest rate limit depending on the maturity, starting at 1% for items that mature immediately. This lower limits increases by five basis points each year, until 0% is reached for maturities from 20 years. Thus, the effective fall in interest rates assumed in the scenario is determined by current interest rates and the lower interest rate limit depending on the maturity.

Given the still very low interest rates in EUR and the lower interest rate limit depending on the maturity, there is still a difference between the absolute stress results for the increasing interest rate and declining interest rate scenario.

The following table shows the changes in net present value, broken down into the main currencies, of a sudden parallel shift in the yield curve by +/– 200 basis points.

EUR million	**Changes in present value due to interest rate shock**	
Currency	**+ 200 basis points**	**– 200 basis points**
CHF	– 10	1
EUR	– 727	274
GBP	– 4	13
JPY	2	– 1
USD	– 18	11
Other	– 1	12
Total 31 December 2020	*– 760*	*275*
Total 31 December 2019	*– 747*	*342*

Figure 57: Interest rate risks in the banking book (Article 448 (b) CRR)

10 Exposure to securitization positions (Article 449 CRR)

10.1 Securitization positions in the banking book

LBBW holds securitization positions in its function as an investor and a sponsor.

Investor positions

LBBW invested in a securitization transaction in the 2020 reporting year. This is one investment in an established securitization program, as part of which revolving receivables from lease and hire-purchase agreements with German corporate customers are securitized.

Investor position risk is regularly monitored on the basis of the investor reports.

External ratings are generally available for investor positions held by LBBW, which lead to the application of the ratings-based approach (SEC-ERBA). Independently of the type of securitized exposures and securitization positions, LBBW takes into account the ratings of the recognized rating agencies Standard & Poor's Ratings Services, Moody's Investors Service or Fitch Ratings Ltd. The securitization positions mostly have a good to first-class rating. There is no external rating for three investor positions and so these exposures are treated in accordance with the SEC-SA approach.

Sponsor positions

Aims

LBBW acts as a sponsor and/or arranger of securitization programs as part of customer transactions, offering customers innovative, capital-market-oriented financing alternatives.

In its role as sponsor and/or arranger of customer transactions, LBBW continued to support upper SMEs with new financing solutions in 2020. The aim is to harness cross-selling potential with existing customers and to use this form of finance selectively for attracting new customers that meet the target customer definition formulated for corporate customer business. The objective of this is to achieve sustainable success for customers and the bank.

LBBW supports its corporate customers within the context of asset securitization by way of the WEINBERG ABCP program. It concentrates on the securitization of first-class, SME and real-economy receivable portfolios, with a focus on trade and lease receivables. In hidden transactions, participating companies benefit from capital market funding, off-balance solutions, funding diversification and, in some cases, improved processes in accounts receivable management.

Structures

As part of its securitization programs, LBBW provides the appropriate »Weinberg Funding Ltd., Jersey« and »Weinberg Capital DAC, Dublin« special-purpose vehicles with liquidity facilities as well as swap lines if necessary in addition to its role as a service provider. The liquidity lines are carried in the banking book. LBBW also acts as collateral trustee for these SPVs.

In its function as service provider, LBBW is exclusively responsible for the structuring, administration and coordination of customer transactions. It also manages the bank accounts which the SPVs hold at LBBW. Furthermore, LBBW acts as a dealer for the euro commercial paper of the Weinberg program.

The liquidity risks accepted in connection with pledges for liquidity facilities are recorded on a daily basis by LBBW's Liquidity Controlling. Corresponding work instructions have been issued to mitigate operational risks (particularly those arising from the function as Weinberg administrator). Risk from liquidity lines is assessed by the relevant front and back offices at least once every quarter for trading receivables and at least once annually for interest-bearing receivables. The back office informs the front office of any irregularities in the course of the transaction. Moreover, the front office informs the back office immediately of any changes in the ratings of the parties involved as they become known. The back office incorporates the information in the next rating review. Likewise, the front office notifies the back office immediately of any termination events reported by the company (for example, covenant breaches) or if there are imminent signs of a termination event (possible early indications given during conversations). The front office decides whether or not to support a waiver request from the company. Waiver requests are reviewed and processed by the back office with regard to their risk content. In this connection, proposals for the following steps to be taken are drawn up in consultation with the front office.

With a few exceptions, all securitization positions for which LBBW reports risk-weighted securitization values as a sponsor are rated using the Internal Assessment Approach (IAA). All transactions rated using the IAA use the risk weighting tables under Article 263 CRR (SEC-ERBA approach).

As part of the EU Securitisation Regulation, LBBW – as sponsor of the Weinberg ABCP program – assumed the function of the reporting unit for all transactions in its ABCP program. The relevant transparency requirements under Article 7 of the Securitisation Regulation were met. In addition, all transactions were evaluated with regard to their lending criteria in connection with Article 5 (2) and Article 9 of the Securitisation Regulation. The provision of supporting liquidity lines meets the risk retention requirements in accordance with Article 6 of the Securitisation Regulation.

In 2020, LBBW declared that a total of 30 additional transactions in its Weinberg program met STS requirements. For all STS transactions, correspondingly lower capital weightings under Article 243 (1) in conjunction with Article 264 CRR are applied to the liquidity lines provided.

The commercial papers issued by the »Weinberg« multiseller conduit can be either euro commercial papers (issued by Weinberg Capital DAC, Dublin) or, since 2011, US commercial papers (issued by Weinberg Capital DAC, Dublin, with co-issuer Weinberg Capital LLC, Delaware). However, the conduits continued not to avail of the option of issuing US commercial paper in 2020. The commercial papers are rated by Moody's Investors Service and Fitch Ratings Ltd. The Weinberg ABCP program does not meet the STS requirements under Article 23 (2) of the Securitisation Regulation.

Apart from the Weinberg program (including the associated constructs/SPVs) no other special-purpose vehicles are advised or managed by LBBW as a sponsor or originator.

Originator positions
LBBW did not hold any originator positions during the 2020 reporting year.

Resecuritizations
LBBW did not hold any resecuritization positions during the 2020 reporting year.

Presentation of the procedures for determining exposure values
Under the internal credit risk strategy, new securitization positions may be transacted with the Bank's core customers up to a certain limit provided that a detailed analysis of the risk profile is performed and documented in the light of the transaction drivers which are liable to exert a direct or indirect effect on the risk profile of the securitization position.

The investor positions are recognized as SEC-ERBA / SEC-SA securitization positions.

The Bank normally uses the ratings based approach in the investor portfolio for SEC-ERBA securitization positions and the derived credit rating assessment only sporadically.

The majority of investments are classified as high quality and granular and normally have at least one rating from a recognized rating agency. If no external rating is available, the Bank applies the SEC-SA approach.

The liquidity lines and swaps (sponsor positions) provided as part of the ABCP (asset-backed commercial paper) program are weighted using the Internal Assessment Approach (IAA). To this end, LBBW developed and rolled out corresponding models for measuring trading and interest-bearing receivables in 2008. The IAA method is generally based on publicly available models of the rating agencies.

The IAA module for the securitization of trading receivables takes into account the asset credit risk (credit rating risks) and the seller risk as counterparty risk. The latter includes the dilution and the commingling risk as further sub-categories. In addition, the IAA module covers the transaction risk that emerges if a seller is no longer able to bear the transaction costs incurred (e.g. SPV costs, funding costs). This is typically the case in the event of a premature winding-down of the transaction following the seller's insolvency. The module for interest-bearing receivables is essentially based on the assumption that there are no open residual value risks. As with trading receivables, a distinction is made with interest-bearing receivables between the risks of the asset pool (asset credit risk) and seller risks (in addition to the dilution risk, commingling risk and transaction/funding costs risk including interest rate risk). If there is an excess spread, a prepayment risk may result. The prepayment risk is the risk that the future excess spread of this receivable is no longer available as a credit enhancement due to an early termination of the contract underlying the interest-bearing receivable.

The chart below shows the allocation of potential losses, broken down into the four main types of risk, to the individual credit enhancement components:

<table>
<tr><th>Asset credit risk</th><th>Dilution risk</th><th>Transaction costs</th><th colspan="2">Commingling risk</th></tr>
<tr><td>Liquidity facility</td><td>Liquidity facility</td><td>Liquidity facility</td><td colspan="2">Liquidity facility</td></tr>
<tr><td></td><td>Funding cost reserve</td><td>Dilution reserve</td><td rowspan="2">Dilution reserve</td><td rowspan="2">Funding cost reserve</td></tr>
<tr><td>Sec. loss piece (surety or credit agreement)</td><td>Dilution reserve</td><td>Funding cost reserve</td></tr>
<tr><td>First loss piece seller</td><td>Seller</td><td>Seller</td><td colspan="2">Seller/Servicer</td></tr>
</table>

Figure 58: Principal types of risk on credit enhancement components

The IAA module is used for assessing the risk of the liquidity lines (rating review/rating renewal) for trading receivables and for interest-bearing receivables by the relevant front and back office divisions.

The internal rating procedure is validated on an annual basis. This is overseen by an organizational unit within Group Risk Control. The validation results are submitted to the front and back offices that manage the ABCP program or the securitization positions that are assessed with the IAA modules. The validation results are accepted by an area head committee.

If LBBW purchases commercial papers (CP) under its own ABCP program, this is classified as an overlapping position under Article 248 (2) CRR. This means that the risk exposures are backed by the risk weightings of the securitization liquidity facilities provided by LBBW under Article 248 (3) CRR.

10.2 Securitization positions in the trading book

LBBW did not hold any trading-book securitization positions in 2020. Furthermore, LBBW does not have any retained or assumed resecuritization positions from this.

10.3 Accounting and valuation methods for securitizations

LBBW essentially held the role of investor, sponsor and/or arranger, service provider (structuring, administration, coordination, account maintenance), securities trustee or bank providing liquidity in securitization transactions for special-purpose vehicles.

As at the reporting date 31 December 2020, EUR 1.7bn (loan receivables from companies based in Germany) is available for a synthetic securitization transaction.

Consolidation rules

Under IFRS 10, a special-purpose vehicle is assumed to be controlled by LBBW or one of its subsidiaries if the role that it plays with respect to the special-purpose vehicle cumulatively satisfies the following three conditions:

- LBBW has direct or indirect decision-making authority to determine key business activities for the economic success of an enterprise.
- It is subject to variable returns from these companies that can be either positive or negative.
- It can use its decision-making authority to influence the amount of the company's variable returns.

The consolidation of special-purpose vehicles is not dependent on the amount of the capital investment or the percentage of voting rights. The accounting basis for consolidation under IFRS may deviate from the regulatory group under CRR due to differing statutory conditions for consolidation.

The following special-purpose vehicles in connection with securitization transactions were included in the IFRS consolidated financial statements as at 31 December 2020:

- Weinberg Capital DAC, Dublin
- Weinberg Funding Ltd., Jersey

All the assets and liabilities held by these SPVs are included in LBBW's consolidated financial statements. If the link between LBBW and a special-purpose vehicle does not result in the latter being included in the IFRS consolidated financial statements, only the relationship to the special-purpose vehicle is reflected in the income statement.

LBBW as investor

The securitization products acquired by the LBBW Group as an investor are allocated to the banking book for regulatory purposes.

In accordance with IFRS 9, the products were allocated to »measured at amortized cost« or »mandatorily measured at fair value through profit or loss« at the time of acquisition in line with their documented business model and the cash flow criterion and were measured as shown below:

Financial assets measured at amortized cost:

This balance sheet item includes financial assets belonging to portfolios with the business model »Hold« that meet the requirement of a simple loan agreement. The item comprises exclusively non-derivative debt instruments such as accounts receivable and securities. This financial asset is measured at amortized cost.

Interest income (positive and negative) and fees similar to interest from these financial assets are recognized in the statement of profit or loss under »Net interest income and current income from equity instruments«. Expenses and income from allowances for losses on loans and advances, as well as gains and losses from selling these financial assets, can be found in the statement of profit or loss under the item »Net income from financial assets measured at amortized cost«.

Financial assets mandatorily measured at fair value through profit or loss:

Financial assets that neither meet the requirements of a simple loan agreement nor belong to a portfolio with the »Sell« business model are recognized in this balance sheet item. A subsequent remeasurement at fair value[1] through profit or loss takes into account all fluctuations in fair value directly in the statement of profit or loss.

Interest income (positive and negative) from these financial assets and distributions from equity instruments are recognized in the statement of profit or loss under »Net interest income and current income from equity instruments«. Changes to fair value and gains and losses from selling these financial instruments can be found in the statement of profit or loss under the item »Net gains/losses from financial instruments measured at fair value through profit or loss«.

LBBW as sponsor, arranger, service provider or collateral trustee

If LBBW acts solely as sponsor, arranger, service provider or collateral trustee in customer transactions, this does not result in assets requiring disclosure in the balance sheet.

LBBW as bank granting liquidity

If LBBW makes liquidity facilities available, they must be categorized as loans under »measured at amortized cost« (IFRS) upon utilization.

Upon utilization, swaps are recognized as derivatives under IFRS and allocated to the category »Financial assets mandatorily measured at fair value through profit or loss«.

10.4 Presentation of securitization positions in accordance with CRR

New regulations are being introduced on 28 June 2021 for the presentation of securitization information in accordance with Article 449 CRR. In preparation for these changes and in light of the new Securitization Regulation in place since 2019, the quantitative securitization information as at 31 December 2020 is shown in the templates to be applied in the future (EU-SEC1 to SEC5).

The CRR provisions apply to the information provided in the following tables, which may differ from the presentation for securitization positions shown in other reports.

1 Fair value is defined in accordance with IFRS 13 as the price at which an asset or liability could be exchanged at the measurement date in an orderly transaction between market participants. Reference should be made to Note 43 of LBBW's 2020 Annual Report for further information on the measurement of the fair value of financial instruments (i.e. especially for securitizations).

The following table (template EU-SEC1) shows LBBW's banking book positions in its role as sponsor, broken down by the underlying exposure class. Total amounts are split into traditional and synthetic securitizations, as well as into STS securitizations and non-STS securitizations. LBBW did not transact any securitization positions without the transfer of receivables in the reporting year.

EUR million	Overall position	Retail (total)	Of which: receivables from residential construction loans	of which: risk exposures from credit card business	Receivables from other retail	Of which: resecuritization	Corporate business (total)	Of which: loans and advances to corporates	Of which: receivables from commercial real estate loans	Of which: lease receivables, trade receivables	Of which: receivables from other corporate business	Of which: resecuritization
Originator positions												
Traditional securitizations				-	-	-	-	-	-	-	-	-
STS	-	-	-	-	-	-	-	-	-	-	-	-
including SRT	-	-	-	-	-	-	-	-	-	-	-	-
Non-STS	-	-	-	-	-	-	-	-	-	-	-	-
including SRT	-	-	-	-	-	-	-	-	-	-	-	-
Synthetic securitizations		-	-	-	-	-	-	-	-	-	-	-
including SRT	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-
Sponsor positions												
Traditional securitizations	-	-	-	-	-	-	-	-	-	-	-	-
STS	1,737	-	-	-	-	-	1,737	-	-	1,737	-	-
Non-STS	872	-	-	-	-	-	872	-	-	872	-	-
Synthetic securitizations	-	-	-	-	-	-	-	-	-	-	-	-
Total	*2,609*	-	-	-	-	-	*2,609*	-	-	*2,609*	-	-
Investor positions												
Traditional securitizations		-	-	-	-	-	-	-	-	-	-	-
STS	1,073	-	-	-	-	-	1,073	403	-	670	-	-
Non-STS	-	-	-	-	-	-	-	-	-	-	-	-
Synthetic securitizations	-	-	-	-	-	-	-	-	-	-	-	-
Total	*1,073*	-	-	-	-	-	*1,073*	*403*	-	*670*	-	-

Figure 59: EU SEC1 Total outstanding securitized receivables and securitization transactions allocated to the banking book in which LBBW took part as a sponsor or investor (Article 449 (j) CRR II)

The EU-SEC2 template is not published as LBBW does not currently hold any trading book items.

The figure below (template EU-SEC3) divides the sponsor items in the banking book by traditional and synthetic transactions. These are then subdivided regarding their STS status, resecuritization property and the exposure class (retail/non-retail). In line with the allocated risk weightings, they are recognized in risk weight bands (basis of assessment total amount/exposure) and in accordance with the approach applied (SEC-IRBA, SEC-ERBA (including IAA), SEC-SA and capital deduction). Regarding the approach used, the positions are shown by exposure, RWA and own funds requirement (where applicable taking account of the cap under Article 267 and 268 CRR).

EUR million	Overall position	Traditional securitization	Securitization	Of which related to retail	Of which STS	Of which corporate business	Of which STS	Resecuritizations	Synthetic securitization	Securitizations	Of which related to retail	Of which corporate business	Resecuritizations
Exposure value (by risk weight band)													
≤20% RW	510	510	510	-	-	510	380	-	-	-	-	-	-
>20% to 50% RW	1,690	1,690	1,690	-	-	1,690	1,357	-	-	-	-	-	-
>50% to 100% RW	409	409	409	-	-	409	1	-	-	-	-	-	-
>100% to <1250% RW	-	-	-	-	-	-	-	-	-	-	-	-	-
1250% /capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-
Exposure value (by securitization approach)													
SEC-IRBA	-	-	-	-	-	-	-	-	-	-	-	-	-
SEC-ERBA (with IAA)	2,263	2,263	2,263	-	-	2,263	1,595	-	-	-	-	-	-
SEC-SA	346	346	346	-	-	346	143	-	-	-	-	-	-
1250%/capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-
RWEA (by securitization approach)													
SEC-IRBA	-	-	-	-	-	-	-	-	-	-	-	-	-
SEC-ERBA (with IAA)	803	803	803	-	-	803	488	-	-	-	-	-	-
SEC-SA	101	101	101	-	-	101	14	-	-	-	-	-	-
1250%/capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital backing under CAP													
SEC-IRBA	-	-	-	-	-	-	-	-	-	-	-	-	-
SEC-ERBA (with IAA)	64	64	64	-	-	64	39	-	-	-	-	-	-
SEC-SA	8	8	8	-	-	8	1	-	-	-	-	-	-
1250%/capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-

Figure 60: EU-SEC3: Total amount, RWA and own funds requirement for sponsor positions, broken down by risk weight and approach (Article 449 (k)(i) CRR II)

The figure below (template EU-SEC4) divides the investor positions in the banking book by traditional and synthetic transactions. These are then subdivided regarding their STS status, resecuritization property and the exposure class (retail/non-retail). In line with the allocated risk weightings, they are recognized in risk weight bands (basis of assessment total amount/exposure) and in accordance with the approach applied (SEC-IRBA, SEC-ERBA (including IAA), SEC-SA and capital deduction). Regarding the approach used, the positions are shown by exposure, RWA and own funds requirement (where applicable taking account of the cap under Article 267 CRR).

EUR million	Overall position	Traditional securitization	Securitization	Of which related to retail	Of which STS	Of which corporate business	Of which STS	Resecuritizations	Synthetic securitization	Securitizations	Of which related to retail	Of which corporate business	Resecuritizations
Exposure value (by risk weight band)													
≤20% RW	1,063	1,063	1,063	-	-	1,063	1,063	-	-	-	-	-	-
>20% to 50% RW	10	10	10	-	-	10	10	-	-	-	-	-	-
>50% to 100% RW	-	-	-	-	-	-	-	-	-	-	-	-	-
>100% to <1250% RW	-	-	-	-	-	-	-	-	-	-	-	-	-
1250% /capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-
Exposure value (by securitization approach)													
SEC-IRBA	-	-	-	-	-	-	-	-	-	-	-	-	-
SEC-ERBA (with IAA)	358	358	358	-	-	358	358	-	-	-	-	-	-
SEC-SA	715	715	715	-	-	715	715	-	-	-	-	-	-
1250%/capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-
RWEA (by securitization approach)													
SEC-IRBA	-	-	-	-	-	-	-	-	-	-	-	-	-
SEC-ERBA (with IAA)	40	40	40	-	-	40	40	-	-	-	-	-	-
SEC-SA	104	104	104	-	-	104	104	-	-	-	-	-	-
1250%/capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital backing under CAP													
SEC-IRBA	-	-	-	-	-	-	-	-	-	-	-	-	-
SEC-ERBA (with IAA)	3	3	3	-	-	3	3	-	-	-	-	-	-
SEC-SA	8	8	8	-	-	8	8	-	-	-	-	-	-
1250%/capital deduction	-	-	-	-	-	-	-	-	-	-	-	-	-

Figure 61: EU-SEC4: Total amount, RWA and own funds requirement for investor positions, broken down by risk weight and approach (Article 449 (k) (ii) CRR II)

The table below (template EU-SEC5) shows LBBW's sponsor positions divided by exposure class (retail/non-retail) and the type of exposure. In addition to the total amount of the outstanding exposures, the share of exposures in default and the amount specific credit risk adjustments in accordance with Article 110 CRR for these exposures are shown.

The impaired/past due exposures to be recognized in accordance with Article 449 (p) CRR that LBBW has securitized as part of its sponsor activities, as well as losses reported by the bank in connection with this, are recognized in the following table (template EU-SEC5). Trading book positions securitized by LBBW pursuant to Article 449 (q) were not outstanding as at the reporting date.

LBBW did not provide any implicit support (Article 250 of the Regulation EU 575/2013) in the 2020 reporting period.

EUR m	Securitized positions- bank is sponsor		
	Total notional amount		Total amount of impairment during the reporting period
		Of which at default	
Overall position	*2,609*	*7*	*0*
Retail (total)	-	-	-
Receivables from residential construction loans	-	-	-
Risk exposures from credit card business	-	-	-
Receivables from other retail	-	-	-
Resecuritization	-	-	-
Corporate business (total)	*2,609*	*7*	*0*
Loans and advances to corporates	-	-	-
Receivables from commercial real estate loans	-	-	-
Lease receivables, trade receivables	2,609	7	0
Receivables from other corporate business	-	-	-
Resecuritization	-	-	-

Figure 62: EU-SEC5: Total amount of exposures in default and specific credit risk adjustments of LBBW as sponsor (Article 449 (l) CRR II)

As at the reporting date 31 December 2020, assets in accordance with Article 449 (n) (iii) CRR of EUR 1.7bn (loan receivables from companies based in Germany) were earmarked for securitization.

LBBW did not engage in any securitization activities as an originator in 2020. Accordingly, no gains or losses were realized or reported in accordance with Article 449 n (vi) CRR, or in accordance with Article 449 n (iv) CRR.

As at the reporting date 31 December 2020, there were no securitization positions with a risk weight of 1250% (Article 449 (n (v)) CRR). There is therefore no need to provide a tabular breakdown of securitization positions.

11 Exposure in equities not included in the trading book (Article 447 CRR)

In line with risk and return considerations, LBBW's strategic equity investments help the Bank implement its operating policy, thus strengthening LBBW's market position in terms of target customers and key products. By outsourcing market, staff and operating functions to subsidiaries and associated companies, this ensures ideal utilization of market potential.

The same profitability requirements generally apply to LBBW's own strategic investment business as for its front offices.

In addition to the equity investments that are consolidated for regulatory purposes or deducted from liable equity capital (see chapter 3 »Scope« Figure 5), LBBW also has further equity investments in its banking book with own funds requirements in accordance with the IRB approach.

For regulatory purposes, LBBW distinguishes when using the IRB approach between investment positions that are part of a portfolio managed in terms of probability of default (PD/LGD method) and those handled using the simple risk weight approach.

On the date of acquisition, equity investments which are not consolidated are measured at historical cost (including transaction costs) and subsequently remeasured at fair value in line with IFRS. For listed companies, the respective market price as at the balance sheet date is used for valuation when the market is active. For non-listed companies or in the absence of an active market, fair value is calculated on the basis of available multi-year forecasts using the income capitalization approach or the discounted cash flow method (DCF method) in line with the principles of the IDW. If the capitalized income method or the DCF method is not appropriate, valuations are performed on the basis of net asset value (NAV) or transaction value or in relation to the equity share. If the carrying amount of an equity investment is less than EUR 250,000, the existing valuation is retained.

Carrying amounts of investment positions in the banking book

The following table breaks down the non-consolidated investment positions by type and tradability and shows the balance sheet value recorded in the consolidated financial statements and the fair value. For listed companies the fair value is always equivalent to the stock-market value. If a fair value has not been calculated for internal or external purposes, then the carrying amount is used.

EUR million Groups of investment instruments	Carrying value according to IFRS	Fair value	Stock-market value
Equity investments in banks	*149*	*158*	-
Of which exchange-traded	-	-	-
Of which not exchange-traded	149	158	-
Equity investments in financial institutions	*184*	*184*	*7*
Of which exchange-traded	7	7	7
Of which not exchange-traded	177	178	-
Equity investments in other companies	*161*	*166*	*9*
Of which exchange-traded	9	9	9
Of which not exchange-traded	152	158	-
Affiliated companies – banks	-	-	-
Of which exchange-traded	-	-	-
Of which not exchange-traded	-	-	-
Affiliated companies – financial institutions	*7*	*6*	-
Of which exchange-traded	-	-	-
Of which not exchange-traded	7	6	-
Affiliated companies – other companies	*543*	*545*	-
Of which exchange-traded	-	-	-
Of which not exchange-traded	543	545	-
Investment funds	*283*	*283*	-
Of which exchange-traded	-	-	-
Of which not exchange-traded	283	283	-
Total 31 December 2020	*1,326*	*1,343*	*15*
Total 31 December 2019	*1,626*	*1,743*	*407*

Figure 63: Carrying amounts of investment positions in the banking book (Article 447 (b) and (c) CRR)

The following table sets out realized and unrealized gains and losses from equity investments outside the supervisory consolidation base in line with IFRS accounting for the reporting period.

EUR million	31/12/2020	31/12/2019
Realized gains (+) and losses (-) from sale/liquidation	*2*	*1*
Unrealized gains (+) and losses (-) from equity instruments	*142*	*72*
Of which amounts recognized in capital under CRR:	-	-
in Tier 1 capital	-	-
in Tier 2 capital	-	-

Figure 64: Realized and unrealized gains/losses from investment positions (Article 447 (d) and (e) CRR)

12 Operational risk (Article 446 CRR)

In accordance with regulatory requirements, operational risks are described as the risk of losses arising due to the unsuitability or failure of internal processes and systems, people, or due to external events. This definition also includes legal risks. Business risks and reputation risks are not included under operational risks.

A dual overall approach is in place, under which an independent, centralized organizational unit within the Group Risk Control division is tasked with further developing and implementing the methods and tools used by OpRisk controlling. In the LBBW Group, the execution of the processes implemented for the management of operational risks is mainly the responsibility of the decentralized divisions and subsidiaries.

The central parameters for handling operational risks are enshrined in the Group risk strategy, the OpRisk section of the non-financial risk strategy and the policy governing operational risks as well as in the framework and work instructions.

The focus of the management and control activities is to identify operational risks at an early stage, to present a transparent picture of them and to manage them actively. The objective is to minimize or avoid risks, taking cost/benefit aspects into consideration. The internal control system, an open risk culture, the sensitivity to risks of all staff members and the handling of risks in an open manner are also key to limiting operational risks.

Internal and external loss event data, the annual risk inventory (self-assessment and scenario analysis) and risk indicators are used to identify and assess the risk situation. The centralized OpRisk Controlling unit provides decision-makers with relevant information as part of regular risk reporting. Depending on the extent of the loss, ad hoc reports are also compiled.

The overall exposure to operational risks is aggregated within the risk-bearing capacity concept on the basis of operational value-at-risk (OpVaR) in the LBBW Group's limit system.

The standard approach under Article 317 et seqq.CRR is applied to determine own fund requirements for regulatory purposes. The own funds required came to EUR 385m as at 31 December 2020 (after profit appropriation resolution by the shareholders' meeting) (previous year: EUR 373m).

Further information on operational risks can be found in the chapter »Operational risks« in the risk report of LBBW's 2020 annual report, p. 74 et seqq.

13 Leverage ratio (Article 451 CRR)

Disclosure of the leverage ratio as at 31 December 2020 is based on the stipulations of the Commission Delegated Regulation (EU) No. 2015/62 of 10 October 2014 amending the CRR with regard to the leverage ratio. The capital measure is based on Tier 1 capital taking into account the transitional provisions (phase-in) (Article 499 (1) (b) CRR).

1 Description of procedures to monitor the risk of excessive indebtedness	**Description under LRQua 1**
2 Description of factors which had an impact on the disclosed leverage ratio during the period under review	**Description under LRQua 2**

Figure 65: Disclosure of qualitative elements

13.1 LRQua 1: Description of procedures to monitor the risk of excessive indebtedness

LBBW takes account of the risk of excessive indebtedness by including the leverage ratio in its planning and management process. An internal future target for the leverage ratio is calculated on the basis of LBBW's business and risk strategy and its implementation in medium-term planning. The management of the leverage ratio is embedded in the management of the LBBW Group's balance-sheet structure. At monthly intervals LBBW's comprehensive internal management reporting is used to report on the leverage ratio and key influencing factors. If required, the management approaches of the leverage ratio that have been identified for LBBW are discussed in the Asset Liability Committee (ALCo) in detail. The ALCo submits proposals for specific management measures to the Group's Board of Managing Directors where appropriate. Decisions are taken by the Group's Board of Managing Directors.

13.2 LRQua 2: Description of factors which had an impact on the disclosed leverage ratio during the period under review

The leverage ratio on the basis of the CRR transitional provisions (»phase-in«) came to 4.7% at 31 December 2020 (as at 30 June 2020: 4.4%). The leverage ratio exposure (»phase-in«) decreased from EUR 299.3bn as at 30 June 2020 to EUR 289.9bn as at 31 December 2020 (– EUR 9.4bn).

The decline in the leverage ratio exposure against the previous period (30 June 2020) chiefly reflects the decrease in exposures from securities financing transactions.

EUR million		Figures to be used
1	Total assets according to the published accounts	276,449
2	Adjustment for corporates that are consolidated for accounting purposes but do not form part of the regulatory basis of consolidation	– 2,967
3	(Adjustment for fiduciary assets recognized in the balance sheet according to the applicable accounting provisions but which under Article 429 (13) of Regulation (EU) No. 575/2013 are excluded from the leverage ratio total exposure measure)	-
4	Adjustment for derivative financial instruments	– 11,316
5	Adjustment for securities financing transactions (SFTs)	4,003
6	Adjustment for off-balance-sheet items (i.e. conversion of off-balance-sheet exposures into credit equivalent amounts)	22,829
EU-6a	(Adjustments for intra-group risk exposures which are excluded from the leverage ratio total exposure measure in accordance with Article 429 (7) of Regulation (EU) No. 575/2013)	-
EU-6b	(Adjustments for risk exposures which are excluded from the leverage ratio total exposure measure in accordance with Article 429 (14) of Regulation (EU) No. 575/2013)	-
7	Other adjustments	881
8	Leverage ratio total exposure measure	*289,880*

Figure 66: Comparison between balance sheet and overall exposure value measurement

EUR million		Exposure value of the CRR leverage ratio
On-balance-sheet risk exposures (excluding derivatives and SFTs)		
1	On-balance-sheet items (excluding derivatives, SFTs and fiduciary assets but including collateral)	234,632
2	(Asset amounts deducted in the calculation of Tier 1 capital)	– 268
3	Total of on-balance-sheet risk exposures (excluding derivatives, SFTs and fiduciary assets) (total of rows 1 and 2)	234,365
4	Future exposure for all derivatives transactions (i.e. excluding eligible additional contributions received in cash)	11,776
5	Premiums for the potential future exposure for all derivatives transactions (mark-to-market measurement method)	10,940
EU–5a	Risk exposure valued in accordance with the Original Exposure Method	-
6	Addition of amount of collateral furnished in connection with derivatives that is deducted from total assets according to the applicable accounting standard	-
7	(Deductions from receivables for additional contributions in cash for derivatives transactions)	– 11,700
8	(Excluded CCP portion of customer-cleared trading positions)	– 3,320
9	Adjusted effective nominal value of written credit derivatives	4,093
10	(Netting of adjusted effective nominal values and deduction of premiums for written credit derivatives)	– 2,076
11	Total risk exposures from derivatives (total of rows 4 to 10)	9,713
Risk exposures from securities financing transactions (SFTs)		
12	Gross assets from SFTs (without recognition of netting) after adjustment for transactions booked as sales	26,019
13	(Netted amounts of cash liabilities and receivables from gross assets from SFTs)	– 5,537
14	Counterparty default risk exposures for SFT assets	2,491
EU–14a	Divergent treatment of SFTs; counterparty default risk exposure in accordance with Article 429b (4) and Article 22 of Regulation (EU) No. 575/2013	-
15	Risk exposures from transactions realized as an agent	-
EU–15a	(Excluded CCP portion of customer-cleared SFT risk exposures)	-
16	Total of risk exposures from securities financing transactions (total of rows 12 to 15a)	22,973
Other off-balance-sheet risk exposures		
17	Off-balance-sheet risk exposures at their gross nominal value	62,664
18	(Adjustments for the conversion into credit equivalent amounts)	– 39,836
19	Other off-balance-sheet risk exposures (total of rows 17 and 18)	22,829
(On-balance-sheet and off-balance-sheet risk exposures which may be excluded pursuant to Article 429 (14) of Regulation (EU) No. 575/2013)		
EU–19a	(On-balance-sheet and off-balance-sheet) intra-group risk exposures (individual basis) which are excluded pursuant to Article 429 (7) of Regulation (EU) No. 575/2013	-
EU–19b	(On-balance-sheet and off-balance-sheet risk exposures which may be excluded pursuant to Article 429 (14) of Regulation (EU) No. 575/2013)	-
Equity and leverage ratio total exposure measure		
20	Tier 1 capital	13,641
21	Leverage ratio total exposure measure (total of rows 3, 11, 16, 19, EU–19a and EU–19b)	289,880
Leverage ratio		
22	Leverage ratio in %	4.7
Application of transitional provisions and value of derecognized fiduciary items		
EU-23	Transitional provision chosen for the definition of the capital measure	Phase-in
EU-24	Amount of fiduciary assets removed from the balance sheet in accordance with Article 429 (11) of Regulation (EU) No. 575/2013	-

Figure 67: Uniform disclosure schema for the leverage ratio

EUR million		Exposure value of the CRR leverage ratio
EU-1	Total of on-balance-sheet risk exposures (excluding derivatives, SFTs and excluded risk exposures), of which:	221,695
EU-2	Risk exposures in the trading book	15,394
EU-3	Risk exposures in the trading book, of which:	206,301
EU-4	Covered bonds	13,385
EU-5	Risk exposures treated as risk exposures towards sovereigns	55,754
EU-6	Risk exposures to regional authorities, multilateral development banks, international organizations and public-sector bodies which are not treated as risk exposures towards sovereigns	533
EU-7	Institutions	40,023
EU-8	Collateralized by real estate liens	20,774
EU-9	Risk exposures from retail business	6,465
EU-10	Corporates	64,716
EU-11	Defaulted exposures	727
EU-12	Other risk exposures (e.g. equity investments, securitizations and other assets that are not loan commitments)	3,924

Figure 68: Breakdown of balance-sheet risk exposures (excluding derivatives, securities financing transactions (SFTs) and excluded risk exposures)

14 Asset encumbrance (Article 443 CRR)

Asset encumbrance is defined in the Commission Implementing Regulation (EU) 2015/79. Under this, an asset is encumbered if it is used as collateral or is the subject of any form of agreement on the provision of collateral, the securing or grant of loan collateral for a transaction from which it cannot be withdrawn without prior approval.[1] The value of encumbered assets is therefore fundamentally influenced by a bank's business model.

At LBBW, disclosures on asset encumbrance are based on the regulatory basis of consolidation within the meaning of CRR. Since the 31 December 2020 reporting date, this has been the same as the LCR basis of consolidation.

There is no material difference between the methodology for calculating encumbered assets as part of the asset encumbrance report and the assets shown in the notes to the consolidated financial statements, where assets are posted/transferred. Further information can be found in the Notes in the annual report under section 35.

For this disclosure of encumbered assets, the medians are calculated on the basis of quarterly figures for the last twelve months. It should be noted that the totals are also calculated as a median on the basis of quarterly figures for the last twelve months. The total disclosed may therefore differ from the total of the sub-items.

A large part of the encumbered assets results from LBBW's function as the clearing bank for the savings banks. This causes an increase in encumbered assets allocated particularly to the derivatives, promotional pass-through loans and also repo transactions and securities lending category. LBBW has encumbered (on-balance-sheet) assets of EUR 112.3bn (previous year: EUR 94.3bn) and unencumbered assets of EUR 174.2bn (previous year: EUR 167.4bn). The encumbered on-balance-sheet assets primarily relate to the following positions:

- Promotional pass-through loans: LBBW passes on loans provided by promotional/development banks to the savings banks. These pass-through loans are classed as encumbered assets. Encumbered pass-through loans account for 27% (previous year: 30%) of the encumbered assets.
- Covered bonds: LBBW issues covered bond in accordance with German covered bond legislation. Accordingly, 24% (previous year: 30%) of the encumbered assets are for covered bonds. The figures include the statutory, the rating-related and the voluntary surplus cover.
- Derivatives: 23% (previous year: 24%) of the encumbered assets are related to OTC derivatives. Positive fair values under derivatives particularly result in an encumbrance as some of these are reported within gross asset encumbrance (without netting of the corresponding liability position). LBBW transacts derivatives under national and international agreements (German Rahmenvertrag and ISDA Master Agreement) and with corresponding credit support annexes.

Virtually all encumbrances are driven by LBBW itself. There are only negligible encumbrances within the LBBW Group.

1 See Commission Implementing Regulation (EU) 2015/79 of 18 December 2014, Chapter 1.7 for a definition

The total of the cover pools for outstanding Pfandbriefe (public and mortgage Pfandbriefe) for the disclosure period (2020 financial year) was EUR 26.9bn (previous year: EUR 28.1bn). The cover pools also include overcollateralization of EUR 9.0bn (previous year: EUR 9.1bn), which is categorized as encumbered for the purposes of the asset encumbrance report. This comprises the legally required overcollateralization, overcollateralization required by rating agencies and, primarily, voluntary overcollateralization. This high overcollateralization is also a key reason for the high share of Pfandbriefe in comparison to total encumbered assets. This thus affects LBBW's asset encumbrance ratio.

LBBW received collateral worth a total of EUR 45.6bn (previous year: EUR 47.6bn); of this, EUR 18.6bn (previous year: EUR 17.7bn) was reused. The reused collateral is particularly related to repo and securities lending business. LBBW uses bilateral and triparty repo and lending markets such as Eurex GC Pooling and Fixed Income Clearing Corporation (FICC) for funding purposes. LBBW transacts derivatives under national and international repo contracts (Rahmenvertrag für Wertpapierpensionsgeschäfte, Global Master Repurchase Agreement and Master Repurchase Agreement). LBBW enters into securities lending agreements under national and international security loan master agreements (Rahmenvertrag für Wertpapierdarlehen and Global Master Securities Lending Agreement).

At LBBW, the US dollar is currently a significant currency in the sense of Article 415 (2) CRR. Encumbrances in US dollar are immaterial in terms of their amount and result chiefly from repos and securities lending.

LBBW does not consider some of the unencumbered assets in the column »Carrying amount of unencumbered assets« listed in form A as suitable for encumbrance. This essentially includes receivables from reverse repos, derivative assets, majority interests, property plant and equipment and cash in hand.

Repurchased covered bonds amounted to EUR 220.7m in the disclosure period (previous year: EUR 91.2m). These are unencumbered, as the underlying assets in the cover fund are fully encumbered. LBBW does not have any retained asset-backed securities.

	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
EUR million		**of which: assets that, unencumbered, would qualify for classification as EHQLA or HQLA**		**of which: assets that, unencumbered, would qualify for classification as EHQLA or HQLA**		**of which: EHQLA and HQLA**		**of which: EHQLA and HQLA**
Assets of the reporting bank	*112,311*	*11,858*			*174,231*	*51,897*		
Equity instruments	–	–	–	–	*9,209*	*940*	*9,533*	942
Debt securities	*13,743*	*9,494*	*13,717*	*9,477*	*23,722*	*12,562*	*23,711*	12,591
Of which: covered bonds	7,662	7,491	7,667	7,497	8,394	7,444	8,401	7,450
Of which: asset-backed securities	–	–	–	–	443	–	450	–
Of which: issued by states	1,734	1,665	1,714	1,645	3,712	3,088	3,783	3,110
Of which: issued by financial entities	11,863	7,744	11,860	7,749	19,021	8,570	18,935	8,578
Of which: issued by non-financial entities	112	81	113	81	480	236	522	237
Other assets	*99,557*	*2,364*			*146,263*	*39,551*		
Of which: derivative transactions	22,482	–			10,642	–		

Figure 69: Form A – assets

EUR million	Fair value of encumbered collateral received or own bonds issued		Unencumbered: Fair value of collateral received or own bonds issued suitable for encumbrance	
		Of which: assets that, unencumbered, would qualify for classification as EHQLA or HQLA		Of which: EHQLA and HQLA
Collateral received by the reporting bank	*18,628*	*15,244*	*26,640*	*20,020*
Call loans	–	–	–	–
Equity instruments	–	–	829	513
Debt securities	18,620	15,237	25,811	19,559
Of which: covered bonds	579	134	2,705	2,482
Of which: asset-backed securities	–	–	–	–
Of which: issued by states	14,136	13,890	9,660	8,484
Of which: issued by financial entities	3,975	926	15,009	9,846
Of which: issued by non-financial entities	311	233	900	587
Loans and advances excluding call loans	–	–	–	–
Other collateral received	–	–	–	–
Own bonds issue excluding own covered bonds or asset-backed securities	0	–	1,092	–
Own covered bonds and issued securities not yet pledged as collateral			221	–
Total of assets, collateral received and own bonds issued	*130,407*	*27,793*		

Figure 70: Form B – Collateral received.

EUR million	Matching liabilities, contingent liabilities or lent securities	Assets, collateral received and other own bonds issued except covered bonds and encumbered asset-backed securities
Carrying amount of selected financial liabilities	*101,348*	*116,435*
Of which: repurchase agreements	2,927	9,052

Figure 71: Form C – Sources of encumbrance

15 Liquidity coverage ratio (Article 435 CRR)

Liquidity coverage ratio

The EBA's Guidelines on disclosure requirements (EBA/GL/2017/01) set out a harmonized structure for the disclosure of information required in accordance with Article 435 (1) CRR ((EU) 575/2013) regarding liquidity risk. In addition, the guidelines include specifications and requirements as to which information institutions must disclose with regard to the liquidity coverage ratio (LCR).

The LCR shows the short-term resilience of the liquidity profile within the next 30 days and is thereby defined as the ratio of liquid assets (liquidity buffer) to total net cash outflows.

Liquidity risks

Definition

LBBW's liquidity risk monitoring and management activities draw a distinction between short-term liquidity risk in the narrower sense, which represents the risk of insolvency due to an acute funding shortfall, and the funding (spread) risk, which describes the adverse effects on income resulting from a possible deterioration of funding spreads.

Liquidity risk management

Risk measurement

Liquidity risk tolerance is primarily defined by reference to a survival period concept, i.e. time frames are specified by senior management over which LBBW is expected to remain at least solvent, even in the event of severely limited opportunities to borrow on the market, subject to different combinations of assumptions (development paths).

There is a limit system for the maximum funding requirements based on maturities from the business portfolio across various time frames and currencies, and utilization reviews that match the funding requirements with the potential funding.

Internally developed models for the economic steering group are used to calculate call risks from sight deposits, loan commitments and from using derivatives as collateral. These models depict fluctuations in the effect of uncertain cash flows on liquidity, which are standard even in normal market phases, and also serve as the basis for stress tests.

The call risks from sight and savings deposits are derived on the basis of past changes in holdings and their volatility. A model revision in October 2020 helped more accurately depict risk diversification between the various deposit products. In addition, adjusting the model parameters and introducing an automated system for monitoring model results also improved the distribution of call risks to the respective forecast period and ensured that changing market conditions cannot negatively affect model performance without being noticed.

In the case of loan commitments, future use is estimated based on their product characteristics, existing and planned use and past drawing of the respective subportfolio.

The model for using derivatives as collateral is based on the value-at-risk approach and determines potential additional contribution obligations for LBBW using the relevant market factors for the derivatives portfolio.

For the stress scenarios under MaRisk BTR 3, the results from the call risk models are expanded to include additional call risks for specific scenarios. The results of the call risks identified for internal management are integrated into the review of the risk tolerance specification. This looks at whether solvency is assured at all times for at least three months, even under stress.

The call risks identified are also included in the calculation of liquidity risk for the overarching MaRisk stress scenarios.

The provisions of the LCR and NSFR apply for the normative steering group.

The stress scenarios and the model assumptions are regularly checked to determine whether they are still adequate under the ongoing market conditions. If they need to be adjusted due to current developments, this is reported to senior management via the Executive Risk Committee and, if approved, results in timely adjustments.

To ensure that new call risks or an increase in risk from known but previously immaterial call risks are identified at an early stage, models, assumptions and materiality classifications are reviewed within the scope of the risk inventory process and changes to the liquidity position resulting from business activities or market changes are analyzed on a regular basis.

All key subsidiaries as defined in the risk inventory (Risk Management Group) and conduits are transferred via the liquidity risk strategy into a single framework for strategic specifications of the activities involving liquidity risks. The liquidity risks for subsidiaries and affiliates are assessed as part of a regular risk inventory and, if material, are transferred to the Risk Management Group's regulatory framework, which generally corresponds to the regulatory framework of LBBW (Bank).

Risk monitoring and reporting

The regular monitoring of liquidity risks from regulatory and economic perspectives is the responsibility of the LBBW Executive Risk Committee at the management level. It prepares decisions for the Group's Board of Managing Directors. Liquidity Risk Control is responsible for daily monitoring at the operational level as part of the second line of defense. All material aspects of liquidity risk, such as liquidity requirements, liquidity buffer and compliance with the specifications on liquidity risk tolerance including the results of the stress tests carried out, are reported in detail monthly in the Executive Risk Committee via the overall risk report and the intraday liquidity. Detailed reports are prepared daily as part of the continuous monitoring, which show the different partial aspects of liquidity and liquidity risk – such as disaggregation of the liquidity gaps by currency – and are distributed to recipients in Group Risk Control and Treasury.

Risk management

The ALCo, which meets on a monthly basis, is the central body for managing liquidity and funding. The ALCo also draws up the funding strategy and planning on behalf of the Group's Board of Managing Directors, presents it to the Board for approval and monitors implementation of decisions.

As part of the first line of defense, Treasury implements all the decisions to be made by the ALCo with the aim of active income and risk optimization while simultaneously ensuring solvency at all times and compliance with regulatory requirements and the requirements with respect to liquidity risk tolerance. The regulatory liquidity requirements (LCR and, from 2021, NSFR) are a key aspect of operational management and are actively managed and continuously monitored with the help of forecasts. The strategic parameters in terms of liquidity risk tolerance are designed in such a way that the Group's solvency in EUR and foreign currency is secured for a sufficiently long period even in extreme market situations and in the event of a marked deterioration of LBBW's credit rating as perceived by market players. This also ensures that in the event of temporary adverse developments an adequate time window is available for adapting the business strategy and considering alternative business policies.

Treasury, in consultation with Risk Control, is responsible for developing methods to calculate internal funds transfer pricing (FTP). The ALCo is responsible for the FTP policy, the internal netting interest rates (opportunity interest rates) and for monitoring the steering effects of the opportunity interest rates and pricing models on the business units and liquidity and funding situation of the Group. Methodological changes are monitored and approved by Group Risk Controlling with regard to their risk adequacy before being approved by the Board of Managing Directors on the recommendation of the ALCo.

Treasury is responsible for operational (risk) management.

The purpose of LBBW's funding strategy is to diversify product and investor groups. Institutional investors, banks, savings banks and retail business again constituted the main sources of medium- and long-term funding. On the capital market, LBBW raised refinancing funds in 2020 through Pfandbriefe, senior preferred and senior non-preferred issues in various currencies, as well as through private placements, in the benchmark segment and, in part, in ESG green and social bonds. LBBW also participated in the ECB's longer-term tender (TLTRO III).

LBBW manages the composition of eligible collateral regarding rating and product groups to avoid concentrations. Thresholds have been established and are monitored.

Treasury is responsible for securing the intraday liquidity. It actively manages the daily payments via the Bundesbank account and calculates liquidity requirements up to the end of the day, while continuously taking into account payment inflows and outflows in euro that only become known during the course of the day and the central bank function for savings banks. Liquidity Risk Control evaluates daily sales in euro and monitors intraday liquidity using calculated key figures and a daily stress test.

An emergency plan is in place for securing liquidity in acute crisis situations. The provisions made include the formation of a crisis response team bringing in members of the Board of Managing Directors. The emergency plan is reviewed and resolved anew by the Board of Managing Directors each year.

Risk situation of the LBBW Group

The consequences of high surplus liquidity on the market, which began in 2020, can also be seen in LBBW's extensive liquidity. Despite the COVID-19 pandemic, the customer deposit business picked up and capital market placements – both covered and uncovered – attracted lively interest among national and international investors. The LBBW Group's sources of funding are very stable in terms of volume and degree of diversification.

As at the reporting date of 31 December 2020, the funding needs and the counterbalancing capacity were as follows:

EUR million	**3 months**		**12 months**	
	31/12/2020	**31/12/2019**	**31/12/2020**	**31/12/2019**
Funding requirements from the business portfolio (deterministic cash flow)	– 5,707	5,248	– 17,320	– 221
Funding requirement from material call risks (stochastic cash flow)	14,447	16,713	32,257	33,777
Funding potential from free liquidity reserves	12,174	22,771	16,403	29,658
Funding potential in the market	49,547	48,450	64,606	64,732
Overcollateralization	52,980	49,260	66,073	60,834

Figure 72: Overview of funding requirements and counterbalancing potential

The funding requirement from the business portfolio is negative in the three and twelve-month forecast at the year-end if liquidity inflows exceed the outflows, effectively resulting in a need for investment instead. The liquidity profile in the first half of the year was dominated by the funding requirement from the business portfolio. As a result of participating in the ECB's longer-term tender in June 2020, this developed into a consistent need for investment combined with reduced collateral. As previously, net inflows in euro (investment requirements) are offset chiefly by net outflows in USD and GBP, material foreign currencies for LBBW (investment requirements). The funding potential is adequate to compensate for any short-term liquidity outflows and continues to ensure significant overcollateralization on a three (approx. EUR 53bn) and 12-month horizon (approx. EUR 66bn). Over the year as a whole, the surplus cover from cover registers that are not required to preserve the covered bond rating is applied towards the free liquidity reserves and is therefore increasing the total funding potential. The funding potential in the market is approximated on the basis of historical data on the unsecured funds actually raised.

EUR million	Funding needs (3 months)		Funding counterbalancing capacity (3 months)	
	31/12/2020	31/12/2019	31/12/2020	31/12/2019
Rating downgrade scenario	21,346	25,832	33,763	45,808
Financial market crisis scenario	13,313	26,603	48,296	58,838
Combined scenario of market crisis with downgrade	13,646	27,076	43,341	53,993

Figure 73: Results of the economic stress scenarios

The targeted stress resistance was met throughout 2020. The liquidity risk stress scenarios »Rating downgrade«, »Financial market crisis«, and »Market crisis with downgrade«, structured in accordance with the guidelines of MaRisk (BTR 3.2), show that the remaining funding potential via the market, plus the free liquidity buffer, always exceeds the potential funding requirements under stress scenarios for this period. Sufficient overcollateralization was also available for intraday liquidity in the foreign currency stress tests and in the euro stress test at all times.

In addition to the requirements for stress resistance, the requirements of the LBBW's liquidity risk tolerance set by senior management also include limits for the maximum funding requirement arising from maturities from the business portfolio and requirements concerning their coverage through funding potential. The overall Group limits, which are monitored on a daily basis, were exceeded on one day in the first quarter of 2020 (euro including foreign currencies). However, these were observed again from the following day.

The prescribed minimum value of 100% for the European indicator for short-term liquidity »Liquidity Coverage Ratio (LCR)« for 2020 was observed each day and was above the requirement as at year-end 2020 at 135.4% (31 December 2019: 123.6%). LBBW implemented the longer-term liquidity requirement of a »Net stable funding ratio« (NSFR) applicable from June 2021 onwards and already meets this requirement in a closely monitored process.

No material negative effects on LBBW's liquidity situation in connection with the COVID-19 crisis had been observed at the time of preparing this report. Deposits increased significantly and credit commitments experienced fluctuation only within normal ranges. The regular liquidity stress tests continue to show good surplus cover of assumed or existing funding potential in relation to funding requirements.

Risk management system for Pfandbrief business

A differentiated limit system has been established to monitor risks from the Pfandbrief business (Section 27 of the German Pfandbrief Act(PfandBG)). Regular stress tests are conducted regarding present value overcollateralization. A procedure for lowering risks has been implemented in the event that the limits established are reached. The Board of Managing Directors and the Executive Risk Committee are informed each quarter about compliance with the requirements of the Pfandbrief Act and utilization of statutory and internal limits. Statutory requirements were observed at all times in 2020. The risk management system is reviewed at least once per year.

LCR disclosure

Levels and components of LCR

In line with Annex II of EBA/GL/2017/01, LBBW is required to disclose quantitative information on the components of LCR. Based on LCR data collated as the end of each month, the unweighted and weighted values (simple average values over twelve month-values before the end of each quarter) look as follows.[1]

The LCR over the entire disclosure period was consistently above the minimum ratio of 100% required for 2020.

In EUR million	Total unweighted value (average)				Total weighted value (average)			
Quarter ends on	**31/03/2020**	**30/06/2020**	**30/09/2020**	**31/12/2020**	**31/03/2020**	**30/06/2020**	**30/09/2020**	**31/12/2020**
Number of data points used in the calculation of averages	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
High-quality liquid assets								
Total high-quality liquid assets (HQLA)					59,128	58,819	61,731	66,494
Cash outflows								
Retail deposits and deposits from small business customers, of which	15,528	16,527	17,780	19,268	1,435	1,429	1,448	1,497
Stable deposits	7,802	7,804	7,900	8,070	390	390	395	403
Less stable deposits	7,726	7,687	7,788	8,075	1,045	1,039	1,053	1,093
Unsecured wholesale funding	73,700	76,340	78,336	79,838	47,234	48,217	48,704	48,503
Operational deposits (all counterparties) and deposits in networks of cooperative banks	20,551	21,137	21,883	22,686	4,906	5,059	5,260	5,483
Non-operational deposits (all counterparties)	41,867	44,180	45,327	46,713	31,047	32,136	32,317	32,581
Unsecured debt	11,281	11,023	11,126	10,440	11,281	11,023	11,126	10,440
Secured wholesale funding					2,419	2,447	2,252	2,160
Additional requirements	31,113	31,089	31,345	31,539	8,931	8,942	8,976	8,809
Outflows related to derivative exposures and other collateral requirements	4,593	4,946	5,030	5,081	3,089	3,270	3,329	3,357
Outflows related to loss of funding on debt products	110	135	129	64	110	135	129	64
Credit and liquidity facilities	26,409	26,008	26,186	26,394	5,731	5,537	5,517	5,388
Other contractual funding obligations	6,744	7,298	7,722	8,140	6,556	7,115	7,541	7,957
Other contingent funding obligations	30,258	30,690	31,113	31,865	1,772	2,325	2,558	2,594
Total cash outflows					*68,347*	*70,475*	*71,478*	*71,520*

1 As prescribed in the EBA guidelines on disclosure EBA/GL/2017/01, the values and figures should be calculated as the simple averages of month-end observations over the twelve months preceding the end of each quarter. This figure can deviate from the calculation of the LCR which is calculated using the average liquidity buffer and average net cash outflows.

In EUR million	Total unweighted value (average)				Total weighted value (average)			
Quarter ends on	31/03/2020	30/06/2020	30/09/2020	31/12/2020	31/03/2020	30/06/2020	30/09/2020	31/12/2020
Number of data points used in the calculation of averages	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Cash inflows								
Secured lending (e.g. reverse repos)	19,287	20,306	20,853	20,100	4,641	5,361	5,341	4,438
Inflows from fully performing exposures	15,965	16,593	17,787	17,245	11,466	11,919	12,724	11,846
Other cash inflows	8,808	9,595	9,872	9,726	7,383	8,201	8,525	8,422
(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					-	-	-	-
(Excess inflows from a related specialized credit institution)					-	-	-	-
Total cash inflows	*44,060*	*46,493*	*48,512*	*47,071*	*23,490*	*25,481*	*26,590*	*24,706*
Fully exempt inflows	-	-	-	-	-	-	-	-
Inflows subject to 90% cap	-	-	-	-	-	-	-	-
Inflows subject to 75% cap	39,639	41,724	43,438	41,768	23,490	25,481	26,590	24,706
Total adjusted value								
Liquidity buffer					59,128	58,819	61,731	66,494
Total net cash outflows					44,857	44,994	44,889	46,814
Liquidity coverage ratio in %					132.1	131.0	137.4	141.9

Figure 74: EU LIQ1 – Weighted and unweighted total values of LCR

Further qualitative information on LCR complementing the LCR disclosure

2020 was dominated by the outbreak of the COVID-19 pandemic and the repercussions this had at all levels. Even under these market conditions, LBBW enjoyed comfortable liquidity and easily exceeded the minimum requirements at all times.

The aim of LBBW's funding mix strategy is to achieve diversification in relation to products and investor groups. It offers all the usual liability products on a secured and non-secured basis in various maturity segments. In 2020, LBBW also took advantage of the ECB's open market operations.

As well as participating in the ECB's longer-term tender (TLTRO III), at the long end the main sources of funding in 2020 were investments by affiliated savings banks and German institutional investors, as well as retail business. Pfandbriefe are also a major source of funding for LBBW. These were increasingly issued in the benchmark segment for LCR purposes. LBBW therefore has a stable funding base, which arises from both the retail business and from the bank's function within the savings bank cooperative association (Sparkassenverbund) and which has market and investor access to the relevant national and international money and capital markets.

LBBW is also broadly diversified when it comes to (short) maturities which are relevant to LCR. LBBW has very stable (current) customer deposits, especially from its retail customers. The bank's function as a clearing bank for the savings banks and liquidity intermediary between the savings banks constitutes an additional source of liquidity. In the LCR calculation, this is evident at the short end of the unsecured funding from deposits from financials. However, overnight deposits and fixed-term deposits from corporates and other financials (institutional investors) also contribute to diversification at the short end.

Major drivers of additional outflows in conjunction with derivatives positions are potential collateral requirements due to the impact of adverse market conditions. LBBW calculates such outflows using the »historical look-back approach« (HLBA) as defined in the Commission Delegated Regulation (EU) 2017/208. As at reporting date of 31 December 2020, the average share of outflows calculated based on the HLBA amounted to around 4% of total net outflows.

LBBW manages compliance with the LCR across all currencies. At the moment, the US dollar is a significant currency in the sense of Article 415 (2) CRR.

All LBBW Group liquidity risks classified as material, including subsidiaries which are material for the liquidity risk are managed centrally by LBBW Treasury. The impact of the subsidiaries on the LCR was generally marginal during the disclosure period.

LBBW sees no further positions that might be relevant for its liquidity profile which are not included in the figures or in the text of the present disclosure report.

16 Disclosures on COVID-19

The following chapter discloses the information on the effects of the COVID-19 crisis as required by EBA/GL/2020/07 of 2 June 2020.

	Loans and advances subject to a moratorium					
EUR million		**Of which: households**	**Households: Of which: secured by residential properties**	**Of which: non-financial corporations**	**Non-financial corporations: Of which: small and medium-sized enterprises**	**Non-financial corporations: Of which: secured by commercial properties**
Gross carrying value – 31/12/2020	*27*	*24*	*14*	*3*	*3*	*2*
Performing	27	24	14	3	3	2
Of which: exposures with forbearance measures	-	-	-	-	-	-
Of which: instruments with a significant increase in credit risk since initial recognition, but not impaired (stage 2)	7	7	5	0	0	-
Non-performing	-	-	-	-	-	-
Of which: exposures with forbearance measures	-	-	-	-	-	-
Of which: unlikely to pay that are not past due or are past due <= 90 days	-	-	-	-	-	-
Gross carrying value – 30/06/2020	*335*	*69*	*46*	*252*	*92*	*197*
Accumulated impairment, accumulated negative changes in fair value due to credit risk – 31 December 2020	*0*	*0*	*0*	*0*	*0*	*0*
Performing	0	0	0	0	0	0
Of which: exposures with forbearance measures	-	-	-	-	-	-
Of which: instruments with a significant increase in credit risk since initial recognition, but not impaired (stage 2)	0	0	0	0	0	-
Non-performing	-	-	-	-	-	-
Of which: exposures with forbearance measures	-	-	-	-	-	-
Of which: unlikely to pay that are not past due or are past due <= 90 days	-	-	-	-	-	-
Gross carrying value						
Inflows in non-performing exposures	-	-	-	-	-	-
Accumulated impairment, accumulated negative changes in fair value due to credit risk – 30 June 2020	*– 2*	*0*	*0*	*– 1*	*– 1*	*– 1*

Figure 75: Information on loans and advances subject to legislative and other moratoria (COVID-19 template 1)

EUR million	Number of obligors	Gross carrying value	Of which: legislative moratoria	Of which: expired	Remaining term of moratoria				
					<= 3 months	> 3 months <= 6 months	> 6 months <= 9 months	> 9 months <= 12 months	> 1 year
Loans and advances for which a moratorium was submitted	*1,315*	*648*							
Loans and advances subject to a moratorium (granted)	*1,315*	*648*	*199*	*621*	*24*	*3*	-	-	-
Of which: households		302	198	278	22	1	-	-	-
Of which: secured by residential properties		217	146	204	12	1	-	-	-
Of which: non-financial corporations		332	1	329	2	1	-	-	-
Of which: small and medium-sized enterprises		191	1	188	2	1	-	-	-
Of which: secured by commercial properties		245	1	244	2	-	-	-	-
Loans and advances for which a moratorium was submitted – 30 June 2020	*1,651*	*663*							
Loans and advances subject to a moratorium (granted) – 30 June 2020	*1,648*	*623*	*239*	*288*	*212*	*116*	*7*	*0*	-

Figure 76: Breakdown of exposures subject to legislative and non-legislative moratoria, by remaining term of moratoria (COVID-19 template 2)

In addition to the legislative moratorium for consumers, LBBW also used private moratoria of DSGV (Deutscher Sparkassen- und Giroverband), VdP (Verband der Pfandbriefbanken) and VÖB (Bundesverband Öffentlicher Banken Deutschlands) during the COVID-19 pandemic. The KfW private moratorium for development loans was also used. This was disclosed to the regulatory authorities. Renewal options for private moratoria beyond 30 September 2020 were not exercised.

LBBW thereby allowed customers affected by the COVID-19 crisis to defer the loan repayments due for up to six months, or nine months for KfW development loans. Some of the terms of the agreements had not yet ended as at 31 December 2020.

EUR million	Gross carrying value		Total amount of eligible guarantee	Gross carrying value
		Of which: forborne	Public guarantees received	Inflows in non-performing exposures
Newly originated loans and advances subject to public guarantee schemes	*659*	*3*	*553*	-
Of which: households	24			-
Of which: secured by residential properties	1			-
Of which: non-financial corporations	633	3	529	-
Of which: small and medium-sized enterprises	247			-
Of which: secured by commercial properties	75			-
Newly originated loans and advances subject to public guarantee schemes – 30 June 2020	*216*	-	*185*	-

Figure 77: Information on new loans and advanced granted under new public guarantee schemes introduced in response to the COVID-19 pandemic (COVID-19 template 3)

Newly originated exposures subject to public guarantee schemes essentially comprise KfW (Kreditanstalt für Wiederaufbau) loans with indemnity. Deferrals were granted as part of the KfW private moratorium for development loans. To date this has not given rise to any inflows in non-performing exposures.

Appendix - country allocation

Other countries – Europe	Other countries – America	Other countries – Asia and Oceania	Other countries – Other
Albania	Argentina	Afghanistan	Egypt
Andorra	Bahamas	Azerbaijan	Algeria
Belgium	Barbados	Bahrain	Angola
Bosnia-Herzegovina	Bermuda	Bangladesh	Ethiopia
Bulgaria	Bolivia	Brunei	Benin
Estonia	Brazil	Burundi	Botswana
Faroe Islands	Chile	China	Burundi
Greece	Costa Rica	Fiji	Eritrea
Guernsey	Curacao	Georgia	Gambia
Ireland	Dominican Republic	Hong Kong	Ghana
Iceland	Ecuador	India	Cameroon
Isle of Man	El Salvador	Indonesia	Kenya
Jersey	Grenada	Iraq	Libya
Croatia	Guatemala	Iran	Madagascar
Latvia	Honduras	Israel	Mali
Liechtenstein	Jamaica	Japan	Morocco
Lithuania	Cayman Islands	Jordan	Mauritius
Malta	Columbia	Cambodia	Mozambique
Macedonia	Cuba	Kazakhstan	Namibia
Moldavia	Mexico	Qatar	Nigeria
Montenegro	Nicaragua	Kyrgyzstan	Zambia
Poland	Panama	Kuwait	Zimbabwe
Portugal	Paraguay	Lebanon	South Africa
Romania	Peru	Malaysia	Syria
Russia	Saint Kitts and Nevis	Nepal	Tanzania
Serbia	Saint Pierre and Miquelon	Oman	Togo
Slovakia	Trinidad and Tobago	New Zealand	Chad
Slovenia	Uruguay	Pakistan	Tunisia
Spain	Venezuela	Philippines	Uganda
Czech Republic	Virgin Islands	Republic of Korea	International organizations
Turkey		Saudi Arabia	
Ukraine		Singapore	
Hungary		Sri Lanka	
Vatican		Taiwan	
Belarus		Thailand	
Cyprus		Uzbekistan	
		United Arab Emirates	
		Vietnam	

List of abbreviations

ABCP	Asset backed commercial paper
ABS	Asset backed security
ARC	Aggregate risk cover
AT1	Additional Tier 1 capital
BaFin	Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority)
BCBS	Basel Committee on Banking Supervision
BelWertV	Beleihungswertermittlungsverordnung (German Regulation on the Determination of Mortgage Lending Value)
CCP	Central counter party
CCP	Central counterparty
CCR	Counterparty credit risk
CCR	Customer compact rating
CDO	Collateralized debt obligation
CDS	Credit default swap
CET1	Common equity Tier 1
CLN	Credit linked note
COREP	Common solvency ratio reporting
CRD	Capital Requirement Directive
CRR	Capital Requirement Regulation
CRSA	Credit risk standard approach
DCF	Discounted cash flow
DSGV	Deutscher Sparkassen- und Giroverband (German Savings Banks Finance Group)
EaD	Exposure at default
EBA	European Banking Authority
EEA	European Economic Area
EEPE	Effective expected positive exposure
EL	Expected loss
ESG	Environmental, social and governance
ETF	Exchange traded funds
FICC	Fixed Income Clearing Corporation
FINREP	Financial reporting
FTP	Funds transfer pricing
HGB	Handelsgesetzbuch (German Commercial Code)
HQLA	High-quality liquid assets
IAA	Internal Assessment Approach
ICAAP	Internal Capital Adequacy Assessment Process
ICRE	Rating for international commercial real estate
ICS	Internal control system
IDW	Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany)
IFRS	International Financial Reporting Standards
IMM	Internal Model Method
IPV	Independent price verification
IRBA	Internal rating based approach
ISDA	International Swaps and Derivatives Association
LGD	Loss given default
MaRisk	Minimum Requirements for Risk Management
NAV	Net asset value
OTC	Over the counter
PD	Probability of default
RBC	Risk-bearing capacity
RCP	Risk classification procedure
SAG	Sanierungs- und Abwicklungsgesetz (German Recovery and Resolution Act)

SEC	Securitization
SEC-ERBA	Securitization – external ratings based approach
SEC-IAA	Internal Assessment Approach
SEC-SA	Securitization – standardized approach
SIC	Standing Interpretations Committee
SKS	Sparkassen KundenScoring
SME	Small and medium-sized enterprises
SPC	Special purpose company
SPV	Special purpose vehicle
SREP	Supervisory Review and Evaluation Process
T2	Tier 2 capital
TLTRO	Targeted longer-term refinancing operations
UTP	Unlikely to pay
VaR	Value-at-risk

Index of tables

LBBW

Breaking New Ground

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