



COMMERZBANK

Disclosure Report as at 30 June

2023

in accordance with the Capital Requirements Regulation (CRR)



The bank at your side

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Due to rounding, numbers and percentages presented throughout this report may not add up precisely to the totals provided.

Introduction

Objective of the Disclosure Report

In this report Commerzbank Aktiengesellschaft as the ultimate parent company of the regulated banking group is complying with the disclosure requirements of Articles 431 –455 of regulation (EU) 2019/876 (CRR II) of the European parliament and of the Council of 20 May 2019 amending the Regulation (EU) No. (CRR I)– as at 30 June 2023. The regulation is supplemented by the final draft implementing technical standards EBA EBA/ITS/2020/04 from 24 June 2020, which specify the tables integrated in the report. The names of the predefined tables are indicated by the table names provided with the prefix EU.

Scope

This Disclosure Report is based on the group of companies consolidated for regulatory purposes. The companies consolidated for

regulatory purposes only include those carrying out banking and other financial business. The consolidated group consists of a domestic parent company and its affiliated companies. The aim of regulatory consolidation is to prevent multiple use of capital that in fact exists only once by subsidiary companies in the financial sector. The companies consolidated under IFRS, by contrast, comprise all the companies controlled by the ultimate parent company.

Commerzbank is a large institution in accordance with Article 4 (1) No. 146 CRR, thus implementing the frequency requirements of Article 433a CRR.

A detailed description of Commerzbank Group is given in the Annual Report 2022.

Equity capital, capital requirement and RWA

Key metrics

In order to facilitate market participants' access to the most important equity and liquidity ratios of the institutions, Table KM1 with key parameters was introduced from June 2021.

The table shows the information required by Articles 447(a) to (g) and 438 (b) CRR. In particular, these include the available own funds, risk-weighted exposure amounts, capital ratios, combined capital buffers, leverage ratio and liquidity ratios, as well as some additional own funds requirements in order to obtain an overall overview of Commerzbank.

As of the reporting date, Common Equity Tier 1 capital amounted to €25.1bn compared to €24.4bn as of 31 March 2023. The improvement was mainly due to the group result of the second quarter of 2023 (taking into account the accruals for dividend and AT 1 interest rates), an increase in the reserve from currency translation and lower regulatory adjustments.

The Common Equity Tier 1 ratio was 14.4 % compared to 14.2 % in the first quarter of 2023. The Tier 1 ratio at the reporting date was 16.3 % compared to 16.1 % in the first quarter of 2023. The Tier 2 capital decreased by €0.1bn due to amortization and currency effects.

The total capital ratio at the reporting date was 19.0 % and improved by 0.1 percentage points compared to the first quarter 2023. Own funds increased by €0.6bn compared to the first quarter 2023 and amounted to €33.1bn as of 30 June 2023 Euro.

The leverage ratio shows the ratio of Tier 1 capital to leverage ratio exposure, consisting of the non risk-weighted assets plus off-balance sheet positions. The way in which exposure to derivatives, securities financing transactions and off-balance sheet positions is calculated is laid down by regulators. As a non risk-sensitive figure the leverage ratio is intended to supplement risk-based measures of capital adequacy.

The leverage ratio was almost stable at 4.9% as at 30 June 2023. The decrease in comparison with the first quarter 2023 is due to increased Tier 1 capital partly offset by slightly increased leverage ratio exposure.

At 138.8% (average of the last 12 month-end values), Commerzbank was well above the minimum 100% level required for the Liquidity Coverage Ratio (LCR). Commerzbank's liquidity situation as at the end of the quarter was therefore comfortable given its conservative and forward-looking funding strategy.

The Net Stable Funding Ratio (NSFR) as of 30 June 2023 underlines the solid funding position of Commerzbank Group. It reflects the customer-focused business model of Commerzbank Group with a high contribution to the available stable funding (ASF) from customer deposits. The main share of the required stable funding (RSF) results from the loan business, and the main share of the ASF results from customer deposits.

The NSFR declined to 125.4% in the second quarter of 2023, compared with 127.2% in the first quarter. This is due to the increase of non-HQLA securities and securities financing transactions.

Details of the issued capital instruments of Commerzbank Group according to Article 437 b) and c) CRR and using the EU CCA table in Annex VII of the Regulation of Implementation (EU) 2021/637 are given in Annex 6 of the disclosure report as of 31 December 2022 and on the Commerzbank website in the section debt holder information/capital instruments. Commerzbank Group is not required to disclose in accordance with Article 437a CRR (eligible liabilities).

We have received approval from the supervisor for the application of the transitional provisions to IFRS 9 in accordance with Article 473a CRR. For the Commerzbank Group, this transitional provision will not apply as of 30 June 2023.

EU KM1 : Key metrics

Line	€m %	a	b	c	d	e
		30.6.2023	31.3.2023	31.12.2022	30.9.2022	30.6.2022
Available own funds (amounts)						
1	Common Equity Tier 1 (CET1) capital	25,116	24,368	23,854	24,065	24,015
2	Tier 1 capital	28,336	27,592	27,074	27,292	27,247
3	Total capital	33,093	32,487	31,928	31,985	31,612
Risk-weighted exposure amounts						
4	Total risk-weighted exposure amount	173,977	171,528	168,731	174,464	175,047
Capital ratios (as a percentage of risk-weighted exposure amount)						
5	Common Equity Tier 1 ratio (%)	14.44	14.21	14.14	13.79	13.72
6	Tier 1 ratio (%)	16.29	16.09	16.05	15.64	15.57
7	Total capital ratio (%)	19.02	18.94	18.92	18.33	18.06
Additional own funds requirements to address risks other than the risk of excessive leverage (as a percentage of risk-weighted exposure amount)						
EU 7a	Additional own funds requirements to address risks other than the risk of excessive leverage (%)	2.00	2.00	2.00	2.00	2.00
EU 7b	of which: to be made up of CET1 capital (percentage points)	1.13	1.13	1.13	1.13	1.13
EU 7c	of which: to be made up of Tier 1 capital (percentage points)	1.50	1.50	1.50	1.50	1.50
EU 7d	Total SREP own funds requirements (%)	10.00	10.00	10.00	10.00	10.00
Combined buffer requirement (as a percentage of risk-weighted exposure amount)						
8	Capital conservation buffer (%)	2.50	2.50	2.50	2.50	2.50
EU 8a	Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)	–	–	–	–	–
9	Institution specific countercyclical capital buffer (%)	0.58	0.54	0.10	0.04	0.02
EU 9a	Systemic risk buffer (%)	0.10	0.10	–	–	–
10	Global Systemically Important Institution buffer (%)	–	–	–	–	–
EU 10a	Other Systemically Important Institution buffer (%)	1.25	1.25	1.25	1.25	1.25
11	Combined buffer requirement (%)	4.43	4.39	3.85	3.79	3.77
EU 11a	Overall capital requirements (%)	14.43	14.39	13.85	13.79	13.77
12	CET1 available after meeting the total SREP own funds requirements (%)	8.79	8.58	8.51	8.14	8.06
Leverage ratio						
13	Total exposure measure	580,420	571,883	547,702	609,853	588,651
14	Leverage ratio (%)	4.88	4.82	4.94	4.48	4.63
Additional own funds requirements to address the risk of excessive leverage (as a percentage of total exposure measure)						
EU 14a	Additional own funds requirements to address the risk of excessive leverage (%)	–	–	–	–	–
EU 14b	of which: to be made up of CET1 capital (percentage points)	–	–	–	–	–
EU 14c	Total SREP leverage ratio requirements (%)	3.00	3.00	3.00	3.00	3.00
Leverage ratio buffer and overall leverage ratio requirement (as a percentage of total exposure measure)						
EU 14d	Leverage ratio buffer requirement (%)	–	–	–	–	–
EU 14e	Overall leverage ratio requirements (%)	3.00	3.00	3.00	3.00	3.00

Line	€m %	a	b	c	d	e
		30.6.2023	31.3.2023	31.12.2022	30.9.2022	30.6.2022
Liquidity Coverage Ratio						
15	Total high-quality liquid assets (HQLA) (Weighted value - average)	120,430	118,336	113,227	104,144	103,158
EU 16a	Cash outflows - Total weighted value	107,052	105,924	104,222	100,203	97,817
EU 16b	Cash inflows - Total weighted value	20,305	22,198	24,089	24,985	25,059
16	Total net cash outflows (adjusted value)	86,748	83,727	80,133	75,218	72,757
17	Liquidity Coverage Ratio (%)	138.8	141.3	141.1	138.0	141.2
Net Stable Funding Ratio						
18	Total available stable funding	323,369	314,701	314,538	328,699	310,223
19	Total required stable funding	257,865	247,500	245,063	254,863	237,978
20	NSFR ratio (%)	125.4	127.2	128.3	129.0	130.4

Capital structure

The evaluations in the tables below comprehensively illustrate the total own funds available for the entire Commerzbank Group. These own funds are also the basis for the calculation of the equity capital adequacy as reported to the Bundesbank.

Further information on the composition of Commerzbank's equity capital is provided in the 2022 Disclosure Report and in the notes to the 2022 Annual Report.

Table EU CC1 shows the composition of regulatory own funds and the capital ratios as defined in Article 437 a), d), e) and f) CRR and Annex VII of Regulation (EU) 2021/637 as at 30 June 2023:

EU CC1: Composition of regulatory own funds

Line €m		(a) Amounts	(b) Source based on reference numbers/ letters of the balance sheet under the regulatory scope of consolidation
Common Equity Tier 1 capital: instruments and reserves			
1	Capital instruments and the related share premium accounts	11,315	j+k
1a	of which: subscribed capital	1,240	j
1b	of which: share premium	10,075	k
2	Retained earnings	15,932	l
3	Accumulated other comprehensive income (and other reserves)	-536	n
EU-3a	Funds for general banking risk	-	
4	Amount of qualifying items referred to in Article 484 (3) and the related share premium accounts subject to phase out from CET1	-	
5	Minority interests (amount allowed in consolidated CET1)	559	q
EU-5a	Independently reviewed interim profits net of any foreseeable charge or dividend	577	m
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	27,847	
Common Equity Tier 1 (CET1) capital: regulatory adjustments			
7	Additional value adjustments (negative amount)	-384	
8	Intangible assets (net of related tax liability) (negative amount)	-500	a+d
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	-213	c
11	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	81	o
12	Negative amounts resulting from the calculation of expected loss amounts	-204	
13	Any increase in equity that results from securitised assets (negative amount)	-	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-129	
15	Defined-benefit pension fund assets (negative amount)	-504	f+e
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-1	
17	Direct, indirect and synthetic holdings of the CET 1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
18	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	
EU-20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	-113	
EU-20b	of which: qualifying holdings outside the financial sector (negative amount)	-	
EU-20c	of which: securitisation positions (negative amount)	-113	
EU-20d	of which: free deliveries (negative amount)	0	

Line €m		(a) Amounts	(b) Source based on reference numbers/ letters of the balance sheet under the regulatory scope of consolidation
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	- 132	b
22	Amount exceeding the 17.65% threshold (negative amount)	-	
23	of which: direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities	-	
25	of which: deferred tax assets arising from temporary differences	-	
EU-25a	Losses for the current financial year (negative amount)	-	m
EU-25b	Foreseeable tax charges relating to CET1 items except where the institution suitably adjusts the amount of CET1 items insofar as such tax charges reduce the amount up to which those items may be used to cover risks or losses (negative amount)	-	
27	Qualifying AT1 deductions that exceed the AT1 items of the institution (negative amount)	-	
27a	Other regulatory adjustments	- 631	
28	Total regulatory adjustments to Common Equity Tier 1 (CET1)	- 2,731	
29	Common Equity Tier 1 (CET1) capital	25,116	
Additional Tier 1 (AT1) capital: instruments			
30	Capital instruments and the related share premium accounts	3,114	p
31	of which: classified as equity under applicable accounting standards	3,114	p
32	of which: classified as liabilities under applicable accounting standards	-	
33	Amount of qualifying items referred to in Article 484 (4) CRR and the related share premium accounts subject to phase out from AT1	-	
EU-33a	Amount of qualifying items referred to in Article 494a(1) subject to phase out from AT1	-	
EU-33b	Amount of qualifying items referred to in Article 494b(1) subject to phase out from AT1	-	
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties	106	
35	of which: instruments issued by subsidiaries subject to phase out	-	
36	Additional Tier 1 (AT1) capital before regulatory adjustments	3,220	
Additional Tier 1 (AT1) capital: regulatory adjustments			
37	Direct and indirect holdings by an institution of own AT1 instruments (negative amount)	-	
38	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
39	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	
40	Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	-	
42	Qualifying T2 deductions that exceed the T2 items of the institution (negative amount)	-	
42a	Other regulatory adjustments to AT1 capital	-	
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	-	
44	Additional Tier 1 (AT1) capital	3,220	
45	Tier 1 capital (T1 = CET1 + AT1)	28,336	

Line €m		(a) Amounts	(b) Source based on reference numbers/ letters of the balance sheet under the regulatory scope of consolidation
Tier 2 (T2) capital: instruments			
46	Capital instruments and the related share premium accounts	4,518	g+i
47	Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2 as described in Article 486 (4) CRR	–	
EU-47a	Amount of qualifying items referred to in Article 494a (2) subject to phase out from T2	–	
EU-47b	Amount of qualifying items referred to in Article 494b (2) subject to phase out from T2	31	h
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	198	
49	of which: instruments issued by subsidiaries subject to phase out	–	
50	Credit risk adjustments	39	
51	Tier 2 (T2) capital before regulatory adjustments	4,786	
Tier 2 (T2) capital: regulatory adjustments			
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	–30	
53	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	–	
54	Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	–	
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	–	
EU-56a	Qualifying eligible liabilities deductions that exceed the eligible liabilities items of the institution (negative amount)	–	
EU-56b	Other regulatory adjustments to T2 capital	–	
57	Total regulatory adjustments to Tier 2 (T2) capital	–30	
58	Tier 2 (T2) capital	4,756	
59	Total capital (TC = T1 + T2)	33,093	
60	Total risk exposure amount	173,977	
Capital ratios and requirements including buffers (%)			
61	Common Equity Tier 1	14.44	
62	Tier 1	16.29	
63	Total capital	19.02	
64	Institution CET1 overall capital requirements	10.05	
65	of which: capital conservation buffer requirement	2.50	
66	of which: countercyclical capital buffer requirement	0.58	
67	of which: systemic risk buffer requirement	0.10	
EU-67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer requirement	1.25	
EU-67b	of which: additional own funds requirements to address the risks other than the risk of excessive leverage	1.13	
68	Common Equity Tier 1 capital (as a percentage of risk exposure amount) available after meeting the minimum capital requirements	8.79	

Line €m		(a) Amounts	(b) Source based on reference numbers/ letters of the balance sheet under the regulatory scope of consolidation
Amounts below the thresholds for deduction (before risk weighting)			
72	Direct and indirect holdings of own funds and eligible liabilities of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	647	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	201	
75	Deferred tax assets arising from temporary differences (amount below 17.65% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	2,539	
Applicable caps on the inclusion of provisions in Tier 2			
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)	–	
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	442	
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	–	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	697	
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)			
80	Current cap on CET1 instruments subject to phase out arrangements	–	
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	–	
82	Current cap on AT1 instruments subject to phase out arrangements	–	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	–	
84	Current cap on T2 instruments subject to phase out arrangements	–	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	–	

Connection between balance-sheet and regulatory positions

For Commerzbank as a banking group as defined in section 10a KWG and Article 11 CRR the capital relevant to the determination of regulatory capital is based on the consolidated financial statements under FINREP which is prepared based on the Group balance sheet according to IFRS. To reconcile the requirements for regulatory capital with the slightly different amounts reported in the financial statements, capital as determined under IFRS was adjusted with the aid of so-called prudential filters.

In accordance with Article 437 a) CRR and the Implementing Regulation (EU) 2021/637, Table EU CC2 shows a comparison of the published balance sheet (column a) with the carrying amounts

under the regulatory scope of consolidation (column b) and a reference (column c) of the balance sheet items to regulatory own funds shown in Table EU CC1 as at 30 June 2023. In Table EU CC2, only the elements of the balance sheet have been extended to the level of detail required for the derivation of supervisory own funds (reporting form EU CC1).

As at June 30, 2023, there is in total a difference of €17,343m between the carrying values according to the group of consolidated companies reported in the balance sheet and the carrying values according to the regulatory group of consolidated companies. This difference results from the different scopes of consolidation and consolidation methods for accounting and regulatory purposes. The companies where the consolidation methods for accounting and regulatory purposes differ are listed entity by entity in table EU LI3 in the Disclosure Report 2022.

EU CC2: Reconciliation of regulatory own funds to balance sheet in the audited financial statements

€m		a	b	c
		As reported in published financial statements 30.6.2023	Under the regulatory scope of consolidation 30.6.2023	Reference
Assets				
1	Cash on hand and cash on demand	84,959	84,867	
2	Financial assets - Amortised Cost	299,915	317,214	
3	Financial assets - Fair Value OCI	37,246	37,246	
4	Financial Assets - Fair Value Option	-	-	
5	Financial Assets - Mandatorily Fair Value P&L	41,235	41,110	
6	Financial Assets - Held for Trading	30,750	30,979	
7	Value adjustment on portfolio fair value hedges	-3,666	-3,666	
8	Positive fair values of derivative hedging instruments	1,706	1,706	
9	Holdings in companies accounted for using the equity method	163	163	
10	Intangible assets	1,352	1,350	a
11	Fixed assets	2,314	2,312	
12	Investment properties	59	59	
13	Non-current assets held for sale and disposal groups	139	139	
14	Current tax assets	167	167	
15	Deferred tax assets	2,725	2,745	
16	of which: deferred tax assets arising from temporary differences	2,651	2,671	b
17	of which: deferred tax assets do not arise from temporary differences	213	213	c
18	of which: deferred tax liabilities arising from intangible assets	-98	-98	d
19	of which: deferred tax liabilities arising from defined benefit pension fund assets	-86	-86	e
20	Other assets	2,539	2,554	
21	of which: Asset surplus of pension plan assets	590	590	f
22	Total assets	501,603	518,946	

EU CC2_part2: Reconciliation of regulatory own funds to balance sheet in the audited financial statements

€m		a	b	c
		As reported in published financial statements 30.6.2023	Under the regulatory scope of consolidation 30.6.2023	Reference
Liabilities				
23	Financial Liabilities - Amortised Cost	404,919	405,294	
24	of which: eligible Tier 2 issuances	4,115	4,115	g
25	of which: eligible AT1 and Tier 2 issuances subject to transitional provisions	51	51	h
26	Financial Liabilities - Fair Value Option	38,460	38,460	
27	of which: eligible Tier 2 issuances	2,100	2,100	i
28	Financial Liabilities - Held for Trading	18,737	18,737	
29	Value adjustment on portfolio fair value hedges	-4,339	-4,339	
30	Negative fair values of derivative hedging instruments	3,494	3,494	
31	Provisions	3,358	3,355	
32	Current tax liabilities	640	640	
33	Deferred tax liabilities	5	3	
34	Liabilities of disposal groups	-	-	
35	Other liabilities	4,383	21,365	
36	Total liabilities	469,659	487,010	
37	Subscribed capital	1,240	1,240	j
38	Capital reserve	10,075	10,075	k
39	Retained earnings	16,064	16,057	l
40	Distributable profit/loss from current year	1,145	1,145	m
41	Accumulated other comprehensive income (and other reserves)	-668	-661	n
42	thereof Valuation of cash flow hedges	-81	-81	o
43	Additional equity components	3,114	3,114	
44	thereof eligible AT1 issues	3,114	3,114	p
45	Non-controlling interests	974	965	q
46	Total equity	31,944	31,935	
47	Total liabilities	501,603	518,946	

Capital requirement and RWA

The capital requirements set out below relate to the Commerzbank Group and the figures are the same with regard to content as in the capital adequacy reports submitted to the Deutsche Bundesbank under Basel 3 Pillar 1.

The countercyclical capital buffer (CCyB) is part of a set of macroprudential instruments, designed to help counteract procyclicality of the financial system. Capital should be accumulated when cyclical systemic risk is considered to be rising, creating buffers that increase the resilience of the banking sector during periods of stress when losses materialise. This will help maintain the credit supply and dampen the downturn of the financial cycle. The CCyB can also help dampen excessive credit growth during the upswing of the financial cycle.

Table EU CCyB1 shows the geographical distribution of the exposures relevant for the calculation of the countercyclical buffer, as defined in Article 440 a) CRR as at 30 June 2023. The credit risk, market risk and securitisations are highlighted separately.

The countries listed below cover more than 99% of Commerzbank's own funds requirements. The further breakdown of the countries listed under line 031 "Other" is omitted for reasons of materiality.

EU CCyB1: Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer

Line	Countries €m	a		b		c		d	e	f	g			h	i	j	k	l	m
		General credit exposures		Relevant credit exposures – Market risk		Securiti- sation exposures		Total expo- sure value	Rele- vant credit risk expo- sures - Credit risk	Relevant credit expo- sures – Market risk	Relevant credit expo- sures – Securiti- sation positions in the non- trading book	Total	Risk- weighted expo- sure amounts	Own fund require- ments weights (in %)	Counter- cyclical buffer rate (%)				
		Exposure value under the standar- dised approach	Exposure value under the IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book expo- sures for internal models	Exposure value for non- trading book													
001	DE (Germany)	19,081	204,669	0	147	16,208	240,104	5,730	23	163	5,916	73,946	57.0	0.75					
002	PL (Poland)	5,040	22,572	0	0	0	27,612	1,162	0	0	1,162	14,531	11.2						
003	US (United States of America)	1,673	11,408	0	500	4,740	18,320	501	24	89	613	7,662	5.9						
004	GB (United Kingdom of Great Britain and Northern Ireland)	7,042	7,327	0	82	1,028	15,479	536	16	18	571	7,138	5.5	1.0					
005	FR (France)	86	5,755	0	70	0	5,911	249	16	0	265	3,319	2.6	0.5					
006	NL (Netherlands)	889	4,239	0	37	509	5,674	204	14	7	225	2,818	2.2	1.0					
007	LU (Luxembourg)	1,772	2,895	0	2	99	4,768	206	5	2	212	2,653	2.0	0.5					
008	CH (Switzerland)	451	4,578	0	63	0	5,092	167	23	0	190	2,378	1.8						
009	AT (Austria)	67	3,034	0	5	0	3,106	125	0	0	125	1,569	1.2						
010	CZ (Czechia)	1,574	1,469	0	0	0	3,043	114	0	0	114	1,424	1.1	2.5					
011	RU (Russian Federation)	690	692	0	0	0	1,382	109	0	0	109	1,361	1.0						
012	IT (Italy)	85	1,801	0	34	131	2,052	85	14	2	101	1,264	1.0						
013	ES (Spain)	12	2,039	0	6	0	2,056	83	1	0	85	1,059	0.8						
014	MF (Saint Martin (French part))	0	0	0	0	4,274	4,274	0	0	69	69	861	0.7						
015	IE (Ireland)	196	1,169	0	2	0	1,367	68	0	0	68	846	0.7	0.5					
016	KY (Cayman Islands)	698	169	0	0	0	866	63	0	0	63	792	0.6						
017	BE (Belgium)	32	1,636	0	3	131	1,802	58	0	1	59	741	0.6						
018	SK (Slovakia)	663	211	0	0	0	873	47	0	0	47	584	0.5	1.0					

CCyB1_part2: Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer

Line	Countries €m	a		b		c		d	e	f	g			h	i	j	k	l	m
		General credit exposures		Relevant credit exposures – Market risk		Securiti- sation exposures Exposure value for non- trading book		Total expo- sure value	Relevant credit risk exposures - Credit risk	Relevant credit expo- sures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements (in %)	Counter- cyclical buffer rate (%)				
019	HK (Hong Kong)	0	688	0	31	0	719	42	5	0	46	578	0.4	1.0					
020	CN (China)	10	1,276	0	0	0	1,285	44	0	0	44	553	0.4						
021	SE (Sweden)	44	1,031	0	6	0	1,081	36	0	0	37	457	0.4	2.0					
022	JP (Japan)	63	1,082	0	2	0	1,147	32	0	0	32	399	0.3						
023	SG (Singapore)	3	1,030	0	1	0	1,034	26	0	0	26	320	0.2						
024	BM (Bermuda)	191	157	0	0	0	348	23	0	0	23	285	0.2						
025	DK (Denmark)	7	516	0	1	0	524	19	0	0	19	234	0.2	2.5					
026	FI (Finland)	0	772	0	1	0	774	17	0	0	17	211	0.2						
027	HU (Hungary)	14	196	0	0	0	210	13	0	0	13	165	0.1						
028	CA (Canada)	501	935	0	21	0	1,457	8	4	0	12	149	0.1						
029	LR (Liberia)	0	286	0	0	0	286	10	0	0	10	126	0.1						
030	AU (Australia)	6	406	0	4	0	416	9	0	0	10	120	0.1	1.0					
031	Other	468	3,166	0	73	50	3,757	89	4	0	94	1,176	0.9	8.0					
032	Total	41,357	287,203	0	1,091	27,169	356,820	9,876	150	351	10,377	129,717	100.0						

Table EU CCyB2 shows the countercyclical capital buffer according to article 440 b) CRR as at 30 June 2023.

EU CCyB2: Amount of institution-specific countercyclical capital buffer

		a
Line	€m %	30.6.2023
010	Total risk exposure amount	173,977
020	Institution specific countercyclical capital buffer rate	0.5817
030	Institution specific countercyclical capital buffer requirement	1,012.02

Capital requirements by risk type

As required by Article 438 d), Table EU OV1 shows an overview of risk-weighted assets (RWA) and the associated capital requirements by risk type.

Of the overall capital requirement 74.0% relates to credit risk positions (excluding counterparty credit risk). Commerzbank uses the Advanced Internal Ratings Based Approach (advanced IRBA; in the following referred to as IRBA) to determine the regulatory capital required. Article 150 CRR gives the option of partial use. The Standardised Approach to Credit Risk (SACR) may be used for part of the portfolios.

Commerzbank Group and accordingly the group companies included in the disclosure are, as IRBA banks as defined in Article 147 CRR, generally obliged to value investments in accordance with the IRBA rules. The CRR allows items to be permanently exempted from the IRBA. Commerzbank applies Article 150 CRR and values all investment positions using the permanent partial use according to the SACR, provided that the individual equity position is not measured in the SACR anyway. Investments that are linked to particularly high risks as defined in Article 128 CRR, such as private equity investments or venture capital exposures, are shown in the corresponding SACR exposure class.

Of the overall capital requirement 7.8% relates to counterparty credit risk. Based on the EBA requirements, credit value adjustments (CVAs) are also assigned to this credit risk category.

Securitised positions in the banking book are also shown as a separate credit risk category subject to a capital requirement in the table EU OV1 below (2.5% of total capital requirement). Commerzbank treats these positions in accordance with the recognition hierarchy according to the change in own funds requirements (Regulation (EU) No 2017/2401). Capital deduction items of securitisations directly reduce the liable equity and thus are not included in the capital requirements.

Pursuant to Article 92 (3) b) and c) CRR, adequate capital must be set aside for market risk positions. As at 30 June 2023, capital requirements here are 3.6% of total requirements. Commerzbank uses an internal market risk model to calculate the regulatory capital requirement. This affects both the equity price and interest rate-related risk positions in the trading book as well as the total of currency positions and commodity positions. The standardized approaches are applied for smaller units in Commerzbank Group in accordance with the partial use option.

Since the fourth quarter of 2021 Commerzbank has measured regulatory capital for operational risk using the standardised approach (SA). This risk category accounts for 12.0% of the total capital requirements as at 30 June 2023.

EU OV1: Overview of risk weighted exposure amounts

€m		Risk-weighted exposure amounts		Total own funds requirements
		a 30.6.2023	b 31.3.2023	c 30.6.2023
1	Credit risk (excluding CCR)	128,823	125,975	10,306
2	thereof: standard approach	32,454	32,359	2,596
3	thereof: the foundation IRB (F-IRB) approach	–	–	–
4	thereof: slotting approach	906	926	72
EU 4a	thereof: equities under the simple riskweighted approach	–	–	–
5	thereof: the advanced IRB (A-IRB) approach	95,463	92,689	7,637
6	Counterparty credit risk - CCR	13,612	14,066	1,089
7	thereof: standard approach	1,391	1,435	111
8	thereof: internal model method (IMM)	9,106	9,836	729
EU 8a	thereof: exposures to a CCP	313	168	25
EU 8b	thereof: credit valuation adjustment - CVA	2,022	1,975	162
9	thereof: other CCR	780	652	62
15	Settlement risk	1	0	0
16	Securitisation exposures in the non-trading book (after the cap)	4,388	4,801	351
17	thereof: SEC-IRBA	1,512	1,986	121
18	thereof SEC-ERBA (incl. IAA)	2,182	2,167	175
19	thereof: SEC-SA	694	647	55
EU 19a	thereof: 1250% / deduction (for information)	1,413	1,531	113
20	Position, foreign exchange and commodities risks (Market risk)	6,304	5,613	504
21	thereof: standard approach	810	325	65
22	thereof: IMA	5,494	5,288	440
EU 22a	Large exposures	–	–	–
23	Operational risk	20,849	21,074	1,668
EU 23a	thereof: basic indicator approach	–	–	–
EU 23b	thereof: standard approach	20,849	21,074	1,668
EU 23c	thereof: advanced measurement approach	–	–	–
24	Amounts below the thresholds for deduction (subject to 250% risk weight) (for information)	6,850	6,696	548
29	Total	173,977	171,528	13,918

Risk-weighted assets were €174.0bn as at 30 June 2023. Compared to the previous quarter, there was a total increase of €2.4bn. This increase is due to RWA from credit risk and was mainly caused by the anticipation of expected effects from model adjustments in the context of the IRB Repair program set up by the banking supervisor, an increase in portfolio size and exchange rate changes.

The overviews of the development of risk-weighted assets (RWA) by main drivers EU CR8: RWA flow statements of credit risk exposures under the IRB approach, EU CCR7: RWA flow statements of CCR exposures under the IMM as well as EU MR2-B: RWA flow statements of market risk exposures under the IMA are given in the chapters on the respective risk types.

Leverage Ratio

The leverage ratio shows the ratio of Tier 1 capital to leverage ratio exposure, consisting of the non risk-weighted assets plus off-balance sheet positions. The way in which exposure to derivatives, securities financing transactions and off-balance sheet positions is calculated is laid down by regulators. As a non risk-sensitive figure the leverage ratio is intended to supplement risk-based measures of capital adequacy.

The leverage ratio was almost stable at 4.9% as at 30 June 2023. The minimal decrease in comparison with year end 2022 is due to higher leverage ratio exposure, which was mainly caused by increased on-balance sheet items and increased balance sheet

volume from security financing transactions (SFT). This effect was for the most part compensated by increased Tier 1 capital.

Table EU LR1 shows the summary reconciliation of accounting assets and leverage ratio exposures in accordance with Article 451 (1) b) CRR as at 30 June 2023. Where the value "Total assets as per published financial statements" corresponds to total assets according to Table EU CC2, line 22, column a. After all discretionary margins have been disclosed in the assessment according to the balance sheet or risk view, the leverage ratio total exposure measure is shown in line 13.

EU LR1: LRSum – Summary reconciliation of accounting assets and leverage ratio exposures

€m	^a Applicable amount
1 Total assets as per published financial statements	501,603
2 Adjustment for entities which are consolidated for accounting purposes but are outside the scope of prudential consolidation	17,343
3 (Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)	–
4 (Adjustment for temporary exemption of exposures to central banks (if applicable))	–
5 (Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the total exposure measure in accordance with point (i) of Article 429a(1) CRR)	–
6 Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	–382
7 Adjustment for eligible cash pooling transactions	810
8 Adjustments for derivative financial instruments	9,134
9 Adjustment for securities financing transactions (SFTs)	1,729
10 Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	51,359
11 (Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital)	–
EU-11a (Adjustment for exposures excluded from the total exposure measure in accordance with point (c) of Article 429a(1) CRR)	–
EU-11b (Adjustment for exposures excluded from the total exposure measure in accordance with point (j) of Article 429a(1) CRR)	–
12 Other adjustments	–1,175
13 Total exposure measure	580,420

Table EU LR2 shows the individual components for the calculation the leverage ratio referred to in Article 451 CRR as at 30 June 2023:

EU LR2: LRCom – Leverage ratio common disclosure

€m		CRR leverage ratio exposures	
		a 30.6.2023	b 31.12.2022
On-balance sheet exposures (excluding derivatives and SFTs)			
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	478,703	457,851
2	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	–	–
3	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	–15,154	–16,567
4	(Adjustment for securities received under securities financing transactions that are recognised as an asset)	–	–
5	(General credit risk adjustments to on-balance sheet items)	–	–
6	(Asset amounts deducted in determining Tier 1 capital)	–1,844	–2,284
7	Total on-balance sheet exposures (excluding derivatives and SFTs)	461,705	439,000
Derivative exposures			
8	Replacement cost associated with SA-CCR derivatives transactions (ie net of eligible cash variation margin)	24,864	26,364
EU-8a	Derogation for derivatives: replacement costs contribution under the simplified standardised approach	–	–
9	Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	18,752	16,625
EU-9a	Derogation for derivatives: Potential future exposure contribution under the simplified standardised approach	–	–
EU-9b	Exposure determined under Original Exposure Method	–	–
10	(Exempted CCP leg of client-cleared trade exposures) (SA-CCR)	–15,929	–16,835
EU-10a	(Exempted CCP leg of client-cleared trade exposures) (simplified standardised approach)	–	–
EU-10b	(Exempted CCP leg of client-cleared trade exposures) (original Exposure Method)	–	–
11	Adjusted effective notional amount of written credit derivatives	6,981	7,798
12	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	–4,552	–5,491
13	Total derivatives exposures	30,115	28,460
Securities financing transaction (SFT) exposures			
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	70,378	54,150
15	(Netted amounts of cash payables and cash receivables of gross SFT assets)	–30,059	–25,490
16	Counterparty credit risk exposure for SFT assets	1,729	2,949
EU-16a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429e(5) and 222 CRR	–	–
17	Agent transaction exposures	–	–
EU-17a	(Exempted CCP leg of client-cleared SFT exposure)	–	–
18	Total securities financing transaction exposures	42,048	31,609
Other off-balance sheet exposures			
19	Off-balance sheet exposures at gross notional amount	181,190	181,320
20	(Adjustments for conversion to credit equivalent amounts)	–129,832	–128,063
21	(General provisions deducted in determining Tier 1 capital and specific provisions associated with off-balance sheet exposures)	–	–
22	Off-balance sheet exposures	51,359	53,257

		CRR leverage ratio exposures	
€m		a	b
		30.6.2023	31.12.2022
Excluded exposures			
EU-22a	(Exposures excluded from the total exposure measure in accordance with point (c) of Article 429a(1) CRR)	–	–
EU-22b	(Exposures exempted in accordance with point (j) of Article 429a (1) CRR (on and off balance sheet))	–	–
EU-22c	(Excluded exposures of public development banks (or units) - Public sector investments)	–	–
EU-22d	(Excluded exposures of public development banks (or units) - Promotional loans)	–	–
EU-22e	(Excluded passing-through promotional loan exposures by non-public development banks (or units))	–	–
EU-22f	(Excluded guaranteed parts of exposures arising from export credits)	–4,807	–4,623
EU-22g	(Excluded excess collateral deposited at triparty agents)	–	–
EU-22h	(Excluded CSD related services of CSD/institutions in accordance with point (o) of Article 429a(1) CRR)	–	–
EU-22i	(Excluded CSD related services of designated institutions in accordance with point (p) of Article 429a(1) CRR)	–	–
EU-22j	(Reduction of the exposure value of pre-financing or intermediate loans)	–	–
EU-22k	(Total exempted exposures)	–4,807	–4,623
Capital and total exposure measure			
23	Tier 1 capital fully loaded	28,336	27,074
23	Tier 1 capital with transitional provisions	28,336	27,074
24	Total exposure measure	580,420	547,702
Leverage ratio			
25	Leverage ratio fully loaded (%)	4.88	4.94
25	Leverage ratio with transitional provisions (%)	4.88	4.94
EU-25	Leverage ratio (excluding the impact of the exemption of public sector investments and promotional loans) (%)	4.88	4.94
25a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) with transitional provisions (%)	4.88	4.94
26	Regulatory minimum leverage ratio requirement (%)	3.00	3.00
EU-26a	Additional own funds requirements to address the risk of excessive leverage (%)	–	–
EU-26b	of which: to be made up of CET1 capital (percentage points)	–	–
27	Leverage ratio buffer requirement (%)	–	–
EU-27a	Overall leverage ratio requirement (%)	–	–
Choice on transitional arrangements and relevant exposures			
EU-27b	Choice on transitional arrangements for the definition of the capital measure	Applying the transitional arrangements and fully loaded	Applying the transitional arrangements and fully loaded

Table EU LR3 shows the split up of on-balance exposures in trading and banking book according to Article 451 (1) b) CRR as at 30 June 2023.

EU LR3: LRSpl – Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

		CRR leverage ratio exposures
		a
	€m	30.6.2023
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	477,144
EU-2	Trading book exposures	46,271
EU-3	Banking book exposures, of which:	430,873
EU-4	Covered bonds	7,294
EU-5	Exposures treated as sovereigns	125,183
EU-6	Exposures to regional governments, MDB, international organisations and PSE, not treated as sovereigns	7,806
EU-7	Institutions	18,411
EU-8	Secured by mortgages of immovable properties	85,138
EU-9	Retail exposures	58,882
EU-10	Corporates	74,586
EU-11	Exposures in default	2,769
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	50,803

A. Credit risk

Credit risk (default risk from credit risk) is defined as the risk of losses sustained or profits foregone due to the default of a counterparty. It is a quantifiable material risk and includes the material sub-risk types of credit default risk, issuer risk, counterparty credit risk, country and transfer risk, dilution risk and reserve risk. The default risk from counterparty credit risk is shown separately in the section on counterparty credit risk in this report.

Credit risk mitigation

At Commerzbank, risks are mitigated via a range of measures including collateral and netting.

The collateral mainly takes the form of mortgages, financial collateral, guarantees, indemnity letters, credit derivatives, life insurances, other registered liens and other real collateral. Within the scope of the IRBA assessments, this collateral was recognised by the regulator as eligible collateral.

For the majority of its default risk positions from counterparty credit risk, Commerzbank Group uses the internal model method (IMM) according to Article 283 CRR. The credit equivalent amounts are determined as expected future exposure through the simulation of various market scenarios, taking netting and collateral into account.

Also for securities repurchase, lending and comparable transactions involving securities or goods, the exposures are determined in accordance with Article 283 in conjunction with Article 273 (2) CRR on the basis of an internal model method. Guarantees and credit derivatives are considered via the substitution approach. The doubledefault procedure defined under Article 153 (3) CRR is applied.

Details on the use of credit risk mitigation techniques in default risks from counterparty credit risk are set out in the section on counterparty credit risk.

The following table EU CR3 gives an overview of the extent of the use of credit risk mitigation techniques. The items shown in column c are mainly positions secured by mortgages. The table refers to in Article 453 ff CRR as at 30 June 2023:

EU CR3: CRM techniques overview: Disclosure of the use of credit risk mitigation techniques

		a	b	c	d	e
€m		Exposures unsecured – Carrying amount	Exposures secured – Carrying amount			
			Exposures secured by collateral	Exposures secured by financial guarantees		Exposures secured by credit derivatives
1	Loans and advances	240,373	151,385	140,600	10,784	0
2	Debt securities	86,721	0	0	0	
3	Total	327,094	151,385	140,600	10,784	0
4	Of which non-performing exposures	1,144	1,279	757	522	0
EU-5	Of which defaulted	1,144	1,279			

Credit risk and credit risk mitigation in the SACR

This chapter presents the effects of the credit risk mitigation on the Commerzbank Group's SACR portfolio, divided by exposure classes and the risk weight used.

The portfolios currently excluded from the IRBA are measured in accordance with SACR regulations as permitted under partial use provisions. In contrast to the IRBA, the SACR is largely based on a flat risk weighting or external ratings. Commerzbank has nominated the rating agencies Standard & Poor's Rating Services, Moody's Investors Service and FitchRatings for the use of external ratings.

Where an external credit rating is available for a position, that external rating is used to determine the risk weighting. Here, Commerzbank uses the standard mapping of external credit assessments to the relevant credit quality steps as published by the EBA in accordance with Article 136 CRR. Where two or more external credit ratings are available for one position, the risk weighting is assigned in accordance with the provisions of Article 138 CRR.

For unrated positions, if the conditions set out in Articles 139 and 140 CRR are met, a risk weighting is calculated based on a derived credit rating. In all other cases, the position is treated as an unrated exposure.

Under the SACR, guarantees are treated according to the substitution principle. This means that the borrower's risk weighting is replaced by that of the guarantor.

Consequently, the guaranteed amount is transferred from the borrower's exposure class to that of the guarantor. This is why the exposure before CRM for assets guaranteed by central governments and central banks, for example, is less than after CRM. However, a transfer only takes place if the risk weighting of the guarantor is lower than that of the borrower. This can be seen in table EU CR4. This table also shows the impact of the credit risk mitigation techniques used in the SACR portfolio in accordance with Chapter 4 of Title II of Part Three CRR and the conversion factors used in accordance with Article 111 CRR.

Table EU CR4 contains the information in accordance with Articles 444 e) and 453 g), h) and i) CRR as at 30 June 2023.

For the reported SACR exposure value, unlike the IRBA, the valuation allowances based on each of the positions are deducted. Table EU CR5 shows the distribution of exposure values after credit risk mitigation and conversion factors by exposure class and risk weight in accordance with Article 444 e) CRR as at 30 June 2023.

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

Exposure classes	€m	a		b		c		d		e		f
		Exposures				Exposures				RWAs and RWA density		
		before CCF and CRM				post CCF and CRM				RWAs	RWA density	
		On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount					
1	Central governments or central banks	104,661	4,598	109,396	3,715	1,558	1.4%					
2	Regional government or local authorities	22,625	579	24,275	73	1,563	6.4%					
3	Public sector entities	3,503	351	5,118	58	136	2.6%					
4	Multilateral development banks	1,881	0	2,669	137	14	0.5%					
5	International organisations	843	0	843	0	0	–					
6	Institutions	2,409	506	2,588	253	633	22.3%					
7	Corporates	11,241	8,818	12,133	2,658	11,406	77.1%					
8	Retail	4,949	4,269	4,716	68	3,565	74.5%					
9	Secured by mortgages on immovable property	9,334	109	9,334	52	3,545	37.8%					
10	Exposures in default	951	114	828	2	1,197	144.2%					
11	Exposures associated with particularly high risk	500	110	497	27	779	148.7%					
12	Covered bonds	0	0	0	0	0	–					
13	Institutions and corporates with a short-term credit assessment	46	0	46	0	9	20.0%					
14	Collective investment undertakings	2,610	0	2,610	0	941	36.1%					
15	Equity	916	0	916	0	1,209	132.0%					
16	Other items	2,519	0	2,519	0	5,897	234.1%					
17	Total	168,989	19,455	178,490	7,042	32,454	17.5%					

EU CR5: Standardised approach

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
Exposure classes	Risk weight															Total	Of which unrated
€m	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others		
Central governments or central banks	109,810	0	492	0	1,923	0	331	0	0	267	0	289	0	0	0	113,111	78,133
Regional government or local authorities	17,824	0	0	0	5,663	0	861	0	0	0	0	0	0	0	0	24,348	17,013
Public sector entities	4,496	0	0	0	680	0	0	0	0	0	0	0	0	0	0	5,176	4,496
Multilateral development banks	2,736	0	0	0	70	0	0	0	0	0	0	0	0	0	0	2,805	1,555
International organisations	843	0	0	0	0	0	0	0	0	0	0	0	0	0	0	843	843
Institutions	67	28	0	0	2,469	0	277	0	0	0	0	0	0	0	0	2,842	148
Corporates	0	0	0	0	1,416	0	3,467	0	0	9,870	37	0	0	0	0	14,791	9,362
Retail	0	0	0	0	0	0	0	0	4,784	0	0	0	0	0	0	4,784	4,783
Secured by mortgages on immovable property	0	0	0	0	0	5,826	3,558	0	0	0	1	0	0	0	0	9,386	9,386
Exposures in default	0	0	0	0	0	0	0	0	0	96	734	0	0	0	0	830	830
Exposures associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	524	0	0	0	0	524	524
Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions and corporates with a short-term credit assessment	0	0	0	0	46	0	0	0	0	0	0	0	0	0	0	46	0
Collective investment undertakings	896	0	0	0	502	0	952	0	0	200	54	0	0	7	0	2,610	2,420
Equity	0	0	0	0	0	0	0	0	0	720	0	196	0	0	0	916	774
Other items	0	0	0	0	0	0	0	0	0	266	0	2,252	0	0	0	2,519	2,363
Total	136,671	28	492	0	12,770	5,827	9,447	0	4,784	11,420	1,351	2,737	0	7	0	185,532	132,630

Credit risk and credit risk mitigation in the IRBA

The credit risk of the Commerzbank Group's IRBA portfolio divided into the relevant IRBA asset classes and PD ranges is shown below. The information in table EU CR6 on on-balance-sheet gross receivables refers to the risk exposure values to be determined according to Article 166 CRR. These represent the expected amounts of the IRBA positions that will be exposed to a risk of loss. The off-balance-sheet claims are shown before considering credit risk adjustments and conversion factors. Exposure at default (regulatory EaD) shows the exposure values after considering credit risk mitigation. The risk parameters CCF, PD and LGD are calculated as EaD-weighted averages. The IRBA default definition is also used for internal purposes.

The companies in Commerzbank Group use the IRBA approach. Hence, they may use internal estimates of credit conversion factors (CCFs) for regulatory purposes, too. CCFs are necessary for off-balance-sheet transactions in order to assess the likely exposure in the event of a possible default on commitments that have not yet been drawn.

Tables EU CR6, EU CR7 and EU CR7-A show only portfolios which fall within the scope of IRBA and are rated with a rating process that has been approved by the supervisory authority. Positions in the risk exposure class "Other non-loan-related assets" are not listed in table EU CR6. These assets amount to € 11.3bn and do not have any creditworthiness risks and thus are not relevant for the management of default risks.

Table EU CR6 also does not include mBank S.A. positions of €0.9bn risk weighted assets, which are subject to the IRBA slotting

approach in accordance with Article 153 (5) CRR and are shown in table EU CR10.2. Investment positions with a fixed risk weighting according to Article 155 (2) CRR are not relevant in Commerzbank Group as at 30 June 2023 and are therefore not part of table EU CR10.

Securitisation exposures in the IRBA are shown in the section Securitisation of this report. Counterparty default risks are shown in the section Counterparty credit risk in this report.

The impact of credit derivatives used for credit risk mitigation on the amount of RWA of credit risk in the IRBA portfolio as at 30 June 2023 comes to 0.3 % (see the next table EU CR7).

The risk exposure values shown in this section generally differ from the EaD values in the Annual Report (economic EaD) due to the following:

- According to the EBA's requirement for disclosure, credit risk and counterparty credit risk are presented separately in the Disclosure Report.
- Some transactions are not included in risk-weighted assets (RWA) for regulatory purposes but are included in the EaD of the Annual Report and Risk Report, respectively.
- The figures shown in this Disclosure Report refer to the regulatory scope of consolidation. By contrast, the figures in the Annual Report refer to the IFRS scope of consolidation

Table EU CR6 contains the information described above in accordance with Article 452 g) CRR as at 30 June 2023 for the A-IRB portfolio. As Commerzbank does not have any F-IRB positions, a corresponding list is not required.

EU CR6_part 1: IRB approach – Credit risk exposures by exposure class and PD range

	a	b	c	d	e	f	g	h	i	j	k	l	m
A-IRB	PD scale	On-balance sheet exposures €m	Off-balance sheet exposures pre-CCF €m	Exposure weighted average CCF	Exposure post CCF and post CRM €m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity years	Risk weighted exposure amount after supporting factors €m	Density of risk weighted exposure amount	Expected loss amount €m	Value adjustments and provisions €m
Central governments or central banks	0.00 to < 0.15	531	477	0.38	696	0.06	169	90.90	2.3	297	0.43	0.4	0.0
	0.00 to <0.10	372	292	0.39	466	1.20	135	93.29	2.7	174	0.37	0.2	0.0
	0.10 to <0.15	159	185	0.36	230	0.11	34	86.04	1.5	123	0.53	0.2	0.0
	0.15 to < 0.25	10	17	0.47	24	0.23	16	81.71	1.3	17	0.72	0.0	0.0
	0.25 to < 0.50	73	91	0.37	106	0.33	13	99.64	1.5	115	1.08	0.4	0.0
	0.50 to < 0.75	57	33	0.43	71	0.66	13	100.00	1.0	101	1.42	0.5	0.0
	0.75 to < 2.50	65	29	0.46	78	1.44	21	99.97	1.0	154	1.96	1.1	0.0
	0.75 to <1.75	49	28	0.45	62	1.16	15	99.98	1.1	114	1.86	0.7	0.0
	1.75 to <2.50	16	1	0.50	17	2.42	6	99.96	0.8	39	2.34	0.4	0.0
	2.50 to 10.00	75	49	0.46	98	6.38	51	99.99	1.5	345	3.52	6.2	0.0
	2.5 to <5	24	15	0.46	31	2.92	19	99.98	1.5	84	2.71	0.9	0.0
	5 to <10	51	34	0.46	67	7.99	32	99.99	1.6	260	3.90	5.3	0.0
	10.00 to < 100.00	30	13	0.43	36	45.95	39	100.00	1.2	174	4.86	16.5	0.0
	10 to <20	2	4	0.42	4	14.08	22	100.00	1.0	16	4.67	0.5	0.0
20 to <30	0	2	0.45	1	22.12	2	100.00	1.4	5	5.45	0.2	0.0	
30 to <100	28	7	0.44	31	50.24	15	100.00	1.2	153	4.87	15.8	0.0	
100.00 (default)	5	0	0.20	0	100.00	7	32.70	2.6	0	0.58	0.1	0.0	
Subtotal		845	709	0.39	1,110	2.29	329	93.84	1.9	1,203	1.08	25.1	0.0
Institutions	0.00 to < 0.15	14,537	1,894	0.50	17,689	0.07	1,280	23.16	2.7	2,121	0.12	2.6	-8.2
	0.00 to <0.10	10,792	1,327	0.52	13,639	0.54	1,052	23.24	2.7	1,495	0.11	1.5	-5.6
	0.10 to <0.15	3,746	567	0.46	4,050	0.12	228	22.90	2.5	626	0.15	1.1	-2.6
	0.15 to < 0.25	1,657	688	0.41	1,612	0.19	221	27.17	2.3	414	0.26	0.9	-0.4
	0.25 to < 0.50	1,459	1,167	0.45	1,919	0.35	408	30.48	2.6	814	0.42	2.1	-1.3
	0.50 to < 0.75	2,197	631	0.44	2,390	0.59	234	35.92	1.2	1,273	0.53	5.1	-2.3
	0.75 to < 2.50	1,814	1,508	0.44	1,925	1.40	651	36.85	0.9	1,398	0.73	10.0	-5.6
	0.75 to <1.75	1,355	985	0.45	1,424	1.17	436	36.56	0.8	969	0.68	6.2	-3.3
	1.75 to <2.50	458	523	0.43	501	2.03	215	37.67	0.9	429	0.86	3.8	-2.3
	2.50 to 10.00	2,099	1,124	0.45	1,479	3.67	520	33.08	0.9	1,398	0.95	17.7	-9.2
	2.5 to <5	1,796	928	0.45	1,317	3.39	388	33.35	0.9	1,232	0.94	14.7	-6.1
	5 to <10	303	196	0.43	162	5.98	132	30.83	1.0	166	1.03	3.0	-3.1
	10.00 to < 100.00	136	344	0.46	189	45.89	153	16.27	1.0	130	0.69	16.6	-10.6
	10 to <20	9	79	0.46	45	11.97	20	5.23	1.0	10	0.23	0.3	-0.2
	20 to <30	0	7	0.46	3	22.06	15	23.65	1.0	4	1.48	0.1	-0.2
30 to <100	127	258	0.46	142	56.99	118	19.62	1.0	116	0.82	16.2	-10.2	
100.00 (default)	33	7	0.47	31	100.00	15	48.28	1.0	19	0.62	13.4	-23.2	
Subtotal		23,932	7,362	0.46	27,233	0.86	3,482	26.52	2.3	7,568	0.28	68.3	-60.7

EU CR6_part 2: IRB approach – Credit risk exposures by exposure class and PD range

	a	b	c	d	e	f	g	h	i	j	k	l	m
A-IRB	PD scale	On-balance sheet exposures €m	Off-balance sheet exposures pre-CCF €m	Exposure weighted average CCF	Exposure post CCF and post CRM €m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity years	Risk weighted exposure amount after supporting factors €m	Density of risk weighted exposure amount	Expected loss amount €m	Value adjustments and provisions €m
Corporates, thereof SMEs	0.00 to < 0.15	499	425	0.52	696	0.10	544	42.30	2.4	131	0.19	0.3	-0.2
	0.00 to <0.10	243	226	0.52	347	0.07	311	43.49	2.4	53	0.15	0.1	-0.1
	0.10 to <0.15	256	199	0.52	348	0.13	233	41.11	2.4	78	0.22	0.2	-0.1
	0.15 to < 0.25	724	327	0.46	810	0.20	480	43.24	2.5	260	0.32	0.7	-0.4
	0.25 to < 0.50	1,593	638	0.43	1,743	0.35	925	37.54	2.5	606	0.35	2.3	-1.6
	0.50 to < 0.75	595	339	0.44	699	0.62	584	37.35	2.2	299	0.43	1.6	-1.8
	0.75 to < 2.50	1,684	1,014	0.44	1,930	1.38	2,384	37.50	1.8	1,081	0.56	9.9	-8.8
	0.75 to <1.75	1,285	788	0.45	1,484	1.18	1,770	38.51	1.8	822	0.55	6.7	-5.7
	1.75 to <2.50	399	226	0.41	446	2.05	614	34.15	1.7	259	0.58	3.1	-3.0
	2.50 to 10.00	1,176	352	0.46	1,207	4.65	1,080	35.91	2.0	971	0.80	20.9	-29.6
	2.5 to <5	758	270	0.47	805	3.48	811	34.58	1.8	549	0.68	9.8	-12.7
	5 to <10	419	82	0.45	403	6.98	269	38.55	2.4	422	1.05	11.1	-16.9
	10.00 to < 100.00	191	35	0.39	142	20.21	152	37.59	1.7	179	1.26	11.3	-11.9
	10 to <20	94	18	0.44	88	12.49	106	34.18	1.8	90	1.02	3.8	-5.9
	20 to <30	74	9	0.24	30	24.55	17	43.92	1.5	51	1.71	3.2	-3.4
30 to <100	23	8	0.43	24	42.98	29	42.31	1.8	38	1.55	4.4	-2.6	
100.00 (default)	344	68	0.38	332	100.00	270	58.66	1.4	260	0.78	183.9	-210.3	
Subtotal	6,806	3,199	0.45	7,559	6.04	6,419	39.23	2.1	3,786	0.50	230.9	-264.6	
Corporates, thereof specialised lending	0.00 to < 0.15	3,942	510	0.28	4,082	0.04	429	33.19	3.9	490	0.12	0.5	-0.2
	0.00 to <0.10	3,827	494	0.27	3,962	0.03	421	32.33	3.9	440	0.11	0.5	-0.2
	0.10 to <0.15	115	16	0.38	121	0.11	8	61.49	4.9	50	0.42	0.1	-0.1
	0.15 to < 0.25	181	82	0.39	213	0.22	19	52.53	2.8	92	0.43	0.2	-0.3
	0.25 to < 0.50	164	91	0.23	185	0.34	16	49.76	4.3	98	0.53	0.3	-0.7
	0.50 to < 0.75	300	354	0.42	449	0.65	23	62.40	2.7	345	0.77	1.8	-1.8
	0.75 to < 2.50	510	303	0.43	640	1.14	29	52.30	2.9	475	0.74	3.9	-2.7
	0.75 to <1.75	483	185	0.44	564	0.98	26	51.42	3.0	394	0.70	2.9	-2.7
	1.75 to <2.50	26	117	0.42	76	2.28	3	58.82	2.8	81	1.07	1.0	0.0
	2.50 to 10.00	39	2	0.42	40	3.81	9	55.18	4.2	47	1.19	0.8	-1.1
	2.5 to <5	39	1	0.41	39	3.78	6	55.13	4.2	46	1.19	0.8	-1.1
	5 to <10	1	0	0.47	1	5.58	3	57.77	1.5	1	1.12	0.0	-0.1
	10.00 to < 100.00	9	3	0.24	10	48.78	2	28.19	4.4	10	0.97	1.4	-2.6
	10 to <20	0	0	0.00	0	0.00	0	0.00	0.0	0	0.00	0.0	0.0
	20 to <30	0	0	0.00	0	0.00	0	0.00	0.0	0	0.00	0.0	0.0
30 to <100	9	3	0.24	10	48.78	2	28.19	4.4	10	0.97	1.4	-2.6	
100.00 (default)	46	72	0.37	72	100.00	12	40.23	1.4	17	0.24	27.7	-50.3	
Subtotal	5,191	1,416	0.35	5,693	1.61	539	39.14	3.6	1,575	0.28	36.8	-59.7	

EU CR6_part 3: IRB approach – Credit risk exposures by exposure class and PD range

	a	b	c	d	e	f	g	h	i	j	k	l	m
A-IRB	PD scale	On-balance sheet exposures €m	Off-balance sheet exposures pre-CCF €m	Exposure weighted average CCF	Exposure post CCF and post CRM €m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity years	Risk weighted exposure amount after supporting factors €m	Density of risk weighted exposure amount	Expected loss amount €m	Value adjustments and provisions €m
Corporates, thereof other	0.00 to < 0.15	9,355	33,767	0.39	22,236	0.10	5,990	39.87	1.9	5,497	0.25	9.1	-5.0
	0.00 to <0.10	3,752	12,154	0.39	8,307	0.07	3,031	39.68	1.8	1,525	0.18	1.8	-1.2
	0.10 to <0.15	5,603	21,614	0.40	13,929	0.12	2,959	39.98	1.9	3,971	0.29	7.3	-3.8
	0.15 to < 0.25	10,252	28,330	0.38	19,759	0.20	6,248	40.47	2.0	7,909	0.40	17.4	-8.0
	0.25 to < 0.50	15,133	29,622	0.36	24,243	0.35	10,699	38.97	2.0	12,914	0.53	40.3	-18.8
	0.50 to < 0.75	7,102	12,492	0.36	10,537	0.59	5,260	38.38	1.8	6,743	0.64	28.4	-15.9
	0.75 to < 2.50	10,506	10,012	0.36	10,642	1.24	10,031	36.53	1.6	8,619	0.81	371.3	-30.6
	0.75 to <1.75	7,372	8,080	0.37	9,027	1.10	7,517	36.76	1.5	7,103	0.79	355.7	-19.0
	1.75 to <2.50	3,133	1,932	0.35	1,616	2.05	2,514	35.25	1.7	1,517	0.94	15.6	-11.6
	2.50 to 10.00	3,329	2,362	0.35	3,461	4.35	4,453	35.60	1.5	4,175	1.21	89.9	-47.3
	2.5 to <5	2,422	1,747	0.32	2,582	3.44	3,440	35.06	1.4	2,851	1.10	48.9	-26.8
	5 to <10	908	614	0.42	879	7.02	1,013	37.19	1.7	1,324	1.51	41.0	-20.6
	10.00 to < 100.00	465	270	0.35	376	17.59	1,625	36.07	1.5	726	1.93	148.1	-391.7
	10 to <20	378	230	0.34	313	13.74	564	36.16	1.6	592	1.89	38.4	-14.0
	20 to <30	27	11	0.41	26	22.19	195	33.09	1.2	61	2.37	11.0	-0.7
	30 to <100	60	29	0.40	38	46.36	866	37.32	1.1	74	1.95	98.7	-377.0
100.00 (default)	1,973	493	0.29	1,797	100.00	1,163	57.44	1.3	1,138	0.63	1,073.7	-1,258.6	
Subtotal		58,114	117,349	0.37	93,052	2.53	45,469	39.38	1.9	47,722	0.51	1,778.2	-1,776.0
Retail secured by mortgages / SMEs	0.00 to < 0.15	6,137	63	1.00	6,200	0.06	24,795	14.31		114	0.02	0.5	-0.5
	0.00 to <0.10	5,239	42	1.00	5,280	0.05	21,048	14.17		82	0.02	0.4	-0.3
	0.10 to <0.15	898	21	1.00	919	0.13	3,747	15.12		32	0.03	0.2	-0.2
	0.15 to < 0.25	2,053	19	0.97	2,071	0.20	10,618	14.51		98	0.05	0.6	-0.7
	0.25 to < 0.50	3,290	48	0.96	3,336	0.36	14,590	15.23		255	0.08	1.8	-2.7
	0.50 to < 0.75	1,559	46	0.98	1,604	0.61	6,428	16.30		190	0.12	1.6	-2.8
	0.75 to < 2.50	1,522	49	1.14	1,577	1.23	6,302	17.59		319	0.20	3.4	-8.4
	0.75 to <1.75	1,299	45	1.14	1,350	1.08	5,377	17.51		253	0.19	2.6	-5.9
	1.75 to <2.50	223	4	1.16	228	2.07	925	18.04		66	0.29	0.8	-2.5
	2.50 to 10.00	352	4	2.55	362	5.13	1,483	18.31		177	0.49	3.4	-6.6
	2.5 to <5	197	3	1.42	201	3.46	910	17.39		77	0.38	1.2	-3.4
	5 to <10	155	1	9.60	160	7.23	573	19.48		100	0.63	2.2	-3.2
	10.00 to < 100.00	117	0	1.16	118	21.05	633	17.53		89	0.75	4.5	-6.2
	10 to <20	71	0	1.29	71	13.66	353	16.94		50	0.70	1.7	-2.7
	20 to <30	27	0	0.85	27	24.69	170	18.70		24	0.89	1.3	-1.9
	30 to <100	19	0	0.94	19	43.24	110	18.04		15	0.77	1.5	-1.6
100.00 (default)	124	0	0.00	123	100.00	764	36.18		152	1.23	33.0	-22.7	
Subtotal		15,155	230	1.04	15,391	1.40	65,613	15.37		1,393	0.09	48.9	-50.7

EU CR6_part 4: IRB approach – Credit risk exposures by exposure class and PD range

	a	b	c	d	e	f	g	h	i	j	k	l	m
A-IRB	PD scale	On-balance sheet exposures €m	Off-balance sheet exposures pre-CCF €m	Exposure weighted average CCF	Exposure post CCF and post CRM €m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity years	Risk weighted exposure amount after supporting factors €m	Density of risk weighted exposure amount	Expected loss amount €m	Value adjustments and provisions €m
Retail secured by mortgages / non-SMEs	0.00 to < 0.15	33,978	417	0.91	34,357	0.06	270,532	16.32		914	0.03	3.3	-5.0
	0.00 to <0.10	29,096	353	0.91	29,419	0.05	217,270	16.20		662	0.02	2.2	-3.3
	0.10 to <0.15	4,882	63	0.88	4,938	0.12	53,262	17.02		252	0.05	1.0	-1.7
	0.15 to < 0.25	15,531	191	0.96	15,714	0.20	133,080	15.54		1,055	0.07	5.0	-5.7
	0.25 to < 0.50	18,164	408	0.99	18,567	0.35	112,014	16.50		1,972	0.11	10.8	-13.9
	0.50 to < 0.75	4,590	138	0.99	4,726	0.59	26,661	17.69		784	0.17	5.0	-8.0
	0.75 to < 2.50	2,968	63	0.99	3,031	1.18	18,616	17.81		792	0.26	6.4	-18.1
	0.75 to <1.75	2,600	57	0.99	2,657	1.05	15,937	17.81		649	0.24	5.0	-13.3
	1.75 to <2.50	368	6	1.02	374	2.08	2,679	17.86		143	0.38	1.4	-4.9
	2.50 to 10.00	1,008	5	0.96	1,013	5.11	7,731	17.08		597	0.59	8.9	-18.3
	2.5 to <5	554	4	0.98	557	3.44	4,121	17.01		270	0.48	3.3	-9.4
	5 to <10	454	1	0.88	455	7.15	3,610	17.17		327	0.72	5.6	-8.9
	10.00 to < 100.00	403	1	0.83	404	22.32	4,131	18.70		428	1.06	17.0	-19.5
	10 to <20	224	0	0.77	225	13.85	2,172	18.74		229	1.02	5.8	-8.3
	20 to <30	102	0	0.65	102	23.81	1,057	18.15		115	1.12	4.4	-5.3
30 to <100	77	0	0.95	77	44.97	902	19.29		84	1.08	6.7	-5.9	
100.00 (default)	344	1	0.51	344	100.00	3,556	44.05		335	0.97	126.7	-167.7	
Subtotal		76,987	1,224	0.96	78,156	0.85	576,321	16.49		6,875	0.09	182.9	-256.2
Retail qualifying revolving	0.00 to < 0.15	331	11,621	0.75	9,025	0.04	1,725,815	65.59		175	0.02	2.4	-1.5
	0.00 to <0.10	277	11,095	0.75	8,579	0.04	1,599,790	65.70		153	0.02	2.1	-1.2
	0.10 to <0.15	54	526	0.74	446	0.12	126,025	63.50		22	0.05	0.3	-0.3
	0.15 to < 0.25	102	715	0.72	620	0.20	193,859	61.64		43	0.07	0.8	-0.7
	0.25 to < 0.50	197	772	0.71	742	0.36	231,121	63.07		86	0.12	1.7	-1.8
	0.50 to < 0.75	127	262	0.74	321	0.62	94,647	64.76		59	0.18	1.3	-1.7
	0.75 to < 2.50	429	467	0.74	776	1.41	227,695	66.79		275	0.36	7.3	-10.4
	0.75 to <1.75	295	369	0.74	569	1.16	166,283	66.53		175	0.31	4.4	-6.4
	1.75 to <2.50	134	98	0.74	207	2.08	61,412	67.51		101	0.49	2.9	-4.0
	2.50 to 10.00	325	135	0.76	428	4.70	117,711	68.58		365	0.85	13.8	-16.6
	2.5 to <5	206	100	0.76	282	3.51	78,946	68.32		200	0.71	6.8	-8.5
	5 to <10	119	35	0.78	146	6.97	38,765	69.07		164	1.12	7.0	-8.2
	10.00 to < 100.00	96	38	0.73	124	23.48	32,605	68.12		225	1.81	19.7	-14.1
	10 to <20	59	17	0.76	72	13.40	19,864	68.71		116	1.62	6.6	-5.9
	20 to <30	19	5	0.75	23	24.46	6,060	67.74		47	2.07	3.7	-2.7
30 to <100	19	16	0.69	30	47.00	6,681	66.99		62	2.09	9.3	-5.5	
100.00 (default)	95	6	0.32	97	100.00	24,015	68.22		110	1.13	59.5	-57.1	
Subtotal		1,703	14,016	0.74	12,132	1.38	2,647,468	65.44		1,338	0.11	106.5	-104.0

EU CR6_part 5: IRB approach – Credit risk exposures by exposure class and PD range

	a	b	c	d	e	f	g	h	i	j	k	l	m
A-IRB	PD scale	On-balance sheet exposures €m	Off-balance sheet exposures pre-CCF €m	Exposure weighted average CCF	Exposure post CCF and post CRM €m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity years	Risk weighted exposure amount after supporting factors €m	Density of risk weighted exposure amount	Expected loss amount €m	Value adjustments and provisions €m
Retail other / SME	0.00 to < 0.15	3,423	3,082	0.69	5,485	0.07	117,825	35.01		299	0.05	1.4	-1.6
	0.00 to <0.10	2,508	2,213	0.73	4,114	0.05	97,054	34.53		181	0.04	0.8	-0.8
	0.10 to <0.15	915	869	0.58	1,372	0.13	20,771	36.47		118	0.09	0.6	-0.8
	0.15 to < 0.25	1,400	2,272	0.52	2,494	0.20	37,089	42.65		348	0.14	2.1	-2.6
	0.25 to < 0.50	2,608	3,322	0.51	4,120	0.36	77,125	43.17		853	0.21	6.3	-8.3
	0.50 to < 0.75	1,341	1,314	0.55	1,998	0.60	39,205	44.13		582	0.29	5.3	-7.0
	0.75 to < 2.50	3,372	1,673	0.59	4,236	1.31	89,576	43.62		1,691	0.40	24.0	-42.6
	0.75 to <1.75	2,636	1,481	0.59	3,390	1.12	68,899	44.02		1,305	0.38	16.6	-29.9
	1.75 to <2.50	735	192	0.66	846	2.08	20,677	41.99		386	0.46	7.4	-12.7
	2.50 to 10.00	1,685	427	0.54	1,871	4.70	56,223	44.42		1,032	0.55	39.4	-72.8
	2.5 to <5	1,080	266	0.59	1,208	3.51	34,575	43.90		635	0.53	18.6	-32.5
	5 to <10	605	161	0.45	663	6.87	21,648	45.37		397	0.60	20.8	-40.3
	10.00 to < 100.00	497	42	0.69	511	20.65	19,852	41.36		394	0.77	44.7	-56.2
	10 to <20	303	28	0.74	314	13.78	11,226	42.64		223	0.71	18.3	-29.7
	20 to <30	116	4	0.67	117	23.38	4,970	34.63		91	0.77	9.6	-11.3
	30 to <100	78	9	0.53	80	43.73	3,656	46.21		81	1.01	16.8	-15.3
	100.00 (default)	430	33	0.40	414	100.00	19,292	67.34		338	0.82	262.1	-250.1
Subtotal		14,756	12,165	0.58	21,128	3.31	456,187	41.71		5,536	0.26	385.3	-441.3
Retail other / non-SME	0.00 to < 0.15	6,891	1,775	0.91	8,497	0.05	101,829	32.65		465	0.05	1.6	-3.6
	0.00 to <0.10	5,981	1,603	0.90	7,424	0.04	86,810	32.63		350	0.05	1.1	-2.3
	0.10 to <0.15	909	172	0.95	1,073	0.12	15,019	32.74		115	0.11	0.5	-1.2
	0.15 to < 0.25	2,676	874	0.99	3,539	0.20	47,118	41.15		655	0.19	3.1	-5.4
	0.25 to < 0.50	4,085	2,271	0.99	6,342	0.36	85,429	46.61		1,907	0.30	11.6	-16.6
	0.50 to < 0.75	1,486	937	0.99	2,414	0.60	56,682	47.47		1,030	0.43	8.6	-11.5
	0.75 to < 2.50	2,556	415	0.97	2,956	1.33	206,524	43.46		1,698	0.57	26.1	-54.1
	0.75 to <1.75	2,046	375	0.98	2,410	1.16	158,954	42.97		1,307	0.54	18.1	-43.0
	1.75 to <2.50	510	40	0.93	546	2.07	47,570	45.66		391	0.72	8.1	-11.1
	2.50 to 10.00	978	41	0.96	1,016	4.36	127,108	50.31		882	0.87	34.4	-40.9
	2.5 to <5	702	33	0.96	733	3.47	89,414	50.16		611	0.83	18.1	-23.5
	5 to <10	276	8	0.93	283	6.68	37,694	50.71		271	0.96	16.3	-17.4
	10.00 to < 100.00	189	5	0.87	193	23.70	36,567	53.18		261	1.35	44.6	-30.2
	10 to <20	99	1	0.81	100	13.59	23,853	55.45		130	1.30	13.4	-11.6
	20 to <30	47	1	0.91	48	24.24	6,591	52.40		68	1.41	15.1	-8.7
	30 to <100	42	3	0.88	45	45.82	6,123	48.91		63	1.41	16.1	-9.9
	100.00 (default)	228	2	0.45	228	100.00	35,053	64.08		236	1.03	147.8	-131.1
Subtotal		19,089	6,321	0.97	25,185	1.62	696,310	41.20		7,134	0.28	277.8	-293.3

Table EU CR7 shows the effect of credit derivatives used as CRM techniques on RWA per exposure class as per Article 453 j) CRR as at 30 June 2023. The table shows that Commerzbank does not hold any exposures with a F-IRB approach.

EU CR7: IRB approach – Effect on the RWEAs of credit derivatives used as CRM techniques:

€m	a	b
	Pre-credit derivatives risk weighted exposure amount	Actual risk weighted exposure amount
1 Exposures under F-IRB	0	0
2 Central governments or central banks	0	0
3 Institutions	0	0
4 Corporates	0	0
4.1 thereof SMEs	0	0
4.2 thereof specialised lending	0	0
5 Exposures under A-IRB	85,261	85,037
6 Central governments or central banks	1,203	1,203
7 Institutions	7,610	7,568
8 Corporates	54,172	53,990
8.1 thereof SMEs	3,786	3,786
8.2 thereof specialised lending	2,482	2,482
9 Retail	22,277	22,277
9.1 thereof secured by mortgages / SMEs	1,393	1,393
9.2 thereof secured by mortgages / non-SMEs	6,875	6,875
9.3 thereof qualifying revolving	1,338	1,338
9.4 thereof other / SME	5,536	5,536
9.5 thereof other / non-SMEs	7,134	7,134
10 Total	85,261	85,037

Table EU CR7-A shows pro rata the various hedges of the total risk position by exposure classes according to Article 453 g) CRR as at 30 June 2023 for the A-IRB portfolio. As Commerzbank does not have any F-IRB positions, a corresponding list is not required.

EU CR7-A: IRB approach – Disclosure of the extent of the use of CRM technique

A-IRB	Total exposures	a	b	c	d	Credit risk Mitigation techniques							k	l	Credit risk Mitigation methods in the calculation of RWEAs	
						Funded credit Protection (FCP)					Unfunded credit Protection (UFCP)				m	n
						Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Immovable property Collaterals (%)	Part of exposures covered by Receivables (%)	Part of exposures covered by Other physical collateral (%)	Part of exposures covered by Other eligible collaterals (%)	Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)				
€m																
1	Central governments or central banks	1,110	0.00	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,206	1,203
2	Institutions	27,233	3.31	0.52	0.07	0.04	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,093	7,568
3	Corporates	107,712	2.13	6.44	4.00	0.70	1.75	0.03	0.00	0.03	0.00	1.10	0.00	60,961	53,990	
3.1	thereof SMEs	7,559	4.09	27.18	20.98	2.63	3.57	0.45	0.00	0.45	0.00	12.46	0.00	4,335	3,786	
3.2	thereof specialised lending	7,101	0.00	8.06	8.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,451	2,482	
3.3	thereof other	93,052	2.14	4.64	2.31	0.59	1.73	0.00	0.00	0.00	0.00	0.27	0.00	54,174	47,722	
4	Retail	151,992	1.79	48.85	48.77	0.04	0.04	0.45	0.00	0.45	0.00	0.00	0.00	22,507	22,277	
4.1	thereof secured by mortgages / SMEs	15,391	1.21	67.49	67.49	0.00	0.00	0.79	0.00	0.79	0.00	0.00	0.00	1,395	1,393	
4.2	thereof secured by mortgages / non-SMEs	78,156	1.37	70.71	70.71	0.00	0.00	0.37	0.00	0.37	0.00	0.00	0.00	6,876	6,875	
4.3	thereof qualifying revolving	12,132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,338	1,338	
4.4	thereof other / SME	21,128	3.13	16.64	16.06	0.30	0.28	0.63	0.00	0.63	0.00	0.00	0.00	5,759	5,536	
4.5	thereof other / non-SMEs	25,185	3.23	20.22	20.22	0.00	0.00	0.55	0.00	0.55	0.00	0.00	0.00	7,139	7,134	
5	Total	288,047	2.06	28.24	27.24	0.29	0.71	0.25	0.00	0.25	0.00	0.41	0.00	93,767	85,037	

Table EU CR8 below shows the changes in the RWA of credit risk exposures in the IRBA portfolio of Commerzbank Group between 31 March 2023 and 30 June 2023. The increase in credit risk in the second quarter was mainly due to anticipation of expected effects of model changes in connection with the IRB Repair programme set

up by banking regulators and a larger asset size as well as exchange rate effects (mainly PLN).

Table EU CR8 shows the information according to Article 438 h) CRR as at 30 June 2023:

EU CR8: RWA flow statements of credit risk exposures under the IRB approach

€m		a
		Risk-weighted exposure amount (RWA)
1	RWA as at the end of the previous reporting period	93,615
2	Asset size	1,114
3	Asset quality	-138
4	Model updates	0
5	Methodology and policy	1,200
6	Acquisitions and disposals	0
7	Foreign exchange movements	522
8	Other	56
9	RWA as at the end of the current reporting period	96,368

In the following we show the portfolios with the simple risk-weight approach. The technical implementation standards provide for a subdivision into Specialised lending: Project finance (slotting approach), Income-producing real estate and high volatility commercial real estate (slotting approach), object finance (slotting approach) as well as commodities finance (slotting approach) and

equity exposures under the simple risk-weighted approach. For Commerzbank only the special financing of real estate is relevant as part of the slotting approach, so only Table EU CR10.2 is shown.

Table EU CR10.2 shows the information referred to in Article 438e) CRR as at 30 June 2023:

EU CR10.2: Specialised lending: Income-producing real estate and high volatility commercial real estate (Slotting approach)

€m		a	b	c	d	e	f
Regulatory categories	Remaining maturity	On-balance-sheet amount	Off-balance-sheet amount	Risk weight	Exposure amount	RWAs	Expected loss
Category 1	Less than 2.5 years	12	0	0.5	12	6	0
	Equal to or more than 2.5 years	20	0	0.7	20	12	0
Category 2	Less than 2.5 years	419	198	0.7	481	294	2
	Equal to or more than 2.5 years	550	13	0.9	553	427	4
Category 3	Less than 2.5 years	69	22	1.15	76	78	2
	Equal to or more than 2.5 years	89	0	1.15	89	91	2
Category 4	Less than 2.5 years	0	0	2.5	0	0	0
	Equal to or more than 2.5 years	1	0	2.5	1	3	0
Category 5	Less than 2.5 years	143	0	-	143	0	71
	Equal to or more than 2.5 years	39	0	-	39	0	19
Total	Less than 2.5 years	643	220		711	377	75
	Equal to or more than 2.5 years	698	13		701	532	26

Loan loss provisions for default risks

The tables on loan loss provisions below show the gross carrying values of all risk positions in default and not in default in the IFRS categories AC and FVOCI, including the associated stock of credit risk adjustments, the credit risk adjustment charges in the first half of 2023 as well as the accumulated write-offs.

The gross carrying values for risk positions not in default also include loans that are past due by at least one day up to 90 days but are not defined as in default by virtue of the minimum threshold (1.0% of the limit or €100 in the retail business and €500 in the individual business).

Commerzbank's criterion for the definition of defaulted (impaired) claims is the definition of a default in accordance with article 178 CRR in connection with the corresponding EBA guideline and ECB directive. Pursuant to section 315a.1 of the German Commercial Code, Commerzbank Group issues consolidated financial statements based on International Financial Reporting Standards (IFRS). Credit risk mitigation techniques applicable to mitigate risks for the purpose of determining the capital requirement are not relevant for the determination of the claim amount in terms of accounting.

The following information is mainly broken down by risk position classes. The breakdown by country and industries is shown in tables CQ4 and CQ5. The following definitions are used:

- Pursuant to the criteria of the EBA (most recently confirmed in EBA/OP/2017/02), specific credit risk adjustments include the following positions:
 - The sum of Lifetime Expected Credit Loss (LECL) for significant claims in default, determined on the basis of individual cash flow estimates, taking into account various possible scenarios (loan loss provision stage 3 on-balance and off-balance, significant).
 - LECL for non-significant exposures in default, transaction-based determined on the basis of statistical risk parameters (stage 3 on balance and off balance, non-significant)

- LECL for on- and off-balance exposures not in default showing a significant increase in credit risk as according to IFRS9 (stage 2 on- and off-balance) and ECL for on- and off-balance exposures not in default and not showing a significant increase in credit risk as according to IFRS9 (stage 1 on- and off-balance).
- There are no general credit risk adjustments pursuant to the EBA's definition mentioned above.
- The column accumulated write-offs is the balance of write-ups and write-downs

The following section contains an overview of the total portfolio, which is subject to default from credit risk and various further evaluations according to the specifications of EBA ITS 2020/04.

Instruments with counterparty credit risk are not opposed to this chapter. The disclosure is carried out separately in the section default risk from counterparty credit risk.

The following tables also do not contain synthetic or true-sale securitisation positions of Commerzbank with a regulatory recognized risk transfer in accordance with Articles 244 and 245 of the CRR, nor do they contain any securitisation positions from the sponsor or investor business. These items are shown in the separate chapter securitisations.

The gross carrying value of the defaulted risk positions is at €5.9bn as at 30 June 2023 (December 2022: €5.9bn). Further information on this is given in the Interim Report as at 30 June 2023 in the chapter "Default risk". In addition to the loan loss provisions presented in the tables, the gross carrying values are also offset by collateral, which is taken into account accordingly in the calculation of the expected credit loss (specific credit risk adjustments).

The breakdown by gross carrying values reflects the Commerzbank Group's focus on Germany and selected markets throughout Europe. This means that the vast majority of the expected credit loss and the loan loss provisions, respectively, are attributable to borrowers based in these regions.

Commerzbank does not display table CQ7 on foreclosed assets, which is also required in the above-mentioned EBA guidelines, as it currently has no foreclosed assets in stock.

The following table EU CR1 shows the risk positions divided into performing and non-performing exposures, separated by the type of debt securities (Cash balances at central banks and other demand deposits, loans and advances, debt securities and off-balance

sheet exposure) and their counterparties as defined in Article 442 c) and f) CRR as at 30 June 2023:

EU CR1: Performing and non-performing exposures and related provisions

	Gross carrying amount / nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-offs	Collaterals and financial guarantees received		
	Performing Portfolio			Non-performing Portfolio			Performing Portfolio - accumulated impairment and provisions			Non-performing exposures - accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				On performing exposures	On non-performing exposures	
	thereof Stage 1	thereof Stage 2		thereof Stage 2	thereof Stage 3		thereof Stage 1	thereof Stage 2		thereof Stage 2	thereof Stage 3					
€m																
005	Cash balances at central banks and other demand deposits	83,239	83,239	0	589	0	589	0	0	0	-9	0	-9		0	0
010	Loans and advances	306,682	253,908	15,304	4,491	0	4,152	-1,138	-296	-840	-2,098	0	-2,022	-805	150,105	1,279
020	Central banks	7,038	1,739	0	0	0	0	-1	-1	0	0	0	0	0	6,789	0
030	Central governments	15,479	15,315	164	129	0	124	-2	-2	0	-2	0	-2	0	863	119
040	Credit institutions	34,931	17,260	585	29	0	28	-24	-10	-14	-18	0	-18	-1	20,878	6
050	Other financial corporations	25,970	11,678	288	19	0	19	-7	-4	-4	-10	0	-10	-6	16,061	1
060	Non-financial corporations	94,921	87,676	6,285	3,306	0	3,016	-620	-186	-433	-1,595	0	-1,531	-484	26,123	796
070	thereof SMEs	26,313	23,641	2,558	959	0	878	-227	-81	-144	-483	0	-478	-172	9,197	275
080	Households	128,343	120,241	7,982	1,008	0	966	-484	-94	-389	-473	0	-461	-313	79,390	358
090	Debt securities	86,740	83,219	719	36	0	36	-48	-28	-20	-6	0	-6	0	0	0
100	Central banks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	Central governments	29,477	27,740	585	0	0	0	-36	-17	-19	0	0	0	0	0	0
120	Credit institutions	17,916	17,482	123	0	0	0	-3	-3	-1	0	0	0	0	0	0
130	Other financial corporations	34,391	33,406	11	0	0	0	-2	-2	0	0	0	0	0	0	0
140	Non-financial corporations	4,956	4,591	0	36	0	36	-7	-7	0	-6	0	-6	0	0	0

	€m	Gross carrying amount / nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-offs	Collaterals and financial guarantees received	
		Performing Portfolio			Non-performing Portfolio			Performing Portfolio - accumulated impairment and provisions			Non-performing exposures - accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				On performing exposures	On non-performing exposures
		thereof Stage 1	thereof Stage 2		thereof Stage 2	thereof Stage 3		thereof Stage 1	thereof Stage 2		thereof Stage 2	thereof Stage 3				
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o		
Off-balance-sheet exposures	186,172	138,688	3,269	758	0	327	307	98	167		212	0	51		5,631	28
160 Central banks	0	0	0	0	0	0	0	0	0		0	0	0		293	0
170 Central governments	2,119	1,506	351	105	0	105	2	2	1		1	0	1		1	0
180 Credit institutions	8,289	1,974	39	2	0	0	9	1	1		1	0	0		786	0
190 Other financial corporations	9,756	6,929	74	0	0	0	3	2	1		0	0	0		492	0
200 Non-financial corporations	136,047	99,318	1,946	633	0	208	231	75	122		204	0	45		2,806	27
210 Households	29,961	28,961	859	18	0	14	61	18	42		6	0	5		1,253	1
220 Total	662,833	559,055	19,292	5,874	0	5,105	-1,493	-423	-1,027		-2,316	0	-2,078	-805	155,736	1,307

In accordance with the EBA risk Dash Board's guidance, Commerzbank's NPE rate as at 30 June 2023 was 1.1%.

In Table EU CR1-A, the net exposure value for loans and advances and debt securities is broken down by maturity according to Article 442 g) CRR as at 30 June 2023.

EU CR1-A: Maturity of exposures

€m		a	b	c			d	e	f
		Can be terminated at any time	<= 1 year	Net exposure values		> 5 years	No specified maturity	Total	
				> 1 year <= 5 years					
1	Loans and advances	33,318	51,177	50,316	159,427	0	294,237		
2	Debt securities	185	10,907	23,958	49,012	0	84,061		
3	Total	33,503	62,083	74,273	208,438	0	378,298		

Table EU CR2 shows the development of the stock of non-performing loans and advances required under Article 442 f) CRR as at 30 June 2023.

EU CR2: Changes in the stock of non-performing loans and advances

€m		a
		Exposure at Default
010	Initial stock of non-performing loans and advances	5,763
020	Inflows to non-performing portfolios	816
030	Outflows from non-performing portfolios	-118
040	Outflows due to write-offs	-199
050	Outflow due to other situations	-582
060	Final stock of non-performing loans and advances	5,681

The following table EU CQ1 shows the credit quality of forborne exposures according to Article 442 c) CRR as at 30 June 2023, broken down by the type of debt instruments and its counterparties. The quality is assessed based on the measures initiated – shown for

performing, defaulted and impaired exposures, as well as the provisions and the collateral, provide information on the quality of the forborne portfolio.

EU CQ1 Credit quality of forborne exposures

€m	a		b		c		d		e		f		g		h
	Gross carrying value of positions with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				Collaterals and financial guarantees received on forborne exposures						
	Performing Portfolio	Non-performing Portfolio			On performing exposures with forbearance measures		On non-performing exposures with forbearance measures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures						
			Of which defaulted	Of which impaired											
005	Cash balances at central banks and other demand deposits	0	0	0	0	0	0	0	0	0	0	0	0	0	
010	Loans and advances	1,686	1,670	1,670	1,670	–40	–860	1,057	460						
020	Central banks	0	0	0	0	0	0	0	0						
030	Central governments	0	0	0	0	0	0	0	0						
040	Credit institutions	0	0	0	0	0	0	0	0						
050	Other financial corporations	78	1	1	1	–3	0	12	1						
060	Non-financial corporations	1,200	1,434	1,434	1,434	–27	–788	693	354						
070	Households	408	235	235	235	–10	–72	352	106						
080	Debt securities	0	0	0	0	0	0	0	0						
090	Loan commitments given	326	236	236	236	7	55	16	8						
100	Total	2,012	1,906	1,906	1,906	–47	–915	1,073	468						

Table EU CQ4 shows the quality of the non-performing exposures by geography according to Article 442 c) and e) CRR as at 30 June 2023. The countries listed in the table account for more than 90% of Commerzbank's total exposure (both balance and off-balance sheet). The remaining countries are summarized in the line "others".

EU CQ4: Quality of non-performing exposures by geography

€m		a		c	e	f	g
		Gross carrying amount /nominal amount	Of which defaulted	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantee given	Accumulated negative changes in fair value due to credit risk on non- performing exposures	
010	On balance sheet exposures	397,949	4,527	-3,273			-17
020	Germany	214,769	2,034	-1,778			0
030	Poland	37,480	1,045	-737			-17
040	United Kingdom of Great Britain and Northern Ireland	19,770	0	-29			0
050	United States of America	15,430	8	-17			0
060	Italy	12,275	0	-23			0
070	Luxembourg	10,094	11	-21			0
080	Cayman Islands	9,641	7	-1			0
090	France	9,525	16	-4			0
100	Ireland	7,139	0	-1			0
110	Spain	5,286	7	-8			0
120	Czechia	5,123	59	-38			0
130	Netherlands	4,961	51	-18			0
140	Switzerland	4,846	48	-22			0
150	Other international organizations	4,067	0	0			0
170	Others	37,543	1,241	-576			0
180	Off balance sheet exposures	186,930	758		519		
190	Germany	107,084	449		357		
200	United States of America	16,636	0		7		
210	Poland	8,175	40		34		
220	France	7,804	61		4		
230	Switzerland	6,300	6		2		
240	United Kingdom of Great Britain and Northern Ireland	5,947	0		4		
250	Netherlands	5,539	0		24		
260	Spain	3,629	3		1		
270	Austria	3,021	0		1		
280	Italy	2,334	2		2		
290	Belgium	2,156	0		0		
340	Others	18,306	196		81		
350	Total	584,879	5,286	-3,273	519		-17

¹ The countries listed in the table cover more than 90 % of Commerzbank's total exposure (both balance sheet and off-balance sheet). The following countries are located in the lines "others": Canada, Austria, China, Japan, Belgium, Sweden, Singapore, Slovakia, Korea, Republic of, Australia, Portugal, Russian Federation, Norway, Finland, Egypt, Hong Kong, Turkey, Bangladesh, Brazil, Qatar, Nigeria, United Arab Emirates, Chile, India, Uzbekistan, Greece, Denmark, Angola, Bermuda, Turkmenistan, Côte d'Ivoire, Indonesia, Iraq, Ecuador. The remaining countries, each with less than 0.1 % of the total exposure, are not listed here for reasons of materiality.

Table EU CQ5 shows the credit quality of loans and advances by industries according to Article 442 c) and e) CRR as at 30 June 2023:

EU CQ5: Credit quality of loans and advances by industry

€m	a	b	c	d	e	f
	Gross carrying amount	of which: non-performing	Of which defaulted	of which: loans and advances subject to impairment	Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
010 Agriculture, forestry and fishing	684	17	17	591	-9	-0
020 Mining and quarrying	1,355	574	574	1,355	-208	-0
030 Manufacturing	33,019	1,214	1,214	32,382	-918	-1
040 Electricity, gas, steam and air conditioning supply	9,804	12	12	9,804	-45	-0
050 Water supply	1,863	8	8	1,855	-4	-0
060 Construction	2,976	114	114	2,964	-94	-1
070 Wholesale and retail trade	13,411	430	430	13,341	-300	-3
080 Transport and storage	6,096	126	126	6,090	-55	-1
090 Accommodation and food service activities	919	68	68	917	-30	-0
100 Information and communication	5,851	66	66	5,844	-38	-0
110 Real estate activities	12,377	376	376	12,354	-322	-5
120 Financial and insurance activities	0	0	0	0	0	0
130 Professional, scientific and technical activities	3,872	90	90	3,851	-75	-1
140 Administrative and support service activities	3,082	147	147	3,078	-37	-0
150 Public administration and defense, compulsory social security	15	0	0	15	-0	-0
160 Education	156	3	3	154	-3	-0
170 Human health services and social work activities	1,085	11	11	1,082	-25	-0
180 Arts, entertainment and recreation	512	5	5	510	-5	-0
190 Other services	1,152	45	45	1,082	-33	-1
200 Total	98,227	3,306	3,306	97,269	-2,201	-15

B. Credit Counterparty Risk

Counterparty credit risk (default risk from counterparty default risk) is defined as the risk of losses sustained or profits foregone due to the default of a counterparty in the context of a derivative or securities financing transaction. In addition to market price risks, derivative positions also give rise to default risks when a claim arises against the counterparty in the form of positive market values.

Commerzbank also looks at what is known as correlation risk (wrong way risk). This occurs when a counterparty's exposure and credit quality (rating) are negatively correlated. Wrong way risk is therefore an additional risk source, as the credit exposure is generally measured independently from the counterparty's creditworthiness. Commerzbank has a clear definition of specific and general wrong way risk. There are guidelines to assist in identifying and quantifying wrong way risk. They also set out how the

exposure must be adjusted to allow for the wrong way risk. In the case of secured transactions, the potential relationship between the performance of the collateral and the credit rating of the counterparty also has to be considered and captured according to the Commerzbank collateral matrix.¹

The derivative positions shown in the tables below do not include securitisation positions as defined in the CRR. These are shown in the securitisations chapter and in the disclosure report 2023. This means that interest rate and currency swaps or credit derivative transactions entered into with special-purpose securitisation companies are not included.

Table EU CCR1 shows the credit counterparty risk by approach according to Article 439 f), g), k) and m) CRR as at 30 June 2023:

¹ Although in a regulatory context wrong way risk is normally mentioned in connection with counterparty risk, Commerzbank also considers it in connection with issuer risk (e.g. between the issuer of a bond and the guarantor).

EU CCR1 Analysis of CCR exposure by approach

	€m	a	b	c	d	e	f	g	h
		Replace- ment cost (RC)	Potential future exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposur- e value pre-CRM	Exposu- re value post- CRM	Exposu- re value	RWAs
EU1	EU - Original Exposure Method (for derivatives)	0	0		1.4	0	0	0	0
EU2	EU - Simplified SA-CCR (for derivatives)	0	0		1.4	0	0	0	0
1	SA-CCR (for derivatives)	965	1,144		1.4	3,381	2,952	2,897	1,391
2	IMM (for derivatives and SFTs)			15,704	1.60	92,819	25,127	25,147	9,106
2a	Of which securities financing transactions			2,816		59,900	4,506	4,516	1,314
2b	Of which derivatives and long settlement transactions			12,888		32,919	20,621	20,631	7,793
2c	Of which from contractual cross-product netting			0		0	0	0	0
3	Financial collateral simple method (for SFTs)					0	0	0	0
4	Financial collateral comprehensive method (for SFTs)					19,963	2,085	3,096	780
5	VaR for SFTs					0	0	0	0
6	Total					116,162	30,163	31,140	11,277

Table EU CCR2 shows the own funds requirements for CVA risks, broken down by approach according to Article 439 h) CRR as at 30 June 2023:

EU CCR2 Transactions subject to own funds requirements for CVA risk

	€m	a	b
		Exposure value	RWAs
1	Total transactions subject to the Advanced method	9,508	1,384
2	(i) VaR component (including the 3x multiplier)		334
3	(ii) SVaR component (including the 3x multiplier)		1,050
4	Transactions subject to the Standardised method	1,191	638
EU4	Transactions subject to the Alternative approach (Based on the Original Exposure Method)	0	0
5	Total transactions subject to own funds requirements for CVA risk	10,699	2,022

Table EU CCR3 shows the allocation of credit counterparty risk in the standardized approach by exposure classes as defined in Articles 439 l) and 444 e) CRR as at 30 June 2023:

EU CCR3: Standardised approach – CCR exposures by regulatory exposure class and risk weights

	a	b	c	d	e	Risk weight						k	l
						0%	2%	4%	10%	20%	50%		
1 Central governments or central banks	1,533	0	0	0	5	0	0	0	0	0	0	0	1,538
2 Regional governments or local authorities	306	0	0	0	0	0	0	0	0	0	0	0	306
3 Public sector entities	537	0	0	0	19	0	0	0	0	0	0	0	556
4 Multilateral development banks	181	0	0	0	0	0	0	0	0	0	0	0	181
5 International organisations	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Institutions	0	815	219	0	1,796	531	0	0	0	0	0	0	3,361
7 Corporates	0	3,293	0	0	287	187	0	0	1,936	1	0	0	5,704
8 Retail	0	0	0	0	0	0	0	10	0	0	0	0	10
9 Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Other items	0	0	0	166	5	0	0	0	0	23	0	0	194
11 Total	2,557	4,108	219	166	2,113	718	0	10	1,936	24	0	0	11,851

Information by regulatory risk-weighting approach

Table EU CCR4 shows the credit counterparty risk according to exposure classes and PD scale according to Articles 439 l) and 452 g) CRR as at 30 June 2023:

EU CCR4: IRB approach – CCR exposures by exposure class and PD scale

	PD scale	a	b	c	d	e	f	g
		Exposure value €m	Average PD %	Number of obligors	Average LGD %	Average maturity ¹ years	RWAs €m	RWA density
Central governments or central banks	0.00 to < 0.15	119	0.07	15	99.98	1.2	41	34.1
	0.15 to < 0.25	0	0.18	2	100.00	0.4	0	54.3
	0.25 to < 0.50	25	0.37	5	100.00	0.3	22	86.2
	0.50 to < 0.75	1	0.64	2	100.00	1.7	2	160.3
	0.75 to < 2.50	1	2.25	4	100.00	1.0	3	234.8
	2.50 to < 10.00	3	7.26	9	100.00	0.6	10	345.2
	10.00 to < 100.00	0	59.42	4	100.00	1.0	1	286.5
	100.00 (Default)	0	0.00	0	0.00	0.0	0	0.0
	Subtotal	150	0.43	41	99.98	1.0	79	52.4
Institutions	0.00 to < 0.15	9,079	0.06	559	40.73	1.7	1,996	22.0
	0.15 to < 0.25	996	0.19	105	41.86	1.5	421	42.3
	0.25 to < 0.50	1,325	0.35	155	44.41	1.3	775	58.4
	0.50 to < 0.75	350	0.56	62	52.16	0.4	247	70.5
	0.75 to < 2.50	143	1.33	101	45.32	0.8	132	92.3
	2.50 to < 10.00	56	3.74	68	47.85	1.0	79	140.1
	10.00 to < 100.00	7	44.17	19	52.63	1.4	16	241.2
	100.00 (Default)	0	0.00	0	0.00	0.0	0	0.0
	Subtotal	11,956	0.18	1,069	41.67	1.6	3,665	30.7
Corporates	0.00 to < 0.15	3,361	0.04	857	40.61	1.4	748	22.3
	0.15 to < 0.25	4,172	0.18	769	36.34	1.1	1,473	35.3
	0.25 to < 0.50	2,007	0.34	1,338	39.07	1.4	1,001	49.9
	0.50 to < 0.75	762	0.57	733	39.12	1.3	456	59.8
	0.75 to < 2.50	749	1.12	1,102	40.43	1.3	605	80.7
	2.50 to < 10.00	238	3.78	392	41.37	1.0	324	136.1
	10.00 to < 100.00	56	19.44	52	41.00	1.1	110	196.1
	100.00 (Default)	12	100.00	48	42.58	1.2	8	63.4
	Subtotal	11,357	0.59	5,291	40.37	1.6	4,725	41.6
Retail	0.00 to < 0.15	91	0.04	1,448	47.05		6	6.6
	0.15 to < 0.25	20	0.20	197	51.34		4	20.9
	0.25 to < 0.50	15	0.35	326	49.09		4	28.0
	0.50 to < 0.75	6	0.55	197	50.58		2	37.1
	0.75 to < 2.50	8	0.97	308	52.19		5	62.8
	2.50 to < 10.00	11	3.85	230	52.94		9	77.3
	10.00 to < 100.00	2	50.11	19	49.25		2	103.5
	100.00 (Default)	0	100.00	9	40.42		0	62.5
	Subtotal	154	1.26	2,734	51.59		32	21.1
Total (all exposure classes)	23,617	0.39	9,135	42.17	1.8		8,501	36.0

¹ Parameter is not subject to the RWA calculation for retail business. Hence, in compliance with EBA/GL/2016/11, no disclosure for retail business.

Table EU CCR5 shows the composition of the collateral for the credit counterparty risk in accordance with Article 439 e) CRR as at 30 June 2023.

EU CCR5: Composition of collateral for CCR exposures

€m	Collateral used in derivative transactions				Collateral used in SFTs				
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received		Fair value of posted collateral		
	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	
1	Cash – domestic currency	0	16,449	5	15,942	0	106	0	99
2	Cash – other currencies	0	2,811	77	2,207	0	153	0	127
3	Domestic sovereign debt	26	2	0	79	0	8	0	0
4	Other sovereign debt	554	130	315	2,016	0	606	0	6,112
5	Government agency debt	0	0	14	27	0	0	0	1,992
6	Corporate bonds	7	326	320	458	0	2,669	0	5,631
7	Equity securities	2	0	0	0	0	257	0	1,714
8	Other collateral	0	0	0	0	0	0	0	0
9	Total	589	19,718	730	20,728	0	3,797	0	15,676

Table EU CCR6 shows a summary of credit derivatives for hedging by product as per Article 439 j) CRR as at 30 June 2023:

EU CCR6: Credit derivatives exposures

€m		a	b
		Protection bought	Protection sold
Notionals			
1	Single-name credit default swaps	6,016	2,742
2	Index credit default swaps	2,347	4,170
3	Total return swaps	3,191	77
4	Credit options	250	0
5	Other credit derivatives	0	0
6	Total notionals	11,804	6,989
Fair value			
7	Positive fair value (asset)	40	69
8	Negative fair value (liability)	-357	-9

The following table EU CCR7 shows the development of RWA by main driver of credit counterparty risk according to the internal model method (IMM) in the second quarter of 2023 in accordance

with Article 438 h) CRR. The decrease in RWA is mainly due to rating improvements of the counterparties as well as a reduction of the asset size.

EU CCR7: RWA flow statements of CCR exposures under the IMM

€m		a
		Risk-weighted assets (RWA)
1	RWA as at the end of the previous reporting period	9,836
2	Asset size	-258
3	Credit quality of counterparties	-460
4	Model updates (IMM only)	0
5	Methodology and policy (IMM only)	0
6	Acquisitions and disposals	0
7	Foreign exchange movements	6
8	Other	-16
9	RWA as at the end of the current reporting period	9,106

Table EU CCR8 shows the breakdown of risk positions by central counterparties as per Article 439 i) CRR as at 30 June 2023:

EU CCR8 Exposures to CCPs

€m		a	b
		Exposure value	RWAs
1	Exposures to QCCPs (total)		312.6
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	4,327	90.9
3	(i) OTC derivatives	965	23.7
4	(ii) Exchange-traded derivatives	2,440	48.8
5	(iii) SFTs	922	18.4
6	(iv) Netting sets where cross-product netting has been approved	0	0.0
7	Segregated initial margin	81	
8	Non-segregated initial margin	0	0.0
9	Prefunded default fund contributions	584	221.6
10	Unfunded default fund contributions	0	0.0
11	Exposures to non-QCCPs (total)		0.0
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	0	0.0
13	(i) OTC derivatives	0	0.0
14	(ii) Exchange-traded derivatives	0	0.0
15	(iii) SFTs	0	0.0
16	(iv) Netting sets where cross-product netting has been approved	0	0.0
17	Segregated initial margin	0	
18	Non-segregated initial margin	0	0.0
19	Prefunded default fund contributions	0	0.0
20	Unfunded default fund contributions	0	0.0

C. Securitisations

In securitisation business Commerzbank performs the three roles provided for in regulatory legislation, namely originator, sponsor and investor.

Parts of Commerzbank's own loan portfolio are placed selectively on the capital markets. In the reporting period, Commerzbank has placed a simple, transparent and standardised (STS) securitisation transaction with a volume of approximately €3.2bn. The underlying assets of this transaction are derived from its corporate lending business with medium sized business customers and large corporate customers mainly based in Germany and other European countries. mBank, the Polish subsidiary of Commerzbank, has placed one simple, transparent and standardised (STS) securitisation transaction with a volume of approximately €2bn. The underlying assets of this synthetic securitisation transaction belong to mBank and are derived from its corporate lending business with medium sized business customers and large corporate customers.

As sponsor Commerzbank takes over the structuring, arranging and securitising of receivables portfolios, particularly those of customers in the Corporate Clients segment. Commerzbank typically establishes special purpose vehicles (purchasing entities) to manage these assets. The ABS conduit Silver Tower S.A. Luxemburg established by the bank regularly acts as the purchasing entity. The refinancing of the purchases is generally done through the issuance of short-term registered notes.

Commerzbank invests in senior-ranking securitisation positions under its regulatory banking book.

Table EU SEC1 shows the securitisation exposures in the non-trading book, broken down by originator, sponsor and investor, according to Article 449 j) CRR as at 30 June 2023.

EU SEC1 Securitisation exposures in the non-trading book

€m		a		b		c		d		e			f			g			h		i		j		k		l		m		n		o	
		Institution acts as originator						Institution acts as sponsor						Institution acts as investor																				
		Traditional		Non-STS		Synthetic		Sub-total		Traditional		Synthetic		Sub-total		Traditional		Synthetic		Sub-total		Traditional		Synthetic		Sub-total		Traditional		Synthetic		Sub-total		
STSTS	of which SRT	Non-STS	of which SRT	Synthetic	of which SRT	Sub-total	STSTS	Non-STS	Synthetic	Sub-total	STSTS	Non-STS	Synthetic	Sub-total	STSTS	Non-STS	Synthetic	Sub-total	STSTS	Non-STS	Synthetic	Sub-total	STSTS	Non-STS	Synthetic	Sub-total	STSTS	Non-STS	Synthetic	Sub-total				
1	Total exposures	0	0	0	0	11,210	11,210	11,210	2,713	1,037	0	3,749	1,583	9,757	0	11,340																		
2	Retail (total)	0	0	0	0	0	0	0	0	0	0	0	1,418	2,081	0	3,499																		
3	residential mortgage	0	0	0	0	0	0	0	0	0	0	0	0	44	0	44																		
4	credit card	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
5	other retail exposures	0	0	0	0	0	0	0	0	0	0	0	1,418	2,037	0	3,455																		
6	re-securitisation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
7	Wholesale (total)	0	0	0	0	11,210	11,210	11,210	2,713	1,037	0	3,749	165	7,676	0	7,841																		
8	loans to corporates	0	0	0	0	11,210	11,210	11,210	70	98	0	168	0	7,378	0	7,378																		
9	commercial mortgage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
10	lease and receivables	0	0	0	0	0	0	0	2,643	939	0	3,582	165	298	0	463																		
11	other wholesale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
12	re-securitisation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		

According to Article 449 j) CRR the table EU SEC2 contains the securitisation positions in the trading book. As at 30 June 2023, Commerzbank had no trading book positions according to IFRS in stock.

Table EU SEC5 shows the amount of the specific credit risk adjustments and the exposures in default from originator and sponsor transactions according to Article 449 I) CRR as at 30 June 2023:

EU SEC5 Exposures securitised by the institution - Exposures in default and specific credit risk adjustments

€m		a	b	c
		Exposures securitised by the institution - Institution acts as originator or as sponsor		
		Total outstanding nominal amount	Of which exposures in default	Total amount of specific credit risk adjustments made during the period
1	Total exposures	14,959	182	1.12
2	Retail (total)	0	0	0.00
3	residential mortgage	0	0	0.00
4	credit card	0	0	0.00
5	other retail exposures	0	0	0.00
6	re-securitisation	0	0	0.00
7	Wholesale (total)	14,959	182	1.12
8	loans to corporates	8,791	173	1.07
9	commercial mortgage	0	0	0.00
10	lease and receivables	6,168	8	0.05
11	other wholesale	0	0	0.00
12	re-securitisation	0	0	0.00

D. Market risk

Market risk is the risk of potential financial losses due to changes in market prices (interest rates, commodities, credit spreads, exchange rates and equity prices) or in parameters that affect prices such as volatilities and correlations. Losses may impact profit or loss directly, e.g. in the case of trading book positions. However, for banking book positions they are generally reflected in the revaluation reserve or in hidden liabilities/reserves.

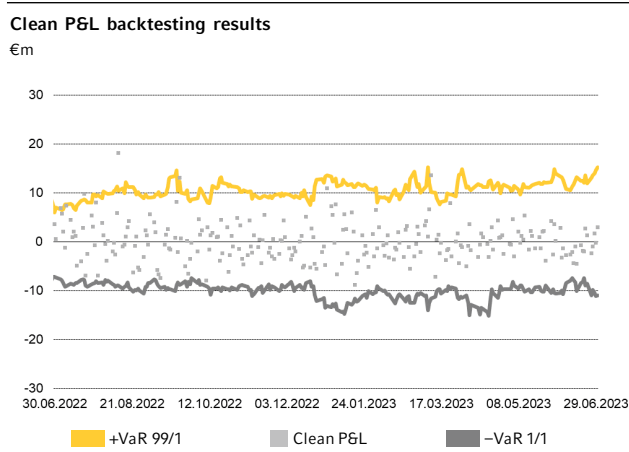
Details on risk management in the market risk area, in particular on strategy and organisation, risk control and fungibility and valuation of financial instruments, are given in the Disclosure Report as at 31 December 2022. Also, the internal model (historical simulation) which Commerzbank uses to perform VaR and stress test calculations, is described here.

The reliability of the internal model (historic simulation) is monitored in various ways, including by backtesting on a daily basis. The VaR calculated is set against actually occurring changes in the portfolio value (profits and losses). The process draws a distinction between backtesting of hypothetical changes in portfolio value (“clean P&L”) and backtesting of actual changes in portfolio value (“dirty P&L”). In the former, exactly the same positions in the income statement are used as were used for calculating the VaR. This means that the profits and losses result only from changes in market prices (hypothetical changes in the portfolio value). In dirty P&L backtesting, by contrast, profits and losses from newly concluded and expired transactions from the day under consideration are also included (actual profits and losses induced by portfolio value changes). Profits and losses from valuation adjustments and model reserves are factored into dirty and clean P&L according to the regulatory requirements.

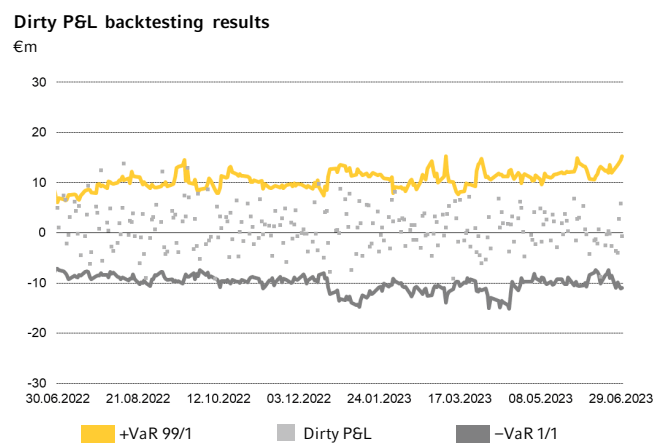
If the resulting loss exceeds the VaR, it is described as a negative backtesting outlier. Analysing the results of backtesting provides an informative basis for checking parameters and for potentially improving the market risk model. In the period from 30 June 2022 to 30 June 2023 no negative clean P&L and no negative dirty P&L outliers were recognized.

Backtesting is also used by the supervisory authorities for evaluating internal risk models. Negative outliers are classified by means of a traffic-light system laid down by the supervisory authorities. All negative backtesting outliers at Group level (from both clean P&L and dirty P&L) must be reported to the supervisory authorities, citing their extent and cause.

EU MR4: Comparison of VaR estimates with gains/losses (clean)



EU MR4: Comparison of VaR estimates with gains/losses (dirty)



Further information on the validation of the individual components of the internal model as well as on the further processing of the outcome in the respective committees are given in the Disclosure Report as at 31 December 2022.

Quantitative information on market risks

Pursuant to Article 92 (3) b) and c) CRR, adequate capital must be set aside for market risk positions. Commerzbank uses an internal market risk model to calculate the regulatory capital requirement. This affects both the equity price and interest rate-related risk positions in the trading book as well as the currency positions and commodity positions. The standardised approaches are applied for smaller units in the Commerzbank Group in accordance with the partial use option.

Development of market risk assets in the standard approach

The standard approach is essentially used to include the market risk positions of investments/subsidiaries in the calculation of capital requirements. The standardized approach represents 13 % of total market risk weighted assets as at 30 June 2023. Risk weighted assets for market risk exposures in the standardized approach increased by €520m to €810m in the first half of 2023. The increase was caused by changed regulatory requirements.

Table EU MR1 contains the RWA for market risks as per Article 445 CRR as at 30 June 2023.

EU MR1 Market risk under the standardised approach

€m		a
		RWAs
Outright products		
1	Interest rate risk (general and specific)	270
2	Equity risk (general and specific)	1
3	Foreign exchange risk	515
4	Commodity risk	0
Options		
5	Simplified approach	0
6	Delta-plus approach	24
7	Scenario approach	0
8	Securitisation (specific risk)	0
9	Total	810

Market risk in the internal model approach

The internal model accounted for 87 % of total market risk weighted assets as at 30 June 2023. Risk weighted assets for market risk positions in the internal model increased by €206m to €5,494m in the second quarter of 2023.

The increase in table MR2-B line 2c (IRC) results from hedging positions in the corporate clients division.

Table EU MR2-A contains the RWA for market risks based on internal models according to Article 455 e) CRR as at 30 June 2023:

EU MR2-A Market risk under the internal Model Approach (IMA)

€m		a	b
		RWAs	Own funds requirements
1	VaR (higher of values a) and b))	1,261	101
a)	Previous day's VaR (VaRt-1)		36
b)	Multiplication factor (mc) x average of previous 60 working days (VaRavg)		101
2	sVaR (higher of values a) and b))	3,209	257
a)	Latest available sVaR (sVaRt-1))		89
b)	Multiplication factor (ms) x average of previous 60 working days (sVaRavg)		257
3	IRC (higher of values a) and b))	1,025	82
a)	Most recent IRC measure		82
b)	12 weeks average IRC measure		72
4	Comprehensive risk measure (higher of values a), b) and c))	0	0
a)	Most recent risk measure of comprehensive risk measure		0
b)	12 weeks average of comprehensive risk measure		0
c)	Comprehensive risk measure Floor		0
5	Other	0	0
6	Total	5,494	440

The table EU MR2-B below shows the development of RWA by main market risk drivers according to the internal model-based approach (IMA) in the second quarter of 2023 according to Article 438 h) CRR.

The increase in total RWA in the second quarter of 2023 was mainly due to an increase in incremental risk charge due to new

hedging positions in the Corporate Clients segment. The decline in regulatory VaR is due to changes in Treasury positions and a closed underwriting position in the Corporate Clients segment. RWA from stressed VAR changed little in the second quarter.

EU MR2-B: RWA flow statements of market risk exposures under the IMA

€m	a	b	c	d	e	f	g	
	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWA	Total capital requirements	
1								
RWA as at the end of the previous reporting period	1,375	3,236	677	0	0	5,288	423	
1a	Regulatory adjustment	0	0	0	0	0	0	
1b								
RWA as at the end of the previous reporting period (end of the day)	1,375	3,236	677	0	0	5,288	423	
2	Movement in risk levels	-115	-22	319	0	0	182	15
3	Model updates/changes	1	-6	29	0	0	25	2
4	Methodology and policy	0	0	0	0	0	0	0
5	Acquisitions and disposals	0	0	0	0	0	0	0
6	Foreign exchange movements ¹	0	0	0	0	0	0	0
7	Other	0	0	0	0	0	0	0
8a								
RWA at the end of the reporting period (end of the day)	1,261	3,209	1,025	0	0	5,494	440	
8b	Regulatory adjustment	0	0	0	0	0	0	
8								
RWA as at the end of the current reporting period	1,261	3,209	1,025	0	0	5,494	440	

¹ Changes of RWA which are due to foreign exchange movements are reported under „Movement in risk levels“

Market risk in the trading book

Below, we show how the regulatory market risk ratios of the trading book portfolio developed. Most of Commerzbank's trading book positions derive from the Corporate Clients segment and Treasury division.

The value at risk (10 days 99 %) decreased by €7m at the end of the first half of 2023 to €36m. This is due to changes in positions in the Treasury and in the Corporate customers segment.

In the first half of 2023, the Stressed Var increased by €39m to €117m. This increase is mainly due to trading activities in emission certificates.

The incremental risk charge increased from €39m to €83m in the first half of 2023. This is mainly due to changes in positions in the Corporate customers segment and the Treasury.

Table EU MR3 shows the market risks in the trading book as per Article 455 d) CRR as at 30 June 2023:

EU MR3 IMA values for trading portfolios

€m	a
VaR (10 day 99%)	
1 Maximum value	49
2 Average value	35
3 Minimum value	24
4 Period end	36
sVaR (10 day 99%)	
5 Maximum value	117
6 Average value	87
7 Minimum value	74
8 Period end	117
IRC (99.9%)	
9 Maximum value	87
10 Average value	64
11 Minimum value	36
12 Period end	83
Comprehensive risk measure (99.9%)	
13 Maximum value	-
14 Average value	-
15 Minimum value	-
16 Period end	-

EU IRRBB1: Impact of supervisory interest rate shock scenarios

Supervisory shock scenarios €m	a		b		c		d	
	Changes of the economic value of equity		Changes of the net interest income					
	Current period	Last period	Current period	Last period	Current period	Last period	Current period	Last period
1 Parallel up	-2,035	-2,065	847	1,029				
2 Parallel down	1,047	1,220	-821	-1,553				
3 Steepener	-246	-217						
4 Flattener	-230	-241						
5 Short rates up	-708	-839						
6 Short rates down	338	429						

Interest rate risk in the banking book

The impact of an interest rate shock on the economic value of the Group's banking books is simulated monthly in compliance with regulatory requirements (according to EBA Guideline 2018/02 article 113- 115). In accordance with the Banking Directive, the Federal Financial Supervisory Authority (BaFin) and the European Central Bank (ECB) have prescribed – amongst others – six scenarios for sudden and unexpected changes in interest rates (parallel- as well as rotation scenarios under consideration of a lower interest rate limit) to be used by all banks, which have to report on the results of this stress test every quarter.

On this basis, the scenario „Parallel Up“ would give a potential loss of €2,035m as at 30 June 2023 compared to a potential loss of €2,065m as at 31 December 2022. As a result of the "Parallel down" scenario, a potential economic gain of €1,047m was calculated as at 30 June 2023 compared to a potential economic gain of €1,220m in the previous period. In principle, Commerzbank should not be classified as an institution with an increased interest rate risk, as the negative changes present value in relation to the regulatory parameters do not exceed the regulatory limits.

In addition, Commerzbank calculates and reports the Δ NII (Net interest income) according to regulatory requirements in the standard scenarios +/- 200 basis points (also considering a lower interest rate limit).

E. Liquidity risk

We define liquidity risk in a narrower sense as the risk that Commerzbank will be unable to meet its payment obligations on a day-to-day basis. In a broader sense, liquidity risk describes the risk that future payments cannot be funded for the full amount, in the required currency or at standard market conditions, as and when they are due.

Liquidity Coverage Ratio

The liquidity coverage ratio (LCR) is the regulatory minimum liquidity ratio. It is a measure of the near-term solvency of the Bank under a predetermined stress scenario. Based on the requirements of the Basel Committee, the EU Commission set out the legal foundation for the LCR in the Capital Requirements Regulation (CRR) and in Regulation (EU) No. 575/2013, in conjunction with Delegated Regulation EU/2015/61 (D-REG).

The ratio itself is defined as the relationship between high quality liquid assets (HQLA) and net liquidity outflows (NLOs) within a 30-day period. Commerzbank monitors the LCR as part of its daily liquidity risk calculation.

The Bank has established internal early warning indicators for the purpose of managing liquidity risk. These ensure that appropriate steps can be taken in good time to secure long-term financial solidity. Risk concentrations can lead to increased outflows of liquidity, particularly in a stress situation. They can, for example, occur with regard to maturities, large individual creditors or

currencies. By means of ongoing monitoring and reporting, emerging risk concentrations in funding can be recognised in a timely manner and mitigated through suitable measures. This also applies to payment obligations in foreign currencies. The Bank also mitigates concentrations through the continuous use of the broadly diversified sources of funding available to it, particularly in the form of diverse customer deposits and capital market instruments.

Commerzbank manages its global liquidity centrally using cash pooling. This approach ensures liquidity resources are used efficiently across all time zones, as Commerzbank Treasury units are located in Frankfurt, London, New York and Singapore.

Further information can be found in the Interim Management Report as at 30 June 2023 in the chapter “Funding and liquidity” from page 10 and in the liquidity risk section of the Interim Risk Report from page 28.

Liquidity Requirements

As required by Article 451a (2) CRR, Table EU LIQ1 shows the calculation of the LCR for the previous four quarters. The averages of the 12 previous month-end values of the liquid assets and their cash inflows and outflows and finally the liquidity buffer and the liquidity coverage ratio are calculated for each quarter and can be found in the tables below. The values are rounded to a full-million amount in euros and are presented on a consolidated basis for the Commerzbank Group.

EU LIQ1 Quantitative information of LCR – unweighted

		a	b	c	d
		Total unweighted value (average)			
EU 1a	€m % Quarter ending on	30.9.2022	31.12.2022	31.3.2023	30.6.2023
EU 1b	Number of data points used in the calculation of averages	12	12	12	12
High-quality liquid assets					
1	Total high-quality liquid assets (HQLA), after application of haircuts in line with Article 9 of regulation (EU) 2015/61				
Cash Outflows					
2	Retail deposits and deposits from small business customers, of which:	158,327	159,821	161,284	162,137
3	Stable deposits	110,667	110,456	110,362	110,553
4	Less stable deposits	40,021	41,611	42,620	42,386
5	Unsecured wholesale funding	127,572	131,996	134,255	134,917
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	41,841	42,262	41,198	39,799
7	Non-operational deposits (all counterparties)	85,201	89,258	92,670	94,805
8	Unsecured debt	530	476	387	313
9	Secured wholesale funding				
10	Additional requirements	87,523	87,060	86,848	86,013
11	Outflows related to derivative exposures and other collateral requirements	6,280	6,390	6,517	6,414
12	Outflows related to loss of funding on debt products	204	115	193	197
13	Credit and liquidity facilities	81,038	80,555	80,138	79,402
14	Other contractual funding obligations	2,605	2,776	2,822	2,764
15	Other contingent funding obligations	102,912	104,148	104,981	105,977
16	Total cash outflows				
Cash Inflows					
17	Secured lending (e.g. reverse repos)	37,282	38,702	40,852	42,025
18	Inflows from fully performing exposures	21,772	22,894	23,000	22,604
19	Other cash inflows	8,640	7,134	5,130	3,221
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)				
EU-19b	(Excess inflows from a related specialised credit institution)				
20	Total cash inflows	67,695	68,728	68,982	67,850
EU-20a	Fully exempt inflows	0	0	0	0
EU-20b	Inflows subject to 90% cap	0	0	0	0
EU-20c	Inflows subject to 75% cap	64,834	65,756	65,745	64,136
Total Adjusted Value					
EU-21	Liquidity buffer				
22	Total net cash outflows				
23	Liquidity coverage ratio (%)				

EU LIQ1 Quantitative information of LCR – weighted

		a	b	c	d
		Total weighted value (average)			
EU 1a	€m % Quarter ending on	30.9.2022	31.12.2022	31.3.2023	30.6.2023
EU 1b	Number of data points used in the calculation of averages	12	12	12	12
High-quality liquid assets					
1	Total high-quality liquid assets (HQLA), after application of haircuts in line with Article 9 of regulation (EU) 2015/61	104,144	113,227	118,336	120,430
Cash Outflows					
2	Retail deposits and deposits from small business customers, of which:	9,837	10,039	10,229	10,303
3	Stable deposits	5,533	5,523	5,518	5,528
4	Less stable deposits	4,303	4,516	4,711	4,775
5	Unsecured wholesale funding	62,526	66,050	67,555	67,792
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	10,435	10,541	10,276	9,927
7	Non-operational deposits (all counterparties)	51,561	55,032	56,893	57,551
8	Unsecured debt	530	476	387	313
9	Secured wholesale funding	3,868	3,782	4,057	5,508
10	Additional requirements	17,024	16,921	17,099	16,898
11	Outflows related to derivative exposures and other collateral requirements	5,766	5,812	5,900	5,795
12	Outflows related to loss of funding on debt products	204	115	193	197
13	Credit and liquidity facilities	11,053	10,994	11,005	10,905
14	Other contractual funding obligations	1,919	2,094	2,144	2,137
15	Other contingent funding obligations	5,030	5,338	4,841	4,415
16	Total cash outflows	100,203	104,222	105,924	107,052
Cash Inflows					
17	Secured lending (e.g. reverse repos)	1,019	1,009	1,081	1,319
18	Inflows from fully performing exposures	15,407	15,981	16,009	15,786
19	Other cash inflows	8,559	7,098	5,108	3,200
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)	0	0	0	0
EU-19b	(Excess inflows from a related specialised credit institution)	0	0	0	0
20	Total cash inflows	24,985	24,089	22,198	20,305
EU-20a	Fully exempt inflows	0	0	0	0
EU-20b	Inflows subject to 90% cap	0	0	0	0
EU-20c	Inflows subject to 75% cap	24,985	24,089	22,198	20,305
Total Adjusted Value					
EU-21	Liquidity buffer	104,144	113,227	118,336	120,430
22	Total net cash outflows	75,218	80,133	83,727	86,748
23	Liquidity coverage ratio (%)	138.0%	141.1%	141.3%	138.8%

The average quarterly LCR values have been consistently high. As at each of the reporting dates, Commerzbank considerably surpassed the required minimum ratio of 100%. The composition of

the highly liquid assets available to cover the liquidity outflows in the reporting period is set out below:

addLIQ: Highly liquid assets in accordance with EU/2015/61

Average of the last 12 month-end values €m	30.9.2022	31.12.2022	31.3.2023	30.6.2023
Total	104,144	113,227	118,336	120,430
thereof: Level 1	98,732	107,652	112,022	114,182
thereof: Level 2A	4,993	5,266	5,985	5,911
thereof: Level 2B	420	309	329	336

Commerzbank also reports the LCR in US dollars and Polish zloty (PLN), as these are deemed to be significant foreign currencies under the CRR. In addition, the Bank ensures that foreign-exchange risk is monitored as well as limited and managed using an internal model.

When calculating the LCR, the bank takes into account the liquidity inflows and outflows for derivatives over the next 30 days. When standardised master agreements are involved, the liquidity inflows and outflows are calculated on a net basis. Commerzbank also considers further items that could lead to additional outflows of liquidity. These items include variation margins for changes in the value of securities pledged as collateral and, in the event of a possible deterioration in credit rating, additional collateral furnished because of adverse market scenarios for derivatives transactions. For other contingent liabilities, since June 2019 Commerzbank has used additional outflows in accordance with Article 23 of Commission Delegated Regulation (EU) 2015/61.

In addition, there are no other items in the LCR calculation in Commerzbank that are not included in the LCR disclosure template but are considered relevant to the liquidity profile.

Net Stable Funding Ratio

Based on Regulation (EU) 2019/876 of 20 May 2019 (amendment of Regulation (EU) 575/2013) the Net stable funding ratio (NSFR) is the regulatory defined Structural liquidity ratio and was introduced as at 30 June 2021.

It sets the requirement of stable refinancing as a ratio of the amount of the available stable refinancing and the amount of the required stable refinancing over a one-year horizon.

The quota itself is defined as the ratio of the weighted available stable refinancing and the necessary weighted stable refinancing. The minimum quota is 100%.

The NSFR as at 30 June 2023 underlines the solid funding position of Commerzbank Group. It reflects the customer-focused business model of Commerzbank Group with a high contribution to the ASF from customer deposits. The main share of the RSF results from the loan business, and the main share of the ASF results from customer deposits.

Table EU LIQ2 shows the information on the Net Stable Funding Ratio as at 30 June 2023 according to Article 451a (3) CRR. These include items of the available stable funding (ASF) as well as items of the required stable funding (RSF).

EU LIQ2 Net Stable Funding Ratio

€m		Unweighted value by residual maturity				Weighted value
		a No maturity	b < 6 months	c 6 months to < 1 year	d ≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	31,067	42	0	5,405	36,472
2	Own funds	31,067	42	0	4,705	35,772
3	Other capital instruments		0	0	700	700
4	Retail deposits		157,173	2,246	4,389	153,774
5	Stable deposits		116,669	1,509	3,023	115,291
6	Less stable deposits		40,505	737	1,366	38,483
7	Wholesale funding:		216,138	11,074	50,345	114,968
8	Operational deposits		34,591	0	0	1,539
9	Other wholesale funding		181,548	11,074	50,345	113,429
10	Interdependent liabilities		3,633	832	11,676	0
11	Other liabilities:	0	10,465	225	18,042	18,155
12	NSFR derivative liabilities	0				
13	All other liabilities and capital instruments not included in the above categories		10,465	225	18,042	18,155
14	Total available stable funding (ASF)					323,369
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)					6,859
EU-15a	Assets encumbered for a residual maturity of one year or more in a cover pool		3	0	31,959	27,167
16	Deposits held at other financial institutions for operational purposes		214	0	0	107
17	Performing loans and securities:		103,111	15,270	196,526	193,058
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut		34,762	645	3,617	3,943
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions		18,716	1,666	9,527	11,778
20	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:		39,903	7,857	69,812	135,919
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		826	359	12,228	52,214
22	Performing residential mortgages, of which:		3,615	2,994	67,568	0
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		3,128	2,528	54,893	0
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products		6,114	2,107	46,001	41,418

€m		Unweighted value by residual maturity				Weighted value
		a No maturity	b < 6 months	c 6 months to < 1 year	d ≥ 1 year	
25	Interdependent assets		3,633	832	11,676	0
26	Other assets		24,485	458	15,382	20,033
27	Physical traded commodities				100	85
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		307	0	4,418	4,016
29	NSFR derivative assets		1,493			1,493
30	NSFR derivative liabilities before deduction of variation margin posted		8,026			401
31	All other assets not included in the above categories		14,660	458	10,864	14,037
32	Off-balance sheet items		113,617	16,936	58,774	10,641
33	Total RSF					257,865
34	Net Stable Funding Ratio (%)					125.4

Appendix

Environmental, social and governance (ESG) risks pursuant to Article 449a CRR

Information on environmental, social and governance (ESG) risks pursuant to Article 449a CRR can be found in Annex. Further information on sustainability can also be found in our comprehensive sustainability reporting in accordance with international standards

(e.g. TCFD, GRI) and the ESG framework of Commerzbank in the Sustainability Portal on the Commerzbank internet pages under Commerzbank, Investor Relations, Sustainability.

Verzeichnis der Anhänge

Annex: [Information on ESG according to Article 449a CRR](#)

List of abbreviations

ABS	Asset-backed Securities	IMM	Internal Model Method
AC	Amortised Cost	IRBA	Internal Ratings Based Approach
A-IRB	Advanced Internal Ratings Based Approach	IRC	Incremental Risk Charge
ASF	Available stable funding	ITS	Implementing Technical Standards
AT1	Additional Tier 1 Capital	KWG	Kreditwesengesetz / German Banking Act
CCF	Credit Conversion Factor	LCR	Liquidity Coverage Ratio
CCP	Central Counterparty	LECL	Lifetime Expected Credit Loss
CCR	Counterparty Credit Risk	LGD	Loss Given Default
CCyB	Countercyclical Capital Buffer	LR	Leverage Ratio
CET1	Common Equity Tier 1 Capital	NII	Net Interest Income
CRD	Capital Requirements Directive	NLO	Net Liquidity Outflows
CRM	Credit Risk Mitigation	NPE	Non-performing exposure
CRR	Capital Requirements Regulation	NSFR	Net Stable Funding Ratio
CVA	Credit Value Adjustments	PD	Probability of Default
EaD	Exposure at Default	PFE	Potential future exposure
EBA	European Banking Authority	QCCP	Qualifying Central Counterparty
ECB	European Central Bank	RSF	Required stable funding
ECL	Expected Credit Loss	RWA	Risk Weighted Assets
EEPE	Effective Expected Positive Exposure	SA	Standardised Approach
ESG	Environment, Social, Governance Risk	SACR	Standardised Approach to Credit Risk
F-IRB	Foundation Internal Ratings Based Approach	SFT	Securities Financing Transactions
FVOCI	Fair Value through Other Comprehensive Income	SME	Small and medium-sized enterprises
GRI	Global Reporting Initiative	SREP	Supervisory Review and Evaluation Process
HQLA	High-quality Liquid Assets	STS	simple, transparent, standardised
IFRS	International Financial Reporting Standards	sVaR	stressed Value-at-Risk
IAA	Internal Assessment Approach	T2	Tier 2 Capital
IMA	Internal Model Approach	TCFD	Task Force on Climate-related Financial Disclosures
		VaR	Value-at-Risk

Disclaimer

Commerzbank's internal risk measurement methods and models which form the basis for the calculation of the figures shown in this report are state-of-the-art and based on banking sector practice. The risk models produce results appropriate to the management of the Bank. The measurement approaches are regularly reviewed by risk control and internal audit and the German and European supervisory authorities. Despite being carefully developed and regularly monitored, models cannot cover all the influencing factors that have an impact in reality or illustrate their complex behaviour and interactions. These limits to risk modelling apply particularly in extreme situations. Supplementary stress tests and scenario analyses can only show examples of the risks to which a portfolio may be exposed in extreme market situations. However, stress testing all imaginable scenarios is not feasible. Stress tests cannot offer a final estimate of the maximum loss should an extreme event occur.

The interpretations with regard to CRR/CRD rules and Securitisation Regulation are still ongoing. Therefore requirements for adjustment may occur due, for example, to modified interpretations in the course of the Q&A-process with EBA or due to new binding Technical Standards or guidelines. Against this background we will continue to refine our methods and models in line with the interpretation of the rules. Thus, our measures may not be comparable with previously published measures and our competitors' measures published may differ from ours.

This Disclosure Report contains forward-looking statements on Commerzbank's business and earnings performance, which are based upon our current plans, estimates, forecasts and expectations. The statements entail risks and uncertainties, as there are a variety of factors that influence our business and to a great extent lie beyond our sphere of influence. Above all, these include the economic situation, the state of the financial markets worldwide and possible loan losses. Actual results and developments may, therefore, diverge considerably from our current assumptions, which, for this reason, are valid only at the time of publication. We undertake no obligation to revise our forwardlooking statements in the light of either new information or unexpected events.

The German version of this Disclosure Report is the authoritative version.

For ease of reading only the masculine form is used to refer to people. This always refers to people of any gender identity.



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