Reliable performance.
Disclosure report of Landesbank Baden-Württemberg.

In accordance with CRR/CRD IV as at 31 December 2015.

Landesbank Baden-Württemberg

LBBW

2015

1 Fundamentals.

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) of 26 June 2013, taking effect from 1 January 2014. 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 in »Bundesgesetzblatt« on 28 August 2013.

On 29 January 2015 the Basel Committee on Banking Supervision published further disclosure requirements under the heading »BCBS 309«, which will probably have to be applied by banks for the first time as of 31 December 2016. In addition to stipulating fresh content requirements, the frequency of the disclosure of individual matters has been increased.

To meet the currently applicable requirements in accordance with CRR, Landesbank Baden-Württemberg (LBBW) prepares the disclosure report in aggregate form at the Group level in its function as a parent company. This report is based on the International Financial Reporting Standards (IFRS). In terms of qualitative disclosures, LBBW makes use of the possibility of referring to other disclosure reports to the extent that the information which they contain has already been published under other disclosure requirements.

In contrast to the LBBW Group's annual report, which also includes a risk and opportunity report, this report focuses on the regulatory requirements.

In addition, the separate financial statements prepared in accordance with HGB and the remuneration report required under the Remuneration Ordinance for Institutions (Instituts-Vergütungsverordnung), which also includes the disclosures required under Article 450 CRR, are published on LBBW's website.

The figures published in the disclosure report have been rounded to the next million in accordance with commercial principles. Accordingly, rounding differences may arise through aggregation.

2 Risk management objectives and policies. (Article 435 CRR)

The risk management system is determined by the Board of Managing Directors and the Risk Committee in risk strategies consistent with the business strategy.

Within the Group risk strategy, risk strategy guidelines which apply Group-wide across all risk categories are determined via risk tolerance. It is defined by determining the fundamental conditions underlying risk strategy, strategic limits, liquidity risk tolerance and the guidelines for risk management and must be adhered to in all business.

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 thereby create the framework for medium-term planning together with the business strategy. The operative implementation of these guidelines is accompanied by variance analyses, monthly earnings analyses as well as strategic and operative limit systems.

Further details on the risk situation, risk management function, the strategies and processes for measuring and controlling risks, risk reporting and the principles for hedging and mitigating risks can be found in the annual report. It also includes a declaration on the appropriateness of the risk management processes.

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

- which belong to one and the same bank group, financial holding group or mixed financial holding group,
- which belong to the same institutional protection system or
- in which the institution holds a significant share.

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

Under this definition, the seven members of LBBW's Board of Managing Directors hold a total of eleven supervisory directorships as at 31 December 2015.

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.

The members of the Board of Managing Directors of Landesbank Baden-Württemberg hold 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.

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. Members of the Board of Managing Directors who have passed the age of 60 may be appointed or re-appointed for a period not extending beyond the date on which they turn 65. In exceptional cases, the Supervisory Board may also pass a resolution approving an appointment or re-appointment beyond this date.

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.

The professional backgrounds of the members of the Board of Managing Directors are 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. They must be re-appointed no later than one month before the expiry 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. 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 employees 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 the knowledge, skills and experience of the individual members of the Board of Managing Directors and the Supervisory Board as well as of the two boards in their entirety.

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.

At a total of nine meetings in 2015, the Risk Committee held intensive discussions on the Bank's risk situation and risk management as well as its exposure requiring disclosure 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 in 2015 with the Board of Managing Directors. Various portfolios were examined in detail in the light of economic or regulatory developments. This also included regular reporting on the progress made in winding down LBBW's credit substitute business.

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 exposure requiring approval under the Bank's rules and, where necessary, granted its approval.

3 Scope of application. (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 seq. CRR as at 31 December 2015.

Differences from 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 the German Banking Act.

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 equity funding and regulatory reportability at an institution level are satisfied (waiver rules), is not used within the LBBW Group.

There are no limitations or other significant obstacles to carrying forward cash or cash equivalents or liable equity capital to be taken into account in the LBBW Group.

As at 31 December 2015, no non-consolidated subsidiary had less than the prescribed equity.

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.

Description	Name	Regulatory consolidation		Consolidation in accordance with accounting standard	
		Full	Proportional	Full	Accounted for using the equity method
Banks					
	Landesbank Baden-Württemberg	X		X	
	MKB Mittelrheinische Bank GmbH	X		X	
	Vorarlberger Landes- und Hypothekenbank AG				X
Financial institutions					
	ALVG Anlagenvermietung GmbH	X		X	
	BW Capital Markets Inc.	X		X	
	BWK GmbH Unternehmensbeteiligungsgesellschaft				X
	BWK Holding GmbH Unternehmensbeteiligungsgesellschaft				X
	CFH Beteiligungsgesellschaft mbH	X		X	
	East Portfolio s.r.o.	X		X	
	LBBW Asset Management Investmentgesellschaft mbH	X		X	
	LBBW México	X		X	
	LBBW Venture Capital GmbH	X		X	
	LRP Capital GmbH			X	
	SL Financial Services Corporation	X			
	Süd Beteiligungen GmbH	X		X	
	Süd KB Unternehmensbeteiligungsgesellschaft mbH	X		X	
	SüdFactoring GmbH	X		X	
	Süd-Kapitalbeteiligungs-Gesellschaft mbH	X		X	
	SüdLeasing GmbH	X		X	
	SÜDRENTING ESPANA, S. A.	X			
Providers of ancillary services					
	LBBW Service GmbH	X		X	

Figure 1: Main consolidated companies (Article 436 (b) CRR).

4 Own funds. (Articles 437 and 438 CRR)

Structure of own funds and applicable transitional provisions.

The following table sets out the LBBW Group's own funds pursuant to IFRS in accordance with Part 2 of the CRR as well as the applicable deductions and transitional provisions.

The »Reference« column in Figure 2 reconciles the components of the Bank's own funds under CRR with the balance sheet. Figure 3 shows the relevant items of the balance sheet with figures according to IFRS and FINREP (Financial Reporting).

EUR million Capital instruments	Amount on the day of disclosure 31 Dec. 2015	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	Reference
Common Equity Tier 1: instruments and reserves				
Capital instruments and related premiums	11 724	26 (1), 27, 28, 29, EBA directory in accordance with Article 26 (3)		j + k
of which share capital	11 724			
Retained earnings	768	26 (1) (c)		l
Cumulative comprehensive income (and other reserves comprising unrealized gains and losses under the applicable accounting standards)	760	26 (1)		m + n + o
Fund for general banking risks	0	26 (1) (f)	0	
Items as defined in Article 484 (3) plus the related premium no longer eligible for inclusion in CET1	0	486 (2)		
Government capital allocations subject to grandfathering rights until 1 January 2018	0	483 (2)		
Non-controlling interests (admissible amount in consolidated CET1)	0	84, 479, 480		
Independently audited interim gains less all foreseeable charges or dividends	0	26 (2)		
Common Equity Tier 1 (CET1) before regulatory adjustments	**13 253**			
Common Equity Tier 1 (CET1): regulatory adjustments				
Additional measurement adjustments (negative amount)	– 151	34, 105		
Intangible assets (less corresponding tax liabilities) (negative amount)	– 216	36 (1) (b), 37, 472 (4)	– 325	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)	– 49	36 (1) (c), 38, 472 (5)	– 442	c
Reserves from gains or losses from the fair-value measurement of cash flow hedges	0	33 (a)		
Negative amounts from the calculation of expected losses	– 120	36 (1) (d), 40, 150	– 180	
Increase in own funds arising from securitized assets (negative amount)	0	32 (1)		
Gains or losses arising from changes in the Bank's own credit rating from own liabilities measured at fair value	– 77	33 (b)	0	
Gains and losses from derivative liabilities measured at fair value arising from the Bank's own credit risk	– 40	33 (c)	– 61	
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)	0	36 (1) (f), 42 , 472 (8)	0	
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)	0	36 (1) (g), 44, 472 (9)	0	
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)	0	36 (1) (h), 43, 45, 46, 49 (2) (3), 79, 472 (11)	0	
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)	0	36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79, 470, 472 (11)	0	
Exposure amount of the following items which qualify for a risk weight of 1 250 %, where the institution deducts that exposure amount from the amount of Common Equity Tier 1 items as an alternative	0	36 (1) (k)	0	
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)	0	36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	0	
Amount in excess of the 17.65 % threshold (negative amount)	0	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	0	36 (1) (i), 48 (1) (b), 470, 472 (11)		
of which deferred tax assets that rely on future profitability arising from temporary differences	0	36 (1) (c), 38, 48 (1) (a), 470, 472 (11)		
Losses for the current financial year (negative amount)	0	36 (1) (a), 472 (3)	0	
Any foreseeable tax charge relating to Common Equity Tier 1 (negative amount)	0	36 (1) (l)		
Regulatory adjustments to Common Equity Tier 1 with respect to amounts subject to pre-CRR treatment	0			

EUR million Capital instruments	Amount on the day of disclosure 31 Dec. 2015	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	Reference
Regulatory adjustments in connection with unrealized gains and losses in accordance with Article 467 and 468	– 417			
of which deductions and filters for unrealized losses from debt instruments	21			Partial amount n
of which deductions and filters for unrealized losses from risk exposures to governments classified as »available for sale«	99			
of which deductions and filters for unrealized gains from equity investments	– 529			m
of which deductions and filters for reserves for currency translation differences	– 8			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	0	481		
Amount of items required to be deducted from Additional Tier 1 items that exceeds the Additional Tier 1 capital of the institution (negative amount)	0	36 (1) (j)		
Regulatory adjustments to Common Equity Tier 1 (CET1) as a whole	**– 1 071**			
Common Equity Tier 1 (CET1)	**12 181**			
Additional Tier 1 (AT1): instruments				
Capital instruments and related premiums	0	51, 52		
Amount of items as defined in Article 484 (4) plus the related premium no longer eligible for inclusion in AT1	1 164	486 (3)		h
Government capital allocations subject to grandfathering rights until 1 January 2018	0	483 (3)		
Qualifying CET1 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	0	85, 86, 480	0	
Additional Tier 1 (AT1) before regulatory adjustments	**1 164**			
Additional Tier 1 (AT1): regulatory adjustments				
Direct and indirect holdings by an institution of its own Additional Tier 1 instruments (negative amount)	0	52 (1) (b), 56 (a), 57, 475 (2)	0	
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)	0	56 (b), 58, 475 (3)	0	
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)	0	56 (c), 59, 60, 79, 475 (4)	0	
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)	0	56 (d), 59, 79, 475 (4)	0	
Regulatory adjustments to Additional Tier 1 with respect to amounts subject to pre-CRR treatment and treatment during the transition period for which transitional provisions apply under Regulation (EU) No. 575/2013 (i.e. CRR residual amounts)	0			
Residual amounts to be deducted from Additional Tier 1 with respect to items to be deducted from Common Equity Tier 1 during the transition period provided for in Article 472 of Regulation (EU) No. 575/2013	– 415	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)	0			
of which intangible assets	– 325			Partial amount (a + b)
of which shortfall of provisions for expected losses	– 90			
Residual amounts to be deducted from Additional Tier 1 with respect to items to be deducted from Tier 2 items during the transition period provided for in Article 475 of Regulation (EU) No. 575/2013	0	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	0	467, 468, 481		
Amount of items required to be deducted from Tier 2 items that exceeds the Tier 2 of the institution (negative amount)	0	56		
Total regulatory adjustments to Additional Tier 1 (AT1)	**– 415**			
Additional Tier 1 (AT1)	**749**			
Tier 1 (T1 = CET1 + AT1)	**12 931**			

EUR million Capital instruments	Amount on the day of disclosure 31 Dec. 2015	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	Reference
Tier 2 (T2): Instruments and reserves				
Capital instruments and related premiums	**3 471**	**62, 63**		**e + f + g + i**
Amount of items as defined in Article 484 (5) plus the related premium no longer eligible for inclusion in T2	0	486 (4)		
Government capital allocations subject to grandfathering rights until 1 January 2018	0	483 (4)		
Qualifying equity instruments counting towards consolidated Tier 2 (including the non-controlling interests and AT1 instruments not already mentioned above) which have been issued by subsidiaries and are held by third parties	0	87, 88, 480	0	
Credit risk adjustments	0	62 (c) and (d)		
Tier 2 (T2) before regulatory adjustments	**3 471**			
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)	– 15	
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)	0	66 (b), 68, 477 (3)	0	
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)	0	66 (c), 69, 70, 79, 477 (4)	0	
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)	0		0	
Regulatory adjustments to Tier 2 with respect to amounts subject to pre-CRR treatment and treatment during the transition period subject to phase out arrangements as described in Regulation (EU) No. 575/2013 (i.e. CRR residual amounts)	0			
Residual amounts to be deducted from Tier 2 with respect to items to be deducted from CET1 items during the transition period provided for in Article 472 of Regulation (EU) No. 575/2013	– 90			
of which material interim losses (net)	0			
of which intangible assets	– 90			
of which shortfall of provisions for expected losses	0			
Residual amounts to be deducted from Tier 2 with respect to items to be deducted from CET1 items during the transition period provided for in Article 475 of Regulation (EU) No. 575/2013	0			
Amount to be deducted from or added to Tier 2 in connection with additional deductions and filters and in accordance with the necessary pre-CRR deductions	0			
Total regulatory adjustments to Tier 2 (T2)	**– 115**			
Total Tier 2 (T2)	**3 356**			
Total capital (TC = T1 + T2)	**16 287**			
Risk-weighted assets with respect to amounts subject to pre-CRR treatment and treatment during the transition period which are subject to phase out arrangements as described in Regulation (EU) No. 575/2013 (i.e. CRR residual amounts)	0			
of which items not deducted from Tier 2	0		0	
of which indirect holdings in the institution's own Tier 2 instruments	0			
Total risk-weighted assets	**74 460**			
Capital ratios and buffers				
CET1 capital ratio (expressed as a percentage of the total risk exposure amount)	16.4	92 (2) (a), 465		
T1 capital ratio (expressed as a percentage of the total risk exposure amount)	17.4	92 (2) (b), 465		
Total capital ratio (expressed as a percentage of the total risk exposure amount)	21.9	92 (2) (c)		
Institution-specific capital buffer requirement (minimum required CET1 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)	3 351	CRD 128, 129, 130		
CET1 available for the buffers (expressed as a percentage of the total risk exposure amount)	11.9	CRD 128		

Capital instruments EUR million	Amount on the day of disclosure 31 Dec. 2015	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	Reference
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)	586	36 (1) (h), 45, 46, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)		
Direct and indirect holdings by the institution of CET1 instruments of financial sector entities where the institution has a significant investment in those entities (more than 10% and less eligible sales positions)	785	36 (1) (i), 45, 48, 470, 472 (11)		
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)	537	36 (1) (c), 38, 48, 470, 472 (c)		d
Applicable caps for the inclusion of impairments in Tier 2				
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)	0	62		
Cap for the inclusion of credit risk adjustments in Tier 2 under the standard approach	154	62		
Credit risk adjustments eligible for inclusion in Tier 2 for risk exposure values to which the approach based on internal assessments is applied (before application of the cap)	0	62		
Cap on the inclusion of credit risk adjustments in Tier 2 under the approach based on internal assessments	287	62		
Equity instruments subject to phase out arrangements (only applicable from 1 January 2014 until 1 January 2022)				
Current cap on CET1 instruments subject to phase out arrangements	0	484 (3), 486 (2) and (5)		
Amount excluded from CET1 due to cap (amount in excess of the cap after repayments and maturities)	0	484 (3), 486 (2) and (5)		
Current cap on AT1 instruments subject to phase out arrangements	1 687	484 (4), 486 (3) and (5)		
Amount excluded from AT1 due to cap (amount in excess of the cap after repayments and maturities)	0	484 (4), 486 (3) and (5)		
Current cap on T2 instruments subject to phase out arrangements	0	484 (5), 486 (4) and (5)		
Amount excluded from T2 due to cap (amount in excess of the cap after repayments and maturities)	0	484 (5), 486 (4) and (5)		

Figure 2: Type and amounts of capital instruments.

The LBBW Group's own funds are made up of

- Common Equity Tier 1 (CET1) 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
  - hybrid capital in the form of preference shares

- and Tier 2 (T2) capital, which comprises the following items:
  - non-current subordinated liabilities (and related premiums)
  - profit-participation rights (and related premiums)
  - positive amounts arising from the reconciliation of impairments.

Under the applicable transitional rules, Additional Tier 1 capital is eligible for full inclusion.

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 »Nachrang-Emissionen – Endgültige Bedingungen« (available in German only). The relevant terms and conditions for subordinated registered securities can be viewed at LBBW's main offices in Stuttgart during normal office hours.

LBBW Group's Common Equity Tier 1 (CET1) capital increased as a result of earnings retention, despite higher deductions. Additional Tier 1 (AT1) capital decreased due to the maturities of silent participations and fluctuations in amounts deductible and their inclusion on account of the transitional provisions according to CRR. Tier 2 (T2) capital was strengthened in June 2015 by the new issue of a subordinated bond of EUR 500 million as part of the MTN program. The amortization to the day of Tier 2 elements and the fluctuation in deductions and the new way they are offset on account of the transitional rules pursuant to CRR had the opposite effect.

Due to these facts and the substantial reduction in risk-weighted assets, LBBW's capital ratios improved substantially over the previous year.
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 following table sets out the treatment of the deductions including the applicable transitional rules. Under the applicable transitional rules, a partial deduction from Additional Tier 1 or Tier 2 capital is possible during the transition period.

Deductions	Current 100% inclusion	Transitional rules
Revaluation reserve		
Deductions for unrealized losses from debt instruments (except for risk exposures to central governments)		From 2014: in steps of 20% From 2018: 100%
Deductions for unrealized gains from equity investments (including currency translation reserve)		2014: 0% 2015: 40% From 2016: in steps of 20% From 2018: 100%
Prudential filters		
Reserves from gains or losses from the fair-value measurement of cash flow hedges	x	
Gains or losses arising from changes in the Bank's own credit rating from own liabilities measured at fair value	x	
Gains and losses from derivative liabilities measured at fair value arising from the Bank's own credit risk		From 2014: in steps of 20% From 2018: 100%
Additional measurement adjustments in accordance with the principles of cautious measurement	x	
Other deductions		
Current losses		From 2014: in steps of 20% From 2018: 100%
Intangible assets and goodwill		From 2014: in steps of 20% From 2018: 100%
Deferred tax assets that rely on future profitability except those arising from temporary differences		From 2015: in steps of 10% From 2024: 100%
Negative amounts from the calculation of expected losses		From 2014: in steps of 20% From 2018: 100%

Figure 3: Transitional rules for deductions (Article 437 (1) (e) CRR).

Reconciliation of own funds 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.

EUR million Assets as at 31 December 2015	In accordance with the IFRS consolidated financial statements	In accordance with FINREP	Reference
Intangible assets	**541**	**541**	
of which goodwill	379	379	a
of which other intangible assets	162	162	b
Deferred tax assets	**1 027**	**1 052**	
of which from unused tax losses	405	394	c
of which from temporary differences	622	658	d

EUR million Equity and liabilities as at 31 December 2015	In accordance with the IFRS consolidated financial statements	In accordance with FINREP	Reference
Financial liabilities measured at fair value through profit or loss	**74 063**	**74 065**	
of which subordinated liabilities	159	159	e
of which capital generated from profit-participation rights	163	163	f
Subordinated capital	**5 329**	**5 329**	
of which subordinated liabilities	3 917	3 917	g
of which typical silent partners' contributions	1 298	1 298	h
of which capital generated from profit-participation rights	114	114	i
Equity	**13 643**	**13 753**	
of which share capital	3 484	3 484	j
of which capital reserve	8 240	8 240	k
of which retained earnings	1 062	756	l
of which other comprehensive income	413	761	
of which revaluation reserve	383	748	
of which revaluation reserve for equity investments	494	882	m
of which revaluation reserve for debt instruments	– 111	– 134	n
of which currency translation reserve	30	13	o

Figure 4: Reconciliation of the Bank's own funds (Article 437 (1) (a) CRR).

Internal capital management.

Capital management at LBBW is designed to ensure solid capitalization within the LBBW Group. The Bank analyzes capital ratios and structures in the light of regulatory, economic and accounting requirements in order to guarantee adequate capital from various perspectives. Capital management at LBBW is imbedded in the integrated performance and risk management, the strategies, regulations, monitoring processes and organizational structures of the LBBW Group.

The integrated risk and capital management is carried out by the Group's Board of Managing Directors. Among other things, the Asset Liability Committee (ALCo) supports the Board of Managing Directors in structuring the balance sheet, managing capital and liquidity, in funding and in managing market price risks. The ALCo prepares decisions in this respect that are subsequently made by the Group's Board of Managing Directors.

On matters relating to risk management and capital management under economic aspects, the Risk Committee (RiskCom) helps prepare decisions for the Board of Managing Directors with regard to risk monitoring, the risk methodology and the risk strategy for the Group as a whole.

In view of the large number of requirements in regulatory banking law and accounting, a coordinating Regulatory/Accounting Committee has been established to ensure an early assessment of the requirements of relevance to managing the Bank and to take appropriate measures.

Capital allocation and longer-term strategic capital management is performed during the integrated annual planning process (with a five-year planning horizon). The plans are approved by the Group's Board of Managing Directors and backed by an ongoing monitoring process and intra-year forecasts. The Supervisory Board subsequently decides on the business plan.

Regulatory management.

The LBBW Group's regulatory capital management is based on the requirements of CRR/CRD IV.

Observance of the regulatory capital ratios is regularly monitored on the basis of actual developments and forecasts, including any new regulatory developments/requirements. Stress tests are also carried out on a regular basis to analyze adverse developments.

The LBBW Group particularly bases the coordination and definition of its internal targets on its CET1 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«).

Economic management.

LBBW safeguards risk-bearing capacity by means of a Group-wide compilation of risks across all major types of risk and subsidiaries, and the comparison of this with the capital required for economic purposes (aggregate risk cover).

At LBBW, aggregate risk cover (corresponds to risk coverage potential as per MaRisk (Minimum Requirements for Risk Management)) denotes the capital identified according to economic criteria which is available for the coverage of unexpected losses. Subordinated capital and realized profit/loss in accordance with IFRS are included as components in addition to consolidated equity in accordance with IFRS including revaluation reserves. Extensive conservative deductions are also taken into account in aggregate risk cover due to regulatory requirements.

Economic capital is calculated as a uniform risk measure at the highest level. This equals the amount of economic capital necessary to cover the risk exposure resulting from LBBW's business. In contrast to the necessary regulatory capital backing, it therefore represents the capital backing required from LBBW’s point of view for economic purposes, which is calculated using its own risk models. It is quantified as value-at-risk (VaR) at a confidence level of 99.93% and a one-year holding period for credit, market price, real estate, development, investment and operational risks, and using simplified procedures for other risks.

By contrast, the liquidity risks are managed and limited by the quantitative and procedural rules stipulated in accordance with liquidity risk tolerance.

The upper risk limit for economic capital (economic capital limit) represents the Group-wide overarching limit for all relevant quantified risk types. This limit reflects LBBW Group's maximum willingness to accept risk. In keeping with the conservative principle underlying risk tolerance it is substantially below the aggregate risk cover and thus provides scope for risks arising from unforeseeable stress situations. In addition, the economic capital limit is verified on the basis of target figures. On the one hand, limits are derived from the upper risk limit for economic capital for various types of risk that are directly quantifiable:

- Credit risks (including risk of default by borrower or issuer, issuer risk, counterparty and country risks)
- Market price risks
- Operational risks
- Real estate risks
- Development risks
- Investment risks.

On the other hand, an additional limit is derived for other types of risk that are not quantifiable in a model approach:

- Business risks
- Reputation risks
- Pension risks
- Funding risks
- Model risks
- Dilution risks
- Fund placement risks.

The risk-bearing capacity is monitored by Group Risk Control by means of a traffic light system, including stress scenarios and forecasts. The respective traffic light thresholds are connected with the restructuring plan in line with the Recovery and Resolution Act (SAG) and linked to an escalation process.

Further details on risk-bearing capacity are provided in the »Risk management systems« chapter of LBBW Group's risk and opportunity report.

Capital requirements.

Capital requirements for counterparty risks are reported in accordance with the exposure classes specified for the credit risk standard approach (CRSA) or for the internal ratings-based approach (IRBA).

LBBW uses the internal ratings-based approach (basis IRB approach) approved by the Federal Financial Supervisory Authority (BaFin) to calculate the capital backing of counterparty risks from material exposure classes.

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

Capital backing for operational risks is calculated using the standard approach.

A distinction is also drawn between CRSA and IRBA securitization in the case of capital backing for securities transactions.

The capital requirements for investments which were acquired before 1 January 2008 are exempt from the application of the IRB approach in accordance with Article 495 CRR (grandfathering rule) until 31 December 2017 and may continue to be reported under the CRSA with a risk weight of 100%. Investments acquired after that date are backed according to the internal rating, if available. Otherwise, the simple risk weight approach is applied with a corresponding fixed risk weight.

The following table summarizes the capital requirements in terms of the risk types that are relevant under the regulatory framework (counterparty risk, market price risk and operational risks).

The decline in risk-weighted exposure values and in capital requirements of exposures to banks backed pursuant to the IRB approach is primarily due to a neutral migration to the Corporates exposure class. These are banks based in third-party countries without equivalent supervisory laws. Furthermore, the risk-weighted exposure values and capital requirements in the other exposure classes decline due to repayments and maturities. In tandem with these declines, the market price risks to be backed also decreased.

EUR million	Risk-weighted exposure value 31 December 2015	Capital requirements 31 December 2015	Risk-weighted exposure value 31 December 2014	Capital requirements 31 December 2014
1 Credit risks				
1.1 Credit risk standard approach				
Central governments	2	0	4	0
Regional governments and local authorities	1	0	3	0
Other public sector agencies	50	4	55	4
Multilateral development banks	0	0	0	0
International organizations	0	0	0	0
Banks	653	52	731	58
Corporates	4 151	332	4 690	375
Retail business	3 916	313	4 743	379
Items secured by real estate	2 030	162	2 018	161
Past due items	276	22	391	31
Items exposed to particularly high risk	0	0	4	0
Covered bonds issued by banks	0	0	0	0
Risk exposure to banks and corporates with a short-term credit rating	0	0	0	0
Undertakings for collective investment (UCI)	0	0	0	0
Other items	64	5	491	39
Total credit risk standard approach	**11 143**	**891**	**13 130**	**1 050**
1.2 IRB approaches				
Central governments	3 066	245	3 200	256
Banks	3 675	294	6 603	528
Corporates - SMEs	2 433	195	2 824	226
Corporates - specialized lending exposures	9 264	741	10 118	809
Corporates - miscellaneous	24 050	1 924	23 060	1 845
Retail business - of which secured with real estate liens, SMEs	0	0	0	0
Retail business - of which secured with real estate liens, non-SMEs	0	0	0	0
Retail business - of which qualified, revolving	0	0	0	0
Retail business - of which other, SMEs	0	0	0	0
Retail business - of which other, non-SMEs	0	0	0	0
Other assets not relating to credit	1 775	142	1 482	119
Total IRB approaches	**44 263**	**3 541**	**47 286**	**3 783**
1.3 Securitization positions				
Securitization positions under CRS approach	10	1	11	1
of which resecuritizations	0	0	0	0
Securitization positions under IRB approach	685	55	879	70
of which resecuritizations	0	0	0	0
Total securitization positions	**695**	**56**	**890**	**71**

EUR million	Risk-weighted exposure value 31 December 2015	Capital requirements 31 December 2015	Risk-weighted exposure value 31 December 2014	Capital requirements 31 December 2014
1.4 Equity investments				
Equity investments under IRB approach	2 867	229	3 028	242
of which Internal Model Method	0	0	0	0
of which PD/LGD approach	112	9	196	16
of which simple risk weight approach	1 778	142	1 669	134
of which exchange-traded equity investments	58	5	54	4
of which not exchange-traded but forming part of a sufficiently diversified equity investment portfolio	1 706	136	1 597	128
of which other equity investments	14	1	18	1
Equity investments under CRSA	1 190	95	1 154	92
of which investments held with method continuation/grandfathering	1 190	95	1 154	92
Total equity investments	**4 057**	**325**	**4 182**	**335**
1.5 Risk position amount for contributions to a default fund for a CCP	**326**	**26**	**11**	**1**
Total credit risks	**60 483**	**4 839**	**65 500**	**5 240**
2. Resolution risks				
Resolution risks in the banking book	0	0	1	0
Resolution risks in the trading book	0	0	0	0
Total resolution risks	**0**	**0**	**1**	**0**
3 Market price risks				
Standard approach	2 545	204	3 251	260
of which interest rate risks	1 803	144	2 343	187
of which general and special price risks (net interest position)	1 803	144	2 343	187
of which securitization positions with special price risk in trading book	0	0	0	0
of which special price risk in correlation trading portfolio	14	1	23	2
of which equity risks	364	29	465	37
of which currency risks	337	27	404	32
of which risks from commodities positions	41	3	37	3
Internal Model Method	4 653	372	5 811	465
Total market price risks	**7 198**	**576**	**9 061**	**725**
4 Operational risks				
Basic indicator approach	0	0	0	0
Standard approach	4 787	383	5 065	405
Advanced measurement approach	0	0	0	0
Total operational risks	**4 787**	**383**	**5 065**	**405**
5 Total risk exposure for credit valuation adjustments	**1 993**	**159**	**2 554**	**204**
6 Total risk exposure resulting from large exposure in the trading book	**0**	**0**	**0**	**0**
7 Other	**0**	**0**	**0**	**0**
Other exposure values	0	0	0	0
Total capital requirements	**74 460**	**5 957**	**82 182**	**6 575**

Figure 5: Total capital requirements (Article 438 CRR).

5 Credit risk adjustments. (Article 442)

Since the CRR took effect on 1 January 2014, reporting on the quantitative information on counterparty risk has been in accordance with the regulatory approach. As a fundamental principle, this approach is based on reportable exposure at default (EaD). Credit risk mitigation techniques and credit conversion factors (CCFs) are not taken into account.

For materiality reasons, the following tables continue to show only the SüdLeasing Group on a consolidated basis in addition to Landesbank Baden-Württemberg.

Breakdown of portfolio by region, industry and residual term.

The following tables 6 through 11 show the LBBW Group's exposure classes in accordance with CRSA and IRBA broken down by region, industry and residual term.

The average risk exposure values have been calculated on the basis of quarterly closing dates.

In the CRSA, the exposure classes »Central governments« and »Items exposed to particularly high risk« are not shown, either because the amount in these exposure classes is so small that it is not reported since reporting is in EUR million or because there is no exposure value.

The decline in the exposure values shown in the Banks exposure class in the CRSA is based primarily on the run-off of exposures to other members of the joint liability scheme.

The decline in the exposure values reported in the Banks exposure class in the IRBA is primarily attributable to a migration to the Corporates exposure class. It relates to banks based in third-party countries without equivalent supervisory laws.

The tables below show the risk exposures by region and exposure class in accordance with CRR.

EUR million Regions	Regional governments and local authorities	Other public-sector agencies	Banks	Corporates	of which SMEs	Retail business	of which retail business SMEs	Items secured by real estate	Past due items	Under-takings for collective investment (UCI)	Other items	Total
Germany	5 898	245	29 890	5 313	789	7 715	509	5 604	176	0	125	54 965
Western Europe	0	0	291	1 878	0	84	0	47	17	0	2	2 320
Eastern Europe	0	0	0	233	0	5	0	3	5	0	0	246
Asia/Pacific	0	0	0	137	0	11	0	12	6	0	0	165
North America	233	0	25	487	0	13	0	19	2	0	0	778
Latin America	0	0	0	38	0	2	0	1	5	0	0	45
Africa	0	0	0	0	0	1	0	1	0	0	0	2
Other	0	0	0	0	0	0	0	0	0	0	0	0
Not allocated to a geographical area	0	0	0	0	0	0	0	0	0	0	0	1
Total	**6 131**	**245**	**30 206**	**8 086**	**789**	**7 829**	**509**	**5 686**	**210**	**0**	**127**	**58 522**
Average total risk exposure in the period under review	**6 048**	**297**	**40 877**	**8 115**	**737**	**8 232**	**558**	**5 727**	**247**	**4**	**104**	**69 652**
Total previous year	**6 076**	**280**	**49 906**	**7 930**	**703**	**8 618**	**591**	**5 635**	**295**	**0**	**119**	**78 858**
Average total risk exposure in the previous year	**11 659**	**481**	**56 046**	**7 904**	**959**	**9 093**	**595**	**5 711**	**342**	**0**	**98**	**91 336**

Figure 6: Breakdown of risk exposure by region under the CRS approach (Article 442 (d) CRR).

EUR million Regions	Central governments	Banks	Corporates - SMEs	Corporates - specialized lending exposures	Corporates - miscellaneous	Other non-loan-related assets	Total
Germany	27 490	11 694	7 083	10 522	62 348	1 619	120 757
Western Europe	4 780	27 646	91	5 052	8 908	33	46 510
Eastern Europe	222	13	61	412	1 878	0	2 586
Asia/Pacific	297	441	33	100	1 935	7	2 813
North America	4 016	3 585	1	5 615	6 074	73	19 364
Latin America	19	184	17	266	934	2	1 421
Africa	8	0	1	5	172	0	186
Other	4 847	0	0	0	78	0	4 925
Total	**41 679**	**43 563**	**7 287**	**21 971**	**82 327**	**1 735**	**198 562**
Average total risk exposure in the period under review	**48 804**	**70 387**	**7 541**	**20 905**	**84 885**	**1 769**	**234 291**
Total previous year	**38 662**	**69 922**	**7 872**	**19 573**	**80 107**	**1 450**	**217 586**
Average total risk exposure in the previous year	**43 540**	**80 324**	**8 079**	**19 240**	**77 264**	**1 529**	**229 975**

Figure 7: Breakdown of risk exposure by region under the IRB approach (Article 442 (d) CRR).

The following table breaks down risk exposure by industry and CRR exposure class.

The industry breakdown reflects the main sectors within the overall portfolio. A further breakdown is provided where a greater differentiation of the main industries enhances the information contained in the table as a whole (CRSA and IRBA).

»Other industries« includes all Bundesbank industries whose individual volume does not exceed 3% of total risk exposure

EUR million Main industries	Regional governments and local authorities	Other public-sector agencies	Banks	Corporates	of which SMEs	Retail business	of which retail business SMEs	Items secured by real estate	Past due items	Undertakings for collective investment (UCI)	Other items	Total
Provision of financial and insurance services	**0**	**0**	**30 207**	**2 549**	**44**	**38**	**3**	**25**	**4**	**0**	**2**	**32 825**
Banks and central banks	0	0	30 189	1	0	0	0	0	0	0	2	30 192
of which savings banks and Landesbanks	0	0	27 098	0	0	0	0	0	0	0	0	27 098
Other financial institutions	0	0	18	2 119	41	5	0	4	3	0	0	2 147
Other financial and insurance services	0	0	0	429	3	33	3	21	1	0	0	485
Public administration, defense, social security	**6 124**	**216**	**0**	**326**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6 667**
Private households	**0**	**0**	**0**	**438**	**1**	**6 374**	**0**	**5 231**	**87**	**0**	**124**	**12 255**
Real estate and housing	**0**	**0**	**0**	**457**	**18**	**61**	**12**	**27**	**22**	**0**	**0**	**568**
Other real estate	0	0	0	204	8	14	4	3	20	0	0	241
Housing companies	0	0	0	254	10	47	8	23	3	0	0	327
Energy supplies	**0**	**0**	**0**	**340**	**17**	**12**	**3**	**1**	**2**	**0**	**0**	**355**
Manufacturing	**0**	**0**	**0**	**506**	**229**	**167**	**119**	**16**	**18**	**0**	**0**	**707**
Mechanical engineering	0	0	0	46	18	16	12	1	1	0	0	63
Automotive production including components	0	0	0	43	30	3	3	0	0	0	0	47
Miscellaneous manufacturing	0	0	0	417	180	148	105	15	17	0	0	597
Other sectors	**7**	**29**	**0**	**3 471**	**481**	**1 178**	**371**	**386**	**77**	**0**	**0**	**5 148**
Total	**6 131**	**245**	**30 206**	**8 086**	**789**	**7 829**	**509**	**5 686**	**210**	**0**	**127**	**58 522**
Average total risk exposure in the period under review	**6 048**	**297**	**40 877**	**8 115**	**737**	**8 232**	**558**	**5 727**	**247**	**4**	**104**	**69 652**
Total previous year	6 076	280	49 906	7 930	703	8 618	591	5 635	295	0	119	78 858
Average total risk exposure in the previous year	11 659	481	56 046	7 904	959	9 093	595	5 711	342	0	98	91 336

Figure 8: Breakdown of risk exposure by industry under the CRS approach (Article 442 (e) CRR).

EUR million Main industries	Central governments	Banks	Corporates - SMEs	Corporates - specialized lending exposures	Corporates - miscellaneous	Other non-loan-related assets	Total
Provision of financial and insurance services	**10 376**	**43 114**	**90**	**330**	**17 884**	**68**	**71 861**
Banks and central banks	5 724	33 836	0	0	2 381	67	42 008
of which savings banks and Landesbanks	0	0	0	0	0	0	0
Other financial institutions	4 650	8 904	47	68	8 433	1	22 104
Other financial and insurance services	2	373	42	261	7 071	0	7 749
Public administration, defense, social security	**27 806**	**286**	**11**	**11**	**209**	**0**	**28 322**
Private households	**0**	**0**	**55**	**52**	**1 708**	**305**	**2 120**
Real estate and housing	**233**	**153**	**3 011**	**14 485**	**6 866**	**25**	**24 773**
Other real estate	72	153	725	13 090	3 880	25	17 946
Housing companies	161	0	2 285	1 394	2 986	0	6 827
Energy supplies	**465**	**0**	**104**	**3 455**	**2 104**	**0**	**6 129**
Manufacturing industry	**0**	**0**	**1 690**	**426**	**23 818**	**1**	**25 935**
Mechanical engineering	0	0	486	80	5 647	0	6 214
Automotive production including components	0	0	58	4	5 283	0	5 345
Miscellaneous manufacturing	0	0	1 145	342	12 888	1	14 376
Other sectors	**2 799**	**10**	**2 327**	**3 214**	**29 738**	**1 336**	**39 423**
Total	**41 679**	**43 563**	**7 287**	**21 971**	**82 327**	**1 735**	**198 562**
Average total risk exposure in the period under review	**48 804**	**70 387**	**7 541**	**20 905**	**84 885**	**1 769**	**234 291**
Total previous year	**38 662**	**69 922**	**7 872**	**19 573**	**80 107**	**1 450**	**217 586**
Average total risk exposure in the previous year	**43 540**	**80 324**	**8 079**	**19 240**	**77 264**	**1 529**	**229 975**

Figure 9: Breakdown of risk exposure by industry under the IRB approach (Article 442 (e) CRR).

The following table breaks down risk exposure by residual contractual term and CRR exposure classes.

EUR million Residual contractual term	Regional governments and local authorities	Other public-sector agencies	Banks	Corporates	of which SMEs	Retail business	of which retail business SMEs	Items secured by real estate	Past due items	Undertakings for collective investment (UCI)	Other items	Total
Due daily	300	5	3 798	1 194	17	2 317	1	12	92	0	127	7 845
< 1 year	53	66	2 406	1 361	153	672	117	46	17	0	0	4 622
Up to 5 years	5 772	2	5 176	2 741	467	1 163	366	331	50	0	0	15 235
> 5 years	6	172	18 826	2 789	152	3 678	25	5 298	51	0	0	30 820
Total	**6 131**	**245**	**30 206**	**8 086**	**789**	**7 829**	**509**	**5 686**	**210**	**0**	**127**	**58 522**
Average total risk exposure in the period under review	**6 048**	**297**	**40 877**	**8 115**	**737**	**8 232**	**558**	**5 727**	**247**	**4**	**104**	**69 652**
Total previous year	**6 076**	**280**	**49 906**	**7 930**	**703**	**8 618**	**591**	**5 635**	**295**	**0**	**119**	**78 858**
Average total risk exposure in the previous year	**11 659**	**481**	**56 046**	**7 904**	**959**	**9 093**	**595**	**5 711**	**342**	**0**	**98**	**91 336**

Figure 10: Breakdown of risk exposure by residual term under the CRS approach (Article 442 (f) CRR).

EUR million Residual contractual term	Central governments	Banks	Corporates - SMEs	Corporates - specialized lending exposures	Corporates - miscellaneous	Other non-loan-related assets	Total
Due daily	2 969	8 139	619	195	3 992	1 670	17 584
< 1 year	5 278	23 350	777	2 046	20 268	46	51 765
Up to 5 years	11 170	6 090	1 059	8 178	29 652	5	56 154
> 5 years	22 262	5 984	4 830	11 552	28 415	14	73 058
No information	0	0	0	0	0	0	0
Total	**41 679**	**43 563**	**7 287**	**21 971**	**82 327**	**1 735**	**198 562**
Average total risk exposure in the period under review	**48 804**	**70 387**	**7 541**	**20 905**	**84 885**	**1 769**	**234 291**
Total previous year	**38 662**	**69 922**	**7 872**	**19 573**	**80 107**	**1 450**	**217 586**
Average total risk exposure in the previous year	**43 540**	**80 324**	**8 079**	**19 240**	**77 264**	**1 529**	**229 975**

Figure 11: Breakdown of risk exposure by residual term under the IRB approach (Article 442 (f) CRR).

Definitions of allowances for losses on loans and advances.

Information on the procedures applied in the recognition of allowances for losses on loans and advances is disclosed in the chapter entitled »Allowances for losses on loans and advances« in the Notes to the Consolidated Financial Statements.

In the following diagrams LBBW distinguishes between two types of impaired performance:

- A transaction is defined as past due when
  - there are arrears on a payment obligation (above a minimum limit) for more than five consecutive days.
- A transaction is classified as non-performing in the event of
  - a default in payment/overdraft of > 90 days
  - repayment is unlikely (due to doubts about creditworthiness)
  - an impairment has been recognized
  - an application for insolvency has been filed
  - a default rating has been given (in accordance with Article 177 CRR).

Non-performing and past due loans by region and industry.

The following tables show non-performing and past due loans and the allowances for losses on loans and advances, broken down by region and industry.

EUR million Regions	Utilization from non-performing loans	Past due loans (with no impairment requirement)	Collective valuation allowances	Specific valuation allowances	Provisions
Germany	2 111	86		741	66
Western Europe	240	0		77	0
Eastern Europe	90	1		11	0
Asia/Pacific	38	3		4	0
North America	128	0		50	0
Latin America	26	2		17	0
Africa	1	0		0	0
Other	0	0		0	0
Total	**2 634**	**92**	**132**	**900**	**66**
Total previous year	3 685	390	138	1 259	78

Figure 12: Non-performing and past due loans by region (Article 442 (h) CRR).

EUR million Main industries	Utilization from non-performing loans	Past due loans (without impairment requirement)	Collective valuation allowances	Specific valuation allowances	Provisions	Net additions to (+)/ reversals of specific valuation allowances/ provisions (-)	Write-offs (+)	Recoveries on loans previously written off (-)
Provision of financial and insurance services	**27**	**20**		**14**	**0**	**– 5**	**0**	**0**
Banks and central banks	5	19		2	0	– 2	0	0
of which savings banks and Landesbanks	0	19		0	0	0	0	0
Other financial institutions	9	1		6	0	– 4	0	0
Other financial and insurance services	14	1		6	0	1	0	0
Public administration, defense, social security	**2**	**0**		**1**	**0**	**0**	**0**	**0**
Private households	**133**	**10**		**59**	**0**	**– 1**	**1**	**0**
Real estate and housing	**570**	**33**		**118**	**0**	**– 10**	**13**	**0**
Other real estate	410	33		79	0	– 5	13	0
Housing companies	160	0		39	0	– 5	0	0
Energy supplies	**294**	**0**		**34**	**0**	**17**	**0**	**0**
Manufacturing	**640**	**11**		**246**	**41**	**– 4**	**7**	**0**
Mechanical engineering	150	1		40	5	3	1	0
Automotive production including components	56	0		29	0	0	1	0
Miscellaneous manufacturing	433	11		177	35	– 7	5	0
Other sectors	**968**	**17**		**428**	**25**	**14**	**70**	**13**
Total	**2 634**	**92**	**132**	**900**	**66**	**11**	**91**	**13**
Total previous year	**3 685**	**390**	**138**	**1 259**	**78**	**20**	**96**	**12**

Figure 13: Non-performing and past due loans by significant industry (Article 442 (g) CRR).

Changes in allowances for losses on loans and advances.

The following table shows changes in allowances for losses on loans and advances in the 2015 financial year. Due to the methodological switch to the figures reported as at 31 December 2015 as part of Corep reporting, the following statement of changes in risk does not yet include allowances for losses on loans and advances after value adjustments.

EUR million Allowances for losses on loans and advances	Opening balance on 1 January 20 15	Additions (+)	Reversals/ unwinding (-)	Utilization (-)	Exchange-rate-related and other changes (+)	Closing balance on 31 December 2015
Specific valuation allowances	1 259	219	215	364	0	900
Portfolio valuation allowances[1]	154	78	104	1	5	132
Provisions[1]	61	25	17	0	– 2	66
Total	**1 474**	**322**	**336**	**365**	**3**	**1 098**

Figure 14: Changes in allowances for losses on loans and advances (Article 442 (i) CRR).

[1] In the previous year the provisions set aside as part of the portfolio valuation allowance were reported under provisions.

Total allowances for losses on loans and advances dropped by EUR 381 million over the previous year. This decline is predominantly due to utilization (EUR 365 million). Furthermore, reversals exceeded additions by EUR 16 million.

6 Use of ratings of external credit assessment institutions (ECAIs). (Article 444 CRR)

External credit rating assessments from the following ratings agencies are applied to calculate regulatory capital requirements under the credit risk standard 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.

Total exposure values under the CRS approach.

The following two tables set out the exposure values by exposure class and risk weight on the basis of external ratings. There are no holdings for the 2%, 4%, 10% and 370% risk weights.

The exposure values are shown before and after credit risk mitigation effects from collateral. Collateral can cause a shift within the risk weight classes and a decline in the exposure values.

A large part of the exposure reported with a risk weighting of 0% under the CRS approach comprises exposure to savings banks and Landesbanks. They come within the scope of Article 113 (7) CRR as they are members of the same institutional protection system as LBBW.

The drop in exposure values with a 0% weighting before and after credit risk mitigation is chiefly due to the run-off of exposure to other members of the joint liability scheme.

EUR million	Exposure values before credit risk mitigation/risk weights										
Exposure classes	0%	20%	35%	50%	70%	75%	100%	150%	250%	1250%	Other
Central governments	5	0	0	0	0	0	0	0	0	0	0
Regional governments and local authorities	5 793	6	0	0	0	0	0	0	0	0	0
Other public-sector agencies	7	240	0	0	0	0	0	0	0	0	0
Multilateral development banks	0	0	0	0	0	0	0	0	0	0	0
International organizations	0	0	0	0	0	0	0	0	0	0	0
Banks	26 033	3 102	0	0	0	0	0	0	0	0	0
Corporates	0	83	0	2	0	0	7 857	1	0	0	0
Retail business	0	0	0	0	0	6 267	0	0	0	0	0
Items secured by real estate	0	0	5 559	166	0	0	1	0	0	0	0
Past due items	0	0	0	0	0	0	148	135	0	0	0
Items exposed to particularly high risk	0	0	0	0	0	0	0	1	0	0	0
Covered bonds issued by banks	0	0	0	0	0	0	0	0	0	0	0
Risk exposure to banks and corporates with a short-term credit rating	0	0	0	0	0	0	0	0	0	0	0
Undertakings for collective investment (UCI)	0	0	0	0	0	0	0	0	0	0	0
Equity investments	0	0	0	0	0	0	210	0	466	0	0
Other items	125	0	0	0	0	0	8	0	0	0	0
Total	**31 962**	**3 431**	**5 559**	**169**	**0**	**6 267**	**8 224**	**136**	**466**	**0**	**0**
Total previous year	**49 310**	**4 043**	**5 498**	**266**	**0**	**7 020**	**9 248**	**171**	**409**	**1**	**1**

Figure 15: Total exposure values under the CRS approach before credit risk mitigation (Article 444 (e) CRR).

EUR million	Total exposure values after credit risk mitigation/risk weights										
Exposure classes	0%	20%	35%	50%	70%	75%	100%	150%	250%	1250%	Other
Central governments	269	0	0	0	0	0	2	0	0	0	0
Regional governments and local authorities	8 100	6	0	0	0	0	0	0	0	0	0
Other public-sector agencies	17	243	0	0	0	0	1	0	0	0	0
Multilateral development banks	0	0	0	0	0	0	0	0	0	0	0
International organizations	0	0	0	0	0	0	0	0	0	0	0
Banks	25 688	3 050	0	1	0	0	41	0	0	0	0
Corporates	0	817	20	179	83	0	3 926	1	0	0	0
Retail business	0	0	0	0	0	5 512	0	0	0	0	0
Items secured by real estate	0	0	5 559	166	0	0	1	0	0	0	0
Past due items	0	0	0	0	0	0	108	112	0	0	0
Items exposed to particularly high risk	0	0	0	0	0	0	0	0	0	0	0
Covered bonds issued by banks	0	0	0	0	0	0	0	0	0	0	0
Risk exposure to banks and corporates with a short-term credit rating	0	0	0	0	0	0	0	0	0	0	0
Undertakings for collective investment (UCI)	0	0	0	0	0	0	0	0	0	0	0
Equity investments	0	0	0	0	0	0	204	0	394	0	0
Other items	125	0	0	0	0	0	64	0	0	0	0
Total	**34 199**	**4 115**	**5 580**	**347**	**83**	**5 512**	**4 347**	**112**	**394**	**0**	**0**
Total previous year	**49 530**	**4 164**	**5 522**	**275**	**97**	**6 632**	**5 395**	**158**	**409**	**1**	**1**

Figure 16: Total exposure values under the CRS approach after credit risk mitigation (Article 444 (e) CRR).

Total exposure values under the IRB approach calculated using the simple risk-weight approach.

IRBA items with a fixed risk weight are reported in the following chart. These are exposure values for equity investments, for items secured with real estate liens and for specialized lending exposures.

Items in the equity investment exposure class which are subject to a fixed risk weight are reported at 190% in the case of private equity investments in sufficiently diversified portfolios, 290% in the case of exchange-traded equity investments and at 370% in the case of all other equity investments in accordance with Article 155 (2) CRR. An alternative risk weight of 50% is applied to exposures secured by a real estate lien in accordance with Article 230 (3) CRR. Specialized lending exposures in accordance with Article 153 (5) CRR are recognized at risk weights of between 0% and 115% or of 250%, depending on the residual term and degree of risk.

EUR million	Total exposure values after credit risk mitigation	
Risk weight	For specialized lending exposures	IRB approach for equity investments and exposures secured by real estate liens to which the simple risk weight approach is applied
0%	15	
50%	805	2 848
70%	51	
of which with a residual term of less than 2.5 years	8	
90%	131	
115%	20	
190%		898
250%	12	
290%		20
370%		4
Total	**1 034**	**3 769**
Total previous year	**919**	**4 020**

Figure 17: Exposures under the IRBA approach in accordance with the simple risk weight approach.

7 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
- Specific special rating classes
- IAA procedure for measuring securitization positions
- Leasing
- Leveraged finance
- Aircraft finance
- International administrative authorities
- Funds

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.

In the future, all materially significant portfolios and subsidiaries will be measured using the IRB approach. These portfolios are being migrated to the IRB approach for both the LBBW Group and LBBW (Bank) in close consultation with the responsible competent authorities.

Description of the internal rating procedures.

As a general rule, LBBW's internal rating procedures can be divided into two categories:

- 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 cashflows 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) (exposure between EUR 50 000 and EUR 250 000)	Scorecard-based rating procedure
	Business customers		
	Corporate customers		
	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
Projects 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
		If necessary, RCP for specialized lending exposures	Scorecard-based rating procedure
	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
		If necessary, RCP for specialized lending exposures	Scorecard-based rating procedure
	Other project finance	Rating for project finance	Simulation-based rating procedure
		If necessary, RCP for specialized lending exposures	Scorecard-based rating procedure
	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
	Securitization items against own ABSP programs	Internal Assessment Approach for securitizations for Weinberg ABCP program	Simulation-based rating procedure
	Synthetic CDO securitization tranches	If no external rating is available: CDO shadow rating	Simulation-based rating procedure
	Other securitization transactions	RCP for ABSs	Simulation-based rating procedure
	National 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 (GSE)	Scorecard-based rating procedure
	Fund (individual funds)	Rating procedure for funds	Scorecard-based rating procedure
Corporate items	Holding/group structures	Basic RCP	Expert-based procedure
	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 methods yield a one-year local-currency PD. Any transfer risk is taken into account in the foreign currency (foreign currency PD). 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%

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

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

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 performance and risk management, 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 HGB and 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 majority of the rating procedures used by LBBW were developed in joint projects, whose activities were placed on a shared 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 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, the central element of which is conducted under the guidance of RSU or SR (this activity has been outsourced in line with Section 25a 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, 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. In addition, the correct use of rating systems is analyzed and evaluated by a rating controlling process at LBBW, which also initiates and monitors any adjustments that may be required.

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.

Institutions exposure class.

The rating procedures 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 / 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 if 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 rated.

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 100 million and all international corporate customers are assessed using the »corporates« rating. Domestic borrowers with sales of less than EUR 100 million are rated using the Sparkassen StandardRating methodology and may be included in the »corporates« exposure class under certain conditions. Also, banks assessed with the rating procedure for insurance companies are assigned to this class. 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.

All transactions to which the single funds rating method is applied are assigned to the corporates exposure class, as are the associated basic RCPs.

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.

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 rating procedure for aircraft finance is applied to finance for a special-purpose vehicle (SPV) and to direct loans to airlines in which there is a direct link to the financed asset (direct asset-linked loan, »virtual SPV«).

All finance coming within the scope of the rating procedure for aircraft finance is assigned to the specialized lending exposures exposure class.

Corporates/specialized lending exposures exposure class: SME check.

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

Corporates are classified as SMEs if they have annual sales of EUR 50 million 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. In addition, some equity investments are measured using the standard approach in accordance with grandfathering rules (protection of pre-existing legal rights) (see »Capital requirements«, page 19).

Retail business exposure class.

LBBW exposure positions which are classified as retail business are not yet measured using the IRB approach.

LBBW is seeking approval for the use of its own internally estimated loss quotas (IRB-Retail).

Exposure amounts by probability of default class under the IRB approach.

The following table sets out the exposure classes covered by the IRB approach: central governments, banks, corporates including the specialized lending exposures and SMEs sub-classes as well as equity investments. A further differentiation is made by risk class and geographic location (obligor's domicile). Countries in which LBBW had a branch or for which it held a banking license in 2015 are reported separately, while the sum total of the other countries is reported within »Other«. Compared with the previous year the exposures in Luxembourg are no longer listed separately because these subsidiaries were merged with the main office. The following parameters are applied:

- Total exposure values and the exposure values of non-drawn loan commitments
- Average probabilities of default (PDs) weighted with the exposure values
- Average risk weights weighted with the exposure values
- Total exposure values weighted with the respective average risk weights

The decline in exposure values to banks backed is primarily due to a neutral migration to the Corporates exposure class. It relates to banks based in third-party countries without equivalent supervisory laws.

EUR million Exposure class	Exposure values	of which outstanding credit commitments	Average PD in %	Average risk weight in %	Exposure amount weighted with risk weight
PD classes 1 [(AAAA) - (A-)]/0.00% to <= 0.10%					
Central governments	42752	804	0.01	2.95	1260
Banks	22555	236	0.07	9.28	2092
Corporates	32045	4272	0.06	19.16	6141
of which SMEs	1740	47	0.05	13.04	227
of which specialized lending exposures	7379	374	0.06	22.67	1673
of which purchased receivables	0	0	0.00	0.00	0
Equity investments	101	0	0.09	74.79	75
Total	**97452**	**5312**			**9569**
Total previous year	**107989**	**5298**			**9052**
Broken down by geographic location					
Central governments	**42752**	**804**	**0.01**	**2.95**	**1260**
Germany	30599	0	0.00	0.00	1
Great Britain	126	0	0.02	12.00	15
United States	4160	12	0.02	11.08	461
Singapore	55	0	0.00	0.00	0
Republic of Korea	239	3	0.02	13.18	31
Switzerland	280	6	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	17	0	0.02	12.00	2
Other	7276	784	0.03	10.31	750
Banks	**22555**	**236**	**0.07**	**9.28**	**2092**
Germany	4217	87	0.07	10.53	444
Great Britain	7854	138	0.08	6.37	500
United States	2590	3	0.07	11.98	310
Singapore	66	0	0.05	28.68	19
Republic of Korea	0	0	0.00	0.00	0
Switzerland	657	0	0.04	21.20	139
Mexico	0	0	0.00	0.00	0
Czech Republic	1	0	0.07	34.51	1
Other	7169	8	0.06	11.51	679
Corporates	**32045**	**4272**	**0.06**	**19.16**	**6141**
Germany	23068	3433	0.06	17.87	4122
Great Britain	439	3	0.08	17.77	78
United States	2909	0	0.07	22.00	640
Singapore	4	2	0.04	18.19	1
Republic of Korea	205	0	0.09	38.66	79
Switzerland	448	178	0.07	29.01	130
Mexico	49	0	0.05	20.83	10
Czech Republic	11	0	0.09	29.53	3
Other	4912	657	0.07	21.93	1077
of which SMEs	**1740**	**47**	**0.05**	**13.04**	**227**
Germany	1739	47	0.05	13.03	227
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	1	0	0.09	23.61	0
of which specialized lending exposures	**7379**	**374**	**0.06**	**22.67**	**1673**
Germany	3694	335	0.05	19.22	710
Great Britain	192	3	0.08	27.83	53
United States	2026	21	0.07	25.40	515
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	11	0	0.09	29.56	3
Other	1456	16	0.08	26.90	392
Equity investments	**101**	**0**	**0.09**	**74.79**	**75**
Germany	101	0	0.09	74.76	75
Other	0	0	0.09	104.50	0
Total	**97452**	**5312**			**9569**

EUR million Exposure class	Exposure values	of which outstanding credit commitments	Average PD in %	Average risk weight in %	Exposure amount weighted with risk weight
PD classes 2– 5/0.11 % to <= 0.47 %					
Central governments	58	0	0.24	25.84	15
Banks	5 849	96	0.18	19.37	1 133
Corporates	34 732	6 715	0.22	41.56	14 434
of which SMEs	1 684	105	0.25	38.11	642
of which specialized lending exposures	8 251	539	0.23	46.04	3 799
of which purchased receivables	0	0	0.00	0.00	0
Equity investments	27	0	0.13	83.93	23
Total	**40 665**	**6 811**			**15 604**
Total previous year	**40 989**	**6 236**			**16 127**
Broken down by geographic location					
Central governments	**58**	**0**	**0.24**	**25.84**	**15**
Germany	0	0	0.00	0.00	0
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	10	0	0.17	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	48	0	0.26	31.28	15
Banks	**5 849**	**96**	**0.18**	**19.37**	**1 133**
Germany	2 172	6	0.19	19.40	421
Great Britain	1 693	0	0.16	13.94	236
United States	554	0	0.12	15.63	87
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	154	90	0.23	22.85	35
Mexico	1	0	0.26	71.19	1
Czech Republic	1	0	0.39	65.69	1
Other	1 273	0	0.22	27.65	352
Corporates	**34 732**	**6 715**	**0.22**	**41.56**	**14 434**
Germany	25 023	5 677	0.22	41.76	10 449
Great Britain	1 322	4	0.17	22.85	302
United States	2 732	302	0.22	45.29	1 237
Singapore	26	0	0.18	43.03	11
Republic of Korea	348	0	0.16	46.80	163
Switzerland	565	140	0.24	47.07	266
Mexico	6	0	0.30	56.34	3
Czech Republic	25	0	0.19	44.66	11
Other	4 684	591	0.21	42.49	1 991
of which SMEs	**1 684**	**105**	**0.25**	**38.11**	**642**
Germany	1 605	103	0.25	37.42	600
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	71	2	0.37	53.09	38
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	8	1	0.37	41.90	3
of which specialized lending exposures	**8 251**	**539**	**0.23**	**46.04**	**3 799**
Germany	3 108	147	0.24	45.37	1 410
Great Britain	465	4	0.17	42.02	196
United States	2 091	248	0.24	48.79	1 020
Singapore	4	0	0.26	53.52	2
Republic of Korea	0	0	0.00	0.00	0
Switzerland	52	1	0.29	54.98	28
Mexico	0	0	0.00	0.00	0
Czech Republic	10	0	0.26	53.52	5
Other	2 521	139	0.22	45.12	1 137
Equity investments	**27**	**0**	**0.13**	**83.93**	**23**
Germany	27	0	0.13	83.93	23
Other	0	0	0.00	0.00	0
Total	**40 665**	**6 811**			**15 604**

EUR million Exposure class	Exposure values	of which outstanding credit commitments	Average PD in %	Average risk weight in %	Exposure amount weighted with risk weight
PD classes 6– 10/0.48 % to <= 3.62 %					
Central governments	455	0	0.82	89.46	407
Banks	788	0	1.16	44.87	353
Corporates	12 501	1 326	1.20	91.34	11 418
of which SMEs	1 519	103	1.31	80.31	1 220
of which specialized lending exposures	2 134	149	1.34	101.11	2 158
of which purchased receivables	0	0	0.00	0.00	0
Equity investments	4	0	2.54	329.00	13
Total	**13 747**	**1 326**			**12 191**
Total previous year	**15 249**	**1 189**			**13 332**
Broken down by geographic location					
Central governments	**455**	**0**	**0.82**	**89.46**	**407**
Germany	0	0	0.00	0.00	0
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	455	0	0.82	89.46	407
Banks	**788**	**0**	**1.16**	**44.87**	**353**
Germany	85	0	2.12	30.51	26
Great Britain	142	0	1.71	24.06	34
United States	2	0	2.96	165.91	3
Singapore	2	0	0.59	98.83	2
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	1	0	0.88	93.35	0
Czech Republic	0	0	0.00	0.00	0
Other	557	0	0.86	51.70	288
Corporates	**12 501**	**1 326**	**1.20**	**91.34**	**11 418**
Germany	8 581	995	1.21	92.64	7 949
Great Britain	62	9	0.97	71.04	44
United States	1 151	156	1.34	65.70	756
Singapore	1	0	0.59	79.40	1
Republic of Korea	0	0	0.00	0.00	0
Switzerland	110	17	0.94	92.80	102
Mexico	8	0	2.43	120.49	9
Czech Republic	44	0	1.32	115.70	50
Other	2 545	149	1.14	98.47	2 506
of which SMEs	**1 519**	**103**	**1.31**	**80.31**	**1 220**
Germany	1 501	98	1.31	80.28	1 205
Great Britain	0	0	0.00	0.00	0
United States	3	0	1.04	74.22	2
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	4	3	0.91	60.73	2
Mexico	2	0	0.88	73.34	1
Czech Republic	0	0	0.59	63.39	0
Other	9	2	1.93	97.38	9
of which specialized lending exposures	**2 134**	**149**	**1.34**	**101.11**	**2 158**
Germany	1 014	25	1.42	102.50	1 039
Great Britain	35	0	0.59	79.40	28
United States	482	119	0.85	89.24	431
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	41	0	1.32	116.86	48
Other	562	5	1.67	109.00	612
Equity investments	**4**	**0**	**2.54**	**329.00**	**13**
Germany	3	0	2.96	365.09	12
Other	1	0	0.60	161.06	1
Total	**13 747**	**1 326**			**12 191**

EUR million Exposure class	Exposure values	of which outstanding credit commitments	Average PD in %	Average risk weight in %	Exposure amount weighted with risk weight
PD classes 11–15/3.63% to <= 99.99%					
Central governments	16	0	19.78	252.62	42
Banks	13	0	4.79	124.85	17
Corporates	940	142	9.41	183.00	1 720
of which SMEs	159	10	7.94	141.48	225
of which specialized lending exposures	296	4	12.16	205.32	607
of which purchased receivables	0	0	0.00	0.00	0
Equity investments	0	0	6.67	414.24	2
Total	**970**	**142**			**1 780**
Total previous year	**2 621**	**91**			**3 710**
Broken down by geographic location					
Central governments	**16**	**0**	**19.78**	**252.62**	**42**
Germany	0	0	0.00	0.00	0
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	16	0	19.78	252.62	42
Banks	**13**	**0**	**4.79**	**124.85**	**17**
Germany	7	0	4.44	102.95	8
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	6	0	5.22	151.92	9
Corporates	**940**	**142**	**9.41**	**183.00**	**1 720**
Germany	685	123	8.36	175.15	1 200
Great Britain	0	0	0.00	0.00	0
United States	11	0	10.00	204.67	22
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	5	0	10.13	205.47	11
Mexico	13	1	7.74	181.96	23
Czech Republic	0	0	0.00	0.00	0
Other	226	18	12.63	205.34	464
of which SMEs	**159**	**10**	**7.94**	**141.48**	**225**
Germany	144	6	7.83	137.65	198
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	15	3	8.92	178.02	27
of which specialized lending exposures	**296**	**4**	**12.16**	**205.32**	**607**
Germany	125	4	9.56	192.54	241
Great Britain	0	0	0.00	0.00	0
United States	11	0	10.00	204.67	22
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	8	0	6.67	175.82	15
Czech Republic	0	0	0.00	0.00	0
Other	152	1	14.76	217.55	330
Equity investments	**0**	**0**	**6.67**	**414.24**	**2**
Germany	0	0	0.00	0.00	0
Other	0	0	6.67	414.24	2
Total	**970**	**142**			**1 780**

EUR million Exposure class	Exposure values	of which outstanding credit commitments	Average PD in %	Average risk weight in %	Exposure amount weighted with risk weight
PD classes 16 – 18/100% (default)					
Central governments	2	0	100.00	0.00	0
Banks	1	0	100.00	0.00	0
Corporates	2 248	73	100.00	0.00	0
of which SMEs	139	2	100.00	0.00	0
of which specialized lending exposures	687	27	100.00	0.00	0
of which purchased receivables	0	0	0.00	0.00	0
Equity investments	0	0	100.00	0.00	0
Total	**2 251**	**73**			**0**
Total previous year	**3 166**	**22**			**0**
Broken down by geographic location					
Central governments	**2**	**0**	**100.00**	**0.00**	**0**
Germany	0	0	0.00	0.00	0
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	2	0	100.00	0.00	0
Banks	**1**	**0**	**100.00**	**0.00**	**0**
Germany	0	0	0.00	0.00	0
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	1	0	100.00	0.00	0
Corporates	**2 248**	**73**	**100.00**	**0.00**	**0**
Germany	1 788	59	100.00	0.00	0
Great Britain	3	0	100.00	0.00	0
United States	235	2	100.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	1	0	100.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	1	0	100.00	0.00	0
Other	220	12	100.00	0.00	0
of which SMEs	**139**	**2**	**100.00**	**0.00**	**0**
Germany	134	2	100.00	0.00	0
Great Britain	0	0	0.00	0.00	0
United States	0	0	0.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	4	0	100.00	0.00	0
of which specialized lending exposures	**687**	**27**	**100.00**	**0.00**	**0**
Germany	314	14	100.00	0.00	0
Great Britain	0	0	0.00	0.00	0
United States	232	2	100.00	0.00	0
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	0	0	0.00	0.00	0
Mexico	0	0	0.00	0.00	0
Czech Republic	0	0	0.00	0.00	0
Other	141	11	100.00	0.00	0
Equity investments	**0**	**0**	**0.00**	**0.00**	**0**
Germany	0	0	0.00	0.00	0
Other	0	0	0.00	0.00	0
Total	**2 251**	**73**			**0**

EUR million Exposure class	Exposure values	of which outstanding credit commitments	Average PD in %	Average risk weight in %	Exposure amount weighted with risk weight
Total					
Central governments	43 282	804	0.03	3.98	1 724
Banks	29 205	332	0.13	12.31	3 595
Corporates	82 466	12 527	3.13	40.88	33 712
of which SMEs	5 240	266	3.37	44.15	2 313
of which specialized lending exposures	18 747	1 094	4.13	43.94	8 237
of which purchased receivables	0	0	0.00	0.00	0
Equity investments	132	0	0.19	85.09	112
Total	**155 086**	**13 664**			**39 143**
Total previous year	**170 013**	**12 835**			**42 221**
Broken down by geographic location					
Central governments	**43 282**	**804**	**0.03**	**3.98**	**1 724**
Germany	30 599	0	0.00	0.00	1
Great Britain	126	0	0.02	12.00	15
United States	4 160	12	0.02	11.08	461
Singapore	55	0	0.00	0.00	0
Republic of Korea	239	3	0.02	13.18	31
Switzerland	280	6	0.00	0.00	0
Mexico	10	0	0.00	0.00	0
Czech Republic	17	0	0.02	12.00	2
Other	7 797	784	0.15	15.56	1 213
Banks	**29 205**	**332**	**0.13**	**12.31**	**3 595**
Germany	6 481	93	0.14	13.87	899
Great Britain	9 689	138	0.12	7.95	771
United States	3 145	3	0.08	12.71	400
Singapore	68	0	0.07	30.73	21
Republic of Korea	0	0	0.00	0.00	0
Switzerland	811	90	0.08	21.52	174
Mexico	2	0	0.00	77.28	1
Czech Republic	2	0	0.19	46.24	1
Other	9 007	8	0.15	14.75	1 328
Corporates	**82 466**	**12 527**	**3.13**	**40.88**	**33 712**
Germany	59 146	10 288	0.14	40.11	23 721
Great Britain	1 826	16	0.32	23.22	424
United States	7 038	513	3.69	37.72	2 655
Singapore	31	2	0.17	40.77	13
Republic of Korea	553	0	0.13	43.79	242
Switzerland	1 129	335	0.40	45.05	509
Mexico	75	1	0.00	61.09	46
Czech Republic	80	0	1.61	80.66	65
Other	12 586	1 373	2.32	47.96	6 037
of which SMEs	**5 240**	**266**	**3.37**	**44.15**	**2 313**
Germany	5 123	256	0.14	43.54	2 230
Great Britain	0	0	0.00	0.00	0
United States	3	0	1.04	74.22	2
Singapore	0	0	0.00	0.00	0
Republic of Korea	0	0	0.00	0.00	0
Switzerland	75	5	0.39	53.50	40
Mexico	2	0	0.00	73.34	1
Czech Republic	0	0	0.59	63.39	0
Other	37	5	15.97	104.76	39
of which specialized lending exposures	**18 747**	**1 094**	**4.13**	**43.94**	**8 291**
Germany	8 255	525	0.14	41.19	3 400
Great Britain	693	7	0.17	40.00	277
United States	4 842	389	5.02	41.04	1 987
Singapore	4	0	0.26	53.52	2
Republic of Korea	0	0	0.00	0.00	0
Switzerland	52	1	0.29	54.98	28
Mexico	8	0	0.00	175.82	15
Czech Republic	62	0	0.93	91.37	56
Other	4 832	172	3.75	52.25	2 525
Equity investments	**132**	**0**	**0.19**	**85.09**	**112**
Germany	131	0	0.17	83.68	109
Other	1	0	2.68	245.86	3
Total	**155 086**	**13 664**			**39 143**

Figure 20: Exposure values used for ratings (excluding retail) under the IRB approach (Article 452 (e) and (j) (ii) CRR).

Actual losses from lending business.

The following table sets out actual losses from lending business reported in accordance with CRR using the IRB approach (including derivatives and banking book securities, but not including securitization positions that form a separate exposure class within CRR). Actual losses are defined as the total of direct write-downs and the total of additions and reversals of specific valuation allowances/provisions less recoveries on loans and advances already written off.

EUR million	Actual losses from lending business (including securities and derivatives)		
Exposure classes	In the period 1 Jan. 2015 to 31 Dec. 2015	In the period 1 Jan. 2014 to 31 Dec. 2014	Changes
Central governments	1	0	1
Banks	1	– 2	2
Corporates	46	127	– 81
of which corporates - SMEs	– 6	34	– 40
of which corporates - specialized lending exposures	20	13	7
Equity investments	74	23	51
Retail business	-	-	-
Total	**122**	**149**	**– 27**

Figure 21: Actual losses from lending business (Article 452 (g) CRR).

Actual losses in 2015 continued to decline in comparison with the previous year. There was a substantial reduction in losses occurring in the corporates exposure class, in particular. The increase in the equity investments exposure class is essentially attributable to an impairment on the carrying amount of an equity investment that is fully consolidated in accordance with IFRS. It is due to the impairment of a building held by this equity investment.

Expected and actual losses from traditional lending business.

The following table compares expected and actual losses for transactions reported under the IRB approach in accordance with CRR. The information relates only to traditional lending business (excluding banking book securities, securitizations or derivatives) for the respective exposure classes under the IRB approach.

Actual losses are defined as the total of direct write-downs and the total of additions and reversals of specific valuation allowances/provisions less recoveries on loans and advances already written off. Expected loss (EL) is calculated in accordance with the IRB approach and only includes lending business with a probability of default (PD) of less than 100% as at 1 January 2015.

EUR million	Losses from traditional lending business (excluding securities in the banking book and derivatives)					
	Period 1 Jan. 2015 to 31 Dec. 2015		Period 1 Jan. 2014 to 31 Dec. 2014		Period 1 Jan. 2013 to 31 Dec. 2013	
Exposure classes	Expected loss (EL)	Actual loss	Expected loss (EL)	Actual loss	Expected loss (EL)	Actual loss
Central governments	1	1	1	0	3	0
Banks	11	0	14	1	13	0
Corporates	172	61	227	152	233	221
of which corporates - SMEs[1)]	21	8	24	29		
of which corporates - specialized lending exposures[1)]	65	1	74	25		
Equity investments	7	74	15	23	17	31
Retail business	0	0	0	0	0	0
Total	**191**	**136**	257	**177**	**266**	**252**

Figure 22: Expected and actual losses from traditional lending business (Article 452 (i) CRR).

1) These subclasses were not reported separately in 2013.

As in the previous years, actual loss in the corporates exposure class was substantially lower than expected loss. The increase in actual loss in the equity investments exposure class is essentially attributable to an impairment of the carrying amount of an equity investment that is fully consolidated in accordance with IFRS. It is due to the impairment of a building held by this equity investment.

8 Use of credit risk mitigation techniques. (Article 453 CRR)

Processes for managing and acknowledging credit risk mitigation techniques.

Credit risk mitigation is managed in accordance with the stipulations on admissible types of collateral and value bases set out in the Bank's rule books. LBBW has implemented the regulatory requirements for collateral management in order to include collateral in the capital backing calculations.

Risk mitigation.

Registered liens, guarantees, financial collateral and credit derivatives are acknowledged risk mitigators.

Main types of collateral.

Traditional lending business.

- Real estate secured by liens
- Guarantees/warranties from domestic and foreign local authorities and banks, as well as guarantees mainly from government export credit insurers. These usually consist of guarantors with investment grade credit ratings.

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. The following types of collateral are primarily used:

- Financial collateral (securities, deposits)
- Eligible guarantees and credit derivatives
- Netting agreements for derivatives plus collateral agreements (in accordance with Chapter 9)

Credit derivatives are transacted mainly with counterparties in the financial sector that generally have very good credit ratings.

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).

Measuring and managing the collateral used.

The procedures for measuring and managing the collateral eligible under CRR are set out in the Bank's rules.

The internal processes and systems in place ensure that collateral is only used for weighting if it meets all CRR requirements. Collateral is initially measured upon receipt. Values are calculated and carrying amounts are regularly reviewed by the back office divisions. Regardless of this, collateral is checked for impairment immediately if information that has an impact on its value becomes known. If a significant positive correlation between the value of an item of collateral and the borrower providing the collateral is established, the collateral in question is not included.

Notes on main types of collateral:

- Real estate secured by liens

Real estate collateral is measured on the basis of opinions by acknowledged experts and, in the case of small loans, in accordance with Section 24 BelWertV (Regulation on the Determination of Mortgage Lending Values) by the front and back offices with the help of a computer-assisted program.

LBBW uses statistical methods (market fluctuation method) of the central associations of the German banking industry for certain types of real estate in order to identify real estate requiring particular review or a revaluation.

- Warranties/guarantees

The measurement of a guarantor in a traditional lending transaction or of a collateral provider in the case of a credit derivative is, as a rule, carried out by means of a credit assessment and rating determination.

Loan collateral is recorded and continuously reviewed in the collateral management system using all relevant inputs.

- Credit derivatives

Credit derivatives with a hedging effect essentially count as guarantees for regulatory purposes. The process for accepting a credit derivative as collateral is documented in the relevant internal rules. One exception to counting credit derivatives as a guarantee is on-balance-sheet credit derivatives; such as own credit-linked note issues as the protection purchaser, which are recognized as a cash hedge, i.e. as financial collateral.

In the case of domestic standard collateral, the model contracts issued by Deutscher Sparkassen- und Giroverband are mostly used to mitigate legal risks. In addition, the Legal Department has drafted model contracts which are used by the divisions after approval. Legal efficacy is ensured at all times; at the same time, the underlying legal conditions are subject to ongoing observation.

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. Guarantees are applied to the applicable limits.

Concentrations of collateral in capital markets business are limited by a restrictive collateral policy. Individual and portfolio risks (e.g. those in relation to repo and securities lending transactions) are regularly monitored by means of a trading-internal steering committee. Concentrations of collateral in the case of OTC derivatives are prevented by only accepting cash collateral or first class sovereign bonds. In addition, continuous measurement of collateral contributes to risk limitation.

The collateral portfolio for OTC derivatives is documented on a monthly basis in management reporting and includes statistical information as well as details of the largest providers and takers of collateral within LBBW.

Total amount of secured exposure values (not including securitization).

The following table shows the exposure amounts by CRSA exposure classes secured by financial collateral, endowment policies or guarantees (including warranties and credit derivatives).

EUR million Exposure class	Financial collateral	Endowment policies	Guarantees and credit derivatives
Central governments	0	0	0
Regional governments	0	0	0
Other public-sector agencies	0	0	11
Multilateral development banks	0	0	0
International organizations	0	0	0
Banks	2 238	0	0
Covered bonds issued by banks	0	0	0
Corporates	2 205	9	3 006
Retail business	38	112	579
Items secured by real estate	0	0	0
Investment units	0	0	0
Equity investments	0	0	0
Other items	0	0	0
Past due items	2	3	28
Risk exposure to banks and corporates with a short-term credit rating	0	0	0
Items exposed to particularly high risk	0	0	0
Total	**4 483**	**125**	**3 624**
Total previous year	**4 137**	**143**	**3 003**

Figure 23: Total amount of the secured exposure values under the CRS approach (not including securitization) (Article 453 (f) CRR).

The following table shows the exposure values under the IRB approach secured by financial collateral, other or physical collateral, endowment policies or guarantees (including warranties and credit derivatives).

EUR million Exposure class	Financial collateral	Other/ physical collateral	Endowment policies	Guarantees and credit derivatives
Central governments	2 535	0	0	15
Banks	27 954	63	0	261
Corporates	12 514	9 782	195	4 467
of which SMEs	44	2 067	20	338
of which specialized lending exposures	27	3 331	9	778
Retail business	0	0	0	0
Equity investments	0	0	0	0
Other assets not relating to credit	0	0	0	0
Total	**43 002**	**9 845**	**195**	**4 743**
Total previous year	**63 892**	**12 305**	**186**	**5 259**

Figure 24: Total amount of the secured exposure values under the IRB approach (not including securitization) (Article 453 (f) CRR).

The decline in the value of financial collateral over the previous year is due to the decrease in repo transactions with central counterparties (CCPs) compared with the previous year.

9 Exposure to counterparty credit risk. (Article 439 CRR)

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 4 section »Economic management«.

Risk mitigation measures.

At LBBW, risk mitigation measures in connection with derivative counterparty risk items are applied by means of master netting agreements and the conclusion of contractual netting and collateralization agreements.

The procedure for entering into and managing master agreements for OTC derivative netting and collateralization agreements is stipulated in the Bank's internal rules and the working instructions of the responsible back office. OTC derivatives are netted if corresponding master netting agreements have been entered into.

Furthermore, derivative transactions (with the exception of credit derivatives) are entered into with savings bank customers via an intermediary procedure, which are guaranteed by the intermediary savings bank.

Impact of a possible LBBW rating downgrade on the collateral amount to be provided.

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.

Allowances for losses on loans and advances.

Credit risks for derivative transactions are recognized by means of a counterparty valuation adjustment in addition to the general assessment of the counterparty's creditworthiness.

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. This views any changes in value based on LBBW's current portfolio.

Derivative counterparty risk items and netting positions.

The following table shows the derivative counterparty risk items in the form of the positive market values (corresponding to potential replacement costs before add-ons in accordance with Article 274 CRR) before and after charging derivative netting positions and collateral, broken down by type of contract.

EUR million Type of contract	Positive replacement costs before netting and collateral	Netting possibilities	Eligible collateral	Positive replacement costs after netting and collateral
Interest rate-related contracts	35 462			
Currency-related contracts	4 521			
Share/index-related contracts	419			
Credit derivatives	302			
Commodity-linked contracts	107			
Other contracts	11			
Total	**40 824**	**30 346**	**2 509**	**7 969**
Total previous year	**48 962**	**36 974**	**2 443**	**9 544**

Figure 25: Positive replacement costs before and after netting and collateral (Article 439 (e) CRR).

The current replacement costs for interest-rate-related contracts decreased substantially over the previous year. In the year under review, derivatives with positive and negative market values were mutually closed out through portfolio compression with a neutral risk effect. Market values were also actively reduced through the restructuring of derivatives (for example recouponing). Furthermore, a slight rise in interest rates for maturities in excess of six years and a reduction in the volume of derivatives through expiry or shorter maturities contributed to a further drop in market values.

The following table shows the counterparty risks of the derivative counterparty risk items to be included in the form of the exposure amount after credit risk mitigation for the respective method used. LBBW only uses the mark-to-market method.

EUR million	Accrual method	Mark-to-market method	Standard method	Internal model
Counterparty credit risk positions	0	17 125	0	0
Figures for previous year	**0**	**18 080**	**0**	**0**

Figure 26: Counterparty credit risk (Article 439 (f) CRR).

As at 31 December 2015 LBBW held no eligible credit derivatives under regulatory requirements used for hedging credit risks in the banking book in accordance with Article 439 (g) CRR.

The following table sets out the nominal amounts of the credit derivatives bought and sold for the Bank's own credit portfolio by type of credit derivative. Credit derivatives from brokering activities were not used by LBBW in 2015.

EUR million Type of contract	Nominal values from use of own credit portfolio Bought	 Sold
Credit default swaps	7 777	11 225
Total return swaps	2 198	1 250
Credit linked note	3 658	664
Other	0	0
Total	**13 632**	**13 140**
Total previous year	**15 242**	**15 328**

Figure 27: Nominal value of credit derivatives by type of use (Article 439 (h) CRR).

In contrast to the annual report, transactions are classified here according to the CRR definition of market risk positions.

10 Exposure to securitization positions. (Article 449 CRR)

Securitization positions in the banking book.

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

Investor positions.

In connection with efforts to restructure the Bank, credit substitute business, a material part of which entailed securitization positions, has very largely been run off. In 2015, the Bank invested in two securitization transactions based on auto loan receivables and on leasing residual values from commercial and private customers in accordance with the rules of the internal credit risk strategy. There were no other securitization investments in 2015.

In earlier years, LBBW primarily continued to invest in collateralized loan obligations (CLOs) and other asset-backed securities (ABSs).

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

External ratings are generally available for investor positions, which lead to the application of the ratings-based approach (IRBA). 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.

Sponsor positions.

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 2015. 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.

As part of its securitization programs, LBBW provides the appropriate »Weinberg Funding Ltd., Jersey« and »Weinberg Capital Ltd., 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 capacity as a service provider, LBBW is exclusively responsible for structuring, managing and coordinating the 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 quarterly 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.

All securitization positions for which LBBW reports risk-weighted securitization values as a sponsor are rated using the Internal Assessment Approach (IAA). The IAA was also applied to one transaction predominantly comprising risk positions measured under the standard approach in accordance with Article 109 (1) Sentence 2 CRR, although the risk weighting tables under Article 251 CRR (standard approach) were applied. All other transactions use the risk weighting tables under Article 261 CRR (IRB approach).

The commercial papers issued by the Weinberg multiseller conduit can be either euro commercial papers (issued by Weinberg Capital Ltd., Dublin) or, since 2011, US commercial papers (issued by Weinberg Capital Ltd., Dublin, with co-issuer Weinberg Capital LLC, Delaware). However, the conduits did not issue any US commercial paper in 2015. The commercial papers are rated by Moody's Investors Service and Fitch Ratings Ltd.

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.

In its function as the original originator, LBBW was involved in the ABS transaction »Prime« (securitization of mezzanine profit-participation rights under the name »SmartMezzanine« in connection with the now completed clearing operation last year. The portfolio of securitized profit-participation rights has been static since the transaction was issued – no further assets have been purchased. Following repayment of most of the portfolio in August 2013 the transaction was closed and terminated at the end of 2015.

Resecuritizations.

The resecuritization position includes two loans extended by LBBW to special-purpose vehicle Sealink amounting to the equivalent of EUR 5.3 billion (EUR 4.0 billion and EUR 1.3 billion) as at 31 December 2015. In addition, interest-rate derivatives (EUR 1 million) exist between LBBW and Sealink.

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.

With the exception of underlying retail tranches, investor positions are recognized as IRB securitization positions while the underlying retail tranches (such as credit cards) and the positions from the refinancing of own conduits that hold investor positions are recognized as CRSA securitization positions.

The Bank normally uses the ratings based approach in the investor portfolio for IRB 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 on acquisition. If no external rating is available, the Bank applies the supervisory formula approach in accordance with the IRB approach.

The liquidity lines and swaps (sponsor positions) provided as part of the ABCP 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 (validity risks) 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 based on the assumption that there are no open residual value risks and that the portfolios are granular. 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>Transactions 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 28: 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 Risk Committee and/or the Board of Managing Directors verifies the validation results.

If LBBW purchases commercial papers (CP) under its own ABCP program, this is classified as an overlapping position under Article 246 (2) CRR. This means that the risk exposures are backed by the risk weightings of the securitization liquidity facilities provided by LBBW under Article 246 (3) CRR.

Securitization positions in the trading book.

LBBW did not trade in any trading-book securitization positions in 2015. It only has transactions from previous years in which it acted as an intermediary between the brokers and dealers for CDS, on the one hand, and LBBW customers, on the other. In these existing transactions LBBW now only acts as portfolio manager of the positions. The portfolio is being run off. The securitization positions held in the portfolio are marked to the market and fully hedged. This means that no additional hedging transactions are executed to mitigate risk.

In the period under review the customer transaction in which LBBW acted as an intermediary between the customer was terminated. It was rated by Moody's Investor Services. There were no further activities in connection with trading-book securitizations apart from those mentioned above. LBBW does not have any retained or assumed resecuritization positions from this. No third-party positions were securitized and, hence, no securitization SPVs used in 2015.

Accounting policies for securitization positions.

LBBW essentially held the role of an originator, 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. Moreover, it was the collateral taker in 2015 in connection with a securitization portfolio and the funding for Sealink (risk shield).

As at 31 December 2015 LBBW did not hold any assets connected with securitization transactions without the transfer of receivables or earmarked for securitization.

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 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 2015:

- Weinberg Capital Ltd., 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 balance sheet.

In LBBW's separate financial statements under HGB, the debt capital with which the special-purpose vehicles are provided is classified as a loan.

LBBW as investor.

The securitization products acquired by the LBBW Group as an investor (mainly CLOs and other ABSs) are allocated to the banking book for regulatory purposes.

In accordance with IFRS, the products were assigned to the »held for trading«, »fair value option«, »available for sale« or »loans and receivables« categories at the time of their acquisition and duly measured on the basis of their documented purpose in accordance with the criteria defined in IAS 39.9. As at 1 July 2008 major portions of the portfolio were reallocated from the »held-for-trading« category in accordance with IAS 39.50(c) in conjunction with IAS 39.50B and 50D or from the »available-for-sale« category in accordance with IAS 39.50E to the »loans and receivables« category. This portfolio has now been largely run off. (For more information on IFRS accounting see also the consolidated financial statements of LBBW, Note 6 on financial instruments).

Financial instruments which are categorized as »held for trading« or »fair value option« are measured at their fair value. Net measurement and realized gains and losses are reported within net gains and losses from financial instruments measured at fair value. Current income is reported within net interest result.

Financial instruments classified as available for sale are measured at fair value. Net measurement gains and losses are reported within equity (revaluation reserve). In the event of an impairment or disposal, the net gains and losses are recycled to profit and loss and reported within net gains and losses from financial assets. Current net gains and losses are reported within net interest result.

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 54 of the Annual Report for further information on the measurement of the fair value of financial instruments.

Financial instruments which are classified as loans and receivables are measured at amortized cost. Any impairment recognized through profit and loss is reported within net income from financial assets. Current income is reported within net interest result.

Under HGB, the securitization products were assigned to the trading portfolio, the liquidity reserve and the holdings of securities valued as non-current assets. As at 1 January 2008 material parts of the portfolio were reallocated from the trading portfolio and the liquidity reserve to the portfolio of securities recognized as non-current assets due to the change in intended purpose. This portfolio has now been largely run off.

Securities held for trading are measured at their fair value less a risk discount in accordance with Section 340e (3) of the German Commercial Code (VaR - value at risk) and the special item for general banking risks in accordance with Section 340g and Section 340e (4) of the German Commercial Code. Net measurement and realization gains and losses are reported within net income from the trading book. Current net gains and losses are reported within net interest result.

Liquidity reserve securities are measured in line with the strict principle of lower of cost or market and write-downs are reversed as required. Gains and losses on remeasurement and realization are netted and shown under depreciation and write-downs on receivables and certain securities and additions to provisions for credit risks. Current income is reported within net interest result.

Securities treated as non-current assets are measured in line with the moderated principle of lower of cost or market and write-downs are reversed as required. Gains and losses on remeasurement and realization are netted and shown under income from reversals of impairments of equity investments, shares in affiliates and securities treated as non-current assets. Current income is reported within net interest result.

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 and receivables (IFRS) or as receivables (HGB) upon utilization and measured at amortized cost.

Upon utilization, swaps are recognized as derivatives and classified as held for trading under IFRS and allocated to the trading book under HGB and measured at fair value through profit and loss.

LBBW as protection buyer (risk shield).

A fixed liability surety bond for EUR 5.5 billion agreed with a guarantee entity of the State of Baden-Württemberg as part of a guarantee structure secured a loan amounting to EUR 4.0 billion extended by LBBW (Bank) to Sealink Funding Ltd. (Sealink), a non-consolidated special-purpose vehicle to which LBBW transferred certain risk-bearing structured ABSs in connection with the acquisition of the former Landesbank Sachsen. The guarantee satisfies the requirements of a financial guarantee within the meaning of IAS 39.9 and is therefore not recognized as a derivative. The hedging effect of the guarantee is netted directly against the valuation of the loan (net method) under both IFRS and HGB.

Presentation of securitization positions in accordance with CRR.

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.

The following table shows the receivables effectively securitized by LBBW as an originator and its sponsor activities. LBBW did not transact any securitization positions without the transfer of receivables.

EUR million	Originator positions			Sponsor activities		
	Banking book					
Type of securitized receivable	Traditional	Synthetic	Total	Banking book	Trading book	Total
Receivables	0	0	0	2 083	0	2 083
from residential construction loans	0	0	0	0	0	0
from total or partial commercial real estate loans	0	0	0	0	0	0
from corporates (including SMEs)	0	0	0	1 434	0	1 434
from own and purchased lease receivables	0	0	0	621	0	621
from automotive financing (excl. leasing)	0	0	0	28	0	28
from other retail business	0	0	0	0	0	0
from CDOs and ABSs	0	0	0	0	0	0
Derivatives	0	0	0	7	0	7
Credit enhancements	0	0	0	0	0	0
Resecuritizations	0	0	0	0	0	0
Total	**0**	**0**	**0**	**2 090**	**0**	**2 090**
Total previous year	**8**	**0**	**8**	**2 575**	**0**	**2 575**

Figure 29: Total outstanding securitized receivables and securitization transactions in which LBBW took part as an originator or sponsor (Article 449 (n) (i) CRR).

The following table sets out the Bank's securitization positions as a sponsor and investor. Under the underlying CRR approach, securitization positions acquired are categorized according to whether they are held in the trading or the banking book and on the basis of the type of securitized assets.

EUR million	Banking book		
Securitization positions	Exposure values under the CRS approach	Exposure values under the IRB approach	Trading book
Receivables	15	406	0
from residential construction loans	0	0	0
from total or partial commercial real estate loans	0	98	0
from corporates (including SMEs)	0	0	0
from own and purchased lease receivables	0	294	0
from automotive financing (excl. leasing)	15	13	0
from other retail business	0	0	0
from CDOs and ABSs	0	0	0
Resecuritizations	0	0	0
of which guarantee portfolio	0	0	0
Credit enhancements	0	21	0
Drawn liquidity facilities	0	84	0
Other balance sheet items	0	0	0
Total balance sheet items	**15**	**511**	**0**
Liquidity facilities	28	1 972	0
Derivatives	5	4	0
of which resecuritizations	1	0	0
Positions specifically for synthetic transactions	0	0	0
Other off-balance-sheet items	0	0	0
Total off-balance-sheet items	**33**	**1 975**	**0**
Total	**48**	**2 486**	**0**
Total previous year	**54**	**2 792**	**0**

Figure 30: Total securitization positions retained or purchased (Article 449 (n) (ii) CRR).

The increase in balance sheet items over the previous year results primarily from the following items:

- »Receivables from own and purchased lease receivables«. The increase is due to a newly signed securitization position based on residual lease values relating to commercial and private customers.
- »Drawn liquidity facilities«. The increase results from the liquidity facilities of two Weinberg ABCP transactions drawn as at 31 December 2015.

The drop in off-balance-sheet items is primarily due to the termination of two transactions with interest-bearing liabilities.

As at 31 December 2015, no assets were awaiting securitization in accordance with Article 449 (n) (iii) CRR.

LBBW did not engage in any securitization activities as an originator in 2015. Accordingly, no gains or losses were realized in accordance with Article 449 (n) (vi) CRR or reported in accordance with Article 449 (n) (iv) CRR.

As at 31 December 2015 the holdings of securitization positions to be backed with a risk weight of 1250% in accordance with Article 449 (n) (v) CRR was 0 due to rounding.

In the following table the exposure values and capital backing for securitizations are broken down by the approach used, the risk weighting bands, by banking book or trading book, securitization or resecuritization.

EUR million	Banking book						Trading book					
	Securitizations		Resecuritization		Total		Securitizations		Resecuritization		Total	
Risk weight bands	Exposure value	Capital requirement	Exposure value	Capital requirement	Exposure value	Capital requirement	Exposure value	Capital requirement	Exposure value	Capital requirement	Exposure value	Capital requirement
Standard approach												
20%	15	0	0	0	15	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
100%	0	0	0	0	0	0	0	0	0	0	0	0
225%	0	0	0	0	0	0	0	0	0	0	0	0
350%	0	0	0	0	0	0	0	0	0	0	0	0
650%	0	0	0	0	0	0	0	0	0	0	0	0
1250%	0	0	0	0	0	0	0	0	0	0	0	0
Total	**15**	**0**	**0**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Look-through approach												
≤ 10%	0	0	0	0	0	0	0	0	0	0	0	0
> 10% ≤ 20%	0	0	1	0	1	0	0	0	0	0	0	0
> 20% ≤ 50%	0	0	0	0	0	0	0	0	0	0	0	0
> 50% ≤ 100%	0	0	0	0	0	0	0	0	0	0	0	0
> 100% ≤ 250%	0	0	0	0	0	0	0	0	0	0	0	0
> 250% ≤ 650%	0	0	0	0	0	0	0	0	0	0	0	0
> 650% ≤ 1250%	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ratings based approach												
≤ 10%	277	2	0	0	277	2	0	0	0	0	0	0
> 10% ≤ 20%	31	0	0	0	31	0	0	0	0	0	0	0
> 20% ≤ 50%	0	0	0	0	0	0	0	0	0	0	0	0
> 50% ≤ 100%	21	2	0	0	21	2	0	0	0	0	0	0
> 100% ≤ 250%	0	0	0	0	0	0	0	0	0	0	0	0
> 250% ≤ 650%	0	0	0	0	0	0	0	0	0	0	0	0
> 650% ≤ 1250%	0	0	0	0	0	0	0	0	0	0	0	0
Total	**329**	**4**	**0**	**0**	**329**	**4**	**0**	**0**	**0**	**0**	**0**	**0**
Supervisory formula approach												
≤ 10%	0	0	0	0	0	0	0	0	0	0	0	0
> 10% ≤ 20%	0	0	0	0	0	0	0	0	0	0	0	0
> 20% ≤ 50%	0	0	0	0	0	0	0	0	0	0	0	0
> 50% ≤ 100%	28	2	0	0	28	2	0	0	0	0	0	0
> 100% ≤ 250%	70	11	0	0	70	11	0	0	0	0	0	0
> 250% ≤ 650%	0	0	0	0	0	0	0	0	0	0	0	0
> 650% ≤ 1250%	0	0	0	0	0	0	0	0	0	0	0	0
Total	**98**	**13**	**0**	**0**	**98**	**13**	**0**	**0**	**0**	**0**	**0**	**0**
Internal Assessment Approach												
≤ 10%	323	2	0	0	323	2	0	0	0	0	0	0
> 10% ≤ 20%	930	12	0	0	930	12	0	0	0	0	0	0
> 20% ≤ 50%	837	24	0	0	837	24	0	0	0	0	0	0
> 50% ≤ 100%	0	0	0	0	0	0	0	0	0	0	0	0
> 100% ≤ 250%	0	0	0	0	0	0	0	0	0	0	0	0
> 250% ≤ 650%	0	0	0	0	0	0	0	0	0	0	0	0
> 650% ≤ 1250%	0	0	0	0	0	0	0	0	0	0	0	0
Capital deduction	0	0	0	0	0	0	0	0	0	0	0	0
Total	**2 090**	**39**	**0**	**0**	**2 090**	**39**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**2 532**	**56**	**1**	**0**	**2 534**	**56**	**0**	**0**	**0**	**0**	**0**	**0**
Total previous year	**2 845**	**71**	**1**	**0**	**2 846**	**71**	**0**	**0**	**0**	**0**	**0**	**0**

Figure 31: Total retained or purchased securitization positions and capital requirements, broken down by approach used and by risk weight band (Article 449 (o) (i) CRR).

The final table on securitization positions shows the resecurization positions before and after collateral. All guarantors for LBBW's resecuritization positions have top ratings without exception.

EUR million Type of collateral	Banking book	Trading book
Resecuritization positions before collateralization	5 347	0
Collateralization using guarantees	5 346	0
of which guarantors with AAA to A ratings	5 346	0
of which guarantors with ratings below A	0	0
Collateralization using other positions	0	0
Resecuritization positions after collateralization	1	0

Figure 32: Total retained or purchased resecuritization positions before and after inclusion in hedging (Article 449 (o) (ii) CRR).

The decline in resecuritization positions before collateralization (previous year EUR 5 999 million) results chiefly from current repayments in the portfolio. Currency fluctuations may have an additional impact on the EUR equivalent value of the portfolio.

LBBW did not have any non-performing or past due loans or losses coming within Article 449 (p) CRR. Furthermore, there are no trading book risk positions that were securitized in accordance with Article 449 (q) CRR.

LBBW did not provide any implicit support (Article 248 CRR) in 2015.

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

LBBW makes a distinction between strategic and commercial equity investments. In line with risk and return considerations, the former serves to 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. On the other hand, as an independent business area, commercial investment business provides a range of products/services, particularly for LBBW's small- and medium-sized customers.

The same profitability requirements generally apply to LBBW's own strategic investment business and its commercial 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 1), LBBW also has further equity investments in its banking book with capital backing in accordance with the IRB approach or, if grandfathering applies, the CRS 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. Investment positions that were already held before 1 January 2008 are measured in line with the CRS approach under grandfathering arrangements (protection of pre-existing legal rights) (see Chapter 4 »Capital requirements«, page 19 et seq.).

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. The fair value of non-listed companies 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 Institut der Wirtschaftsprüfer (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 pursuant to HGB 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 market price. 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 amount under IFRS	Fair value	Stock-market value
Equity investments in banks	**671**	**678**	**453**
of which exchange-traded	453	453	453
of which not exchange-traded	218	225	0
Equity investments in financial institutions	**211**	**211**	**0**
of which exchange-traded	0	0	0
of which not exchange-traded	211	211	0
Equity investments in other companies	**308**	**309**	**23**
of which exchange-traded	23	23	23
of which not exchange-traded	285	286	0
Affiliated companies - banks	**7**	**7**	**0**
of which exchange-traded	0	0	0
of which not exchange-traded	7	7	0
Affiliated companies - financial institutions	**24**	**25**	**0**
of which exchange-traded	0	0	0
of which not exchange-traded	24	25	0
Affiliated companies - other companies	**752**	**753**	**0**
of which exchange-traded	0	0	0
of which not exchange-traded	752	753	0
Investment funds	**174**	**174**	**0**
of which exchange-traded	0	0	0
of which not exchange-traded	174	174	0
Total	**2 147**	**2 157**	**476**
Total previous year	**1 980**	**2 017**	**473**

Figure 33: 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.

Unrealized gains from investment instruments could be included as Common Equity Tier 1 capital at 40%, according to the transition provisions pursuant to Article 468 CRR.

EUR million	31 Dec. 2015
Realized gains (+) and losses (-) from sale/liquidation	**114**
Unrealized gains (+) and losses (-) from investment instruments	**165**
of which amounts recognized in capital under CRR:	**66**
in Tier 1 capital	66
in Tier 2 capital	0

Figure 34: Realized and unrealized gains/losses from investment positions (Article 447 (d) and (e) CRR).

12 Use of Internal Market Risk Models. (Article 455 CRR)

LBBW defines market price risks as potential losses resulting from adverse changes in market prices or factors influencing prices. This includes share prices, interest rates, exchange rates, credit spreads and commodity prices as well as volatility or correlations as market parameters.

LBBW's market price 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).

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.

The integrated performance and risk management is supplemented by stressed value-at-risk calculations. This is based on an observation period which covers a significant financial stress period. This observation period is determined once every quarter for the CRR portfolio relevant for regulatory disclosures containing all the trading book positions of LBBW (Bank) excluding investment funds. In addition, the relevant observation period for stressed value-at-risk is calculated on a weekly basis. This is also calculated for the LBBW Group. This second calculation simulates the increase in risk under stress during the relevant period for the Group. This figure is also incorporated in the scenarios applying across all risk categories and is thus relevant for risk-bearing capacity.

Internal model in accordance with CRR.

LBBW calculates value-at-risk (VaR) from market price risks at a confidence level of 99% and a holding period of ten days. A 95% confidence level and a one-day holding period are applied for internal management purposes. This calculation is based on a procedure involving a Monte Carlo simulation. In most cases, the simulation enables LBBW not only to simply approximate market-induced value fluctuations but to measure them fully, even for complex transactions. Historical time series for the preceding 250 days are weighted equally in covariance estimates. The abovementioned stressed value at risk is also included in the calculation of regulatory capital cover. 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.

Trading portfolios and the strategic position of the banking book can be affected by potentially adverse 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. Basic risks depend very heavily on the correlation of the underlying interest curves.

Credit spread risks from securities are measured on the basis of the general and specific issuer risk. For this purpose, trading book and banking book transactions that are sensitive to creditworthiness are mapped onto rating- and sector-dependent interest curves. This is carried out for all transactions executed through the trading systems (in particular fixed-income securities). In addition, the specific issuer risk for securities is calculated by reference to the spread (and spread volatility) of individual counterparties.

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 and the residual maturities for the specific risk.

Credit spread risks account for a substantial share of LBBW's market price risk. Equity risks, along with currency and commodity risks, are less significant for LBBW than interest rate and spread risks. Commodity risks also include risks from precious metals and notes and coins portfolios, which LBBW holds to only a limited degree.

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 aforementioned CRR portfolio forms the basis for calculating capital backing requirements.

Backtesting and validation.

The VaR calculated in the risk model constitutes a statistical forecast of the portfolio losses from market price risks expected over the individual time periods. In order to verify the suitability of the model, it is necessary to test the quality of forecasts. Backtesting assumes particular importance in the validation program. It performs a comparison against the actual portfolio changes and focuses not only on the VaR forecast but also includes the entire distribution forecasts. In line with regulatory requirements the procedure is based on portfolio changes excluding new and intraday transactions, net interest income and fees and commissions (clean profit/loss (P/L)) and on portfolio changes excluding fees and commissions (dirty P/L) derived directly from the economic P/L.

The CRR portfolio, which comprises trading transactions whose capital backing for general equity and interest rate risks takes place via the internal risk model, does not show any outliers for the clean P/L. On the basis of the dirty P/L two outliers were recorded for the CRR portfolio in 2015. The outliers were caused by the adjustment of an additional earnings component calculated on a quarterly basis. This means that they do not indicate any deficiencies in the forecasting quality of the internal model. No additional equity is required for model outliers for regulatory purposes as an impact on the weighting factor of the internal model only materializes if five or more outliers occur.

In addition to backtesting, LBBW's 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 selection and mapping), in the implemented measurement models and in the relevant market data (especially market data calibrated within the Bank) are identified and their materiality assessed using customized validation analyses. The validation analyses are performed by the Risk Model Validation organizational unit within Group Risk Controlling, which is independent of model development. The analyses are guided by the materiality of the model risks and performed at regular intervals (at least twice yearly) and on an ad hoc basis in the event of material structural changes occurring in the model design, on the market or in the portfolio composition. Should the backtesting or validation analyses indicate material model risks, they are made transparent to all parties integrated in the market risk management process (model developers, model users (operational market risk controlling)) and recipients of the model results (Risk Committee, trading) so as to enable the efficient initiation of the necessary model optimization measures. Model changes are carried out according to the model change policy and communicated to the regulatory authorities.

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 are 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 as historical input. These scenarios are applied to the portfolio on a weekly basis together with the defined market data changes and any changes in the present values reported as stress test results.

At the moment, the scenario of a rise in the credit spreads of single-A banks and scenario no. 14 (extreme increase in credit spreads) in the Bundesbank's annual stress test survey have the greatest relevance for LBBW's trading book.

The shifted market factors for the most significant stress scenarios for LBBW's CRR portfolio as at 31 December 2015 are shown in the following table.

Bundesbank scenario no. 14	
Extreme increase in credit spreads (in BP)	AAA + 30/AA + 50/A + 100/BBB + 200/BB + 500/B + 1000/CCC + 1500
Increase in credit spreads banks EUR A	
Increase in bond yield curve EUR A (in BP)	A + 150

Figure 35: Stress test scenarios (Article 455 (a) (iii) CRR).

Allocation of positions to the trading book.

Under Article 4 (1) (85) and (86) CRR, the decisive criterion for allocating financial instruments and commodities to the trading book is 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. The partial or full closure of a market risk position by means of a counter-transaction (for the purpose of generating a short-term different in present value) is equivalent to a resale. Short term is defined as a period of up to one year.

The internal criteria of Landesbank Baden-Württemberg (including foreign branches) is the central document for the allocation of the aforementioned positions for the purpose of delineating the trading book in accordance with Articles 102 et seq. CRR). These criteria describe 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.

Correct allocation is regularly checked by means of a review of the actual holding period of the financial instruments and commodities as well as through procedures for tracking the book allocations of positions in regulatory reporting and in risk control in which VaR is calculated on the basis of the internal risk model.

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 the annual report.

Own funds requirements for market risk positions.

The following table shows the own funds requirements for market price risks broken down by types of risk. This shows that the internal risk model for regulatory purposes is only applied to the general interest-rate and equity risk including option price risks. In contrast to the following illustrations, the »internal model« column shows the average for the past 60 days multiplied by the stipulated factor of 3.4 (Article 364 (1) CRR) rather than the year-end figure.

EUR million	Capital requirement	
	Standard method	Internal model
Interest rate risk	144	335
of which general and special price risk for net interest position	144	335
of which general price risk for net interest position	0	335
of which special price risk for net interest position	144	0
of which special price risk for securitization positions in trading book	0	0
of which special price risk in correlation trading portfolio	1	0
Equity position risk	29	37
of which general equity position risk	0	37
of which special equity position risk	29	0
Currency risk	27	0
Risks from commodities positions	3	0
Total	**204**	**372**
Total previous year	**260**	**465**

Figure 36: Capital requirements for market risk positions (Article 455 (e) CRR).

The underlying market price risks decreased on account of the general decline in business performance in comparison with the previous year.

The following chart shows a comparison between the potential risk amounts calculated daily at the close of business with a holding period of one working day and the changes in value of the CRR portfolio calculated at the close of business.

Clean backtesting CRR portfolio for the period 2 Jan. – 30 Dec. 2015 in EUR million.

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

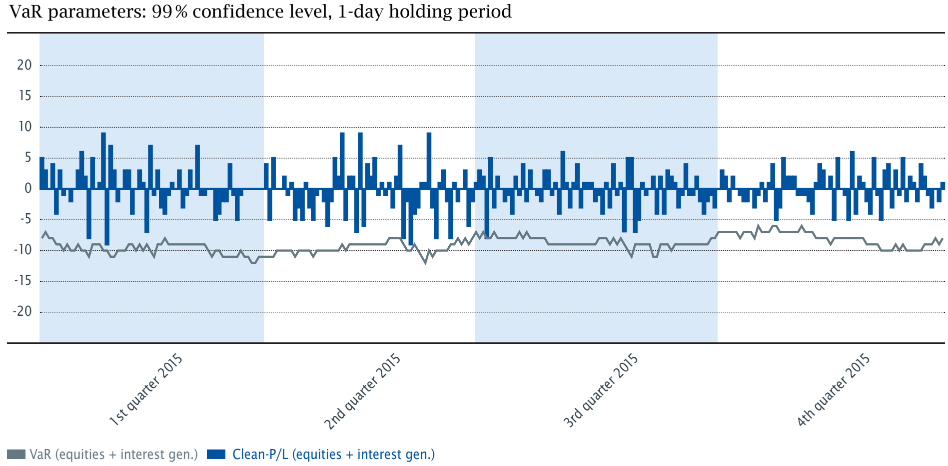

Figure 37: Value at risk of the CRR portfolio under the Internal Model Method and hypothetical buy-and-hold losses (Article 455 (g) CRR).

Dirty backtesting CRR portfolio for the period 2 Jan. – 30 Dec. 2015 in EUR million.
VaR parameters: 99 % confidence level, 1-day holding period

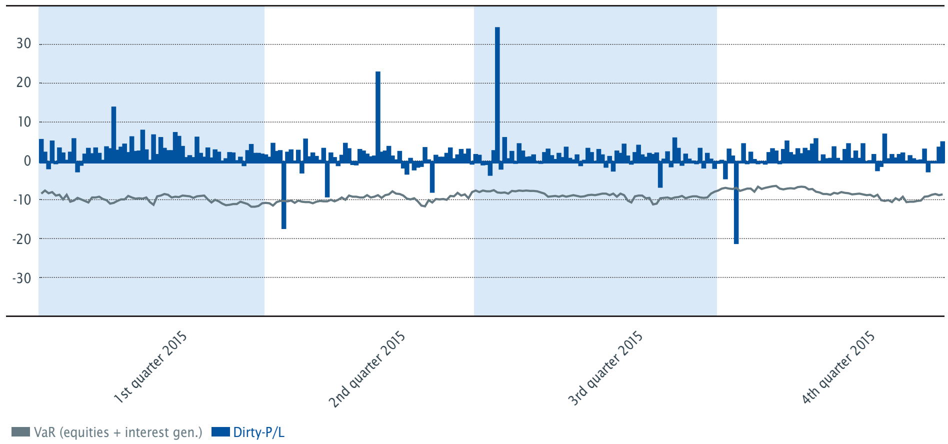

Figure 38: Value at risk of the CRR portfolio under the Internal Model Method and actual portfolio changes excluding commissions and fees (Article 455 (g) CRR).

The following table sets out the normal and the stress VaR for the trading book (99% / ten days) by risk type at the Bank level plus the specific interest-rate and equity position risk as well as the currency and commodity risk.

EUR million	Normal VaR in the reporting period				Stress VaR in the reporting period			
Trading book portfolio according to internal model	Normal VaR at the end of the reporting period	Highest value	Lowest value	Average for reporting period	Stress VaR at the end of the reporting period	Highest value	Lowest value	Average for reporting period
Interest rate risks	14	22	9	17	81	130	70	99
Equity risks	3	5	2	3	4	8	3	4
Currency and commodity risks	4	6	1	3	4	10	2	5
Total trading book	**23**	**32**	**17**	**24**	**80**	**130**	**69**	**97**
Total trading book previous year	**26**	**47**	**22**	**34**	**120**	**136**	**91**	**111**

Figure 39: Overview of VaR for the trading book portfolios (Article 455 (d) (i) and (ii) CRR).

There has been a slight reduction in VaR for the trading book compared with the previous year.

13 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. The Group Board of Managing Directors accepts further strategic positions in the light of current market conditions on the basis of this business policy. 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.

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. All those related to individual transactions and/or portfolios are measured daily, with margin or retail-oriented business entered in calculations in the form of aggregated items when the portfolio is updated monthly.

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 95% and holding period of one trading day). The VaR identified on this basis expresses the potential loss which with 95% 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 parametrization.

In addition to daily reporting, further stress and worst-case scenarios are calculated on a weekly basis and made available for further analysis. All scenarios help to show the future effects of extreme events on the financial markets which are not sufficiently tracked in normal VaR in the applicable book. Extreme historical market fluctuations and self-defined scenarios are used in this respect.

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 by +200 basis points (rising interest) upwards and by – 200 basis points (falling interest) downwards. The interest rate of 0% constitutes a floor. Due to the further fall in the EUR interest rate level compared with the previous year and the existing floor, the imbalance between a positive and a negative interest shock persists. The imbalance is strengthened by the establishment of USD securities positions.

The following table shows the changes in net present value, broken down into the main currencies.

EUR million	Changes in present value due to interest rate shock	
Currency	Positive interest rate shock + 200 basis points	Negative interest rate shock – 200 basis points
CHF	– 1	0
EUR	– 922	142
GBP	– 5	4
JPY	0	0
USD	– 195	169
Other	0	– 1
Total [1)]	**– 1 124**	**– 60**
Total previous year	**– 1 111**	**66**

Figure 40: Interest rate risks in the banking book (Article 448 (b) CRR).

1) Calculated in accordance with BaFin Circular 11/2011.

14 Operational risk. (Article 446 CRR)

In accordance with regulatory requirements, operational risks are defined 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. Strategic and reputation risks are not included in operational risks.

LBBW has a comprehensive system for managing and monitoring operational risks. An independent, centralized organizational unit within Group Risk Control is tasked with developing methods and tools. In accordance with the dual strategy, the decentralized management of operational risks is the responsibility of the specialized divisions.

The central parameters for handling operational risks are enshrined in the risk strategy and policy for operational risks as well as in the work rules.

One of the main goals of the management and control activities is to identify operational risks at an early stage and to reduce or avoid the resulting losses by implementing the appropriate measures. Where possible, risk should be minimized. The management of measures, the internal control system and an open risk culture play an important role in the coordination of operational risks.

Internal and external loss event data, the risk inventory (self-assessment and scenario analysis) and risk indicators are used to identify the risk situation. In addition, data and experience are regularly shared with various interfaces across the Bank.

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 CRR is applied to determine capital requirements for regulatory purposes. The capital required stands at EUR 383 million as at 31 December 2015.

Further information on operational risks can be found in the Chapter »Operational risks« in the report on risks and opportunities of the LBBW Group.

15 Asset encumbrance. (Article 443 CRR)

Asset encumbrance as defined in Guideline 2014/03 [1] issued by the European Banking Authority (EBA) deals with on and off-balance-sheet assets. Under the EBA definition, 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.[2] The value of encumbered assets is therefore fundamentally influenced by a bank's business model.

A large part of the encumbered assets result from LBBW's function as the clearing bank for the savings banks. This particularly causes an increase in encumbered assets allocated to the derivatives, transit loans and also repo transactions category. LBBW has encumbered (on-balance-sheet) assets of EUR 99.6 billion (previous year: EUR 105.6 billion) and unencumbered assets of EUR 176.8 billion (previous year: EUR 159.3 billion).[3] The encumbered on-balance-sheet assets primarily relate to the following positions:

- Covered bonds: LBBW issues covered bond in accordance with German covered bond legislation. Accordingly, 20% (previous year: 23%) of the encumbered assets are for covered bonds. The figures include the statutory and rating-related surplus cover.
- Repos: LBBW uses bilateral and triparty repo markets such as Eurex GC Pooling and Fixed Income Clearing Corporation (FICC) for funding purposes. A total of just under 9% (previous year: 6%) of the encumbered on-balance-sheet assets are used for repos. LBBW transacts repos under national and international repo contracts (global master repurchase agreements and global master securities lending agreements).
- Derivatives: 27% (previous year: 35%) of the encumbered assets are related to OTC derivatives. Positive market values under derivatives particularly result in an encumbrance as they are reported within gross asset encumbrance (without netting of the corresponding liability position). LBBW transacts derivatives under national and international agreements (German global contract and International Swaps and Derivatives Association) and with corresponding credit support annexes.
- Transit loans: LBBW passes on loans provided by development banks to the savings banks. These transit loans are classed as encumbered assets. Encumbered transit loans account for 24% (previous year: 20%) of the encumbered assets.

1) »Guideline on disclosure of encumbered and unencumbered assets.«
2) See Commission Implementing Regulation (EU) 2015/79 of 18 December 2014, Chapter 1.7 for a definition.
3) This disclosure of encumbered assets is based on the median figures of the four reporting qualifying dates. The previous year's figures were based on the first-time disclosure on the basis of qualifying date figures as at 31 December 2014.

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

EUR million	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
Assets of the reporting bank	**99 594**		**176 828**	
Equity instruments	13	13	1 040	1 181
Bonds	22 655	23 109	27 873	27 701
Other assets	18 183		16 796 [1]	

Figure 41: Assets.

1) This item primarily comprises exchange-traded derivatives as well as controlling equity investments, property, plant and equipment and cash and cash equivalents (previous year: EUR 13.8 billion).

LBBW has received collateral worth a total of EUR 51.5 billion (previous year: EUR 42 billion); of this, EUR 25.7 billion (previous year: EUR 20.5 billion) has been reused. The reused collateral is particularly related to repo and securities lending business.

EUR million	Fair value of encumbered collateral received or own bonds issued	Fair value of collateral received or own bonds issued suitable for encumbrance
Collateral received by the reporting bank	**25 740**	**25 831**
Equity instruments	1 407	2 696
Bonds	24 333	20 294
Other collateral received	0	0
Own bonds issue excluding own covered bonds or asset-backed securities	**0**	**4 448**

Figure 42: 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	**101 418**	**105 347**

Figure 43: Sources of encumbrance.

16 Leverage ratio. (Article 451 CRR)

Disclosure of the leverage ratio as at 31 December 2015 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 44: Disclosure of qualitative elements (LRQua).

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.

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 5.3% at 31 December 2015 (as at 30 September 2015: 4.5%). The increase in the leverage ratio is due to the reduction in the leverage ratio exposure (phase-in) from EUR 289.6 billion as at 30 September 2015 to EUR 242.4 billion at 31 December 2015
(– EUR 47.2 billion). The decline in the leverage ratio exposure is attributable to the deliberate run-off of total assets and the expiry of transactions subject to guarantor's liability. A substantial portion of securitized liabilities subject to guarantor's liability fell due in the year under review. Correspondingly, the expiry of guarantor's liability was also reflected in an increase in liabilities on the assets side. In addition, the gross receivables from securities financing transactions were set off against liabilities from securities financing transactions subject to the fulfillment of defined requirements for the first time as at 31 December 2015.

EUR million		Figures to be used
1	Total assets according to the published accounts	234 015
2	Adjustment for corporates that are consolidated for accounting purposes but do not form part of the regulatory basis of consolidation.	– 1 770
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	– 10 282
5	Adjustment for securities financing transactions (SFTs)	3 031
6	Adjustment for off-balance-sheet items (i.e. conversion of off-balance-sheet exposures into credit equivalent amounts)	16 094
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	1 269
8	**Leverage ratio total exposure measure**	**242 357**

Figure 45: Comparison between balance sheet and overall exposure value measurement (LRSum).

EUR million		Risk exposure values 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)	191 902
2	(Asset amounts deducted in the calculation of Tier 1 capital)	– 1 486
3	Total of off-balance-sheet risk exposures (excluding derivatives, SFTs and fiduciary assets) (total of rows 1 and 2)	190 416
4	Replacement value of all derivatives transactions (i.e. excluding eligible additional contributions received in cash)	8 422
5	Premiums for the potential future replacement value with regard to all derivatives transactions (mark-to-market measurement method)	7 322
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)	– 7 342
8	(Excluded CCP portion of customer-cleared trading positions)	– 136
9	Adjusted effective nominal value of written credit derivatives	12 475
10	(Netting of adjusted effective nominal values and deduction of premiums for written credit derivatives)	– 4 733
11	Total of risk exposures from derivatives (total of rows 4 to 10)	16 009
Risk exposures from securities financing transactions (SFTs)		
12	Gross assets from SFTs (without recognition of netting) after adjustment for transactions booked as sales	20 758
13	(Netted amounts of cash liabilities and receivables from gross assets from SFTs)	– 3 951
14	Counterparty default risk exposures for SFT assets	3 031
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 15)	19 838
Other off-balance-sheet risk exposures		
17	Off-balance-sheet risk exposures at their gross nominal value	45 355
18	(Adjustments for the conversion into credit equivalent amounts)	– 29 261
19	Other off-balance-sheet risk exposures (total of rows 17 and 18)	16 094
(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	12 931
21	Leverage ratio total exposure measure (total of rows 3, 11, 16, 19, EU-19a and EU-19b)	242 357
Leverage ratio		
22	Leverage ratio	5.3 %
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 46: Uniform disclosure schema for the leverage ratio (LRCom).

EUR million		Risk exposure values of the CRR leverage ratio
EU-1	**Total of on-balance-sheet risk exposures (excluding derivatives, SFTs and excluded risk exposures), of which:**	**191 902**
EU-2	**Risk exposures in the trading book**	**36 329**
EU-3	**Risk exposures in the trading book, of which:**	**155 573**
EU-4	Covered bonds	445
EU-5	Risk exposures treated as risk exposures towards sovereigns	29 451
EU-6	of which risk exposures to regional authorities, multilateral development banks, international organizations and public-sector bodies which are not treated as risk exposures towards sovereigns	6 183
EU-7	Banks	28 529
EU-8	Collateralized by real estate liens	17 653
EU-9	Risk exposures from the retail business	5 874
EU-10	Corporates	55 516
EU-11	Defaulted exposures	1 684
EU-12	Other risk exposures (e.g. equity investments, securitizations and other assets that are not loan commitments)	10 237

Figure 47: Breakdown of on-balance-sheet risk exposures (excluding derivatives, securities financing transactions (SFTs) and excluded risk exposures) (LRSpl).

17 Results of the quantitative analysis for global systemically relevant institutions as at 31 December 2015.

LBBW publishes the results of the quantitative analysis for global systemically relevant institutions of the LBBW Group (regulatory basis of consolidation) as at 31 December 2015.

The quantitative analysis required by the Basel Committee on Banking Supervision (BCBS) annually as at 31 December is based on Commission Implementing Regulation (EU) No. 1030/2014 of 29 September 2014 laying down implementing technical standards with regard to uniform formats and dates for the disclosure of the values used to identify global systemically important institutions according to the CRR.

The BCBS decides at least annually which institutions are to be classified as globally systemically important on the basis of a quantitative analysis at the consolidated level. In accordance with Section 10f (2) of the German Banking Act (Kreditwesengesetz - KWG), this analysis takes into account the following factors:

- size of the group
- cross-border activities of the group
- interconnectedness of the group with the financial system
- substitutability of the services of the financial infrastructure provided by the group
- complexity of the group.

Landesbank Baden-Württemberg is currently not classified as a global systemically important institution.

The indicators shown in the following table were calculated on the basis of »Instrucionts for the end – 2015 G-SIB assessment exercise« published by the Basel Committee on Banking Supervision on 18 December 2015. It is not directly compareable with other publications.

Section 1: General information	
a. General information provided by the national supervisory authority	
(1) Country code	DE
(2) Name of the bank	LBBW
(3) Reporting date (YYYY-MM-DD)	2015-12-31
(4) Reporting currency	EUR
(5) EUR conversion rate	1
(6) Date of transmission (YYYY-MM-DD)	2016-04-15
b. General information provided by the reporting institution	
(1) Reporting unit	1 000 000
(2) Accounting standard	IFRS

	Amount
Section 2: Indicator of total risk exposure	
a. Derivatives	
(1) Counterparty risks from derivative contracts	8 176
(2) Adjusted nominal amount of written credit derivatives	7 742
(3) Potential future receivables from derivatives contracts	7 256
b. Securities financing transactions	
(1) Adjusted gross value of securities financing transactions (SFTs)	15 303
(2) Counterparty risks from SFTs	3 031
c. Other assets	**183 310**
d. Gross nominal value of off-balance-sheet items	
(1) Nominal value of off-balance-sheet items with a credit conversion factor (CCF) of 0 %	15 164
(2) Nominal value of off-balance-sheet items with a CCF of 20 %	3 271
(3) Nominal value of off-balance-sheet items with a CCF of 50 %	25 994
(4) Nominal value of off-balance-sheet items with a CCF of 100 %	926
e. Regulatory adjustments	**1 332**
f. Indicator for the aggregate risk exposure (total of items 2.a.(1) to 2.c, 0.1 times 2.d.(1), 0.2 times 2.d.(2), 0.5 times 2.d.(3), and 2.d.(4))	**240 913**

Section 3: indicator for assets within the financial system [1) 2)]	
a. Cash deposited with or lent from other financial institutions [1)]	**67 152**
(1) Deposit certificates [1)]	850
b. Promised but undrawn credit lines granted to other financial institutions	**6 382**
c. Securities issued by other financial institutions	
(1) Collateralized bonds	973
(2) Senior unsecured bonds	11 598
(3) Junior bonds	134
(4) Money market paper	30
(5) Equities	548
(6) Short positions offset in connection with the equity holdings determined under item 3.c.(5)	295
d. Current positive net risk exposure from securities financing transactions with other financial institutions [2)]	**3 010**
e. (OTC) derivatives traded off-floor with other financial institutions with a positive fair value	
(1) Positive fair value	2 150
(2) Potential future receivables	2 059
f. Indicator for assets within the financial system (total of items 3.a, 3.b to 3.c.(5), 3.d, 3.e.(1) and 3.e.(2) less 3.c.(6) [1) 2)]	**93 741**

Section 4: indicator for liabilities within the financial system [1) 2)]	
a. Cash deposited by or lent to other financial institutions	
1) Deposits by custodians [1)]	56 326
(2) Deposits by financial institutions which are not custodians [1)]	16 139
(3) Funds received from other financial institutions	968
b. Promised but undrawn credit lines granted by other financial institutions	**186**
c. d. Current negative net risk exposure from securities financing transactions with other financial institutions [2)]	**12 885**
d. OTC derivatives with other financial institutions with a negative fair value	
(1) Negative fair value	2 136
(2) Potential future receivables	4 186
e. Indicator for liabilities within the financial system (total of items 4.a.(1) to 4.d.(2)) [1) 2)]	**92 826**

Section 5: Indicator for outstanding securities	
a. Collateralized bonds	12 696
b. Senior unsecured bonds	16 829
c. Junior bonds	2 887
d. Money market paper	3 361
e. Deposit certificates	3 252
f. Equity	0
g. Preferred stock and any other form of subordinated financing not included under item 5.c	0
h. Indicator for outstanding securities (total of items 5.a to 5.g)	39 026

Section 6: Indicator of payment activity	
Payments made during the year under review in:	
a. Australian dollars	16 216
b. Brazilian real	0
c. Canadian dollars	26 513
d. Swiss francs	303 575
e. Chinese yuan	104
f. EUR	2 332 984
g. Pounds sterling	360 691
h. Hong Kong dollars	2 096
i. Indian rupees	8
j. Japanese yen	10 207
k. Swedish krona	5 298
l. US dollars	1 806 072
m. Indicator for payment activity (total of items 6.a to 6.l)	4 863 763

Section 7: Indicator of custody assets	240 756

Section 8: Indicator of issuing transactions	
a. Stock issuing transactions	59
b. Bond issuing transactions	23 451
c. Indicator of issuing transactions (total of items 8.a. and 8.b)	23 509

Section 9: Indicator of OTC derivatives	
a. OTC derivatives transacted via a central counterparty	552 513
b. Bilateral OTC derivatives	676 054
c. Indicator for OTC derivatives (total of items 9.a and 9.b)	1 228 567

Section 10: Indicator for securities in the trading portfolio and (AfS) securities	
a. Securities in the trading portfolio	15 920
b. Available-for sale (AfS) securities	18 131
c. Securities in the trading portfolio and AfS securities that correspond to the definition of level 1 assets	20 185
d. Securities in the trading portfolio and AfS securities that correspond to the definition of level 2 assets, plus risk premiums	1 470
e. Indicator for securities in the trading portfolio and (AfS) securities (total of items 10.a and 10.b less the total of 10.c and 10.d)	12 397

Section 11: Indicator for level 3 assets	2 060

Section 12: Indicator for cross-legal area receivables	65 553

Section 13: Indicator for cross-legal area liabilities	
a. Foreign liabilities (excluding derivatives and domestic liabilities in the national currency)	26 847
(1) All foreign liabilities to affiliates under item 13.a	12 989
b. Domestic liabilities in the national currency (excluding derivatives)	14 479
c. Indicator for cross-legal area liabilities (total of items 13.a and 13.b, less 13.a(1))	28 336

Figure 48: Results of the quantitative analysis for global systemically relevant institutions.

1) Due to the FAQ published by the Basel Committee on Banking Supervision on 17 May 2016 the previously reported figures were adjusted.

2) Due to the templates published by the Banking Authority on 15 July 2016 the previously reported figures were adjusted again.

Abbreviations.

ABCP	Asset backed commercial paper
ABS	Asset backed security
AT1	Additional Tier 1 Capital
BaFin	Bundesanstalt für Finanzdienstleistungsaufsicht
BCBS	Basel Committee on Banking Supervision
BelWertV	Beleihungswertermittlungsverordnung
CCF	Credit conversion factor
CCP	Central counterparty
CDO	Collateralized debt obligation
CDS	Credit default swap
CET1	Common Equity Tier 1
CLN	Credit linked note
CLO	Credit loan obligation
CMBS	Commercial mortgage backed security
COREP	Common solvency ratio reporting
CP	Commercial paper
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CSA	Credit support annex
DCF	Discounted cash flow
DRV	Deutscher Rahmenvertrag (German global agreement)
EAD	Exposure at default
EBA	European Banking Authority
ECAI	External Credit Assessment Institution
EL	Expected loss
FICC	Fixed Income Clearing Corporation
FINREP	Financial Reporting
GMRA	Global master repurchase agreement
GMSLA	Global master securities lending agreement
HGB	Handelsgesetzbuch (German Commercial Code)
IAA	Internal Assessment Approach
IDW	Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany)
IFRS	International Financial Reporting Standards
IMM	Internal Model Method
IPV1	Independent price verification
IRBA	Internal Ratings Based Approach
ISDA	International Swaps and Derivatives Association
SME	Small and medium-sized enterprises
CRSA	Credit risk standard approach
LGD	Loss given default
UCI	Undertakings for collective investment
OTC	Over the counter
PD	Probability of default
RCP	Risk classification procedure
RMBS	Residential mortgage backed security
SAG	Sanierungs- und Abwicklungsgesetz (German Recovery and Resolution Act)
SIC	Standing Interpretations Committee
SPV	Special purpose vehicle
T2	Tier 2 capital
VaR	Value-at-risk
CCP	Central counterparty

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