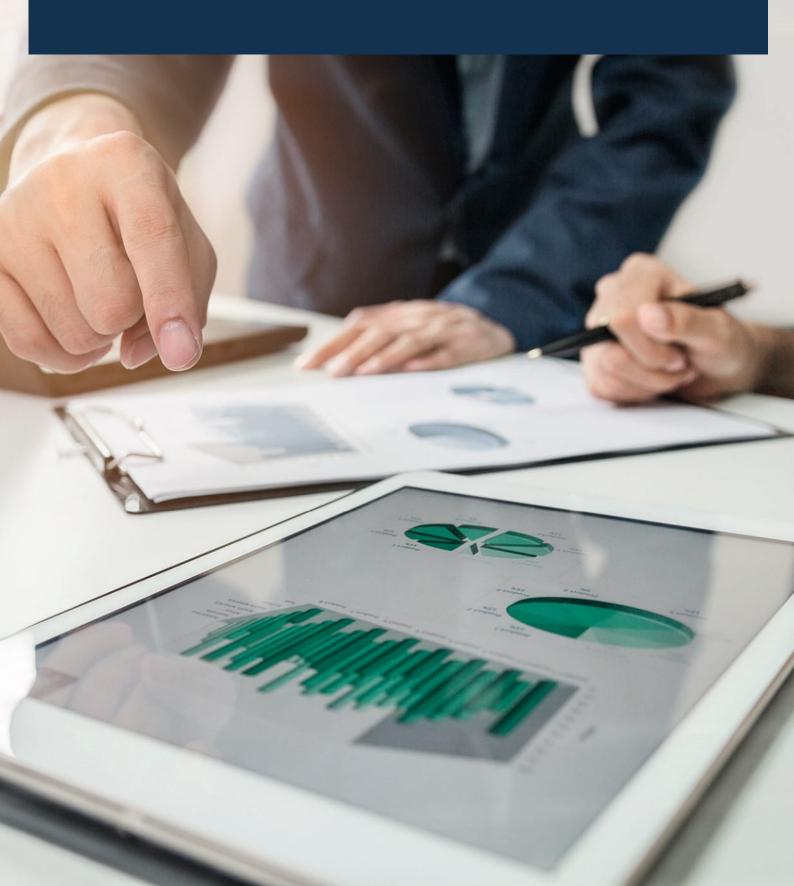
LB≡BW

Disclosure report for the first half of 2019



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Key figures for the LBBW Group

EUR million	30/06/2019	31/03/2019
Available capital		
Common equity Tier 1 (CET 1) capital	12,007	11,967
CET1 fully loaded	12,007	11,967
Tier 1 capital (T1)	12,730	12,690
T1 fully loaded	12,007	11,967
Own funds (T1 + T2)	18,068	17,587
Own funds fully loaded	18,011	17,531
Risk weighted assets (amounts)		
Total risk (RWA)	82,198	81,623
Risk-based capital ratios as percentage of RWA		
Common equity Tier 1 capital ratio in %	14.6	14.7
CET1 ratio fully loaded in %	14.6	14.7
T1 capital ratio in %	15.5	15.5
T1 ratio fully loaded in %	14.6	14.7
Total capital ratio in %	22.0	21.5
Total capital ratio fully loaded in %	21.9	21.5
Additional Tier 1 capital buffer requirements as percentage of RWA		
Capital conservation buffer requirement in %	2.5	2.5
Countercyclical capital buffer requirement in %	0.0	0.0
Additional requirements for G-SIB and O-SIB in %	1.0	1.0
Total CET1 buffer requirements in %	3.5	3.5
Available CET 1 after meeting minimum capital requirements in $\%$	6.6	6.6
Leverage ratio		
Leverage ratio total exposure measure	280,779	288,360
Leverage ratio in %	4.5	4.4
Leverage ratio fully loaded in %	4.3	4.1
Liquidity coverage ratio		
Total HQLA	64,036	62,487
Total net cash outflows	46,574	45,679
LCR in % 1	137.6	136.8

 $^{1 \ \}text{The LCR} \ \text{is calculated by taking the average liquidity coverage ratios} \ \text{of the last} \ 12 \ \text{months} \ \text{before the end of each quarter}$

1 General requirements (Article 431 – 434 CRR)

Due to the CRR II (Capital Requirements Regulation - Regulation (EU) No. 2019/876), which took effect on 27 June 2019, and the CRD V (Capital Requirements Directive V - Directive (EU) 2019/878/EU), banks must prepare a disclosure report.

As a "major bank", LBBW must publish a quarterly disclosure report. LBBW fulfills its obligation to prepare the disclosure report in aggregate form at group level in its function as a parent company. The basis for the figures given in this report is the regulatory basis of consolidation. Figures are calculated in accordance with the International Financial Reporting Standards (IFRS).

This report provides quantitative information required as at the end of the reporting period regarding

- Own funds
- Capital ratios
- Development of risk weighted assets
- Credit quality of assets
- Non-performing exposures
- Credit mitigation techniques
- RWA flow statement of credit risks in accordance with the IRB approach
- Counterparty credit risk
- Market risks
- RWA flow statement of market risk exposures under the Internal Model Method (IMM)
- Leverage ratio
- Liquidity coverage ratio

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

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

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

2.1 Own funds

LBBW is not exercising the option given in Article 473a (1–6) CRR to phase in the effects resulting from the first-time adoption of IFRS 9 in CET 1.

The following table shows the own funds of the LBBW Group under IFRS, associated regulatory adjustments and capital ratios.

ID	mil	lion

Capital instruments	30/06/2019	31/03/2019
Common equity Tier 1 (CET 1) capital before regulatory adjustments	12,771	12,698
Regulatory adjustments to common equity Tier 1 (CET 1) capital as a whole	- 765	- 731
Common equity Tier 1 (CET 1) capital	12,007	11,967
Additional Tier 1 (AT1) capital before regulatory adjustments	723	723
Regulatory adjustments to additional Tier 1 (AT1) as a whole	-	
Additional Tier 1 (AT1)	723	723
Tier 1 (T1 = CET 1 + AT1)	12,730	12,690
Tier 2 (T2) before regulatory adjustments	5,363	4,922
Regulatory adjustments to Tier 2 (T2) capital as a whole	- 25	- 25
Tier 2 (T2) capital as a whole	5,338	4,897
Total capital (TC = T1 + T2)	18,068	17,587
Total risk weighted assets	82,198	81,623
Capital ratios		
CET 1 capital ratio (expressed as a percentage of the total risk exposure amount)	14.6	14.7
T1 capital ratio (expressed as a percentage of the total risk exposure amount)	15.5	15.5
Total capital ratio (expressed as a percentage of the total risk exposure amount)	22.0	21.5

Figure 1: Type and amounts of capital instruments

Changes to own funds as against 31 March 2019.

The common equity Tier I (CET 1) of the LBBW Group increased marginally as against the last quarter. This is primarily a result of the transfer of the profit which had not yet been recognized as at 31 December 2018 to retained earnings. It was transferred after the Supervisory Board adopted the annual financial statements. This was offset by the interest-related decline of the revaluation reserve.

There were no changes to eligible additional Tier I capital (AT1). Subordinated capital (T2) was strengthened in the second quarter of 2019 through the issue of two additional subordinated bonds within the scope of the MTN program. EUR 500m and JPY 2bn were issued. There were also private placements of EUR 9m. The amortization to the day of Tier 2 capital components had a counteracting effect.

The changes impacting on CET 1 capital have an effect on all capital ratios. The issue of Tier 2 capital only had a positive effect on the total capital ratio.

Due to the aforementioned facts and the slight increase in risk weighted assets, LBBW's CET 1 capital ratio and Tier 1 capital ratio fell slightly quarter-on-quarter. By contrast, the total capital ratio rose slightly thanks to the new issues. 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).

2.2 Countercyclical capital buffer

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

The CET 1 capital cover of the total countercyclical capital buffer of all relevant countries is capped at 2.5%.

The countries that had a countercyclical capital buffer as at 30 June 2019 are shown in the following table.

Countercyclical capital buffer
in %

Country	30/06/2019	31/12/2018
Denmark	0,500	0,000
United Kingdom	1,000	1,000
Hong Kong	2,500	1,875
Iceland	1,750	1,250
Lithuania	1,000	0,500
Norway	2,000	2,000
Sweden	2,000	2,000
Slovakia	1,250	1,250
Czech Republic	1,250	1,000

Figure 2: Countercyclical capital buffer

The countries with the greatest risk exposure in accordance with the guidelines for the countercyclical buffer and those that imposed a countercyclical capital buffer in 2019 are shown in the following table.

EUR million		General credit risk exposures		Risk exposures in the trading book		Securitization risk exposures		Capital requirements				
Breakdown by country	Risk exposure value CRSA	Risk exposure value IRB	Total of purchase and sales positions in the trading book	Values of risk ex- posures in the trading book (internal models)	Risk exposure value CRSA	Risk exposure value IRB	Of which: general credit risk ex- posures	Of which: risk ex- posures in the trading book	Of which: security- zation positions	Total	Weighting of the own fund requirements per country in %	Counter- cyclical capital buffer ratio in %
Germany	16,776	72,453	2,622	-	219	3,219	3,414	44	58	3,515	71.47	-
Luxembourg	34	3,635	226	-	=	0	129	4	=	134	2.71	=
Netherlands	42	2,459	397	-	=	-	84	8	=	92	1.87	=
Austria	34	1,800	122	-	=	-	64	3	=	66	1.35	=
Switzerland	83	2,753	98	=	=	34	82	3	2	86	1.76	=
USA	130	22,024	300	-	-	260	385	5	7	397	8.07	-
Denmark	1	181	118	-	-	-	9	2	-	10	0.20	0.00
United Kingdom	217	1,976	2,474	-	-	39	80	12	3	95	1.94	0.02
Iceland	0	2	-	=	=	-	0	-	=	0	0.00	0.00
Lithuania	0	37	7	=	=	-	0	0	=	0	0.00	0.00
Norway	2	2,459	291	=	=	-	26	3	=	28	0.58	0.01
Sweden	1	78	122	=	=	145	3	2	1	6	0.12	0.00
Slovakia	1	0	2	-	-	-	0	0	-	0	0.00	0.00
Czech Republic	6	47	5	-	-	-	2	0	-	2	0.05	0.00
Hong Kong	5	30	-	-	-	-	1	-	-	1	0.02	0.00
Other	1,010	11,688	2,389	-	-	182	445	38	2	485	9.86	-
Total30June2019	18,344	121,623	9,170	-	219	3,880	4,723	123	73	4,919	100.00	0.04
Total 31 Dec. 2018	18,214	107,111	9,607	-	15	4,044	4,618	140	71	4,829	100.00	0.04

Figure 3: Determining the institution-specific countercyclical capital buffer (pursuant to Article 140 CRD)

The amount of LBBW's institution-specific countercyclical capital buffer is shown in the following figure.

Institution-specific countercyclical capital buffer	30/06/2019	31/12/2018
Total risk exposure in EUR million	82,198	80,348
Institution-specific ratio of countercyclical capital buffer in percent	0,036	0,038
Requirements of the institution-specific countercyclical capital buffer in EUR million	29	30

Figure 4: Institution-specific countercyclical capital buffer (Article 140 CRD)

2.3 Own funds requirements

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

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

A breakdown by exposure class is provided as follows:

- Credit risks in CRS, chapter 3.1,
- Credit risks in IRB, chapter 3.2
- Counterparty credit risks, chapter 5

	RW	Ά	Minimum capital requirements		
EUR million	30/06/2019	31/03/2019	30/06/2019	31/03/2019	
Credit risk (excl. CCR)	63,577	63,605	5,086	5,088	
of which under the standardized approach	10,944	11,056	876	884	
of which under the foundation IRB approach (FIRB)	51,124	51,051	4,090	4,084	
of which under the advanced IRB approach (AIRB)	-	-	-		
of which equity in the IRB approach using the simple risk weighted approach or the IMA	1,509	1,498	121	120	
Counterparty credit risk (CCR)	4,021	4,080	322	326	
of which under the mark-to-market	2,661	2,743	213	219	
of which under original exposure	-	-	-	-	
of which under the standardized method	-	-	-	-	
of which under the internal model method (IMM)	-	-	-		
of which risk-weighted exposure amount for contributions to the default fund for a CCP	150	123	12	10	
of which CVA	1,211	1,213	97	97	
Settlement risk	1	2	0	0	
Securitization exposures in the banking book (after application of the cap)	912	874	73	70	
of which under the IRB approach	87	97	7	8	
of which under the IRB supervisory formula approach (SFA)	-	-	-	-	
of which under the internal assessment approach (IAA)	821	774	66	62	
of which under the standardized approach	3	3	0	0	
Market risk	4,524	3,912	362	313	
of which under the standardized approach	2,268	2,020	181	162	
of which under IMA	2,255	1,892	180	151	
Large exposures	=	=	=	=	
Operational risk	4,661	4,661	373	373	
of which under the basic indicator approach	-		-		
of which under the standardized approach	4,661	4,661	373	373	
of which under the advanced measurement approach	-		-		
Amounts below the thresholds for deductions (subject to 250 % risk weight)	4,503	4,488	360	359	
Adjustment of floor	=		-		
Total	82,198	81,623	6,576	6,530	

Figure 5: EU OV1 - Overview of risk weighted assets (RWA) (Article 438 (c) to (f) CRR)

EUR 128m of the securitization positions are subject to the securitization regulations applicable since 1 January 2019. These are calculated in accordance with the internal assessment approach (IAA).

The total amount of risk increased slightly quarter-on-quarter. This resulted mainly from the increase in market risk. Market risk positions calculated under the standardized approach rose on account of eneral business performance, with market risk positions calculated in line with the internal model increasing due to the change in presentation of Schuldscheine for German federal states.

The following table shows risk weighted assets for specialized lending exposures reported using the IRB approach and for equity investments reported using the IRB approach that are subject to a fixed risk weight.

EUR million	Specialized lending exposures								
Remaining maturity/Regulatory categories	On-balance- sheet amount	Off-balance- sheet amount	Exposure amount						
Category 1									
Less than 2.5 years	76	0	50	76	38				
Equal to or more than 2.5 years	-	1	70	1	0	0			
Category 2									
Less than 2.5 years	41	28	70	62	44	0			
Equal to or more than 2.5 years	67	9	90	74	66	1			
Category 3									
Less than 2.5 years	7	0	115	7	8	0			
Equal to or more than 2.5 years	41	-	115	41	47	1			
Category 4									
Less than 2.5 years	-	-	250	-	-	-			
Equal to or more than 2.5 years	2	-	250	2	5	0			
Category 5									
Less than 2.5 years	-	-	-	-	=	-			
Equal to or more than 2.5 years	0	-	-	0	-	0			
Total - 30 June 2019	233	39	-	263	208	2			
Less than 2.5 years	124	29	-	146	89	0			
Equal to or more than 2.5 years	109	10	-	117	118	2			
Total - 31 December 2018		15		197	158	2			

Categories	On-balance- sheet amount	Off-balance- sheet amount	Risk weight in %	Exposure amount	RWA	Capital requirements
Private equity exposures	772	-	190	772	1,466	117
Exchange traded equity exposures	15	=	290	15	42	3
Other equity exposures	-	-	370	-	-	-
Total - 30 June 2019	786	-		786	1,508	121
Total - 31 December 2018	769			769	1,475	118

Figure 6: EU CR10 - IRB specialized lending exposures and equity investments with a fixed risk weight

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

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

3.1 Applying the standardized approach to credit risks

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

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

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

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

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

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

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

In the following table, CRSA exposure at default (EAD), excluding counterparty credit risks, is reported after credit risk mitigation and credit conversion factors. Exposures are broken down by risk category and risk weight. The table does not include 2%, 4%, 10%, 250%, 370% or "Other" or "Deducted" risk weights, since LBBW has no exposures in any of these risk weight categories. Exposures for which there is no credit assessment from a recognized external rating assessment institution and which therefore have no specific risk weight pursuant to Articles 113 to 134 CRR, are included in the column "of which unrated".

EUR million	Risk weight in %										
Exposure classes	0	20	35	50	70	75	100	150	1250	Total	Of which unrated
Central governments or central banks	228	-	-	-	-	-	-	-	-	228	228
Regional governments or local authorities	1,172	0	-	-	-	-	-	-	-	1,172	1,172
Public-sector entities	0	120	-	-	-	-	0	-	-	120	85
Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-
International organizations	-	-	-	-	-	-	-	-	-	-	-
Institutions	27,342	835	-	22	-	-	1	-	0	28,201	28,050
Corporates	-	966	101	552	374	-	4,409	0	-	6,402	4,953
Retail business	=	-	-	-	-	5,395	=-	-	-	5,395	5,395
Secured by mortgages on immovable property	_	-	4,181	147	_	-	-	-	_	4,328	4,328
Exposures in default	-	-	-	-	-	-	39	55	-	94	94
Items associated with particularly high risk	-	-	-	-	-	-	-	59	-	59	59
Covered bonds	-	-	-	-	-	-	-	-	-	-	-
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	0	-	0	-
Undertakings for collective investment	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	-	-	-
Other items	5	-	-	-	-	-	80	-	-	85	85
Total - 30 June 2019	28,746	1,921	4,282	720	374	5,395	4,529	114	0	46,084	44,448
Total - 31 Dec. 2018	28.502	1.734	4.410	524	362	5.387	4.203	114	2	45,239	43.784

 Total - 31 Dec. 2018
 28,502
 1,734
 4,410
 524
 362
 5,387
 4,203
 114
 2
 45,239
 43,784

 Figure 7: EU CR5 - CRSA - Breakdown by risk category and risk weight (Article 444 (e) CRR)

3.2 Applying the IRB approach to credit risks

The following section shows credit risk exposures reported under the IRB approach, excluding counterparty credit risks. The following table shows IRB credit risk exposures by exposure class and PD ranges set by the regulator.

The column "Number of obligors" shows the number of obligors of individual PDs listed in the table. The column "RWA density" refers to the ratio of risk weighted assets to exposures post credit conversion factors and credit risk mitigation.

A decline in deposits with central banks led to a decrease in exposures reported under the IRB exposure class "Central governments and central banks" as against the previous period. The rise in the exposure class "Institutions" reflects new business and growth in repo/lending business. The increase in the "Corporates" exposure class is due in part to new business.

EUR million	n :lass/PD range in %	Original on- balance-sheet gross exposures	Off-balance- sheet exposures pre-CCF	Average CCF in %	EAD post CRM and post CCF	Average PD in %	Number of obligors	
Central gov	vernments and centra	al banks						
	0.00 to <0.15	42,858	3,736	66.01	49,046	0.00	2,119	
	0.15 to <0.25	3	-	-	3	0.17	1	
	0.25 to <0.50	66	-	-	66	0.39	1	
	0.50 to <0.75	-	-	-	-	-	-	
	0.75 to <2.50	98	10	20.00	102	0.89	5	
	2.50 to <10.00	1	-	-	1	6.16	3	
	10.00 to <100.00	62	9	50.00	6	10.00	4	
	100.00 (Default)	-	-	-	-	-	-	
Sub-total -	30 June 2019	43,088	3,754	65.86	49,225	0.01	2,133	
Sub-total -	31 December 2018	50,340	3,810	69.42	56,600	0.01	2,129	
Institutions	s							
	0.00 to <0.15	39,906	1,287	41.74	40,548	0.07	312	
	0.15 to <0.25	3,436	136	40.64	3,106	0.17	37	
	0.25 to <0.50	1,254	60	44.84	1,281	0.28	52	
	0.50 to <0.75	369	51	44.11	391	0.59	18	
	0.75 to <2.50	20	4	25.79	21	1.28	12	
	2.50 to <10.00	0	0	33.71	0	3.70	5	
	10.00 to <100.00	-	6	9.65	1	12.36	3	
	100.00 (Default)	1	-	-	1	100.00	1	
Sub-total -	30 June 2019	44,986	1,544	41.68	45,349	0.09	440	
Sub-total -	31 December 2018	33,231	1,392	43.52	33,655	0.09	392	
Corporates	s – SMEs							
	0.00 to <0.15	2,839	1,461	19.97	3,048	0.07	2,829	
	0.15 to <0.25	620	391	22.88	702	0.17	783	
	0.25 to <0.50	1,457	510	24.08	1,565	0.32	1,606	
	0.50 to <0.75	499	241	26.91	561	0.59	699	
	0.75 to <2.50	987	472	31.47	1,076	1.32	1,548	
	2.50 to <10.00	275	112	30.17	228	3.97	397	
	10.00 to <100.00	191	43	61.66	90	16.86	234	
	100.00 (Default)	193	50	59.33	208	100.00	188	
Sub-total -	30 June 2019	7,060	3,280	24.62	7,477	3.45	8,284	
Sub total	31 December 2018	6,871	3,619	28.49	7,479	3.71	8.501	
วบบ-เบเนเ -	שובעבוווטפו 2018	0,0/1	3,019	20.49	7,479	3./1	0,501	-

Figure 8: EU CR6 - IRB approach - Credit risk exposures by exposure class and PD range (Article 452 (e) to (g) CRR)

					Value adjustments	
Average LGD in %	Average maturity	RWA	RWA density in %	EL	and provisions	
41.08	846	798	1.63	1	0	
45.00	900	1	42.55	0	-	
45.00	900	44	65.67	0	- 1	
-	-	-	-	-	-	
45.00	900	96	94.14	0	- 2	
45.00	900	1	170.59	0	0	
45.00	900	13	204.67	0	-	
-	-	-	-	-	-	
41.09	846	953	1.94	2	- 3	
42.15	862	898	1.59	4	- 4	
20.58	598	4,380	10.80	5	- 1	
15.05	629	432	13.91	1	0	
18.46	600	325	25.39	1	0	
40.08	821	316	80.76	1	0	
23.95	900	12	59.14	0	0	
45.00	900	0	156.42	0	=	
45.00	900	1	215.95	0	-	
45.00	900	-	-	0	- 1	
20.31	603	5,468	12.06	9	- 3	
25.38	589	4,486	13.33	8	- 3	
38.96	900	520	17.07	1	- 1	
41.63	900	219	31.16	0	- 1	
41.66	900	693	44.31	2	- 3	
42.39	900	334	59.55	1	- 1	
43.84	900	914	84.97	6	- 5	
43.43	900	270	118.23	4	- 6	
42.55	900	161	178.30	7	- 4	
44.43	900	-	-	92	- 88	
41.07	900	3,110	41.60	114	- 109	
40.78	900	3,082	41.20	119	- 122	
		 _				

EUR million Exposure class/PD range in %	Original on- balance-sheet gross exposures	Off-balance- sheet exposures pre-CCF	Average CCF in %	EAD post CRM and post CCF	Average PD in %	Number of obligors	
Corporates - specialized lending		,		,			
0.00 to <0.15	7,520	801	70.94	8,011	0.08	375	
0.15 to <0.25	2,913	792	70.53	3,471	0.17	90	
0.25 to <0.50	3,339	405	72.04	3,327	0.31	130	
0.50 to <0.75	2,129	358	74.82	2,396	0.59	64	
0.75 to <2.50	1,695	222	70.95	1,852	1.20	87	
2.50 to <10.00	380	28	75.51	401	3.81	20	
10.00 to <100.00	411	14	72.32	262	16.37	32	
100.00 (Default)	55	-	-	54	100.00	10	
Sub-total – 30 June 2019	18,441	2,620	71.57	19,774	0.86	808	
Sub-total - 31 December 2018	18,370	2,366	70.57	19,652	0.89	833	
Corporates - other							
0.00 to <0.15	41,608	20,214	44.06	50,744	0.07	2,023	
0.15 to <0.25	7,558	6,442	53.74	10,876	0.17	1,150	
0.25 to <0.50	10,132	6,336	47.51	12,790	0.31	1,970	
0.50 to <0.75	2,217	1,669	50.26	2,970	0.59	607	
0.75 to <2.50	4,088	2,586	48.31	4,252	1.24	1,067	
2.50 to <10.00	900	622	46.04	1,005	4.23	357	-
10.00 to <100.00	1,089	332	44.20	315	13.57	280	-
100.00 (Default)	504	161	63.53	560	100.00	293	-
Sub-total – 30 June 2019	68,097	38,362	46.93	83,512	0.97	7,747	-
Sub-total - 31 December 2018	53,971	37,272	45.39	68,045	1.10	7,234	
Equity exposures under IRB app	oroach						
0.00 to <0.15	40	-	-	40	0.11	6	
0.15 to <0.25	11	-	-	11	0.17	3	
0.25 to <0.50	16	-	-	16	0.39	11	
0.50 to <0.75	1	-	-	1	0.59	1	
0.75 to <2.50	1	=	-	1	0.88	1	
2.50 to <10.00	0	-	-	0	4.44	2	
10.00 to <100.00	0	-	-	0	45.00	1	
100.00 (Default)	-	-	-	-	-	=	
Sub-total - 30 June 2019	69	-	-	69	0.21	25	
Sub-total - 31 December 2018	75	-	-	75	0.20	30	
Total (all portfolios) - 30 June 2019	181,740	49,560	48.03	205,406	0.62	19,437	
Total (all portfolios) - 31 December 2018	162,857	48,460	47.19	185,507	0.67	19,119	

alue adjustments						
and provisions	EL	RWA density in %	RWA	Average maturity	Average LGD in %	
- 1	3	24.39	1,954	900	41.53	
- 1	3	40.94	1,421	900	43.14	
- 6	5	56.77	1,889	900	43.52	
- 4	6	70.43	1,688	900	39.91	
- 10	10	102.17	1,893	900	44.77	
- 7	7	144.67	579	900	44.79	
- 14	19	233.24	612	900	43.97	
- 1	24	-	=	900	44.33	
- 45	75	50.75	10,036	900	42.36	
- 48	77	53.85	10,582	900	42.34	
- 8	12	17.50	8,878	661	35.41	
- 11	8	39.94	4,344	859	41.91	
- 13	17	56.63	7,243	888	43.65	
- 7	8	80.20	2,382	894	44.45	
- 24	24	103.63	4,406	900	44.79	
- 192	18	139.87	1,405	851	41.84	
- 15	14	177.66	560	900	36.06	
- 239	250	-	-	900	44.71	
- 508	351	34.99	29,219	747	38.46	
- 570	323	39.18	26,660	816	40.68	
	0	75.40	30	1,800	65.00	
	0	100.28	11	1,800	65.00	
	0	205.76	33	1,800	65.00	
	0	160.51	1	1,800	65.00	
	0	182.98	1	1,800	65.00	
	0	400.32	1	1,800	65.00	
	0	563.49	0	1,800	65.00	
	-	-	-	-	-	
	0	112.07	77	1,800	65.00	
	0	110.39	83	1,800	65.00	
- 668	551	23.79	48,862	759	35.57	
- 746	531	24.68	45,791	802	38.54	

The following table shows the development of RWAs of risk exposures under the IRB approach between 31 March 2019 and 30 June 2019.

EUR million	RWA	Capital requirements
RWAs - 31 March 2019	57,037	4,563
Asset size	91	7
Asset quality	377	30
Model updates	- 22	- 2
Methodology and policy	-	-
Acquisitions and disposals	-	-
Foreign exchange movements	- 214	- 17
Other	- 132	- 11
RWAs - 30 June 2019	57,136	4,571

Figure 9: EU CR8 – RWA flow statements of credit risks under the IRB approach (Article 438 (d) CRR and Article 92 (3) (a) CRR)

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

3.3 Credit quality of exposures

The following tables show the credit quality of on-balance-sheet and off-balance-sheet exposures, not including counterparty credit risk, broken down by exposure class and credit risk approaches. The reported credit risk adjustments are last year's audited figures for COREP reporting. Further on, there is a breakdown by sector and country.

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

Deposits with central banks reported under the IRB exposure class "Central governments and central banks" declined as against the previous period. Exposures to institutions in the IRB exposure class "Institutions" increased as a result of new business and growth in repo/lending business. New business in the CRSA exposure class "Corporates" and IRB "corporates" also led to a rise.

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Gross carrying amounts of

						Credit risk adjustment charges in		
EUR million Exposure class	Defaulted exposures	Non- defaulted exposures	Specific credit risk adjustments	General credit risk adjustments	Accumulated write-offs	the reporting period	Net values 30.06.2019	Net values 31.12.2018
Central governments or central banks	-	47,901	3	=	=	- 1	47,898	55,210
Institutions	1	62,486	3	-	=	1	62,484	45,222
Corporates	962	140,669	663	-	26	90	140,968	125,593
of which specialized lending exposures	55	21,461	46	-	4	4	21,470	21,143
of which SMEs	243	10,406	109	-	8	8	10,540	10,677
Retail business	-	-	-	-	-	-	-	-
of which secured by mortgages on immovable property	-	-	-	-	-	-	-	-
of which SMEs	-	-	-	-	-	-	-	-
of which non-SMEs	-	-	-	-	-	-	-	-
of which qualified, revolving	-	-	-	-	-	-	-	
of which other retail	-	-	-	-	-	-	-	
of which SMEs	=	-	=	=	=	=	=	=
of which non-SMEs	-	-	-	-	-	-	-	
Equity exposures	-	1,597	-	-	-	-	1,597	1,601
Other assets excl. loan commitments	-	2,156	-	-	-	-	2,156	2,879
Total amount under IRB approach	963	254,809	669	-	26	90	255,103	230,505
of which credits 1	752	160,251	590	-	-	67	160,413	145,907
of which debt securities ⁹	-	41,218	5	-	-	0	41,213	33,012
of which off-balance- sheet exposures ⁹	211	49,395	74	-	-	23	49,531	48,574
Central governments or central banks	0	1	0	-	-	0	1	2
Regional governments or local authorities	0	213	0	-	-	0	213	167
Public-sector entities	0	643	0	-	-	0	643	165
Multilateral development banks	-	-	-	-	-	-	-	
International organizations	-	-	-	-	-	-	-	
Institutions	-	30,472	0	-	-	0	30,472	30,068
Corporates	126	8,813	110	-	0	1	8,829	8,678
of which SMEs	12	2,175	7	=	0	1	2,180	1,750
Retail business	113	8,868	65	=	3	1	8,916	8,882
of which SMEs	26	1,714	14	-	0	1	1,725	1,808
Secured by mortgages on immovable property	-	4,340	5	-	-	- 2	4,335	4,511
of which SMEs	-	128	0	-	-	0	128	129
Exposures in default	240	-	133	-	-	0	106	103
Items associated with particularly high risk	-	59	-	-	-	-	59	58

Covered bonds								
Institutions and corporates with a short-								
term credit assessment	-	0	-	-	-	-	0	
Undertakings for collective investment	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Other items	-	85	-	-	-	-	85	43
Total amount under the Standardized								
Approach	240	53,495	181	-	3	- 1	53,553	52,573
of which credits ¹	236	46,001	170	-	-	- 1	46,066	44,650
of which debt securities ¹	-	45	0	-	-	-	45	68
of which off-balance- sheet exposures ⁹	4	7,008	8	-	-	0	7,004	7,158
Total	1,202	308,304	850	-	29	89	308,656	283,078
of which credits ¹	987	206,252	760	-	-	66	206,480	190,557
of which debt securities "	-	41,263	5	-	-	0	41,259	33,080
of which off-balance- sheet exposures ⁹	215	56,403	82	-	-	23	56,535	55,732

^{*)} figures in accordance with FinRep

Figure 10: EU CR1-A - Credit quality of exposures by exposure classes and instruments (Article 442 (g) and (h) CRR)

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

Gross carrying amounts of

		Non-	Specific	General		Credit risk adjustment charges in the		
EUR million	Defaulted	defaulted	credit risk	credit risk	Accumulated	reporting	Net values	Net values
Industry sector	exposures	exposures	adjustments	adjustments	write-offs	period	30/06/2019	31/12/2018
Central banks and banks	21	110,296	6	=	=	12	110,311	98,698
Other financial institutions	9	20,759	10	-	-	0	20,757	20,879
Other financial and insurance services	36	24,795	15	-	0	5	24,816	14,596
Public administration, defense, social security	0	19,185	4	-	-	- 1	19,181	18,645
Private households	74	12,467	46	=	1	- 3	12,495	12,639
Real estate and housing	81	29,692	69	-	1	4	29,704	29,170
Energy supplies	5	6,646	33	-	3	3	6,618	6,287
Mechanical engineering	102	7,214	48	-	3	32	7,268	6,576
Automotive production including components	32	5,589	83	-	1	5	5,538	5,005
Other manufacturing	327	21,819	184	-	8	8	21,962	20,945
Professional, scientific and technical activities	135	13,577	80	-	1	1	13,633	13,818
Trade, maintenance and repair of motor vehicles	185	9,570	120	-	3	15	9,634	9,556
Information and communication	11	6,191	13	-	0	0	6,189	5,145
Transport and storage	8	3,446	11	-	0	1	3,443	3,634
Water supply, waste- water and waste								
management	2	3,066	6	-	0	0	3,062	3,080
Other industries	176	13,990	121	-	9	7	14,046	14,406
Total	1,202	308,304	850	-	29	89	308,656	283,079

Figure 11: EU CR1-B - Credit quality of exposures by industry sector (Article 442 (g) and (h) CRR)

The following table breaks down exposure by country and geographic area. Significant countries are listed separately. Significant countries were defined as the twelve European countries with the largest risk exposures, the two American countries with the largest risk exposures and the Asian country with the largest risk exposure.

The increase in exposures to the US particularly reflects the upturn in repo/lending transactions with central counterparties and the rise in deposits with central bank.

	Gross carryin	g amounts of	Specific credit risk adjustments	General credit risk adjustments	Accumulated write-offs	Credit risk adjustment charges in the reporting period	Net values 30/06/2019	Net values 31/12/2018
EUR million Countries	Defaulted exposures	non- defaulted exposures						
Total Europe	1,143	261,583	812	-	28	63	261,915	254,105
Germany	990	181,446	661	-	28	56	181,775	190,514
Denmark	-	1,404	0	-	-	0	1,404	781
Finland	1	1,600	1	-	-	0	1,599	1,277
France	1	18,803	5	-	-	0	18,798	10,455
United Kingdom	0	17,487	45	-	0	1	17,443	15,461
Italy	0	1,621	1	-	-	0	1,620	1,569
Luxembourg	0	5,304	4	-	-	3	5,300	4,265
Netherlands	3	5,067	4	-	-	0	5,066	4,264
Norway	0	2,733	1	-	-	0	2,732	2,406
Austria	1	4,039	4	-	-	0	4,036	3,680
Sweden	0	1,841	1	-	-	0	1,841	1,460
Switzerland	3	7,953	6	-	0	0	7,950	7,142
Other countries Europe	143	12,285	78	-	0	4	12,351	10,831
Total America	55	38,085	26	-	0	25	38,114	21,660
Canada	0	2,413	1	-	0	0	2,412	1,765
USA	14	33,868	19	-	0	10	33,863	17,990
Other countries - America	42	1,804	7	-	-	14	1,839	1,906
Total Asia/Pacific	3	8,022	9	-	1	0	8,017	6,735
China	0	1,402	0	-	-	0	1,401	1,191
Republic of Korea	-	1,709	1	-	-	0	1,708	1,677
Other countries - Asia/Pacific region	3	4,911	7	-	1	0	4,907	3,867
Total other countries	0	614	3	-	-	1	611	579
Other countries - Other	0	614	3	-	-	1	611	579
Total	1,202	308,304	850	-	29	89	308,656	283,079

Figure 12: EU CR1-C - Credit quality of exposure by country and geographic area (Article 442 (g) and (h) CRR)

3.4 Non-performing exposures

Definitions of impaired performance.

A financial instrument is deemed to be impaired when there is objective evidence of impairment (an "impairment trigger"). Objective evidence of impairment includes, in particular, significant financial difficulties of the obligor, a breach of contract (the obligor is in default or past due payments of interest and/or principal), concessions made to the borrower for economic or legal reasons related to the borrower's financial difficulties that the lender would not otherwise grant, and a greater likelihood of the obligor filing for insolvency proceedings. LBBW is guided by the regulatory definition in respect of the decisive definition of default for accounting purposes as "impaired".

An exposure shall be deemed to be defaulted in the sense of the regulatory definition in Article 178 CRR when at least one of the following events has taken place:

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

Credit exposures past due are exposures which are past due by a certain number of days at individual transaction level. Such exposures then lead to the default of the obligor if the obligor has breached the materiality threshold by more than 90 consecutive days on the sum of all the credit lines available to that obligor. The number of days past due is calculated on the basis of consecutive days past due, calculated at customer level taking into account the materiality threshold. An amount past due is regarded as material and relevant if it exceeds a minimum threshold of 2.5% (at least EUR 100) of all the credit lines available to the obligor.

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

The following table shows the development of allowances for losses on loans and advances in the first half of 2019.

EUR million	Accumulated specific credit risk adjustments	General credit risk adjustments
Opening balance - 31 December 2018	989	-
Increases due to amounts set aside for estimated loan losses during the period	125	-
Decreases due to amounts reversed for estimated loan losses during the period	- 48	-
Decreases due to amounts taken against accumulated credit risk adjustments	- 29	-
Transfers between credit risk adjustments	-	-
Impact of exchange rate differences	-	-
Business combinations, including acquisitions and disposals of subsidiaries	0	-
Other adjustments	-	-
Closing balance - 30 June 2019	1,038	-
Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	11	-
Specific credit risk adjustments directly recorded to the statement of profit or loss	- 4	-

Figure 13: EU CR2-A - Changes in holdings of general and specific credit risk adjustments (Article 442 (i) CRR)

The following table shows the holdings of defaulted and impaired loans and debt securities as at 30 June 2019 in accordance with FINREP.

EUR million	Gross carrying values of defaulted exposures
Opening balance 31 December 2018	1,006
Loans and debt securities that have defaulted or been impaired since the last reporting period	197
Returned to non-defaulted status	- 37
Amounts written off	- 13
Other changes	- 113
Closing balance 30 June 2019	1,041

Figure 14: EU CR2-B - Changes in the holdings of defaulted and impaired loans and debt securities (Article 442 (i) CRR)

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

			Gross carr	ying values		> 1 year				
EUR million	≤ 30 days	>30 days ≤ 60 days	60 days ≤ 90 days	90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year				
Loans	240	84	180	39	138	284				
Debt securities			6							
Total - 30 June 2019	240	84	180	39	138	284				
Total - 31 December 2018	333	61	117	22	126	343				

Figure 15: EU CR1-D - Maturity structure of past-due exposures (Article 442 (g) and (h) CRR)

Restructuring of exposures

A credit shall be classified as a deferred exposure (FBE – exposures with concessions in view of financial difficulties) if the following conditions apply:

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

LBBW defines rescheduling as the crisis-led and unavoidable (loss-making) restructuring of a loan (debt restructuring) with the aim of bringing about a cure of the customer or individual exposures.

The following table shows non-performing and forborne exposures according to FINREP, split by debt securities, loans and advances and off-balance-sheet exposures.

	Gross	carrying an	nounts of per	forming an	ning and non-performing exposures				Accumulated impairments and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
				C	of which non	-performing	\$		erforming exposures		erforming exposures			
EUR million		Of which per- forming but past due > 30 days and <= 90 days	of which per- forming, forborne		Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne	On non- per- forming exposures	Of which forborne exposures	
Debt securities	25,325	-	-	6	-	6	0	5	-	6	-	-	-	
Loans and advances	196,671	231	298	1,090	1,041	1,010	358	348	6	556	181	206	150	
Off-balance- sheet exposures	61,084	-	10	149	148	-	1	51	0	81	0	6	3	
Total 30 June 2019	283,080	231	308	1,245	1,188	1,017	359	404	7	643	181	212	153	
Total 31 Dec. 2018	261,794	137	337	1,308	1,190	1,000	379	412	8	598	151	243	140	

Figure 16: EU CR1-E - Non-performing and forborne exposures (Article 442 (g) and (i) CRR)

Disclosure of non-performing receivables

Banks whose NPL ratio is under 5% are required to disclose only tables 1, 3, 4 and 9 of the guidelines published by the European Banking Authority on 31 October 2018 (EBA/GL/2018/10) from 31 December 2019 onwards. LBBW has published these tables voluntarily since 31 December 2018. The requirements of the ECB Guidelines on non-performing loans dated March 2017 are therefore also considered to have been met.

The following table shows the credit quality of forborne exposures.

	Gross carrying	amount/nomina forbearance		posures with	Accumulated accumulate changes in fair credit risk an	d negative value due to	Collateral ai guarantees (expo:	on forborne
		Non-p	erforming forbo	orne				
EUR million	Performing forborne		Of which defaulted	Of which impaired	On performing forborne exposures	On non- performing forborne exposures		Of which, collaterals and financial guarantees received on non-performing exposures with forbearance measures
Loans and advances	298	358	347	334	- 6	- 181	- 150	- 76
Central banks	=	-	=	=	=	=	=	=
Central governments	-	-	-	-	-	-	-	-
Banks	-	-	-	-	-	-	-	-
Other financial corporations	3	27	27	18	0	- 16	- 1	- 2
Non-financial corporations	286	307	298	300	- 6	- 160	- 126	- 74
Households	10	24	22	16	0	- 4	- 22	0
Debt instruments	=	=	=	=	=	-	=	-
Loan commitments granted	10	1	1	1	0	0	- 3	- 3
Total 30 June 2019	308	359	348	335	- 7	- 181	- 153	- 79
Total 31 Dec. 2018	337	379	366	327	- 8	- 151	- 140	- 92

Figure 17: Credit quality of forborne exposures (template 1 of EBA-GL)

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

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

Carrying amount/nominal amount

					Car	rying amoun	t/nominai ar	nount				
	Perf	orming expo	sures				Non-p	erforming ex	posures			
EUR million		Not past due or past due < 30 days	Past due >30 days < 90 days		Unlikely to pay that are not past due or are past due < 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
Loans and advances	195,581	195,350	231	1,090	628	39	138	48	79	48	109	1,041
Central banks	17,750	17,750	-	-	-	-	-	-	-	-	-	-
Central governments	14,025	14,025	1	0	0	0	-	0	0	0	-	0
Banks	53,871	53,870	1	20	12	6	-	-	1	-	=	20
Other financial corporations	30,544	30,424	120	54	41	-	-	3	0	9	1	51
Non-financial corporations	66,439	66,358	81	865	511	27	129	35	53	29	80	838
of which SMEs	8,702	8,687	15	251	157	9	16	22	24	10	13	231
Households	12,952	12,922	30	151	63	5	10	10	25	9	28	132
Debt instruments	25,318	25,318	-	6	6	-	-	-	-	=	-	=
Central banks	621	621	-	-	-	-	-	-	-	-	-	-
Central governments	4,259	4,259	-	-	-	-	-	-	-	-	-	-
Banks	18,028	18,028	-	-	=	-	=	=	=	=	-	=
Other financial corporations	1,977	1,977	-	-	-	-	-	-	-	-	-	-
Non-financial corporations	434	434	-	6	6	-	-	-	-	-	-	-
Off-balance-sheet exposures	60,935			149								148
Central banks	9			-								-
Central governments	1,260			-								-
Banks	6,061			1								1
Other financial corporations	7,277			-								-
Non-financial corporations	42,307			147								146
Households	4,023			0								0
Total 30 June 2019	281,835	220,668	231	1,245	635	39	138	48	79	48	109	1,188
Total 31 Dec. 2018	260,487	202,542	137	1,308	679	22	126	65	110	45	123	1,190

Figure 18: Credit quality of performing and non-performing exposures by past due days (template 3 of EBA-GL)

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

		Carrying	g amount/	nominal a	mount					cumulated dit risk and	_	_		Collatera finan guarar recei	ncial ntees
	Perfo	rming expo	sures	Non-per	forming ex	kposures	accumu	ning expo lated impa d provisio	irment	- accumu accum changes	forming ex plated imp pulated neg in fair valu sk and pro	airment, gative ue due to	Partial write- off	On per- forming ex- posures	On non- per- forming ex- posures
EUR million		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3			
Loans and advances	195,581	180,360	13,186	1,090	8	1,065	- 348	- 58	- 290	- 556	0	- 546	- 251	- 31,002	- 206
Central banks	17,750	17,750	0	-	-	-	0	0	0	-	-	-	-	0	-
Central governments	14,025	12,169	38	0	-	0	- 1	0	- 1	0	-	0	-	- 305	-
Banks	53,871	53,611	207	20	-	20	- 4	- 3	- 1	- 12	-	- 12	-	- 7,121	- 2
Other financial corporations	30,544	29,267	1,206	54	-	45	- 32	- 3	- 29	- 28	_	- 24	- 10	- 1,256	0
Non-financial	30,3	23,207	1,200											- 13,49	
corporations of which	66,439	56,866	9,479	865	2	855	- 266	- 46	- 220	- 462	0	- 456	- 219	2	- 138
SMEs	8,702	7,743	959	251	-	246	- 35	- 12	- 23	- 111	-	- 106	- 27	- 2,320	- 77
Households	12,952	10,696	2,255	151	6	145	- 45	- 7	- 38	- 54	0	- 54	- 22	- 8,828	- 66
Debt	25.240	25.426	440	_			_	2	2						
instruments Control books	25,318	25,136	118	6	-	6	- 5	- 3	- 2	- 6	-	- 6	-	-	-
Central banks Central	621	621	-	-	-	-	0	0	-	-	-	-	-	-	-
governments	4,259	4,135	98	-	-	-	- 2	- 1	- 2	-	-	-	-	-	-
Banks	18,028	18,020	-	=	-	-	- 2	- 2	-	-	-	-	-	-	-
Other financial corporations	1,977	1,946	-	-	-	-	0	0	-	-	-	-	-	-	-
Non-financial corporations	434	414	20	6	-	6	0	0	0	- 6	-	- 6	-	-	-
Off-balance-															
sheet exposures	60,935	57,871	3,065	149	37	112	- 51	- 20	- 31	- 81	0	- 81		- 3,096	- 6
Central banks	9	9	-	-	-	-	-	-	-	-	_	-		-	-
Central															
governments	1,260	1,255	5	-	-	-	0	0	0	-	-	-		- 1	-
Banks	6,061	6,060	0	1	1	-	- 1	0	0	- 1	-	- 1		- 323	-
Other financial corporations	7,277	6,937	340	-	-	-	- 1	- 1	0	-	-	-		- 268	-
Non-financial corporations	42,307	39,932	2,374	147	36	111	- 43	- 14	- 30	- 80	-	- 80		- 2,253	- 5
Households	4,023	3,678	345	0	0	0	- 6	- 5	0	0	0	0		- 251	0
Total 30 June 2019	281,835	263,367	16,370	1,245	45	1,183	- 404	- 81	- 323	- 643	0	- 633	- 251	- 34,098	- 212
Total 31 Dec. 2018	260,487	240,630	17,788	1,308	24	1,217	- 412	- 86	- 326	- 598	0	- 577	- 309	- 40,612	- 243

Figure 19: Performing and non-performing exposures and related provisions (template 4 of EBA-GL)

4 Credit risk mitigation techniques (Article 453 CRR)

4.1 Main types of collateral

Collateral primarily used by LBBW is:

In lending business:

- Real estate liens
- Eligible guarantees
- Financial assets (securities, cash collateral)

In the capital markets business:

- Financial collateral (securities, cash collateral)
- Eligible guarantees
- Netting agreements for derivatives plus collateral agreements

Credit derivatives:

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

Netting

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

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

The rise in collateral is essentially due to the growth in securities financing transactions with central governments, central banks and institutions.

EUR million Exposure class	Exposures unsecured - carrying amount	Exposures secured - carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
Central governments or central banks	43,475	4,423	4,350	60	-
Institutions	24,437	38,048	33,956	404	-
Corporates	106,780	34,188	24,163	5,578	-
of which specialized lending exposures	14,446	7,024	5,413	534	-
of which SMEs	6,462	4,078	3,022	482	-
Retail business	-	-	-	-	-
of which secured by mortgages on immovable property	-	-	-	-	-
of which SMEs	-	-	-	-	-
of which non-SMEs	-	-	-	-	-
of which qualified, revolving	-	-	-	-	-
of which other retail	-	-	-	-	-
of which SMEs	-	-	-	-	-
of which non-SMEs	-	-	-	-	-
Equity exposures	1,597	-	-	-	-
Other non credit obligation assets	2,156	-	-	-	-
Total amount under IRB approach - 30 June 2019	178,445	76,658	62,469	6,043	-
of which credits	98,375	62,039	50,865	4,685	-
of which debt securities	28,764	12,449	11,207	173	-
of which off-balance-sheet exposures	508	126	38	62	-
Total amount under IRB approach - 31 Dec. 2018	172,640	57,865	43,422	5,702	-

EUR million Exposure class	Exposures unsecured – carrying amount	Exposures secured - carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
Central governments or central banks	1	-	-	-	-
Regional governments or local authorities	206	6	-	6	_
Public-sector entities	141	502	4	498	-
Multilateral development banks	-	-	-	-	-
International organizations	-	-	-	-	-
Institutions	28,620	1,852	1,805	0	-
Corporates	5,205	3,591	1,077	2,243	-
of which SMEs	1,850	322	123	189	-
Retail business	7,930	914	108	294	-
of which SMEs	1,665	41	14	17	-
Secured by mortgages on immovable property	-	4,335	4,335	-	-
of which SMEs	-	128	128	-	=
Exposures in default	79	28	20	7	=
Items associated with particularly high risk	59	-	-	-	=
Covered bonds	-	-	-	-	-
Institutions and corporates with a short-term credit assessment	0	-	-	-	-
Undertakings for collective investment	-	-	-	-	-
Equity exposures	-	-	-	-	-
Other items	85	-	-	-	-
Total amount under the standardized approach - 30 June 2019	42,326	11,227	7,349	3,049	-
of which credits	35,146	10,920	7,094	3,039	-
of which debt securities	42	3	3	-	-
of which off-balance-sheet exposures	79	28	20	7	-
Total amount under the standardized approach - 31 December 2018	41,380	11,193	7,291	3,003	-
Total - 30 June 2019	220,771	87,885	69,818	9,092	-
of which credits	133,521	72,959	57,959	7,725	-
of which debt securities	28,807	12,452	11,210	173	-
of which off-balance-sheet exposures	587	153	58	69	-
Total - 31 December 2018	214,020	69,058	50,714	8,704	-

*figures in accordance with FinRep
Figure 20: EU CR3 - Credit risk mitigation techniques - overview (Article 453 (f) and (g) CRR)

4.2 Credit risk mitigation techniques under the standardized approach

The following table shows exposures to be reported before and after credit conversion factor and credit risk mitigation as well as RWA and RWA density. RWA density is the ratio of risk weighted assets to exposures after taking into account credit conversion factors and credit risk mitigation.

	Exposures before of factor and credit		Exposures post cr factor and credit		RWAs and RWA density		
EUR million Exposure class	On-balance- sheet amount	Off-balance- sheet amount	On-balance- sheet amount	Off-balance- sheet amount	RWA	RWA density in %	
Central governments or central banks	1	-	228	0	-	-	
Regional governments or local authorities	116	97	1,168	4	0	0.01	
Public-sector entities	620	23	120	0	24	19.99	
Multilateral development banks	-	-	-	-	-	-	
International organizations	-	-	-	-	-	-	
Institutions	28,264	2,208	27,131	1,069	180	0.64	
Corporates	7,459	1,337	6,188	214	5,121	79.99	
Retail business	5,526	3,317	5,131	264	3,802	70.46	
Secured by mortgages on immovable property	4,321	14	4,321	7	1,527	35.27	
Exposures in default	103	4	93	1	122	129.28	
Exposures associated with particularly high risk	59		59		88	150.00	
Covered bonds	=	-	-	-	-	-	
Institutions and corporates with a short-term credit assessment	0	-	0	-	0	150.00	
Undertakings for collective investment	-	-	-	-	-	-	
Equity exposures	=	-	-	-	-	-	
Other items	85	-	85	-	80	94.47	
Total - 30 June 2019	46,553	7,000	44,524	1,560	10,944	23.75	
Total - 31 December 2018	45,415	7,158	43,480	1,759	10,519	23.25	

Figure 21: EU CR4 – Standardized approach – credit risk and impact of credit risk mitigation (Article 444 (e) CRR)

4.3 Credit risk mitigation techniques under IRB

The following table shows the effect on RWAs of credit derivatives used for credit risk mitigation. Since LBBW had no credit derivatives for regulatory purposes to mitigate credit risk in the first half of 2019, both columns are identical.

	30/06/	/2019	31/12/	2018
EUR million Exposure class	Pre-credit derivatives RWAs	Actual RWAs	Pre-credit derivatives RWAs	Actual RWAs
Exposures under FIRB	52,055	52,055	49,195	49,195
Central governments and central banks	3,600	3,600	3,523	3,523
Institutions	5,508	5,508	4,508	4,508
Corporates - SMEs	3,244	3,244	3,215	3,215
Corporates - specialized lending	10,334	10,334	10,867	10,867
Corporates - other	29,369	29,369	27,081	27,081
Exposures under AIRB	-	=	=	=
Central governments and central banks	-	-	=	=
Institutions	-	-	=	=
Corporates - SMEs	-	-	=	=
Corporates - specialized lending	-	-	=	-
Corporates - other	-	-	=	-
Retail – secured by real estate SMEs	-	-	=	-
Retail – not secured by real estate SMEs	-	-	=	-
Retail – qualifying revolving	-	-	=	-
Retail – other SMEs	-	-	=	-
Retail - other non-SMEs	-	-	-	-
Equity exposures under IRB approach	3,442	3,442	3,449	3,449
Other assets excl. loan commitments	1,640	1,640	2,595	2,595
Total	57,136	57,136	55,240	55,240

Figure 22: EU CR7 - IRB approach - Effect on the RWAs of credit derivatives used as credit mitigation techniques (Article 453 (g) CRR)

5 Counterparty credit risk (Article 439 CRR)

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

EUR million	Notional	Replace- ment cost / current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWA
Mark-to-market		13,696	5,475			16,868	2,661
Original exposure	=					-	=
Standardized approach		=			-	-	=
IMM (for derivatives and securities financing transactions)			-	-	-	-	-
of which securities financing transactions			-	-	-	-	-
of which derivatives and long settlement transactions			-	-	-	-	-
of which from contractual cross-product netting			-	-	-	-	-
Financial collateral simple method (for securities financing transactions)						-	-
Financial collateral comprehensive method (for securities financing transactions)						-	-
VaR for securities financing transactions						-	-
Total - 30 June 2019							2,661
Total - 31 December 2018							2,481

Figure 23: EU CCR1 - Analysis of counterparty credit risk by approach (Article 439 (e), (f) and (i) CRR)

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

Exposure value	RWA
-	-
	-
	-
2,747	1,211
-	-
2,747	1,211
2,881	1,269
	2,747 2,747

Figure 24: EU CCR2 - Credit Valuation Adjustment capital charge (Article 439 (e) and (f) CRR)

The following table shows the counterparty credit risk exposures reported in the CRSA by exposure class and risk weight. The table does not include 2%, 4%, 10% or 50% risk weights, since LBBW has no exposures in any of these risk weight categories.

The increase in the holdings in the "Institutions" exposure class was higher than in the previous period, in particular due to the expansion of business with savings banks.

EUR million			Ri	sk weight in	%			Total	Of which unrated
Exposure class	0	20	70	75	100	150	Other		
Central governments or central banks	-	-	-	-	-	-	-	-	-
Regional governments or local authorities	16	-	-	-	-	-	-	16	16
Public-sector entities	=	28	-	-	=	-	-	28	17
Multilateral development banks	-	-	-	-	-	-	-	-	-
International organizations	-	-	-	-	-	-	-	-	-
Institutions	2,355	1	-	-	=	-	-	2,356	2,356
Corporates	=	=	0	-	92	-	0	92	92
Retail business	-	-	-	7	-	-	-	7	7
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-
Other items	=	=	-	-	=	-	=	=	-
Total - 30 June 2019	2,371	28	0	7	92	-	0	2,498	2,488
Total - 31 Dec. 2018	1,568	22	=	9	59	-	=	1,658	1,651

Figure 25: EU CCR3 - Standardized approach - counterparty credit risk exposures by regulatory portfolio and risk weight (Article 444 (e) CRR in conjunction with Article 92 (3) (a) and (f) CRR)

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

The increase in the exposure after credit risk mitigation in the "Central governments and central banks" exposure class against the previous period primarily reflects the expansion of business with German federal states and development banks.

EUR million	EAD post	Average PD	Number of	Average LGD	Average		RWA density
Exposure class/PD scale	CRM	in %	obligors	in %	maturity	RWA	in %
Central governments or central banks							
0.00 to <0.15	8,020	0.00	147	26.20	900	7	0.08
0.15 to <0.25	-	-	-	-	-	-	-
0.25 to <0.50	-	-	-	-	-	-	-
0.50 to <0.75	-	-	_	-	-	-	-
0.75 to <2.50	-	-	_	-	-	-	-
2.50 to <10.00	-	-		-	-	-	-
10.00 to <100.00	-	-		-	-	-	-
100.00 (Default)	-	-		-	-	-	-
Sub-total 30 June 2019	8,020	0.00	147	26.20	900	7	0.08
Sub-total 31 December 2018	5,503	0.00	150	28.24	900	3	0.06
Institutions							
0.00 to <0.15	3,519	0.07	163	37.02	900	891	25.32
0.15 to <0.25	132	0.17	10	35.71	900	57	43.32
0.25 to <0.50	163	0.26	19	30.94	900	78	48.01
0.50 to <0.75	7	0.59	2	16.85	900	2	29.74
0.75 to <2.50	54	1.91	6	44.04	900	65	119.35
2.50 to <10.00	-	-	-	-	-	-	-
10.00 to <100.00	15	10.00	3	20.61	900	14	93.76
100.00 (Default)	-	-	-	-	-	-	-
Sub-total 30 June 2019	3,890	0.14	203	36.72	900	1,107	28.47
Sub-total 31 December 2018	4,451	0.12	195	33.22	900	1,143	25.69
Corporates – SMEs							
0.00 to <0.15	31	0.06	90	45.00	900	6	20.22
0.15 to <0.25	18	0.17	29	45.00	900	7	37.83
0.25 to <0.50	19	0.34	88	45.00	900	11	54.95
0.50 to <0.75	26	0.59	26	44.99	900	18	69.11
0.75 to <2.50	15	1.48	86	43.02	900	14	91.70
2.50 to <10.00	1	4.16	14	45.00	900	1	113.66
10.00 to <100.00	0	13.46	6	45.00	900	0	185.13
100.00 (Default)	1	100.00	10	45.00	900	-	-
Sub-total 30 June 2019	112	1.02	349	44.72	900	57	51.53
Sub-total 31 December 2018		0.93					

EUR million Exposure class/PD scale	EAD post CRM	Average PD in %	Number of obligors	Average LGD in %	Average maturity	RWA	RWA density
Corporates – specialized financing							
0.00 to <0.15	187	0.07	77	45.00	900	46	24.37
0.15 to <0.25	48	0.17	17	45.00	900	20	42.54
0.25 to <0.50	82	0.30	27	45.00	900	51	62.10
0.50 to <0.75	18	0.59	26	45.00	900	15	79.40
0.75 to <2.50	68	1.23	17	45.00	900	71	103.50
2.50 to <10.00	15	2.99	4	45.00	900	20	136.03
10.00 to <100.00	21	16.60	11	45.00	900	51	237.34
100.00 (Default)	0	100.00	1	45.00	900	-	-
Sub-total 30 June 2019	440	1.25	180	45.00	900	274	62.17
Sub-total 31 December 2018	322	4.15	182	44.99	900	195	60.36
Corporates - other	4.405	2.25		10.50	200	225	20.65
0.00 to <0.15	1,130	0.09	451	43.56	900	329	29.10
0.15 to <0.25	615	0.17	234	40.48	900	235	38.27
0.25 to <0.50	573	0.31	344	43.40	900	323	56.32
0.50 to <0.75	36	0.59	77	45.00	900	28	79.40
0.75 to <2.50	88	1.42	144	45.00	900	95	107.63
2.50 to <10.00	16	4.32	41	45.00	900	24	151.04
10.00 to <100.00		18.91	15	5.26	900	5	24.29
Sub-total 30 June 2019	2,482	0.44	1,314	45.00 42.49	900	1,040	41.91
Sub-total 31 December 2018	2,287	0.32	1,322	42.96	900	950	41.52
Equity exposures IRB approach							
0.00 to <0.15	-	=	-	-	-	-	-
0.15 to <0.25	-	-	-	-	-	-	-
0.25 to <0.50	-	=	=	-	-	-	-
0.50 to <0.75	-	-	-	-	-	-	-
0.75 to <2.50	-	-	-	-	-	-	-
2.50 to <10.00	-	-	-	-	-	-	-
10.00 to <100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total 30 June 2019	-	-	-	-	-	=	-
Sub-total 31 December 2018							
Total - 30 June 2019	14,943	0.15	2,193	32.35	900	2,485	16.63
Total - 31 December 2018	12,689	0.21	2,222	33.24	900	2,345	18.48

Figure 26: EU CCR4 - IRB approach - counterparty credit risk exposures by portfolio and PD range (Article 452 (e) CRR and Article 92 (3) (a) and (f) CRR)

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

EUR million	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	55,956	42,260	13,696	5,878	7,817
Securities financing transactions	-	-	-	-	-
Cross-product netting	-	-	-	-	-
Total - 30 June 2019	55,956	42,260	13,696	5,878	7,817
Total - 31 December 2018	33,789	23,344	10,445	5,017	5,428

Figure 27: EU CCR5-A - Impact of netting and collateral held on exposure values (Article 439 (e) CRR)

The following table gives a breakdown of all types of collateral posted or received by institutions to reduce counterparty credit risk. "Segregated" means collateral that is held in a bankruptcy-remote manner within the meaning of Article 300 CRR. "Unsegregated" refers to collateral that is not held in a bankruptcy-remote manner.

	Collateral used in securities financing transactions					
	Fair value of col	lateral received	Fair value of po	osted collateral		
EUR million	Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
Derivatives	-	6,270	2,343	7,141	-	=
Securities financing transactions	-	-	-	-	-	=
Cross-product netting	-	-	-	-	-	=
Total - 30 June 2019	-	6,270	2,343	7,141	-	-
Total - 31 December 2018	-	5,366	2,350	5,114	-	-

Figure 28: EU CCR5-B - Composition of collateral for exposures to counterparty credit

The following table sets out the notional amounts and fair values of the credit derivatives bought and sold for the Bank's own credit portfolio and for the trading portfolio by type of credit derivative (based on notional value). Credit derivatives from brokering activities were not traded by LBBW in the first half of 2019.

	Credit derivat	Other credit derivatives		
EUR million	Protection bought	Protection sold	30/06/2019	31/12/2018
Notionals				
Single-name credit default swaps	-	-	5,965	6,204
Index credit default swaps	-	-	2,245	2,943
Total return swaps	-	-	1,137	1,033
Credit options	-	-	-	-
Other credit derivatives	-	-	-	-
Total notionals	-	-	9,348	10,180
Fair values	-	-	- 42	- 81
Positive fair value (asset)	-	-	119	79
Negative fair value (liability)	=	=	- 161	- 160

Figure 29: EU CCR6 - Credit derivatives exposures (Article 439 (g) and (h) CRR)

The above table (EU CCR6) only differentiates between protection bought and protection sold in the case of credit derivative hedges. LBBW interprets the credit derivatives to be shown in these columns as those used for hedging purposes for credit risks in the banking book. As at 30 June 2019, LBBW had no such transactions in its portfolio.

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

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

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

	30/06/2	2019	31/12/2018		
EUR million	EAD post CRM	RWA	EAD post CRM	RWA	
Exposures to qualifying CCPs (total)		222		170	
Exposures for trades at qualifying CCPs (excl. initial margin and default fund contributions); of which	3,746	75	3,277	66	
i) OTC derivatives	2,025	40	2,029	41	
ii) Exchange-traded derivatives	1,721	34	1,248	25	
iii) securities financing transactions	-	-	=	-	
iv) netting sets where cross-product netting has been approved	-	-	=	-	
Segregated initial margin	2,343		2,350		
Non-segregated initial margin	284	6	32	1	
Prefunded default fund contributions	150	142	121	104	
Alternative calculation of own funds requirements for exposures		-		-	
Exposures to non-qualifying CCPs (total)		-		-	
Exposures for trades at non-qualifying CCPs (excl. initial margin and default fund contributions); of which	-	-	-	-	
i) OTC derivatives	-	-	-	=	
ii) Exchange-traded derivatives	-	-	-	-	
iii) securities financing transactions	-	-	-	-	
iv) netting sets where cross-product netting has been approved	-	-	-	-	
Segregated initial margin	-		-		
Non-segregated initial margin	-	-	-	-	
Prefunded default fund contributions	-	-	-	-	
Non-prefunded default fund contributions	-	=	-	-	

Figure 30: EU CCR8 – Exposures to central counterparties (Article 439 (e) and (f) CRR)

6 Market risk (Article 445 and 455 CRR)

6.1 Market price risks in the standardized approach

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

	30/06	30/06/2019		
EUR million	RWA	Capital requirements	RWA	Capital requirements
Outright products				
Interest rate risk (general and specific)	1,190	95	1,352	108
Equity risk (general and specific)	236	19	298	24
Foreign exchange risk	730	58	572	46
Commodity risk	102	8	34	3
Options				
Simplified approach	-	-	-	-
Delta-plus method	11	1	18	1
Scenario approach	0	0	0	0
Securitization (specific risk)	-	=	-	=
Total	2,268	181	2,274	182

Figure 31: EU MR1 - Market risk under the standardized approach (Article 445 CRR)

Total own funds requirements remained virtually unchanged in comparison to 31 December 2018. The interest rate risk declined slightly, whereas the currency risk increased slightly as a result of general business performance.

6.2 Market risks under the Internal Model Method

Internal model in accordance with CRR

LBBW calculates value-at-risk (VaR) and stressed VaR from market price risks with a confidence level of 99% and a ten-day holding period by using the square root of time for scaling up to ten days. A parameter of 95% and one-day holding period are used for bank internal management. Both VaR and stressed VaR are calculated using a procedure based on a Monte Carlo simulation. In most cases, 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 aforementioned stressed VaR is also used to calculate the capital requirement.

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. At present, none of LBBW's subsidiaries are classified as relevant in terms of market price risk. In the risk-calculation simulation, the deviation of the risk factors is calculated using the following models: equity prices, FX rates and interest-rate volatility using log yields, CDS spreads and interest rates using absolute yields and equity/FX volatilities using relative yields.

Trading portfolios and the strategic interest rate position of the banking book can be affected by potentially detrimental developments in market interest rates. In addition to parallel shifts and turns in the interest curve, basic risks arising from movements in the relevant fixed-income markets relative to each other are also included in risk calculations.

Credit spread risks from securities are measured on the basis of the general and specific issuer risk. This risk category includes trading and banking book transactions that are sensitive to creditworthiness. Apart from securities and debt securities, these include money-market transactions in the banking book as well as loans on the commercial side where the obligors have an external rating. For the purpose of measuring general risk, these instruments are allocated to rating- and sector-dependent curves. 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.

LBBW's internal risk model has been approved by the competent authority for general interest rate and equity risks including option price risks in the form of volatility risks. The internal risk model for capital requirements does not include any specific risks. The CRR portfolio forms the basis for calculating own funds requirements. The CRR portfolio corresponds to the trading book without funds not represented transparently.

Backtesting and validation

LBBW's market risk model is subject to an extensive validation program in which potential model risks in the stochastics of the market factors (including distribution model, risk factor 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 Control, 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.

Particular importance is attached to the backtesting analysis within the validation program. This statistical backward comparison of the actual changes to the portfolio not only focuses on the VaR forecast using binomial test ¹, but is also based on the entire distribution forecast. According to regulatory requirements. it is based on the one hand on changes in portfolio value excluding new business and intraday trades, net interest income and commissions and fees (so-called Clean P/L) and on the other on changes in portfolio value excluding commissions and fees (so-called Dirty P/L), which are derived directly from the economic P/L. Valuation reserves in the Clean P/L are not taken into account in backtesting analysis. Valuation reserves are included in the Dirty P/L.

If 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 that the necessary model optimization measures can be initiated efficiently. Model optimization measures are carried out according to the model change policy and communicated to the regulatory authorities.

The CRR portfolio, which comprises trading transactions whose own funds requirements for general equity and interest rate risks takes place via the internal risk model, shows three outliers in the past 250 trading days for the Clean P/L. The first outlier was on 2 October 2018. The overshoot amounted to EUR 0.47 million. This reflected increased market volatility on account of political developments in Italy. There was another outlier of EUR 0.80m on 4 January 2019 due to a repricing of credit spreads for bonds in connection with the high number of new issues. The third outlier was recorded on 26 March 2019, with an overshoot of EUR 0.05m. This was attributable to a comment made by ECB President Draghi on negative interest rates. On the basis of the Dirty P/L, three outliers were also recorded for the CRR portfolio. The first outlier was on 8 November 2018, with an overshoot of EUR 0.1m. The second outlier is dated 29 November 2018, with an overshoot of EUR 1.71 million. Both of these outliers are the result of sharp fluctuations in USD yield curves for products with short maturities. Another outlier was recorded on 2 January 2019 with an overshoot of EUR 0.51m. This was driven by a significant change in USD swap rates following the publication of US economic data. In backtesting, models representing 49.9% of total own funds requirements for market price risks are compared backwards.

Clean backtesting CRR portfolio for the period 27 June 2018 – 28 June 2019 in EUR million VaR parameters: 99 % confidence level, 1-day holding period

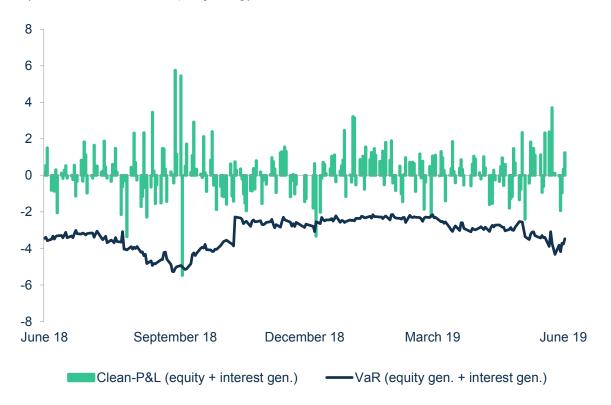


Figure 32: EU MR4 - Value at risk of the CRR portfolio under the Internal Model Method and hypothetical buy-and-hold losses (Article 455 (g) CRR)

Dirty backtesting CRR portfolio for the period 27 June 2018 – 28 June 2019 in EUR million VaR parameters: 99 % confidence level, 1-day holding period

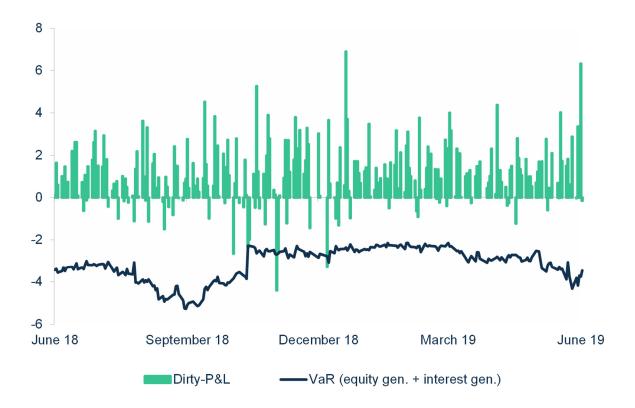


Figure 33: EU MR4 - Value at risk of the CRR portfolio under the Internal Model Method and actual portfolio changes excluding commissions and fees (Article 455 (g) CRR)

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

	30/06	/2019	31/12/2018	
EUR million	RWA	Capital requirements	RWA	Capital requirements
VaR (higher of values a) and b))	404	32	444	36
a) Previous day's VaR (Article 365 (1) CRR (VaRt-1))	149	12	113	9
b) Average of the daily VaR (Article 365 (1) CRR) on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 CRR	404	32	444	36
SVaR (higher of values a) and b))	1,851	148	2,426	194
a) Latest sVaR (Article 365 (2) CRR (sVaRt-1))	755	60	485	39
b) Average of the sVaR (Article 365(2) CRR) during the preceding 60 business days	1,851	148	2,426	194
IRC (higher of values a and b)	-	-	-	-
a) Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 CRR)	-	-	=	-
b) Average of the IRC number over the preceding 12 weeks	-	-	-	=
Internal model for correlation trading portfolio (higher of values a), b) and c))	-	-	-	-
a) Most recent risk number for the correlation trading portfolio (Article 377 CRR)	-	-	-	-
b) Average of the risk number for the correlation trading portfolio over the preceding 12 weeks	-	-	=	-
c) 8 % of the own funds requirement in the standardized approach on the most recent risk number for the correlation trading portfolio (Article 338 (4) CRR)	-	-	-	-
Other				
Total	2,255	180	2,870	230

Figure 34: EU MR2-A – Market risk under the Internal Model Method (Article 455 (e) CRR)

The following table shows the holdings of VaR and of the stressed VaR as at 30 June 2019.

				model for correlation trading			Total own fund
EUR million	VaR	sVaR	IRC	activities	Other	Total RWAs	requirements
RWAs - 31 March 2019	316	1,600	=	=	-	1,916	153
Regulatory adjustments	225	1,189	=	=	=	1,414	113
RWA at the previous quarter-end (end of the day)	91	411		-	-	502	40
Movement in risk levels	46	344	-	-	-	390	31
Model updates/changes	-	-	-	-	-	-	-
Methodology and policy	-	-	-	-	-	-	-
Acquisitions and disposals	-	-	-	-	-	-	-
Foreign exchange movements	-	-	-	-	-	-	-
Changes in market data	0		=	=	-	0	0
RWAs at the end of the reporting period (end of the day)	137	755				892	71
Regulatory adjustments	270	1,115	-	-	-	1,385	111
RWAs - 30 June 2019	407	1,870				2,277	182

Internal

Figure 35: EU MR2-B - RWA flow statement of market risk exposures under the Internal Model Method (IMM) (Article 455 (e) CRR)

Figures calculated in accordance with the internal model rose on account of the change in presentation of Schuldscheine for German federal states in comparison to the previous quarter.

The MR2-A table shows the figures reported at the end of the year. In accordance with the requirements of the EBA, these are determined by taking the figures of the penultimate working day. The figures shown in table MR2-B are calculated based on the last working day.

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

EUR million	30/06/2019	31/12/2018
VaR (10 days 99 %)		
Maximum value	14	18
Average value	11	12
Minimum value	9	10
Value at the end of the reporting period	12	11
sVaR (10 day 99 %)		
Maximum value	69	100
Average value	62	56
Minimum value	57	36
Value at the end of the reporting period	66	62
IRC (99.9 %)		
Maximum value	-	-
Average value	-	-
Minimum value	-	-
Value at the end of the reporting period	-	-
Comprehensive risk capital charge (99.9 %)		
Maximum value	-	-
Average value	-	-
Minimum value	-	=
Value at the end of the reporting period	-	-

Figure 36: EU MR3 - IMA values for trading portfolios (Article 455 (d) CRR)

7 Leverage ratio (Article 451 CRR)

Disclosure of the leverage ratio as at 30 June 2019 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 37: Disclosure of qualitative elements

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

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

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

The leverage ratio on the basis of the CRR transitional provisions (phase-in) came to 4.5% at 30 June 2019 (as at 31 March 2019: 4.4%). The leverage ratio exposure (phase-in) fell from EUR 288,360 million as at 31 March 2019 to EUR 280,779 million as at 30 June 2019 (down EUR 7,581 million).

The decline of the leverage ratio exposure particularly reflects the drop in business with states and central banks. This was offset by a rise in exposures from securities financing transactions.

EUR million		Figures to be used
1	Total assets according to the published accounts	265,119
2	Adjustment for corporates that are consolidated for accounting purposes but do not form part of the regulatory basis of consolidation	-3,516
3	(Adjustment for fiduciary assets recognized in the balance sheet according to the applicable accounting provisions but which under Article 429 (13) of Regulation (EU) No. 575/2013 are excluded from the leverage ratio total exposure measure)	_
4	Adjustment for derivative financial instruments	-11,157
5	Adjustment for securities financing transactions (SFTs)	7,980
6	Adjustment for off-balance-sheet items (i.e. conversion of off-balance-sheet exposures into credit equivalent amounts)	22,307
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	45
8	Leverage ratio total exposure measure	280,779

Figure 38: Comparison between balance sheet and overall exposure value measurement

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Exposure value of the

EUR million		value of the CRR leverage ratio
On-balanc	e-sheet risk exposures (excluding derivatives and SFTs)	
1	On-balance-sheet items (excluding derivatives, SFTs and fiduciary assets but including collateral)	206,478
2	(Asset amounts deducted in the calculation of Tier 1 capital)	-376
3	Total of on-balance-sheet risk exposures (excluding derivatives, SFTs and fiduciary assets) (total of rows 1 and 2)	206,102
Risk expos	sures from derivatives	
4	Future exposure for all derivatives transactions (i.e. excluding eligible additional contributions received in cash)	9,270
5	Premiums for the potential future exposure for all derivatives transactions (mark-to-market measurement method)	10,518
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)	-8,733
8	(Excluded CCP portion of customer-cleared trading positions)	-2,672
9	Adjusted effective nominal value of written credit derivatives	5,267
10	(Netting of adjusted effective nominal values and deduction of premiums for written credit derivatives)	-2,435
11	Total risk exposures from derivatives (total of rows 4 to 10)	11,216
Risk expo	sures from securities financing transactions (SFTs)	
12	Gross assets from SFTs (without recognition of netting) after adjustment for transactions booked as sales	39,523
13	(Netted amounts of cash liabilities and receivables from gross assets from SFTs)	-3,824
14	Counterparty default risk exposures for SFT assets	5,456
EU-14a	Divergent treatment of SFTs; counterparty default risk exposure in accordance with Article 429b (4) and Article 22 of Regulation (EU) No. 575/2013	-
15	Risk exposures from transactions realized as an agent	-
EU-15a	(Excluded CCP portion of customer-cleared SFT risk exposures)	=
16	Total of risk exposures from securities financing transactions (total of rows 12 to 15a)	41,155
Other off-	balance-sheet risk exposures	
17	Off-balance-sheet risk exposures at their gross nominal value	58,266
18	(Adjustments for the conversion into credit equivalent amounts)	-35,959
19	Other off-balance-sheet risk exposures (total of rows 17 and 18)	22,307
(On-balan 575/2013	ce-sheet and off-balance-sheet risk exposures which may be excluded pursuant to Article 429 (14) of Regulation (EU) No.	
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	d leverage ratio total exposure measure	
20	Tier 1 capital	12,730
21	Leverage ratio total exposure measure (total of rows 3, 11, 16, 19, EU-19a and EU-19b)	280,779
Leverage i	ratio	
22	Leverage ratio	4.5%
Applicatio	n 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	- 11000 111
	20. Uniform disclosure scheme for the leverage ratio	

Figure 39: Uniform disclosure schema for the leverage ratio

EUR million		Exposure value of the CRR leverage ratio
EU-1	Total of on-balance-sheet risk exposures (excluding derivatives, SFTs and excluded risk exposures), of which:	197,100
EU-2	Risk exposures in the trading book	11,084
EU-3	Risk exposures in the trading book, of which:	186,016
EU-4	Covered bonds	9,614
EU-5	Risk exposures treated as risk exposures towards sovereigns	40,324
EU-6	Risk exposures to regional authorities, multilateral development banks, international organizations and public- sector bodies which are not treated as risk exposures towards sovereigns	253
EU-7	Institutions	37,986
EU-8	Collateralized by real estate liens	18,187
EU-9	Risk exposures from retail business	5,526
EU-10	Corporates	69,563
EU-11	Defaulted exposures	598
EU-12	Other risk exposures (e.g. equity investments, securitizations and other assets that are not loan commitments)	3,964

Figure 40: Breakdown of balance-sheet risk exposures (excluding derivatives, securities financing transactions (SFTs) and excluded risk exposures)

8 Liquidity coverage ratio (Article 435 CRR)

In line with Annex II of EBA/GL/2017/01, LBBW is required to disclose quantitative information on the components of the liquidity coverage ratio (LCR). The lines liquidity buffer, total net cash outflows and the liquidity coverage ratio are classified as extremely changeable elements in accordance with the Guideline and disclosed on a quarterly basis. Based on LCR data collated as the end of each month, the adjusted values (simple average values over 12 month-values before the end of each quarter) look as follows.

LBBW's liquidity ratio as at 30 June 2019 averaged 137.6 % (as at 31 March 2019: 136.8 %).

EUR million		Total weighted	value (average)	
Quarter ends on	30/09/2018	31/12/2018	31/03/2019	30/06/2019
Number of data points used in the calculation of averages	12	12	12	12
Total adjusted value				
Liquidity buffer	60,000	60,295	62,487	64,036
Total net cash outflows	43,760	44,307	45,679	46,574
Liquidity coverage ratio (%)	137.4	136.2	136.8	137.6

Figure 41: EU LIQ1 - Weighted total values of LCR

Appendix - country allocation

Other countries - Europe	Other countries - America	Other countries – Asia and Pacific region	Other countries - Other
Albania	Argentina	Afghanistan	Egypt
Andorra	Bahamas	Armenia	Algeria
Bosnia-Herzegovina	Barbados	Azerbaijan	Angola
Bulgaria	Bermuda	Australia	Ethiopia
Estonia	Bolivia	Bahrain	Benin
Faroe Islands	Brazil	Bangladesh	Botswana
Finland	Chile	Brunei	Burundi
Greece	Costa Rica	Burundi	Eritrea
Guernsey	Curacao	China	Gambia
Ireland	Dominican Republic	Fiji	Ghana
Iceland	Ecuador	Georgia	Cameroon
Isle of Man	El Salvador	Hong Kong	Kenya
Jersey	Grenada	India	Libya
Croatia	Guatemala	Indonesia	Madagascar
Latvia	Honduras	Iraq	Mali
Liechtenstein	Jamaica	Iran	Morocco
_ithuania	Cayman Islands	Israel	Mauritius
Malta	Columbia	Japan	Mozambique
Macedonia	Cuba	Jordan	Namibia
Moldavia	Mexico	Cambodia	Nigeria
Montenegro	Nicaragua	Kazakhstan	Zambia
Norway	Panama	Qatar	Zimbabwe
Poland	Paraguay	Kyrgyzstan	South Africa
Portugal	Peru	Kuwait	Syria
Romania	Saint Kitts and Nevis	Lebanon	Tanzania
Russia	Saint Pierre and Miguelon	Malaysia	Togo
Sweden	Trinidad and Tobago	Maldives	Chad
Serbia	Uruguay	Nepal	Tunisia
Slovakia	Venezuela	Oman	Uganda
Slovenia	Virgin Islands	New Zealand	International organizations
Czech Republic		Pakistan	
Turkey		Philippines	
Jkraine		Republic of Korea	
Hungary		Saudi Arabia	
/atican		Singapore	
Belarus		Sri Lanka	
Cyprus		Taiwan	
C, p. 00		Thailand	
		Uzbekistan	
		United Arab Emirates	
		Vietnam	
		vieuidili	

List of abbreviations

ALCo	Asset liability committee
AT1	Additional Tier 1 capital

AUD Australian dollar

BaFin Bundesanstalt für Finanzdienstleistungsaufsicht

BCBS Basel Committee on Banking Supervision

CCF Credit conversion factor
CCP Central counterparty
CCR Counterparty credit risk
CDS Credit default swap
CET1 Common equity Tier 1
CLN Credit linked note

COREP Common solvency ratio reporting

CR Credit risk

CRD Capital Requirement Directive
CRR Capital Requirement Regulation
CRSA Credit risk standard approach
CVA Credit valuation adjustment

EaD Exposure at default

EBA European Banking Authority EEA European Economic Area

EEPE Effective expected positive exposure

EL Expected loss
EU European Union
FBE Forborne exposure
FINREP Financial reporting
FX Foreign exchange

GL Guideline

IFRS International Financial Reporting Standards

IMA Internal Model ApproachIMM Internal Model MethodIRBA Internal rating based approach

IRC Incremental Default and Migration Risk Charge

KWG Kreditwesengesetz (German Banking Act)

LCR Liquidity coverage ratio
LGD Loss given default
MTN Medium term notes
P/L Profit and loss
PD Probability of default
RWA Risk-weighted assets

SME Small and medium-sized enterprises

sVaR Stressed value-at-risk

T2 Tier 2 capital

UCI Undertakings for collective investment

USD United States dollar

VaR Value-at-risk

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