



Pillar 3 Report as of June 30, 2023

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Regulatory framework

Basis of Presentation

Article 431 (1), (2) CRR, 433 CRR and 433a CRR

This Pillar 3 Report provides disclosures for the consolidated Deutsche Bank Group (the Group or the bank) as required by the global regulatory framework for capital and liquidity, which was established by the Basel Committee on Banking Supervision, also known as Basel 3.

In the European Union (EU), the Basel 3 framework is implemented by the amended versions of Regulation (EU) 575/2013 on prudential requirements for credit institutions (Capital Requirements Regulation or CRR) and the Directive (EU) 2013/36 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms (Capital Requirements Directive or CRD). As a single rulebook, the CRR is directly applicable to credit institutions in the European Union and provides the grounds for the determination of regulatory capital requirements, regulatory own funds, leverage and liquidity as well as other relevant requirements. In addition, the CRD was implemented into German law by means of further amendments to the German Banking Act (Kreditwesengesetz or KWG) and the German Solvency Regulation (SolV) and accompanying regulations. Jointly, these laws and regulations represent the regulatory framework applicable in Germany.

The disclosure requirements are provided in Part Eight of the CRR and in Section 26a of the KWG. Further disclosure guidance has been provided by the European Banking Authority (EBA) in its "Final draft implementing technical standards on public disclosures by institutions of the information referred to in Titles II and III of Part Eight of Regulation (EU) No 575/2013" (EBA ITS). The Group adheres to the frequency of disclosure requirements as per Article 433 and 433a of the CRR and as provided within these EBA Guidelines and includes comparative periods in accordance with the requirements of EBA ITS. For those disclosures required only on an annual basis, the comparative period is the prior year. For those disclosures only required on a semi-annual basis, the comparative period is the prior half-year. Disclosures required on a quarterly basis generally include comparative information for prior quarter.

The information provided in this Pillar 3 Report is unaudited. Numbers presented throughout this document may not add up precisely to the totals and percentages may not precisely reflect the absolute figures due to rounding.

Basel 3 and CRR/CRD

The CRR/CRD lays the foundation for the calculation of the minimum regulatory requirements with respect to own funds and eligible liabilities, the liquidity coverage ratio and the net stable funding ratio.

There is still uncertainty as to how some of the CRR/CRD rules should be interpreted and there are still related binding Technical Standards for which a final version is not yet available. Thus, the Group will continue to refine assumptions and models in line with evolution of these regulations as well as the industry's understanding and interpretation of the rules. Against this background, current CRR/CRD measures may not be comparable to previous expectations. Also, CRR/CRD measures may not be comparable with similarly labeled measures used by competitors, as their assumptions and estimates may differ from Deutsche Bank's.

MREL and TLAC

Banks in the European Union are required to meet at all times a minimum requirement for own funds and eligible liabilities which ensures that banks have sufficient loss absorbing capacity in resolution to avoid recourse to taxpayers' money. Relevant laws are the Single Resolution Mechanism Regulation (SRMR) and the Bank Recovery and Resolution Directive (BRRD) as implemented through the German Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz, SAG).

In addition, the CRR requires G-SIIs in Europe to have at least the maximum of 18% plus the combined buffer requirement of RWA and 6.75% of leverage exposure as total loss absorbing capacity.

Instruments which qualify for MREL and TLAC as own funds are Common Equity Tier 1, Additional Tier 1 and Tier 2 along with certain eligible liabilities (mainly plain-vanilla unsecured bonds). Instruments qualifying for TLAC need to be fully subordinated to general creditor claims (e.g., senior non-preferred bonds). While this is not required for MREL, MREL

regulations allow the Single Resolution Board (SRB) to also set an additional subordination requirement within the MREL requirements (but separate from TLAC), which allows only subordinated liabilities and own funds to be counted.

MREL is determined by the competent resolution authorities for each supervised bank and its preferred resolution strategy. In the case of Deutsche Bank AG, MREL is determined by the SRB. While there is no statutory minimum level of MREL, the CRR, SRMR, BRRD and delegated regulations set out criteria which the resolution authority must consider when determining the relevant required level of MREL. Guidance is provided through an MREL policy published annually by the SRB. Any binding MREL ratio determined by the SRB is communicated to Deutsche Bank via the German Federal Financial Supervisory Authority (BaFin). Deutsche Bank AG received its current total MREL and current subordinated MREL requirement with immediate applicability in the second quarter of 2023.

ICAAP, ILAAP and SREP

The internal capital adequacy assessment process (ICAAP) as stipulated in Pillar 2 of Basel 3 requires banks to identify and assess risks, to apply effective risk management techniques and to maintain adequate capitalization. The Group's internal liquidity adequacy assessment process (ILAAP) aims to ensure that sufficient levels of liquidity are maintained on an ongoing basis by identifying the key liquidity and funding risks to which the Group is exposed, by monitoring and measuring these risks, and by maintaining tools and resources to manage and mitigate these risks.

In accordance with Article 97 CRD supervisors regularly review, as part of the supervisory review and evaluation process (SREP), the arrangements, strategies, processes, and mechanisms implemented by banks and evaluate: (a) risks to which the institution is or might be exposed; (b) risks the institution poses to the financial system; and (c) risks revealed by stress testing.

Key metrics

Article 447 (a-g) and Article 438 (b) CRR

The following table highlights Deutsche Bank's key regulatory metrics and ratios, and related input components as defined by CRR and CRD. In line with disclosure requirements the Liquidity Coverage Ratio is based on 12 months rolling averages and the other metrics are based on spot information.

EU KM1 – Key metrics

	a	b	c	d	e	
in € m. (unless stated otherwise)	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022	Jun 30, 2022	
Available own funds (amounts)						
1	Common Equity Tier 1 (CET 1) capital	49,348	48,926	48,097	49,202	47,932
2	Tier 1 capital	57,676	57,254	56,616	56,470	55,201
3	Total capital	66,720	66,512	66,146	66,706	65,246
Risk weighted exposure amounts						
4	Total risk-weighted exposure amount	358,785	359,534	360,003	369,210	369,970
Capital ratios (as percentage of risk-weighted exposure amount)						
5	Common Equity Tier 1 ratio (%)	13.8	13.6	13.4	13.3	13.0
6	Tier 1 ratio (%)	16.1	15.9	15.7	15.3	14.9
7	Total capital ratio (%)	18.6	18.5	18.4	18.1	17.6
Additional own funds requirements based on SREP (as a percentage of risk-weighted exposure amount)						
EU 7a	Additional own funds requirements to address risks other than the risk of excessive leverage (%)	2.7	2.7	2.5	2.5	2.5
of which:						
EU 7b	to be made up of CET 1 capital (percentage points)	1.5	1.5	1.4	1.4	1.4
EU 7c	to be made up of Tier 1 capital (percentage points)	2.0	2.0	1.9	1.9	1.9
EU 7d	Total SREP own funds requirements (%)	10.7	10.7	10.5	10.5	10.5
Combined buffer requirement (as a percentage of risk-weighted exposure amount)						
8	Capital conservation buffer (%)	2.5	2.5	2.5	2.5	2.5
EU 8a	Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)	0.0	0.0	0.0	0.0	0.0
9	Institution specific countercyclical capital buffer (%)	0.42	0.38	0.07	0.03	0.02
EU 9a	Systemic risk buffer (%)	0.2	0.2	0.0	0.0	0.0
10	Global Systemically Important Institution buffer (%)	1.5	1.5	1.5	1.5	1.5
EU 10a	Other Systemically Important Institution buffer (%)	2.0	2.0	2.0	2.0	2.0
11	Combined buffer requirement (%)	5.1	5.1	4.6	4.5	4.5
EU 11a	Overall capital requirements (%)	15.8	15.8	15.1	15.0	15.0
12	CET 1 available after meeting the total SREP own funds requirements (%)	7.7	7.6	7.5	7.4	7.0
	CET 1 available after meeting the total SREP own funds requirements	27,754	27,286	26,834	27,395	26,066
Leverage ratio						
13	Leverage ratio total exposure measure	1,236,042	1,237,814	1,240,483	1,309,900	1,279,798
14	Leverage ratio (%)	4.7	4.6	4.6	4.3	4.3
Additional own funds requirements to address risks of excessive leverage (as a percentage of leverage ratio total exposure amount)						
EU 14a	Additional own funds requirements to address the risk of excessive leverage (%)	0.0	0.0	0.0	0.0	0.0
of which: to be made up of CET 1 capital						
EU 14b	(percentage points)	0.0	0.0	0.0	0.0	0.0
EU 14c	Total SREP leverage ratio requirements (%)	3.0	3.0	3.0	3.0	3.0
Leverage ratio buffer and overall leverage ratio requirement (as a percentage of total exposure measure)						
EU 14d	Leverage ratio buffer requirement (%)	0.75	0.75	0.00	0.00	0.00
EU 14e	Overall leverage ratio requirements (%)	3.75	3.75	3.00	3.00	3.00
Liquidity Coverage Ratio						
15	Total high-quality liquid assets (HQLA) (Weighted value - average)	216,732	218,535	217,925	217,686	215,480
EU 16a	Cash outflows - Total weighted value	215,359	218,746	220,132	217,308	214,162
EU 16b	Cash inflows - Total weighted value	55,834	57,603	58,887	57,625	56,978
16	Total net cash outflows (adjusted value)	159,525	161,143	161,245	159,683	157,184
17	Liquidity coverage ratio (%)	136	136	135	136	137
Net Stable Funding Ratio						
18	Total available stable funding	592,094	594,721	605,783	606,353	598,440
19	Total required stable funding	495,503	496,579	506,698	521,760	513,910
20	NSFR ratio (%)	119	120	120	116	116

Key metrics of own funds and eligible liabilities

Article 447 (h) CRR and Article 45i(3)(a,c) BRRD

EU KM2 – Key metrics - MREL and G-SII Requirement for own funds and eligible liabilities (TLAC)

in € m. (unless stated otherwise)	Minimum requirement for own funds and eligible liabilities (MREL)		G-SII Requirement for own funds and eligible liabilities (TLAC)		d	e	f	
	a	Mar 31, 2023	b	c				
	Jun 30, 2023	Mar 31, 2023	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022	Jun 30, 2022	
Own funds and eligible liabilities, ratios and components								
1	Own funds and eligible liabilities	121,281	126,850	114,370	118,800	115,907	118,585	114,690
EU 1a	Own funds and subordinated liabilities	114,370	118,800	–	–	–	–	–
2	Total risk exposure amount of the resolution group (TREA)	358,785	359,534	358,785	359,534	360,003	369,210	369,970
3	Own funds and eligible liabilities as percentage of TREA	33.80	35.28	31.88	33.04	32.20	32.12	31.00
	of which:							
EU 3a	Own funds and subordinated liabilities	31.88	33.04	–	–	–	–	–
4	Total exposure measure of the resolution group (TEM)	1,236,042	1,237,814	1,236,042	1,237,814	1,240,483	1,309,900	1,279,798
5	Own funds and eligible liabilities as percentage of TEM	9.81	10.25	9.25	9.60	9.34	9.05	8.96
	of which:							
EU 5a	Own funds and subordinated liabilities	9.25	9.60	–	–	–	–	–
6a	Does the subordination exemption in Article 72b(4) of the CRR apply? (5% exemption)	–	–	no	no	no	no	no
6b	Pro-memo item - Aggregate amount of permitted non-subordinated eligible liabilities instruments if the subordination discretion as per Article 72b(3) CRR is applied (max 3.5% exemption)	–	–	0	0	0	0	0
6c	Pro-memo item: If a capped subordination exemption applies under Article 72b (3) CRR, the amount of funding issued that ranks pari passu with excluded liabilities and that is recognized under row 1, divided by funding issued that ranks pari passu with excluded Liabilities and that would be recognized under row 1 if no cap was applied (%)	–	–	0	0	0	0	0
Minimum requirement for own funds and eligible liabilities (MREL)								
EU 7	MREL requirement expressed as percentage of the TREA	30.33	29.97	–	–	–	–	–
	of which:							
EU 8	to be met with own funds or subordinated liabilities	24.66	25.36	–	–	–	–	–
EU 9	MREL requirement expressed as percentage of TEM	6.92	7.01	–	–	–	–	–
	of which:							
EU 10	to be met with own funds or subordinated liabilities	6.92	7.01	–	–	–	–	–

As of June 30, 2023 the MREL ratio was 33.80% of Total Risk Exposure Amount (TREA) compared to a requirement of 30.33% of TREA including the 5.12% combined buffer requirement, equaling a surplus of € 12.5 billion above the bank's MREL requirement. The subordinated MREL ratio was 31.88% of TREA compared to a requirement of 24.66% of TREA including the 5.12% combined buffer requirement. The subordinated MREL surplus is € 25.9 billion.

As of June 30, 2023 the TLAC ratio was 31.88% of TREA compared to a requirement of 23.12% including the 5.12% combined buffer requirement, resulting in a surplus of € 31.4 billion. TLAC was 9.25% of TEM compared to a requirement of 6.75%, which corresponds to a surplus of € 30.9 billion.

Capital

Development and composition of Own Funds

Article 437 (a, d-f) CRR

The own funds capital ratios provided for Deutsche Bank Group are defined by CRR regulations. Deutsche Bank's total regulatory capital as of June 30, 2023, amounted to € 66.7 billion compared to € 66.1 billion at the end of December 31, 2022. The Group's Tier 1 capital as of June 30, 2023, amounted to € 57.7 billion, consisting of a Common Equity Tier 1 (CET 1) capital of € 49.3 billion and Additional Tier 1 (AT1) capital of € 8.3 billion. The Tier 1 capital was € 1.1 billion higher than at the end of December 31, 2022, driven by an increase in CET 1 capital of € 1.3 billion, which is partially offset by a decrease in AT1 capital of € 0.2 billion.

The CET1 capital increase by € 1.3 billion compared to year end 2022 was mainly the result of net profit of € 2.2 billion for the first half of the year 2023, partially offset by regulatory deductions for future common share dividends and AT1 coupon payments of € 0.5 billion in line with the ECB Decision (EU) (2015/656) on the recognition of interim or year-end profits in CET1 capital in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4). In addition, CET1 capital increased as a result of positive impacts from € 0.3 billion unrealized gains and losses from financial instruments at fair value through other comprehensive income (mainly stemming from € 0.2 billion reduced unrealized net losses on securities available for sale and € 0.1 billion reduced unrealized net losses on cash flow derivatives hedging). These positive impacts were partly offset by € 0.2 billion related to deductions for defined benefit pension fund assets and € 0.1 billion capital deductions based on ECB guidance on irrevocable payment commitments related to the Single Resolution Fund and the Deposit Guarantee Scheme. Additionally, CET 1 capital decreased due to currency translation adjustments of € 0.5 billion net of foreign exchange counter-effects of capital deduction items of € 0.1 billion.

The AT1 capital decrease of € 0.2 billion was mainly due to increased capital deduction items resulting from higher limits for market making transactions.

EU CC1 – Composition of regulatory own funds

in € m.		Jun 30, 2023	Dec 31, 2022	References ¹
		CRR/CRD	CRR/CRD	
Common Equity Tier 1 (CET 1) capital: instruments and reserves				
1	Capital instruments, related share premium accounts and other reserves	45,099	45,458	A
	of which: Instrument type 1 (ordinary shares) ²	45,099	45,458	A
	of which: Instrument type 2	0	0	
	of which: Instrument type 3	0	0	
2	Retained earnings	16,922	12,305	B
3	Accumulated other comprehensive income (loss), net of tax	(1,737)	(1,314)	C
3a	Funds for general banking risk	0	0	
	Amount of qualifying items referred to in Art. 484 (3) and the related share premium accounts subject to phase-out from CET 1	0	0	
4	Minority interests (amount allowed in consolidated CET 1)	981	1,002	
5a	Independently reviewed interim profits net of any foreseeable charge or dividend ³	1,641	4,183	B
6	Common Equity Tier 1 (CET 1) capital before regulatory adjustments	62,906	61,634	
Common Equity Tier 1 (CET 1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount) ⁴	(1,812)	(2,026)	
8	Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	(4,963)	(5,024)	D
	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liabilities where the conditions in Art. 38 (3) are met) (negative amount)	(2,997)	(3,244)	E
10	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	671	790	
11	Negative amounts resulting from the calculation of expected loss amounts	(509)	(466)	
12	Any increase in equity that results from securitized assets (negative amount)	(0)	(0)	
13	Gains or losses on liabilities designated at fair value resulting from changes in own credit standing ⁵	(172)	(190)	
14	Defined benefit pension fund assets (net of related tax liabilities) (negative amount)	(1,384)	(1,149)	F
15	Direct, indirect and synthetic holdings by an institution of own CET 1 instruments (negative amount) ⁶	(0)	(0)	
16	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)	0	0	
17	Direct, indirect and synthetic holdings by the institution of the CET 1 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) ⁷	0	0	
18	Direct, indirect and synthetic holdings by the institution of the CET 1 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)	0	0	
19	Exposure amount of the following items which qualify for a risk weight of 1,250 %, where the institution opts for the deduction alternative	0	0	
20a	of which:			
20b	Qualifying holdings outside the financial sector (negative amount)	0	0	
20c	Securitization positions (negative amount)	0	0	
20d	Free deliveries (negative amount)	0	0	
21	Deferred tax assets arising from temporary differences (amount above 10 % threshold, net of related tax liabilities where the conditions in Article 38 (3) are met) (negative amount)	0	0	E
22	Amount exceeding the 17.65 % threshold (negative amount)	0	0	
	of which:			
23	Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0	
25	Deferred tax assets arising from temporary differences	0	0	E
25a	Losses for the current financial year (negative amount)	0	0	
25b	Foreseeable tax charges relating to CET 1 items except where the institution suitably adjusts the amount of CET 1 items insofar as such tax charges reduce the amount up to which those items may be used to cover risks or losses (negative amount)	0	0	
27	Qualifying AT1 deductions that exceed the AT1 items of the institution (negative amount)	0	0	
27a	Other regulatory adjustments (including IFRS 9 transitional adjustments when relevant) ⁸	(2,393)	(2,225)	
28	Total regulatory adjustments to Common Equity Tier 1 (CET 1) capital	(13,558)	(13,536)	
29	Common Equity Tier 1 (CET 1) capital	49,348	48,097	
Additional Tier 1 (AT1) capital: instruments				
30	Capital instruments and the related share premium accounts	8,578	8,578	G
	of which:			
31	Classified as equity under applicable accounting standards	8,578	8,578	G
32	Classified as liabilities under applicable accounting standards	0	0	
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1 as described in Article 486(3) of CRR	0	0	H
	of which:			
EU 33a	Amount of qualifying items referred to in Article 494a(1) subject to phase out from AT1	0	0	
EU 33b	Amount of qualifying items referred to in Article 494b(1) subject to phase out from AT1	0	0	

		Jun 30, 2023	Dec 31, 2022	Refer- ences ¹
in € m.		CRR/CRD	CRR/CRD	
34	Qualifying Tier 1 capital included in consolidated AT1 capital issued by subsidiaries and held by third parties	0	0	
35	of which: instruments issued by subsidiaries subject to phase out	0	0	
36	Additional Tier 1 (AT1) capital before regulatory adjustments	8,578	8,578	
Additional Tier 1 (AT1) capital: regulatory adjustments				
37	Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	(250)	(60)	G
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)	0	0	
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 the 10 % threshold and net of eligible short positions) (negative amount) ⁷	0	0	
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 (amount above the 10 % threshold net of eligible short positions) (negative amount)	0	0	
42	Qualifying T2 deductions that exceed the T2 items of the institution (negative amount)	0	0	
42a	of which: Other regulatory adjustments to AT1 capital	0	0	
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	(250)	(60)	
44	Additional Tier 1 (AT1) capital	8,328	8,518	
45	Tier 1 capital (T1 = CET 1 + AT1)	57,676	56,616	
Tier 2 (T2) capital: instruments and provisions				
46	Capital instruments and the related share premium accounts ⁹	9,259	9,580	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) of CRR	28	30	I
	of which:			
EU 47a	Amount of qualifying items referred to in Article 494a (2) subject to phase out from T2	0	0	
EU 47b	Amount of qualifying items referred to in Article 494b (2) subject to phase out from T2	28	30	
48	Qualifying own funds instruments included in consolidated T2 capital issued by subsidiaries and held by third parties	1	1	I
49	of which: instruments issued by subsidiaries subject to phase out	0	0	
50	Credit risk adjustments	0	0	
51	Tier 2 (T2) capital before regulatory adjustments	9,288	9,611	
Tier 2 (T2) capital: regulatory adjustments				
52	Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans (negative amount)	(245)	(80)	I
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)	0	0	
54	Direct, indirect and synthetic 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) ⁷	0	0	
55	Direct, indirect and synthetic 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)	0	0	
56a	Qualifying eligible liabilities deductions that exceed the eligible liabilities items of the institution (negative amount)	0	0	
56b	Other regulatory adjustments to T2 capital	0	0	
57	Total regulatory adjustments to Tier 2 (T2) capital	(245)	(80)	
58	Tier 2 (T2) capital	9,043	9,531	
59	Total capital (TC = T1 + T2)	66,720	66,146	
60	Total risk-weighted assets	358,785	360,003	
Capital ratios and buffers				
61	Common Equity Tier 1 capital ratio (as a percentage of risk-weighted assets)	13.8	13.4	
62	Tier 1 capital ratio (as a percentage of risk-weighted assets)	16.1	15.7	
63	Total capital ratio (as a percentage of risk-weighted assets)	18.6	18.4	
64	Institution CET 1 overall capital requirement (CET 1 requirement in accordance with article 92 (1) of Regulation (EU) No 575/2013, plus additional CET 1 requirement which the institution is required to hold in accordance with Article 104(1)(a) of Directive 2013/36/EU, plus combined buffer requirement in accordance with Article 128(6) of Directive 2013/36/EU) expressed as a percentage of risk exposure amount ¹⁰	11.1	10.5	
	of which:			
65	Capital conservation buffer requirement	2.5	2.5	
66	Countercyclical buffer requirement	0.42	0.07	
67	Systemic risk buffer requirement	0.2	0.0	
67a	Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	2.0	2.0	
67b	additional own funds requirements to address the risks other than the risk of excessive leverage	1.5	1.4	
68	Common Equity Tier 1 capital available to meet buffers (as a percentage of risk-weighted assets) ¹¹	7.7	7.5	

	Jun 30, 2023	Dec 31, 2022	Refer- ences ¹
in € m.	CRR/CRD	CRR/CRD	
Amounts below the thresholds for deduction (before risk weighting)			
72	3,680	3,509	
73	826	975	
75	4,195	4,273	
Applicable caps on the inclusion of provisions in Tier 2 capital			
76	0	0	
77	243	241	
78	0	0	
79	1,296	1,297	
Capital instruments subject to phase-out arrangements			
80	0	0	
81	0	0	
82	0	0	
83	0	0	
84	0	0	
85	0	0	

N/M – Not meaningful

¹ References provide the mapping of regulatory balance sheet items used to calculate regulatory capital as reflected in the column "References" and as presented in tables "EU CC2 – Reconciliation of regulatory own funds to balance sheet in the audited financial statements". Where applicable, more detailed information is provided in the respective reference footnote section

² Based on EBA list of Article 26(3) of CRR, competent authorities shall evaluate whether issuances of Common Equity Tier 1 instruments meet the criteria set out in Article 28 or, where applicable, Article 29

³ Interim profits are recognized as per ECB Decision (EU) 2015/656 in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4)

⁴ The € 1.8 billion (December 2022: € 2.0 billion) additional value adjustments were derived from the EBA Regulatory Technical Standard on prudent valuation and are before consideration of a benefit from the related reduction of the shortfall of provisions to expected losses of € 0.04 billion (December 2022: € 0.01 billion)

⁵ Represents gains and losses on liabilities and derivative liabilities carried at fair value that are a result of changes in own credit of the Group according to Article 33 (1) (b) CRR

⁶ Excludes holdings that are already considered in the accounting base of Common Equity

⁷ Based on the Group's current interpretation no deduction amount expected

⁸ Includes capital deductions of 1.3 billion (December 2022: € 1.2 billion) based on ECB guidance on irrevocable payment commitments related to the Single Resolution Fund and the Deposit Guarantee Scheme, € 1.1 billion (December 2022: € 1.0 billion) based on ECB's supervisory recommendation for a prudential provisioning of non-performing exposures, € 1 million (December 2022: € 7 million) resulting from minimum value commitments as per Article 36 (1)(n) of the CRR and no CET 1 impact (December 2022: € 15 million CET1 benefit) from IFRS 9 transitional provision as per Article 473a of the CRR

⁹ Amortization is taken into account

¹⁰ Includes CET1 Pillar 2 Requirement.

¹¹ Calculated as the CET1 Capital less the Group's CET1 capital requirements in accordance with article 92(1)(a) of Regulation (EU) No 575/2013 and following Article 104(1)(a) of Directive 2013/36/EU, and less any Common Equity Tier 1 items used by the Group to meet its additional Tier 1 and Tier 2 capital requirements.

^A Common shares, additional paid-in capital and common shares in treasury reflect regulatory eligible CET 1 capital instruments

^B Retained earnings in the regulatory balance sheet include net income (loss) attributable to Deutsche Bank shareholders of € 2,197 million (December 2022: € 5,525 million). In the Own funds template (incl. RWA and capital ratios), this item is excluded from retained earnings and shown separately after subtracting the 'deduction for dividend and AT1 coupons' of € (556) million (December 2022: € (1,342) million) as 'independently reviewed interim profits net of any foreseeable charge or dividend' in row id 5a.

^C Difference to regulatory balance sheet position driven by prudential filters for unrealized gains and losses

^D Regulatory applicable amount is goodwill and other intangible assets of € 7,141 million (December 2022: € 7,092 million) plus goodwill from equity method investments of € 76 million (December 2022: € 79 million) as per regulatory balance sheet reduced by deferred tax liabilities on other intangibles of € 465 million (December 2022: € 464 million) and prudent software assets as per Art. 36 (1) (b) CRR of € 1,789 million (December 2022: € 1,683 million)

^E Differences to balance sheet position mainly driven by adjustments as set out in Article 38 (2) to (5) CRR (e.g. regulatory offsetting requirements)

^F Regulatory applicable amount is defined benefit pension fund assets of € 1,545 million (December 2022: € 1,301 million) reduced by deferred tax liabilities on defined benefit pension fund assets of € 161 million (December 2022: € 152 million)

^G Additional equity components reflects regulatory eligible AT1 capital instruments

^H Difference to regulatory balance sheet driven by regulatory adjustments as set out in Articles 51 to 61 CRR (e.g. current cap on AT1 instruments subject to phase-out arrangements)

^I Difference to regulatory balance sheet driven by regulatory adjustments as set out in Articles 62 to 71 CRR (e.g. amortization, minority interest)

Reconciliation of shareholders' equity to Own Funds

in € m.	Jun 30, 2023	Dec 31, 2022
Total shareholders' equity per accounting balance sheet	62,440	61,959
Deconsolidation/Consolidation of entities	68	29
of which:		
Additional paid-in capital	0	0
Retained earnings	68	29
Accumulated other comprehensive income (loss), net of tax	0	0
Total shareholders' equity per regulatory balance sheet	62,509	61,988
Minority Interests (amount allowed in consolidated CET 1)	981	1,002
AT1 coupon and shareholder dividend deduction ¹	(556)	(1,342)
Capital instruments not eligible under CET 1 as per CRR 28(1)	(27)	(14)
Common Equity Tier 1 (CET 1) capital before regulatory adjustments	62,906	61,634
Prudential filters	(1,312)	(1,427)
of which:		
Additional value adjustments	(1,812)	(2,026)
Any increase in equity that results from securitized assets	(0)	(0)
Fair value reserves related to gains or losses on cash flow hedges and gains or losses on liabilities designated at fair value resulting from changes in own credit standing	499	600
Regulatory adjustments	(12,246)	(12,110)
of which:		
Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	(4,963)	(5,024)
Deferred tax assets that rely on future profitability	(2,997)	(3,244)
Negative amounts resulting from the calculation of expected loss amounts	(509)	(466)
Defined benefit pension fund assets (net of related tax liabilities) (negative amount)	(1,384)	(1,149)
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0
Other ²	(2,393)	(2,225)
Common Equity Tier 1 capital	49,348	48,097
Additional Tier 1 capital	8,328	8,518
Additional Tier 1 Notes (AT1 Notes)	8,328	8,518
Per balance sheet	8,551	8,578
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	(222)	(60)
Hybrid capital securities	0	0
Per balance sheet	0	0
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	0	0
Other regulatory adjustments	0	0
Deductions from Additional Tier 1 capital	0	0
Tier 1 capital	57,676	56,616
Tier 2 capital	9,043	9,531
Subordinated debt	9,043	9,531
Per balance sheet	11,271	11,381
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	(2,228)	(1,850)
of which:		
Amortization according to Art. 64 CRR	(2,251)	(2,016)
Other	23	167
Other regulatory adjustments	0	0
Deductions from Tier 2 capital	0	0
Total capital	66,720	66,146

¹ Interim profits are recognized as per ECB Decision (EU) 2015/656 in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4)

² Includes capital deductions of € 1.3 billion (December 2022: € 1.2 billion) based on ECB guidance on irrevocable payment commitments related to the Single Resolution Fund and the Deposit Guarantee Scheme, € 1.1 billion (December 2022: € 1.0 billion) based on ECB's supervisory recommendation for a prudential provisioning of non-performing exposures, € 1 million (December 2022: € 7 million) resulting from minimum value commitments as per Article 36 (1)(n) of the CRR and no CET 1 impact (December 2022: € 15 million CET 1 benefit) from IFRS 9 transitional provision as per Article 473a of the CRR

Development of Own Funds

in € m.	six months ended Jun 30, 2023	six months ended Dec 31, 2022
Common Equity Tier 1 (CET 1) capital - opening amount	48,097	47,932
Common shares, net effect	(69)	(2)
of which:		
New shares issued (+)	0	0 ²
Shares retired (-)	(68)	0
Capital instruments not eligible under CET 1 as per CRR 28(1)	(1)	(2) ²
Additional paid-in capital	(567)	133
Retained earnings	2,631	3,117
of which:		
Actuarial gains (losses) rel. to defined benefit plans, net of tax and Currency Translation Adjustment (CTA)	161	193
Net income attributable to Deutsche Bank Shareholders	2,197	3,160
Common shares in treasury, net effect/(+) sales (-) purchase	277	65
Movements in accumulated other comprehensive income	(422)	(1,392)
of which:		
Foreign currency translation, net of tax	(703)	(863)
Unrealized gains and losses	212	(235)
Other	70	(294)
AT1 coupon and shareholder dividend deduction ¹	(556)	(815)
of which:		
Gross dividends (deduction)	(459)	(574)
Shares issued in lieu of dividends (add back)	0	0
Gross AT1 coupons (deduction)	(97)	(241)
Additional value adjustments	215	185
Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	61	(9)
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	248	(1,359)
Negative amounts resulting from the calculation of expected loss amounts	(43)	(16)
Removal of gains/losses resulting from changes in own credit standing in liabilities designated at fair value (net of tax)	19	(82)
Defined benefit pension fund assets (net of related tax liabilities) (negative amount)	(234)	192
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0
Securitization positions not included in risk-weighted assets	0	0
Deferred tax assets arising from temporary differences (amount above 10 % and 15 % threshold, net of related tax liabilities where the conditions in Art. 38 (3) CRR are met)	0	0
Other, including regulatory adjustments	(308)	148
Common Equity Tier 1 (CET 1) capital - closing amount	49,348	48,097
Additional Tier 1 (AT1) capital - opening amount	8,518	7,268
New Additional Tier 1 eligible capital issues	0	1,222
Matured and called instruments	0	0
Transitional arrangements	0	0
of which:		
Amount excluded from Additional Tier 1 capital due to cap	0	0
Goodwill and other intangible assets (net of related tax liabilities)	0	0
Negative amounts resulting from the calculation of expected loss amounts	0	0
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0
Other, including regulatory adjustments	(190)	28
Additional Tier 1 (AT1) capital - closing amount	8,328	8,518
Tier 1 capital (T1 = CET 1 + AT1)	57,676	56,616
Tier 2 (T2) capital - opening amount	9,531	10,045
New Tier 2 eligible capital issues	1,337	0
Matured and called instruments	(1,266)	(1)
Amortization adjustments	(322)	(366)
Transitional arrangements	0	0
of which:		
Inclusion of amount excluded from Additional Tier 1 capital due to cap	0	0
Amount to be deducted from or added to Additional Tier 2 capital with regard to additional filters and deductions required pre-CRR	0	0
Negative amounts resulting from the calculation of expected loss amounts	0	0
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0
Other, including regulatory adjustments	(237)	(148)
Tier 2 (T2) capital - closing amount	9,043	9,531
Total regulatory capital (TC = T1 + T2)	66,720	66,146

¹ Interim profits are recognized as per ECB Decision (EU) 2015/656 in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4)

² December 31, 2022 New shares issued (+) and Capital instruments not eligible under CET 1 as per CRR 28(1) have been updated to € 0 million and € 2 million respectively

Reconciliation of regulatory own funds to IFRS balance sheet

Article 437 (a) CRR

The table below highlights the difference in the basis of consolidation for accounting and prudential reporting purposes as it compares the carrying values as reported under IFRS with the carrying values under the scope of the regulatory consolidation. References in the last column of the table provide the mapping of regulatory balance sheet items used to calculate regulatory capital. The reference columns presented below reconcile to the reference columns as presented in the template "EU CC1–Composition of regulatory own funds".

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

	Jun 30, 2023			Dec 31, 2022		
	a	b	References	a	b	References
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation		Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	
in € m.						
Assets:						
Cash and central bank balances	164,586	164,566		178,897	178,861	
Interbank balances (w/o central banks)	6,567	6,393		7,195	7,025	
Central bank funds sold and securities purchased under resale agreements	11,547	11,547		11,478	11,478	
Securities borrowed	104	104		0	0	
Financial assets at fair value through profit or loss						
of which:						
Trading assets	108,465	107,323		92,867	91,538	
Positive market values from derivative financial instruments	258,731	258,923		299,686	299,834	
Non-trading financial assets mandatory at fair value through profit and loss	91,915	92,363		89,654	90,085	
Financial assets designated at fair value through profit or loss	166	166		168	168	
Total financial assets at fair value through profit or loss	459,278	458,775		482,376	481,626	
Financial assets at Fair Value through OCI						
Financial assets mandatory at fair value through OCI	29,824	29,663		31,675	31,536	
Equity Instruments designated at fair value through OCI	0	0		0	0	
Total financial assets at fair value through OCI	29,824	29,663		31,675	31,536	
Financial assets available for sale	0	0		0	0	
Equity method investments	1,023	1,023		1,124	1,124	
of which: Goodwill	76	76	D	79	79	D
Loans at amortized cost	477,380	481,002		483,700	487,259	
Securities held to maturity	0	0		0	0	
Property and equipment	6,010	5,984		6,103	6,075	
Goodwill and other intangible assets	7,141	7,141	D	7,092	7,092	D
Other assets	128,377	128,392		118,293	118,263	
of which: Defined benefit pension fund assets	1,574	1,545	F	1,328	1,301	F
Assets for current tax	1,552	1,549		1,584	1,581	
Deferred tax assets	6,904	6,867	E	7,272	7,237	E
Total assets	1,300,293	1,303,004		1,336,788	1,339,157	
Liabilities and equity:						
Deposits	593,223	594,250		621,456	622,876	
Central bank funds purchased and securities sold under repurchase agreements	2,331	2,331		573	573	
Securities loaned	10	10		13	13	
Financial liabilities at fair value through profit or loss						
of which:						
Trading liabilities	54,006	53,984		50,616	50,660	
Negative market values from derivative financial instruments	243,272	243,381		282,353	282,436	
Financial liabilities designated at fair value through profit or loss	79,146	78,899		54,634	54,367	
Investment contract liabilities	483	0		469	0	

	Jun 30, 2023			Dec 31, 2022		
	a	b	References	a	b	References
in € m.	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation		Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	
Total financial liabilities at fair value through profit or loss	376,907	376,263		388,072	387,463	
Other short-term borrowings	7,081	7,021		5,122	5,058	
Other liabilities	121,162	120,287		113,714	112,313	
Provisions	2,806	2,787		2,449	2,427	
Liabilities for current tax	587	584		388	385	
Deferred tax liabilities	637	538		650	557	
Long-term debt	122,323	125,731		131,525	134,731	
of which: Subordinated long-term debt ¹	11,271	11,271	H.I	11,381	11,381	H.I
Trust preferred securities ¹	513	513	H.I	500	500	H.I
Obligation to purchase common shares	0	0		0	0	
Total liabilities	1,227,579	1,230,316		1,264,460	1,266,895	
Common shares, no par value, nominal value of € 2.56	5,223	5,223	A	5,291	5,291	A
Additional paid-in capital	39,958	39,958	A	40,513	40,513	A
Retained earnings	19,050	19,119	B	17,800	17,830	B
Common shares in treasury, at cost	(54)	(54)	A	(331)	(331)	A
Equity classified as obligation to purchase common shares	0	0	A	0	0	A
Accumulated other comprehensive income, net of tax	(1,737)	(1,737)	C	(1,314)	(1,314)	C
Total shareholders' equity	62,440	62,509		61,959	61,988	
Additional equity components	8,551	8,551	G	8,578	8,578	G
Noncontrolling interests	1,723	1,629		1,791	1,696	
Total equity	72,714	72,688		72,328	72,262	
Total liabilities and equity	1,300,293	1,303,004		1,336,788	1,339,157	

¹ Eligible Additional Tier 1 and Tier 2 instruments are reflected in these balance sheet positions based on their IFRS carrying values.

IFRS 9 transitional arrangements on own funds

Article 473a CRR

As of June 30, 2020, Deutsche Bank applied the transitional arrangements in relation to IFRS 9 as provided in Article 473a CRR to all of the CET 1 measures. The CRR allowed for a phase-in of the CET 1 reduction due to the increase in credit loss allowance as a result of the implementation of IFRS 9. The phase-in period of five years has expired at the end of 2022.

As per the CRR amendment published on June 26, 2020, the transitional provisions and phase-in percentages have been modified such that the dynamic component is reset and the implementation period extended until 2024, i.e., it separately covers the periods from January 1, 2018, to January 1, 2020 and the period from January 1, 2020 until 2024.

As of June 30, 2023 there is no capital add back for the IFRS 9 transitional arrangements from the dynamic component, which compares the credit loss allowance levels since January 1, 2020 and the reporting date.

As a consequence, CET 1, Tier 1 and Total Capital as well as risk weighted assets and leverage exposure and related ratios did not change. The template 'IFRS 9-FL: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs" is not disclosed, also due to immateriality in prior periods.

Main features of capital instruments

Article 437 (b-c) CRR

A description of the main features of the Common Equity Tier 1, Additional Tier 1 and Tier 2 capital instruments issued by Deutsche Bank is published on Deutsche Bank's website ([db.com/ir/en/capital-instruments.htm](https://www.db.com/ir/en/capital-instruments.htm)). In addition, this website provides full terms and conditions of all Common Equity Tier 1, Additional Tier 1 and Tier 2 capital instruments to the extent that these do not constitute private placements and are treated confidentially.

Capital buffers

Minimum capital requirements and additional capital buffers

Article 438 (b) CRR

The Pillar 1 CET 1 minimum capital requirement applicable to the Group is 4.50% of RWA. The Pillar 1 total capital requirement of 8.00% demands further resources that may be met with up to 1.50% Additional Tier 1 capital and up to 2.00% Tier 2 capital.

Failure to meet minimum capital requirements can result in supervisory measures such as restrictions on profit distributions or limitations on certain businesses, such as a restriction of dividend payments or certain business activities like lending. Deutsche Bank complied with the minimum regulatory capital adequacy requirements in 2022 and within the first half of 2023.

In addition to these minimum capital requirements, the following combined capital buffer requirements were fully effective beginning 2023 onwards. These buffer requirements must be met in addition to the Pillar 1 minimum capital requirements but can be drawn down in times of economic stress.

The capital conservation buffer is implemented in Section 10c German Banking Act, based on Article 129 CRD and equals a requirement of 2.50% CET 1 capital of RWA in 2023 and onwards.

The countercyclical capital buffer is deployed in a jurisdiction when excess credit growth is associated with an increase in system-wide risk. It may vary between 0% and 2.50% CET 1 capital of RWA. In exceptional cases, it could also be higher than 2.50%. The institution-specific countercyclical buffer that applies to Deutsche Bank is the weighted average of the countercyclical capital buffers that apply in the jurisdictions where our relevant credit exposures are located. As of June 30, 2023, the institution-specific countercyclical capital buffer was at 0.42%.

In addition to the aforementioned buffers, national authorities, such as the BaFin, may require a systemic risk buffer to prevent and mitigate long-term non-cyclical systemic or macro-prudential risks that are not covered by the CRR. They can require an additional buffer of up to 5.00% CET 1 capital of RWA. Systemic risk buffer applied to Deutsche Bank as of June 30, 2023 was 0.20%. This is in relation to German residential real estate exposures and is effective from February 2023.

Deutsche Bank continues to be designated as a global systemically important institution (G-SII) by the BaFin in agreement with the Deutsche Bundesbank, resulting in a G-SII buffer requirement of 1.50% CET 1 capital of RWA in 2022 based on the indicators as published in 2019. This assessment has been confirmed by the FSB in 2022. Further, BaFin has announced that the G-SII buffer requirement for Deutsche Bank will remain unchanged for the years 2023 and 2024. Deutsche Bank continues to publish the indicators in the Pillar 3 report on the bank's website.

Additionally, Deutsche Bank has been classified by BaFin in agreement with the Deutsche Bundesbank as an "other systemically important institution" (O-SII) with an additional capital buffer requirement of 2.00% in 2022 that has to be met on a consolidated level. Hence, for Deutsche Bank, the O-SII buffer amounts to 2.00% in 2022. BaFin has announced O-SII buffer requirement for Deutsche Bank remain unchanged for the year 2023. The higher of the buffers for systemically important institutions (G-SII buffer or O-SII buffer) must be applied.

In addition, pursuant to the Pillar 2 SREP, the ECB may impose capital requirements on individual banks which are more stringent than statutory requirements (so-called Pillar 2 requirement).

On December 22, 2022, Deutsche Bank was informed by the ECB of its decision regarding prudential minimum capital requirements for 2023 that applied from January 1, 2023 onwards, following the results of the 2022 SREP. The decision set ECB's Pillar 2 requirement to 2.70% of RWA, effective as of January 1, 2023. As of June 30, 2023, Deutsche Bank needs to maintain on a consolidated basis a CET 1 ratio of at least 11.13%, a Tier 1 ratio of at least 13.14% and a Total Capital ratio of at least 15.82%. The CET 1 requirement comprises the Pillar 1 minimum capital requirement of 4.50%, the Pillar 2 requirement (SREP add-on) of 1.52%, the capital conservation buffer of 2.50%, the countercyclical buffer of 0.42% and the systemic risk buffer of 0.20% (both subject to change throughout the year) as well as the higher of G-SII/O-SII buffer of 2.00%. Correspondingly, the Tier 1 capital requirement includes additionally a Tier 1 minimum capital requirement of 1.50% plus a Pillar 2 requirement of 0.51%, and the Total Capital requirement includes further a Tier 2 minimum capital requirement of 2.00% and a Pillar 2 requirement of 0.68%. Also, the ECB communicated to Deutsche Bank that its individual expectation to hold a further Pillar 2 CET 1 capital add-on, commonly referred to as 'Pillar 2 guidance' will be seen as guidance only and until at year-end 2022 as well as June 30, 2023, a breach of this guidance will not trigger the need to provide a capital restoration plan or a need to execute measures to re-build CET 1 capital.

Geographical distribution of credit exposures

Article 440 (a) CRR

The following tables disclose the amount of Deutsche Bank's countercyclical buffer as well as the geographical distribution of credit exposures relevant for its calculation in the standard format as set out in Commission Delegated Regulation (EU) 2015/1555. The geographical split table shows countries on an individual basis if each country imposes a countercyclical capital buffer rate or the total own funds requirements exceed € 20 million. The values for the remaining countries are shown as "Other".

Countercyclical capital buffer rates are determined by Basel Committee member jurisdictions. Countercyclical capital buffer varies according to a percentage of risk weighted assets. The "General credit exposures" include only credit exposures to the private sector. Exposures to the public sector and to institutions are not in scope. The "Trading book exposures" contain market risk standardized approach non-securitization and trading book securitization positions as well as the IRC ("Incremental Risk Charge").

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

Jun 30, 2023

	a	b	c		d	e	f	g	h	i	j	k	l	m
	General credit exposures		Relevant credit exposures – Market risk					Own funds requirements						
in € m.	Exposure value for SA	Exposure value for IRB	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for Internal models	Securitisation exposures Exposure value for non-trading book	Total exposure value	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)	
Angola	0	541	0	0	0	541	30	0	0	30	379	0.14	0.00	
Australia	60	5,078	215	353	1,846	7,551	190	14	23	227	2,837	1.05	1.00	
Austria	1	1,193	0	249	0	1,442	37	0	0	37	461	0.17	0.00	
Belgium	87	2,593	4	550	46	3,280	97	24	1	122	1,524	0.57	0.00	
Benin	0	457	0	0	0	457	27	0	0	27	338	0.13	0.00	
Bermuda	17	1,172	0	33	354	1,575	57	1	10	68	848	0.32	0.00	
Brazil	14	1,514	0	392	0	1,920	82	25	0	107	1,335	0.50	0.00	
British Virgin Islands	2	4,757	0	4	0	4,762	69	0	0	69	865	0.32	0.00	
Bulgaria	0	21	0	0	0	21	1	0	0	1	8	0.00	1.50	
Canada	91	2,392	0	314	468	3,266	94	0	6	100	1,252	0.47	0.00	
Cayman Islands	384	8,453	3	12	31	8,883	353	1	15	370	4,620	1.72	0.00	
China	58	4,409	0	2,005	0	6,472	225	13	0	238	2,980	1.11	0.00	
Colombia	0	431	0	0	0	431	27	3	0	30	374	0.14	0.00	
Croatia	0	84	0	0	0	84	1	0	0	1	17	0.01	0.50	
Czech Republic	2	394	0	15	0	410	13	0	0	13	160	0.06	2.50	
Denmark	6	1,486	0	5	0	1,498	74	1	0	75	937	0.35	2.50	
Estonia	0	254	0	1	0	255	10	0	0	10	122	0.05	1.00	
France	111	7,418	141	0	507	8,178	260	16	7	282	3,530	1.31	0.50	
Germany	7,791	272,782	61	11,309	9,145	301,088	8,082	135	160	8,378	104,723	38.92	0.75	
Ghana	0	415	0	0	0	415	21	0	0	21	267	0.10	0.00	
Guernsey	19	1,273	0	6	0	1,297	25	0	0	25	317	0.12	0.00	
Hong Kong	18	3,756	0	186	0	3,960	97	2	0	99	1,243	0.46	1.00	
Iceland	0	110	0	49	0	159	3	0	0	3	37	0.01	2.00	
India	2,479	7,351	0	0	22	9,851	462	0	1	462	5,781	2.15	0.00	
Indonesia	11	1,282	0	247	0	1,540	49	7	0	56	700	0.26	0.00	
Ireland	327	6,533	58	153	4,112	11,183	172	13	116	301	3,757	1.40	0.50	
Israel	4	427	0	1,441	0	1,872	22	54	0	75	943	0.35	0.00	
Italy (incl. San Marino)	1,886	24,506	31	0	178	26,601	1,255	261	8	1,525	19,058	7.08	0.00	
Ivory Coast	0	495	0	45	0	541	26	0	0	26	324	0.12	0.00	
Japan	115	2,542	0	605	48	3,309	109	0	1	110	1,370	0.51	0.00	
Jersey	43	3,174	0	2	624	3,844	131	0	7	139	1,737	0.65	0.00	
Luxembourg	2,855	17,050	5	0	4,561	24,471	675	0	66	742	9,271	3.45	0.50	
Malaysia	6	925	0	225	0	1,157	31	1	0	32	396	0.15	0.00	
Mauritius	163	344	0	0	0	507	46	0	0	46	575	0.21	0.00	
Mexico	2	1,381	0	0	0	1,382	49	0	0	49	616	0.23	0.00	
Netherlands	742	12,924	54	108	286	14,114	437	3	9	449	5,618	2.09	1.00	
Nigeria	2	335	0	0	0	337	24	0	0	24	300	0.11	0.00	
Norway	147	738	0	231	0	1,117	37	4	0	41	512	0.19	2.50	
Poland	1	2,126	0	153	0	2,280	64	1	0	65	811	0.30	0.00	

Jun 30, 2023

	a	b	c		d	e	f	g	h	i	j	k	l	m
	General credit exposures		Relevant credit exposures – Market risk					Own funds requirements						
	Exposure value for SA	Exposure value for IRB	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for Internal models	Securitisation exposures Exposure value for non-trading book	Total exposure value	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)	
in € m.														
Qatar	37	1,750	0	0	0	1,788	51	0	0	51	633	0.24	0.00	
Romania	18	78	0	25	0	121	4	1	0	5	62	0.02	0.50	
Saudi Arabia	43	1,655	0	22	0	1,720	23	0	0	23	283	0.11	0.00	
Singapore	211	5,640	0	439	0	6,290	208	1	0	209	2,611	0.97	0.00	
Slovakia	0	93	0	0	0	93	1	0	0	1	16	0.01	1.00	
South Africa	66	363	0	0	0	429	28	0	0	29	356	0.13	0.00	
South Korea	13	2,377	1	319	0	2,710	42	20	0	62	777	0.29	0.00	
Spain	278	19,333	53	1,094	29	20,787	680	76	1	758	9,469	3.52	0.00	
Sri Lanka	1	225	0	24	0	250	20	7	0	27	344	0.13	0.00	
Sweden	5	2,259	0	36	0	2,300	94	0	0	94	1,177	0.44	2.00	
Switzerland	32	11,928	0	58	0	12,018	198	0	0	198	2,480	0.92	0.00	
Taiwan	14	823	0	82	0	920	21	0	0	21	259	0.10	0.00	
Thailand	0	976	0	212	0	1,188	49	4	0	54	671	0.25	0.00	
Turkey	142	1,114	0	0	0	1,256	79	0	0	79	992	0.37	0.00	
United Arab Emirates	17	2,662	0	0	0	2,678	53	3	0	56	704	0.26	0.00	
United Kingdom	428	21,471	14	0	1,785	23,698	679	2	34	715	8,936	3.32	1.00	
United Republic of Tanzania	0	341	0	0	0	341	30	0	0	30	380	0.14	0.00	
United States of America (incl. Puerto Rico)	1,956	119,009	1,226	665	45,454	168,310	3,319	125	591	4,035	50,442	18.74	0.00	
Uzbekistan	0	557	0	0	0	557	25	0	0	25	311	0.12	0.00	
Vietnam	2	715	0	13	0	729	57	0	0	58	722	0.27	0.00	
Other	1,247	11,374	268	1,197	3,573	17,660	407	64	51	523	6,532	2.43	0.00	
Total	21,953	607,861	2,133	22,878	73,068	727,894	19,534	887	1,106	21,528	269,097	100.00	0.42	

	a	b	c		d	e	f	g	h	i	j	k	l	m
	General credit exposures		Relevant credit exposures – Market risk							Own funds requirements				
	Exposure value for SA	Exposure value for IRB	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for Internal models	Securitisation exposures Exposure value for non-trading book	Total exposure value	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)	
in € m.														
Australia	93	5,104	183	0	2,207	7,586	170	15	27	212	2,648	1.01	0.00	
Austria	2	1,415	1	0	0	1,419	38	0	0	38	477	0.18	0.00	
Belgium	83	2,427	0	357	46	2,913	89	11	1	100	1,255	0.48	0.00	
Bermuda	21	1,241	0	0	366	1,628	58	0	13	70	878	0.33	0.00	
Brazil	11	1,399	0	199	0	1,609	82	11	0	94	1,172	0.45	0.00	
British Virgin Islands	1	5,345	0	0	0	5,346	82	0	0	82	1,025	0.39	0.00	
Bulgaria	0	21	0	0	0	21	1	0	0	1	9	0.00	1.00	
Canada	82	2,513	2	0	965	3,563	95	0	12	106	1,330	0.50	0.00	
Cayman Islands	280	8,762	0	15	29	9,086	350	0	11	362	4,520	1.72	0.00	
China	31	4,718	0	1,329	0	6,079	244	15	0	259	3,240	1.23	0.00	
Colombia	0	394	0	0	0	394	20	2	0	22	279	0.11	0.00	
Czech Republic	4	333	0	22	0	359	10	0	0	10	121	0.05	1.50	
Denmark	21	1,942	0	11	0	1,974	68	0	0	68	846	0.32	2.00	
Estonia	0	9	0	0	0	9	0	0	0	0	4	0.00	1.00	
France	144	9,128	256	0	557	10,085	265	26	7	297	3,717	1.41	0.00	
Germany	9,197	282,482	79	4,146	7,120	303,023	8,469	78	110	8,656	108,201	41.07	0.00	
Ghana	0	420	0	2	0	422	20	0	0	20	252	0.10	0.00	
Guernsey	7	1,274	0	27	0	1,308	20	0	0	20	251	0.10	0.00	
Hong Kong	15	3,847	0	281	0	4,142	121	2	0	122	1,530	0.58	1.00	
Iceland	0	166	0	5	0	172	3	0	0	3	42	0.02	2.00	
India	2,520	7,374	1	247	60	10,201	402	26	1	430	5,373	2.04	0.00	
Indonesia	14	1,196	0	167	0	1,378	50	6	0	56	705	0.27	0.00	
Ireland	248	6,625	129	266	3,915	11,182	170	27	111	308	3,845	1.46	0.00	
Israel	1	593	0	701	0	1,295	29	32	0	60	755	0.29	0.00	
Italy (incl. San Marino)	1,921	24,881	18	286	223	27,328	1,214	18	11	1,243	15,542	5.90	0.00	
Ivory Coast	0	546	0	57	0	603	27	0	0	27	338	0.13	0.00	
Japan	123	2,506	0	214	65	2,908	119	8	1	128	1,597	0.61	0.00	
Jersey	43	3,038	0	0	799	3,880	115	0	12	127	1,590	0.60	0.00	
Luxembourg	2,830	17,035	2	426	4,722	25,015	615	11	69	694	8,676	3.29	0.50	
Malaysia	22	596	0	410	0	1,028	23	10	0	33	413	0.16	0.00	
Mauritius	236	707	0	0	0	943	44	0	0	44	550	0.21	0.00	
Mexico	7	1,657	0	99	0	1,762	60	0	0	60	744	0.28	0.00	
Netherlands	694	12,311	98	568	315	13,986	430	12	10	453	5,658	2.15	0.00	
Nigeria	0	432	0	0	0	432	39	0	0	39	489	0.19	0.00	
Norway	20	707	0	210	0	936	31	3	0	34	425	0.16	2.00	
Poland	6	2,293	0	13	0	2,312	56	0	0	56	705	0.27	0.00	
Qatar	25	1,700	0	8	0	1,733	48	0	0	49	609	0.23	0.00	
Romania	18	103	0	9	0	131	4	0	0	4	50	0.02	0.50	
Russian Federation	4	476	0	4	0	484	27	0	0	27	337	0.13	0.00	
Saudi Arabia	13	2,123	0	0	0	2,136	26	0	0	26	323	0.12	0.00	

Dec 31, 2022

	a	b	c		d	e	f	g	h	i	j	k	l	m
	General credit exposures		Relevant credit exposures – Market risk					Own funds requirements						
	Exposure value for SA	Exposure value for IRB	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for Internal models	Securitisation exposures Exposure value for non-trading book	Total exposure value	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)	
in € m.														
Singapore	155	6,739	0	376	0	7,271	201	2	0	203	2,537	0.96	0.00	
Slovakia	0	103	0	0	0	103	1	0	0	1	18	0.01	1.00	
South Africa	0	254	0	0	0	255	17	7	0	24	297	0.11	0.00	
South Korea	14	2,921	1	0	0	2,936	44	5	0	50	619	0.23	0.00	
Spain	307	20,917	39	1,040	30	22,332	736	16	0	752	9,405	3.57	0.00	
Sweden	6	2,177	0	102	0	2,285	88	0	0	88	1,095	0.42	1.00	
Switzerland	27	13,285	0	212	0	13,523	239	0	0	239	2,981	1.13	0.00	
Taiwan	6	945	0	141	0	1,092	22	1	0	23	284	0.11	0.00	
Thailand	0	1,124	0	361	0	1,486	42	21	0	62	780	0.30	0.00	
Turkey	8	1,080	0	0	0	1,088	81	2	0	83	1,036	0.39	0.00	
United Arab Emirates	27	2,328	0	9	0	2,364	31	0	0	31	387	0.15	0.00	
United Kingdom	437	18,897	8	1,348	1,910	22,601	720	24	41	785	9,809	3.72	1.00	
United States of America (incl. Puerto Rico)	1,634	124,382	967	1,206	43,972	172,161	3,095	128	557	3,779	47,242	17.93	0.00	
Uzbekistan	0	455	0	0	0	455	22	0	0	22	277	0.11	0.00	
Vietnam	1	764	0	14	0	779	50	0	0	51	631	0.24	0.00	
Other	511	10,963	329	781	3,651	16,234	348	39	54	440	5,504	2.09	0.00	
Total	21,871	627,170	2,113	15,668	70,954	737,777	19,468	558	1,047	21,074	263,426	100.00	0.07	

Institution specific countercyclical capital buffer

Article 440 (b) CRR

The following table shows an overview of Deutsche Bank's countercyclical buffer rate and requirements.

EU CCyB2 – Institution-specific countercyclical capital buffer

	Jun 30, 2023	Dec 31, 2022
	a	a
1 Total risk exposure amount (in € m.)	358,785	360,003
2 Institution specific countercyclical buffer rate	0.42 %	0.07 %
3 Institution specific countercyclical buffer requirement (in € m.)	1,495	268

Composition of own funds and eligible liabilities

Article 437a CRR and Article 45i(3)(b) BRRD

This section provides detailed information on the composition of Deutsche Bank's own funds and eligible liabilities, its main features, its ranking in the creditor hierarchy and its maturities.

As of June 30, 2023 the Group's available own funds and eligible liabilities amounted to € 121.3 billion, consisting of € 66.7 billion own funds, € 47.7 billion subordinated liabilities and € 6.9 billion non-subordinated liabilities. The Group's regulatory CET1 capital included in the own funds currently contains € 0 million from the IFRS 9 transitional impact.

Deutsche Bank predominantly relies on own funds and subordinated eligible liabilities counting towards TLAC and subordinated MREL for meeting its MREL requirement, while 5.70% of the Group's MREL capacity is contributed from eligible liabilities which are not subordinated. Deutsche Bank has no permission as per CRR Article 72b (3) or (4) to use non-subordinated eligible liabilities for meeting subordinated MREL or TLAC. As of June 30, 2023, 30.34% of the subordinated liabilities were issued prior to June 27, 2019 and therefore grandfathered regarding the eligibility criteria newly established through Article 72b CRR.

As of June 30, 2022, Deutsche Bank has excess of CET 1 capital of 7.74% of TREA after meeting the resolution group's requirements. This is well above the institution specific combined buffer requirement of 5.12% and establishes a comfortable distance to triggering distribution restrictions under the MREL Minimum Distributable Amount (M-MDA) rules.

EU TLAC1 – Composition of MREL and G-SII requirement for own funds end eligible liabilities

		Jun 30, 2023		
		a	b	c
		Minimum requirement for own funds and eligible liabilities (MREL)	G-SII Requirement for own funds and eligible liabilities (TLAC)	Memo item: Amounts eligible for the purposes of MREL, but not TLAC
in € m.				
Own funds and eligible liabilities and adjustments				
1	Common Equity Tier 1 capital (CET1)	49,348	49,348	–
2	Additional Tier 1 capital (AT1)	8,328	8,328	–
6	Tier 2 capital (T2)	9,043	9,043	–
11	Own funds for the purpose of Articles 92a CRR and 45 BRRD	66,720	66,720	–
Own funds and eligible liabilities: Non-regulatory capital elements				
12	Eligible liabilities instruments issued directly by the resolution entity that are subordinated to excluded liabilities (not grandfathered)	31,657	31,657	–
EU 12a	Eligible liabilities instruments issued by other entities within the resolution group that are subordinated to excluded liabilities (not grandfathered)	0	0	–
EU 12b	Eligible liabilities instruments that are subordinated to excluded liabilities, issued prior to 27 June 2019 (subordinated grandfathered)	13,785	13,785	–
EU 12c	Tier 2 instruments with a residual maturity of at least one year to the extent they do not qualify as Tier 2 items	2,209	2,209	–
13	Eligible liabilities that are not subordinated to excluded liabilities (not grandfathered pre cap)	4,666	–	4,666
EU 13a	Eligible liabilities that are not subordinated to excluded liabilities issued prior to 27 June 2019 (pre-cap)	2,245	–	2,245
14	Amount of non subordinated instruments eligible, where applicable after application of Article 72b (3) CRR	–	–	–
17	Eligible liabilities items before adjustments	54,562	47,650	–
EU 17a	of which: subordinated	47,650	47,650	–
Own funds and eligible liabilities: Adjustments to non-regulatory capital elements				
18	Own funds and eligible liabilities items before adjustments	121,281	114,370	–
19	(Deduction of exposures between MPE resolution groups)	–	0	–
20	(Deduction of investments in other eligible liabilities instruments)	–	0	–
22	Own funds and eligible liabilities after adjustments	121,281	114,370	–
EU 22a	of which: Own funds and subordinated	114,370	–	–
Risk-weighted exposure amount and leverage exposure measure of the resolution group				
23	Total risk exposure amount	358,785	358,785	–
24	Total exposure measure	1,236,042	1,236,042	–
Ratio of own funds and eligible liabilities				
25	Own funds and eligible liabilities (as a percentage of total risk exposure amount)	33.80	31.88	–
EU 25a	of which: Own funds and subordinated	31.88	–	–
26	Own funds and eligible liabilities (as a percentage of total exposure measure)	9.81	9.25	–
EU 26a	of which: Own funds and subordinated	9.25	–	–
27	CET1 (as a percentage of TREA) available after meeting the resolution group's requirements	–	7.74	–
28	Institution-specific combined buffer requirement	–	5.12	–
29	of which: Capital conservation buffer requirement	–	2.50	–
30	Countercyclical buffer requirement	–	0.42	–
31	Systemic risk buffer requirement	–	0.20	–
EU 31a	Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	–	2.00	–
Memorandum items				
EU 32a	Total amount of excluded liabilities referred to in Article 72a(2) CRR	–	422,843	–

		Dec 31, 2022		
		a	b	c
		Minimum requirement for own funds and eligible liabilities (MREL)	G-SII Requirement for own funds and eligible liabilities (TLAC)	Memo item: Amounts eligible for the purposes of MREL, but not TLAC
in € m.				
Own funds and eligible liabilities and adjustments				
1	Common Equity Tier 1 capital (CET1)	48,097	48,097	–
2	Additional Tier 1 capital (AT1)	8,518	8,518	–
6	Tier 2 capital (T2)	9,531	9,531	–
11	Own funds for the purpose of Articles 92a CRR and 45 BRRD	66,146	66,146	–
Own funds and eligible liabilities: Non-regulatory capital elements				
12	Eligible liabilities instruments issued directly by the resolution entity that are subordinated to excluded liabilities (not grandfathered)	30,411	30,411	–
EU 12a	Eligible liabilities instruments issued by other entities within the resolution group that are subordinated to excluded liabilities (not grandfathered)	0	0	–
EU 12b	Eligible liabilities instruments that are subordinated to excluded liabilities, issued prior to 27 June 2019 (subordinated grandfathered)	17,451	17,451	–
EU 12c	Tier 2 instruments with a residual maturity of at least one year to the extent they do not qualify as Tier 2 items	1,898	1,898	–
13	Eligible liabilities that are not subordinated to excluded liabilities (not grandfathered pre cap)	5,152	–	5,152
EU 13a	Eligible liabilities that are not subordinated to excluded liabilities issued prior to 27 June 2019 (pre-cap)	2,615	–	2,615
14	Amount of non subordinated instruments eligible, where applicable after application of Article 72b (3) CRR	–	–	–
17	Eligible liabilities items before adjustments	57,527	49,760	0
EU 17a	of which: subordinated	49,760	49,760	–
Own funds and eligible liabilities: Adjustments to non-regulatory capital elements				
18	Own funds and eligible liabilities items before adjustments	123,674	115,907	0
19	(Deduction of exposures between MPE resolution groups)	–	0	–
20	(Deduction of investments in other eligible liabilities instruments)	–	0	–
22	Own funds and eligible liabilities after adjustments	123,674	115,907	0
EU 22a	of which: Own funds and subordinated	115,907	–	–
Risk-weighted exposure amount and leverage exposure measure of the resolution group				
23	Total risk exposure amount	360,003	360,003	–
24	Total exposure measure	1,240,483	1,240,483	–
Ratio of own funds and eligible liabilities				
25	Own funds and eligible liabilities (as a percentage of total risk exposure amount)	34.35	32.20	–
EU 25a	of which: Own funds and subordinated	32.20	–	–
26	Own funds and eligible liabilities (as a percentage of total exposure measure)	9.97	9.34	–
EU 26a	of which: Own funds and subordinated	9.34	–	–
27	CET1 (as a percentage of TREA) available after meeting the resolution group's requirements	–	7.45	–
28	Institution-specific combined buffer requirement	–	4.57	–
29	of which: Capital conservation buffer requirement	–	2.50	–
30	Countercyclical buffer requirement	–	0.07	–
31	Systemic risk buffer requirement	–	0.00	–
EU 31a	Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	–	2.00	–
Memorandum items				
EU 32a	Total amount of excluded liabilities referred to in Article 72a(2) CRR	–	507,408	–

Main features of eligible liabilities instruments

A description of the main features of the Group's senior non-preferred subordinated eligible liabilities instruments eligible for subordinated MREL and TLAC and issued by Deutsche Bank is published on Deutsche Bank's website ([db.com/ir/en/capital-instruments.htm](https://www.db.com/ir/en/capital-instruments.htm)) to the extent that these do not constitute private placements and are treated confidentially.

Ranking in the creditor hierarchy and maturity

The following table provides a simplified overview of the ranking of liabilities in an insolvency proceeding under German law. The ranking is presented from the more junior liabilities to the more senior liabilities. Deutsche Bank AG's subordinated eligible liability instruments qualifying for MREL and TLAC through meeting all the conditions in CRR Article 72b (2) or being grandfathered pursuant to CRR Article 494b (3) are exclusively rank at position 11 in the below order. Non-subordinated eligible liabilities instruments which are eligible for MREL rank in position 12. Deutsche Bank's eligible liabilities instruments do not include any eligible liability according to CRR Article 72b (3) or (4).

Ranking of liabilities in an insolvency proceeding under German law

Rank	Label of claims	Code
1	Common equity Tier 1 instruments	Section 199 of the Insolvency Code
2	Additional Tier 1 instruments	
3	Tier 2 instruments	
4	Claims subordinated by virtue of a contractual subordination clause not specifying the pertinent rank (other than Additional Tier 1 or Tier 2 instruments)	Section 39 (2) of the Insolvency Code
5	Claims for repayment of shareholder loans and accrued interest thereon	Section 39 (1) no. 5 of the Insolvency Code
6	Claims for the delivery of goods or provision of services free of charge	Section 39 (1) no. 4 of the Insolvency Code
7	Criminal and administrative fines	Section 39 (1) no. 3 of the Insolvency Code
8	Creditors' costs related to the insolvency proceeding	Section 39 (1) no. 2 of the Insolvency Code
9	Interest and late payment surcharges accrued after the opening of insolvency proceedings	Section 39 (1) no. 1 of the Insolvency Code
10	Claims subordinated by virtue of a contractual subordination clause which specifies the relevant ranking	Section 39 (2) of the Insolvency Code
11	Non-preferred creditor claims arising from non-subordinated, unsecured non-structured debt instruments which (i) are issued before 21 July 2018 and are neither deposits within the positions of no. 13 and 14 nor money market instruments (ii) are issued from 21 July 2018 onwards, have an original contractual maturity of at least one year, do not qualify as deposits within the position of no. 13 and 14 and the contractual documentation and, where applicable, the prospectus explicitly refer to the lower ranking	
12	General creditors' claims	Section 38 of the Insolvency Code in conjunction with Section 46f (5) of the Banking Act, including instruments covered by Section 46f (6) sentence 3 and 46f (7) of the Banking Act
13	Deposits not covered, but preferential	Section 46f (4) no. 2 of the Banking Act
14	Deposits covered and preferential	Section 46f (4) no. 1 of the Banking Act
15	Costs of proceeding and obligations binding on the estate	Sections 53 to 55 of the Insolvency Code
16	Claims subject to a right of separation in insolvency proceedings	Sections 49 to 51 of the Insolvency Code
17	Claims subject to a right of segregation in insolvency proceedings	Sections 47 and 48 of the Insolvency Code

Deutsche Bank's own funds and eligible liabilities fall into these insolvency ranks as per below table EU TLAC3a based on German insolvency law. Liabilities fulfilling the MREL eligibility criteria as per CRR Art 72 are shown in the section "subset of liabilities and own funds less excluded liabilities that are own funds and liabilities potentially eligible for meeting MREL" and are issued out of the resolution entity Deutsche Bank AG.

EU TLAC3a – Creditor ranking

	Jun 30, 2023									
in € m.	1	2	3	4	5	6	7	8	9	Total
Description of insolvency rank										
Liabilities and own funds	49,348	8,329	11,252	51,729	472,245	86,187	207,431	170,844	7,882	1,065,246
of which:										
Excluded liabilities	0	0	0	0	53,029	0	207,431	154,500	7,882	422,843
Liabilities and own funds less excluded liabilities	49,348	8,329	11,252	51,729	419,216	86,187	0	16,344	0	642,403
Subset of Liabilities and own funds less excluded liabilities that are own funds and liabilities potentially eligible for meeting TLAC/MREL	49,348	8,329	11,252	45,441	6,911	0	0	0	0	121,281
of which:										
Residual maturity ≥ 1 year < 2 years	0	0	2,828	4,817	1,204	0	0	0	0	8,848
Residual maturity ≥ 2 year < 5 years	0	0	839	20,657	3,725	0	0	0	0	25,221
Residual maturity ≥ 5 years < 10 years	0	0	6,231	13,266	926	0	0	0	0	20,423
Residual maturity ≥ 10 years, but excluding perpetual securities	0	0	1,355	6,701	1,056	0	0	0	0	9,112
Perpetual securities	49,348	8,329	0	0	0	0	0	0	0	57,676

	Dec 31, 2022									
in € m.	1	2	3	4	5	6	7	8	9	Total
Description of insolvency rank	R1	R2	R3	R11	R12	R13	R14	R16	R17	
Liabilities and own funds	48,097	8,519	11,429	50,778	418,937	96,134	207,746	227,443	5,700	1,074,784
of which:										
Excluded liabilities	0	0	0	0	66,519	0	207,746	227,443	5,700	507,408
Liabilities and own funds less excluded liabilities	48,097	8,519	11,429	50,778	352,418	96,134	0	0	0	567,376
Subset of Liabilities and own funds less excluded liabilities that are own funds and liabilities potentially eligible for meeting TLAC/MREL	48,097	8,519	11,429	47,862	7,767	0	0	0	0	123,674
of which:										
Residual maturity ≥ 1 year < 2 years	0	0	99	5,436	1,461	0	0	0	0	0
Residual maturity ≥ 2 year < 5 years	0	0	3,660	21,428	4,135	0	0	0	0	0
Residual maturity ≥ 5 years < 10 years	0	0	6,505	13,850	1,244	0	0	0	0	0
Residual maturity ≥ 10 years, but excluding perpetual securities	0	0	1,156	7,142	926	0	0	0	0	0
Perpetual securities	48,097	8,519	0	0	0	0	0	0	0	56,616

Capital requirements

Overview of RWA and capital requirements

Article 438 (d) CRR

The table below shows RWA broken down by risk types and model approaches compared to the previous quarter end. It also shows the corresponding minimum capital requirements, which is derived by multiplying the respective RWA by an 8% capital ratio.

EU OV1 – Overview of RWA

		Jun 30, 2023		Mar 31, 2023	
		a	c1	b	c2
in € m.		RWA	Minimum capital requirements	RWA	Minimum capital requirements
1	Credit risk (excluding CCR)	221,401	17,712	220,050	17,604
	of which:				
2	The standardized approach (SA)	17,953	1,436	18,057	1,445
3	The foundation IRB (FIRB) approach	1,176	94	1,105	88
4	Slotting approach	530	42	554	44
EU 4a	Equities under the simple riskweighted approach	11,191	895	9,615	769
5	The advanced IRB (AIRB) approach	190,551	15,244	190,719	15,258
6	Counterparty credit risk (CCR)	30,026	2,402	30,640	2,451
	of which:				
7	The standardized approach	1,991	159	1,716	137
8	Internal model method (IMM)	18,698	1,496	18,879	1,510
EU 8a	Risk exposure to a CCP	997	80	1,123	90
EU 8b	Credit Valuation Adjustment (CVA)	6,585	527	6,165	493
9	Other CCR	1,755	140	2,756	220
15	Settlement risk	35	3	211	17
16	Securitization exposures in the banking book (after the cap)	13,830	1,106	12,795	1,024
	of which:				
17	SEC-IRBA approach	7,778	622	7,039	563
18	SEC-ERBA (including IAA)	785	63	639	51
19	SEC-SA approach	5,085	407	4,887	391
EU 19a	1250% / deduction	182	15	229	18
20	Market risk	22,452	1,796	24,471	1,958
	of which:				
20	Standardized approach	2,904	232	3,041	243
21	IMA	19,548	1,564	21,430	1,714
EU 22a	Large exposures	0	0	0	0
23	Operational risk	58,488	4,679	58,937	4,715
	of which:				
EU 23a	Basic indicator approach	0	0	0	0
EU 23b	Standardized approach	0	0	0	0
EU 23c	Advanced measurement approach	58,488	4,679	58,937	4,715
	Amounts below the thresholds for deduction (subject to 250% risk weight)	12,553	1,004	12,430	994
29	Total	358,785	28,703	359,534	28,763

As of June 30, 2023, RWA was € 358.8 billion compared to € 359.5 billion as of March 31, 2023. The decrease of € 0.7 billion was primarily driven by the RWA for market risk, RWA for counterparty credit risk and RWA for operational risk, which was partially offset by increased RWA for credit risk (excluding counterparty credit risk) and RWA for securitization exposures in the banking book (after the cap).

The reduction in market risk RWA by € 2.0 billion was primarily driven by decreases in the Value-at-Risk and Stressed Value-at-Risk components due to a lower Capital Multiplier. Exposure changes also led to a lower Stressed Value-at-Risk but a higher Incremental Risk Charge that partially offset each other. The decrease of € 0.6 billion for counterparty credit risk RWA was mainly driven by the decrease of € 1.0 billion in other CCR due to decreased exposures for securities financing transactions (SFTs) under the financial collateral comprehensive method. Additionally, RWA for counterparty credit risk under the internal model method (IMM) decreased by € 0.2 billion mainly due to lower exposures and foreign exchange movements, partly offset by a deterioration of counterparty ratings. The decrease for counterparty credit risk was partially offset by an increase of € 0.4 billion for credit valuation adjustment (CVA) RWA mainly due to the removal of pension fund exemptions and business activities as well as an increase € 0.3 billion under the standardized approach mainly due to the increased potential

future exposure. The reduction in operational risk RWA by € 0.4 billion was mainly driven by a more favorable development of qualitative adjustments and external losses.

The aforementioned decreases were partly offset by an increase in credit risk RWA (excluding counterparty credit risk) by € 1.4 billion which was mainly driven by the increase of € 1.6 billion in RWA for equities under simple risk weighted approach due to increased exchange-traded equity exposures. Additionally, the RWA for securitization exposures in the banking book (after the cap) increased by € 1.0 billion mainly driven by higher RWA for the securitization under the IRB approach mainly due to new synthetic securitizations.

The movements of RWA for credit and market risk are discussed below in sections “Development of credit risk RWA”, “CCR exposures development”, “CCR CVA capital charge” and “Development of market risk RWA”.

Leverage ratio

Deutsche Bank manages its balance sheet on a Group level and, where applicable, locally in each region. In the allocation of financial resources, the Group favors business portfolios with the highest positive impact on its profitability and shareholder value. The Group monitors and analyzes balance sheet developments and tracks certain market observed balance sheet ratios. Based on this, the Group triggers discussions and management action by the Group Risk Committee.

Article 451 (1)(a-c),(2) and (3) CRR

The following tables show the leverage ratio exposure and the leverage ratio. The first table EU LR1 delivers a reconciliation of accounting assets reported in the IFRS financial statements to the leverage ratio exposure. The leverage ratio common disclosure table EU LR2 presents the components of the leverage exposure, the Tier 1 capital and the leverage ratio as well as the mean value for gross securities financing transaction (SFT) assets. For further details on Tier 1 capital please also refer to the “Regulatory capital composition, prudential filters and deduction items” section in chapter “Capital” in this report. Table EU LR3 provides a further breakdown of the balance sheet exposures (excluding derivatives, SFTs and exempted exposures).

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

in € bn. (unless stated otherwise)		a	
		Jun 30, 2023	Dec 31, 2022
1	Total assets as per published financial statements	1,300	1,337
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of prudential consolidation	3	2
3	(Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)	0	0
4	(Adjustment for temporary exemption of exposures to central banks (if applicable))	0	0
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)	N/M	N/M
6	Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	(30)	(12)
7	Adjustment for eligible cash pooling transactions	16	16
8	Adjustment for derivative financial instruments	(132)	(171)
9	Adjustment for securities financing transactions (SFTs)	4	3
10	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	126	129
11	(Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital)	(6)	(5)
EU-11a	(Adjustment for exposures excluded from the total exposure measure in accordance with point (c) of Article 429a(1) CRR)	N/M	N/M
EU-11b	(Adjustment for exposures excluded from the total exposure measure in accordance with point (j) of Article 429a(1) CRR)	N/M	N/M
12	Other adjustments	(45)	(58)
13	Total exposure measure	1,236	1,240

N/M – Not meaningful

EU LR2 – LRCom: Leverage ratio common disclosure

	a	b
in € bn. (unless stated otherwise)	Jun 30, 2023	Dec 31, 2022
On-balance sheet exposures (excluding derivatives and SFTs)		
1 On-balance sheet items (excluding derivatives, SFTs, but including collateral)	933	945
2 Gross-up for derivatives collateral provided, where deducted from the balance sheet assets pursuant to the applicable accounting framework	0	0
3 (Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(26)	(33)
4 (Adjustment for securities received under securities financing transactions that are recognised as an asset)	0	0
5 (General credit risk adjustments to on-balance sheet items)	(5)	(5)
6 (Asset amounts deducted in determining Tier 1 capital)	(11)	(11)
7 Total on-balance sheet exposures (excluding derivatives and SFTs)	890	896
Derivative exposures		
8 Replacement cost associated with SA-CCR derivatives transactions (ie net of eligible cash variation margin)	49	56
EU-8a Derogation for derivatives: replacement costs contribution under the simplified standardised approach	N/M	N/M
9 Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	79	77
EU-9a Derogation for derivatives: Potential future exposure contribution under the simplified standardised approach	N/M	N/M
EU-9b Exposure determined under Original Exposure Method	N/M	N/M
10 (Exempted CCP leg of client-cleared trade exposures) (SA-CCR)	(18)	(18)
EU-10a (Exempted CCP leg of client-cleared trade exposures) (simplified standardised approach)	N/M	N/M
EU-10b (Exempted CCP leg of client-cleared trade exposures) (Original exposure method)	N/M	N/M
11 Adjusted effective notional amount of written credit derivatives	589	716
12 (Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(571)	(700)
13 Total derivatives exposures	128	130
Securities financing transaction (SFT) exposures		
14 Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	274	229
15 (Netted amounts of cash payables and cash receivables of gross SFT assets)	(177)	(139)
16 Counterparty credit risk exposure for SFT assets	5	6
EU-16a Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429e(5) and 222 CRR	N/M	N/M
17 Agent transaction exposures	0	0
EU-17a (Exempted CCP leg of client-cleared SFT exposure)	0	0
18 Total securities financing transaction exposures	102	96
Other off-balance sheet exposures		
19 Off-balance sheet exposures at gross notional amount	368	370
20 (Adjustments for conversion to credit equivalent amounts)	(242)	(241)
(General provisions deducted in determining Tier 1 capital and specific provisions associated with off-balance sheet exposures)	(0)	(0)
22 Off-balance sheet exposures	126	128
Excluded exposures		
EU-22a (Exposures excluded from the total exposure measure in accordance with point (c) of Article 429a(1) CRR)	N/M	N/M
EU-22b (Exposures exempted in accordance with point (j) of Article 429a(1) CRR (on and off balance sheet))	N/M	N/M
EU-22c (Excluded exposures of public development banks (or units) - Public sector investments)	N/M	N/M
EU-22d (Excluded exposures of public development banks (or units) - Promotional loans)	N/M	N/M
EU-22e (Excluded passing-through promotional loan exposures by non-public development banks (or units))	N/M	N/M
EU-22f (Excluded guaranteed parts of exposures arising from export credits)	(5)	(5)
EU-22g (Excluded excess collateral deposited at triparty agents)	N/M	N/M
EU-22h (Excluded CSD related services of CSD/institutions in accordance with point (o) of Article 429a(1) CRR)	N/M	N/M
(Excluded CSD related services of designated institutions in accordance with point (p) of Article 429a(1) CRR)	N/M	N/M
EU-22i	N/M	N/M
EU-22j (Reduction of the exposure value of pre-financing or intermediate loans)	(5)	(5)
EU-22k (Total exempted exposures)	(10)	(10)
Capital and total exposure measure		
23 Tier 1 capital	57.7	56.6
24 Total exposure measure	1,236	1,240
Leverage ratio		
25 Leverage ratio (in %)	4.7%	4.6%
Leverage ratio (excluding the impact of the exemption of public sector investments and promotional loans)	4.7%	4.6%
EU-25 (%)	4.7%	4.6%
25a Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) (%)	4.7%	4.6%
26 Regulatory minimum leverage ratio requirement (%)	3.0%	3.0%
EU-26a Additional own funds requirements to address the risk of excessive leverage (%)	0.0%	0.0%
EU-26b of which: to be made up of CET1 capital	0.0%	0.0%
27 Leverage ratio buffer requirement (%)	0.75%	0.00%
EU-27a Overall leverage ratio requirement (%)	3.75%	3.00%

	a	b
in € bn. (unless stated otherwise)	Jun 30, 2023	Dec 31, 2022
Choice on transitional arrangements and relevant exposures		
EU-27b Choice on transitional arrangements for the definition of the capital measure	Transitional	Transitional
Disclosure of mean values		
28 Mean of daily values of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivable	133	119
29 Quarter-end value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables	97	90
30 Total exposure measure (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	1,273	1,269
30a Total exposure measure (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	1,273	1,269
31 Leverage ratio (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	4.5%	4.5%
31a Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	4.5%	4.5%

N/M – Not meaningful

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

	a	a
in € bn. (unless stated otherwise)	Jun 30, 2023	Dec 31, 2022
EU-1 Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures)	891	896
of which:		
EU-2 Trading book exposures	114	100
EU-3 Banking book exposures	777	796
of which:		
EU-4 Covered bonds	0	0
EU-5 Exposures treated as sovereigns	210	229
EU-6 Exposures to regional governments, MDB, international organizations and PSE, not treated as sovereigns	1	1
EU-7 Institutions	10	11
EU-8 Secured by mortgages of immovable properties	217	218
EU-9 Retail exposures	33	33
EU-10 Corporates	221	222
EU-11 Exposures in default	10	10
EU-12 Other exposures (e.g. equity, securitizations, and other non-credit obligation assets)	75	72

Process used to manage the risk of excessive leverage

Article 451 (1)(d) CRR and EU LRA

The Group Risk Committee is mandated to oversee, control and monitor integrated planning of the Group's risk profile and capital capacity. The Group Asset and Liability Committee (ALCO) actively manages leverage exposure capacity within the Risk Appetite Framework via a limit setting process to

- Allocate group leverage exposure capacity to businesses
- Support business achievement of strategic performance plans
- Provide a firm basis for achieving the target leverage ratio
- Incentivize businesses to make appropriate decisions on its portfolios, with consideration to asset maturity and encumbrance amongst others
- Maintain risk and leverage exposure discipline

The governance framework ensures that the leverage exposure capacity is carefully decided to reach the Group's external leverage ratio target and avoids an excessive leverage of the bank and its divisions. The resulting leverage exposure limits include all assets including those inflating the Group's balance sheet through asset encumbrance. In the case of divisions exceeding its agreed limits, charges are imposed on the division for the excess amount. The limit excess charges are calculated in accordance with the Group-wide limit-setting framework for leverage.

Factors that had an impact on the leverage ratio in the first half of 2023

Article 451 (1)(e) CRR and EU LRA

A minimum leverage ratio requirement of 3% was introduced effective starting June 28, 2021. Starting January 1, 2023, an additional leverage ratio buffer requirement of 50% of the applicable G-SII buffer rate applies. This additional requirement equals 0.75% for Deutsche Bank.

As of June 30, 2023, the leverage ratio was 4.7% compared to 4.6% as of December 31, 2022. This takes into account a Tier 1 capital of € 57.7 billion over an applicable exposure measure of € 1,236.0 billion as of June 30, 2023 (€ 56.6 billion and € 1,240.5 billion as of December 31, 2022, respectively).

In the first half of 2023 the leverage exposure decreased by € 4.4 billion to € 1,236.0 billion, largely driven by the leverage exposure for the asset items not related to derivatives and secured financing transactions (SFTs) which in total decreased by € 5.4 billion. This reflects the development of the balance sheet: decreases in cash and central bank/interbank balances by € 15.5 billion and loans by € 6.4 billion were partly offset by increases in non-derivative trading assets by € 15.3 billion and pending settlements by € 5.0 billion on a net basis (€ 22.8 billion on a gross basis from seasonally low year-end levels); the remaining asset items not outlined separately decreased by € 3.3 billion. In addition, off-balance sheet leverage exposures decreased by € 2.9 billion corresponding to lower notional amounts for financial guarantees. Furthermore, the leverage exposure related to derivatives decreased by € 2.3 billion. These decreases were partly offset by SFT-related items (securities purchased under resale agreements, securities borrowed and receivables from prime brokerage) which increased by € 6.0 billion, in line with the development on the balance sheet.

The decrease in leverage exposure in the first half of 2023 included a negative foreign exchange impact of € 13.0 billion, mainly due to the weakening of the U.S. Dollar versus the Euro. The effects from foreign exchange rate movements are embedded in the movement of the leverage exposure items discussed in this section.

Credit risk and credit risk mitigation

General quantitative information on credit risk

Residual maturity breakdown of credit exposure

Article 442 (g) CRR

Table EU CR1-A provides the net credit exposures by maturities and exposure classes. The exposure amount includes on-balance sheet items, whereby the net exposure value is calculated by deducting credit risk adjustments from its gross carrying amount. The net exposure is split into the below 5 categories based on the residual contractual maturity of the instrument.

- On demand: where the counterparty has a choice of when the amount is repaid
- Bucketing remaining maturity: 0 to 1 year, 1 to 5 years, and more than 5 years
- No stated maturity: where an exposure has no stated maturity for reasons other than the counterparty having the choice of the repayment date

The breakdown into the exposure classes follows those as defined for the IRBA (i.e., combining the advanced and foundation IRB) as well as for the standardized approach. In the IRB approach, the line item “Central governments and central banks” includes exposures to regional governments or local authorities, public sector entities, multilateral development banks and international organizations. The exposure class “Other items” within the standardized approach includes all exposures not covered in the other categories.

EU CR1-A – Maturity of exposures

		Jun 30, 2023					
		a	b	c	d	e	f
		Net exposure value					
in € m.		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Central governments and central banks	85,264	13,593	8,026	14,875	0	121,759
2	Institutions	4,496	3,218	2,892	907	0	11,513
3	Corporates	15,112	99,584	96,911	30,102	0	241,709
4	Retail	2,521	6,855	18,681	182,385	0	210,441
5	Equity	1,055	880	4	9	0	1,948
5a	Other non-credit obligation asset	3,315	1,946	750	5,053	0	11,063
6	Total IRB approach	111,761	126,076	127,263	233,331	0	598,432
7	Central governments or central banks	73,366	6,756	3,255	7,214	0	90,592
8	Regional governments or local authorities	91	662	280	571	0	1,604
9	Public sector entities	48	4	265	152	0	469
10	Multilateral development banks	0	0	344	101	0	445
11	International organizations	0	965	0	66	0	1,031
12	Institutions	50	20	0	3,240	0	3,310
13	Corporates	2,142	5,510	3,513	1,225	0	12,391
14	Retail	432	144	416	606	0	1,598
15	Secured by mortgages on immovable property	528	491	662	3,154	0	4,835
16	Exposures in default ¹	65	143	191	237	0	637
17	Items associated with particularly high risk	8	1	106	24	0	138
18	Covered bonds	0	0	0	0	0	0
19	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
20	Collective investments undertakings (CIU)	0	0	0	0	0	0
21	Equity exposures	0	0	0	53	0	53
22	Other items	0	137	0	0	0	137
23	Total standardized approach	76,665	14,691	8,842	16,406	0	116,603
24	Total	188,426	140,767	136,105	249,737	0	715,035

		Dec 31, 2022					
		a	b	c	d	e	f
		Net exposure value					
in € m.		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Central governments and central banks	78,918	12,451	13,494	14,168	0	119,032
2	Institutions	6,241	2,778	2,783	1,186	0	12,988
3	Corporates	16,493	99,838	96,127	33,452	0	245,909
4	Retail	2,187	5,522	19,651	179,846	0	207,206
5	Equity	1,361	719	3	47	0	2,130
5a	Other non-credit obligation asset	3,305	2,714	752	4,789	0	11,561
6	Total IRB approach	108,505	124,022	132,810	233,488	0	598,826
7	Central governments or central banks	88,572	13,083	3,447	6,692	0	111,794
8	Regional governments or local authorities	125	1,675	324	327	0	2,450
9	Public sector entities	43	26	226	201	0	496
10	Multilateral development banks	0	0	406	209	0	615
11	International organizations	0	851	0	64	0	915
12	Institutions	25	18	0	3,173	0	3,216
13	Corporates	3,102	6,571	3,823	987	0	14,483
14	Retail	492	167	425	630	0	1,714
15	Secured by mortgages on immovable property	540	531	770	3,102	0	4,943
16	Exposures in default ¹	151	141	215	306	0	813
17	Items associated with particularly high risk	2	1	2	33	0	39
18	Covered bonds	0	0	0	0	0	0
19	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
20	Collective investments undertakings (CIU)	0	0	0	0	0	0
21	Equity exposures	0	0	0	0	0	0
22	Other items	0	1	0	0	0	1
23	Total standardized approach	92,903	22,923	9,423	15,417	0	140,667
24	Total	201,408	146,945	142,234	248,905	0	739,493

¹ In light of EBA guidance (Q&A 2017_3481) the defaulted exposure is presented within the standardized approach as a total in row 16 but also shown as assigned to their respective exposure classes. In order to avoid double counting of exposures, the total exposure of the standardized approach as presented in row 23 does not take into account figures disclosed under row 16

Quality of non-performing exposures by geography

The following 6 tables (EU CQ4, EU CQ5, EU CR1, EU CQ3, EU CR2 and EU CQ1) provide information on performing and non-performing exposures.

Relevant exposures are debt instruments (debt securities, loans, advances, demand deposits) as well as off-balance sheet exposures (loan commitments given, financial guarantees given and any other commitments) excluding those exposures held for trading.

The amounts shown are based on the IFRS gross carrying and nominal values according to the regulatory scope of consolidation. The gross carrying amount reflects the exposure value before deduction of accumulated impairment, provisions and accumulated negative changes due to credit risk for non-performing exposures.

An exposure is being classified as non-performing if it meets the non-performing criteria in Article 47a of the CRR and an exposure is classified as defaulted if it meets the definition of default as per Article 178 of the CRR. Exposures subject to impairment under IFRS 9 include debt instruments at amortized cost and fair value through OCI as well as off-balance sheet exposures.

Article 442 (c+e) CRR

Table EU CQ4 provides information about performing and non-performing exposures broken down by significant countries. For each reporting period Deutsche Bank considers the top 25 countries by exposure to be significant, as it represents more than 90% of the Group's total exposure. Immaterial exposures, with individual exposures being below € 3.5 billion, are included in "Other countries". The geographical distribution is based on the legal domicile of the counterparty or issuer.

EU CQ4 – Quality of non-performing exposures by geography

		Jun 30, 2023						
		a	b	c	d	e	f	g
		Gross carrying/nominal amount					Provisions on off-balance-sheet commitments and financial guarantees	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		of which non-performing			of which subject to impairment	Accumulated impairment		
	in € m.			of which defaulted	of which subject to impairment	Accumulated impairment		
1	On-balance-sheet exposures¹	737,342	13,412	13,295	647,726	5,301	0	18
2	Australia	6,076	34	34	5,716	11	0	0
3	Austria	2,741	3	3	1,936	2	0	0
4	Belgium	2,564	16	16	2,533	2	0	0
5	Canada	5,973	0	0	2,079	12	0	0
6	Cayman Islands	39,057	155	155	10,447	14	0	0
7	China	4,578	36	36	4,011	14	0	0
8	France	14,575	235	235	7,562	38	0	0
9	Germany	266,641	4,247	4,140	263,484	2,407	0	0
10	Hong Kong	3,527	237	237	3,343	171	0	0
11	India	9,198	471	471	9,042	108	0	0
12	Ireland	8,243	450	450	6,555	105	0	0
13	Italy	37,755	1,149	1,148	35,989	807	0	0
14	Japan	12,977	102	102	3,908	6	0	0
15	Jersey	2,683	58	58	2,667	38	0	0
16	Luxembourg	18,677	180	180	18,288	35	0	0
17	Netherlands	10,663	129	129	10,231	63	0	13
18	Poland	4,778	131	128	4,710	30	0	1
19	Singapore	6,033	79	79	5,487	12	0	0
20	Spain	20,337	986	982	19,992	412	0	0
21	Sweden	2,053	59	59	1,302	6	0	0
22	Switzerland	7,100	378	378	6,773	33	0	0
23	Turkey	6,193	108	108	4,323	12	0	0
24	U.S.	145,415	1,993	1,993	128,528	520	0	0
25	United Kingdom	34,306	241	241	29,091	24	0	0
26	Virgin Islands, British	4,968	229	229	4,968	34	0	0
27	Other countries	60,231	1,703	1,703	54,764	389	0	4
28	Off-balance-sheet exposures	313,416	2,735	2,734	0	0	498	0
29	Australia	3,274	1	1	0	0	4	0
30	Austria	1,130	0	0	0	0	1	0
31	Belgium	2,286	33	33	0	0	1	0
32	Canada	2,348	0	0	0	0	5	0
33	Cayman Islands	2,616	11	11	0	0	1	0
34	China	2,003	0	0	0	0	0	0
35	France	8,259	16	16	0	0	5	0
36	Germany	94,632	425	424	0	0	130	0
37	Hong Kong	1,487	14	14	0	0	5	0
38	India	4,713	10	10	0	0	3	0
39	Ireland	4,974	12	12	0	0	3	0
40	Italy	9,316	24	24	0	0	23	0
41	Japan	871	4	4	0	0	0	0
42	Jersey	946	7	7	0	0	1	0
43	Luxembourg	7,218	94	94	0	0	10	0
44	Netherlands	12,339	110	110	0	0	14	0
45	Poland	1,989	1	1	0	0	0	0
46	Singapore	2,252	12	12	0	0	1	0
47	Spain	7,146	43	42	0	0	19	0
48	Sweden	2,469	5	5	0	0	2	0
49	Switzerland	10,584	3	3	0	0	5	0
50	Turkey	535	0	0	0	0	1	0
51	U.S.	99,815	1,036	1,036	0	0	146	0
52	United Kingdom	12,080	36	36	0	0	14	0
53	Virgin Islands, British	369	22	22	0	0	0	0
54	Other countries	17,764	814	814	0	0	104	0
55	Total	1,050,758	16,147	16,029	647,726	5,301	498	18

¹ The on-balance sheet exposure includes debt securities and loans and advances

		Dec 31, 2022						
		a	b	c	d	e	f	g
		Gross carrying/nominal amount					Provisions on off-balance-sheet commitments and financial guarantees	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		of which non-performing			of which subject to impairment	Accumulated impairment		
in € m.				of which defaulted	of which subject to impairment	Accumulated impairment		
1	On-balance-sheet exposures¹	733,046	12,760	12,543	645,664	5,096	0	18
2	Australia	6,090	33	33	5,135	42	0	0
3	Austria	2,751	2	2	1,769	2	0	0
4	Belgium	2,130	16	16	2,099	5	0	0
5	Canada	6,766	0	0	2,267	8	0	0
6	Cayman Islands	29,072	149	149	11,161	15	0	0
7	China	4,768	48	48	4,463	15	0	0
8	France	14,660	156	156	6,940	27	0	0
9	Germany	262,076	3,895	3,745	259,036	2,202	0	0
10	Hong Kong	3,524	526	526	3,459	164	0	0
11	India	9,078	439	438	8,590	113	0	0
12	Ireland	9,123	595	539	7,106	124	0	0
13	Italy	35,745	1,111	1,110	35,257	821	0	0
14	Japan	10,051	108	108	3,630	10	0	0
15	Jersey	2,830	87	87	2,789	71	0	0
16	Luxembourg	17,927	73	73	17,254	33	0	0
17	Netherlands	11,846	174	174	11,376	49	0	13
18	Poland	5,248	69	65	5,098	29	0	1
19	Singapore	6,495	87	87	6,263	14	0	0
20	Spain	20,837	1,016	1,009	20,780	392	0	0
21	Sweden	1,770	59	59	1,130	6	0	0
22	Switzerland	8,250	440	440	8,035	39	0	0
23	Turkey	6,037	140	139	4,154	9	0	0
24	U.S.	158,239	1,412	1,412	134,765	418	0	0
25	United Kingdom	30,667	83	83	21,335	48	0	0
26	Virgin Islands, British	5,685	276	276	5,685	37	0	0
27	Other countries	61,382	1,766	1,766	56,089	405	0	4
28	Off-balance-sheet exposures	313,878	2,837	2,833	0	0	560	0
29	Australia	3,030	27	27	0	0	2	0
30	Austria	1,273	0	0	0	0	1	0
31	Belgium	2,272	13	13	0	0	1	0
32	Canada	2,319	0	0	0	0	4	0
33	Cayman Islands	2,542	12	12	0	0	0	0
34	China	1,972	0	0	0	0	0	0
35	France	9,438	18	18	0	0	4	0
36	Germany	94,501	445	442	0	0	140	0
37	Hong Kong	1,534	7	7	0	0	5	0
38	India	4,325	11	11	0	0	3	0
39	Ireland	3,621	1	1	0	0	3	0
40	Italy	8,901	19	19	0	0	19	0
41	Japan	1,200	43	43	0	0	1	0
42	Jersey	1,331	7	7	0	0	1	0
43	Luxembourg	7,901	84	84	0	0	4	0
44	Netherlands	10,744	181	181	0	0	34	0
45	Poland	976	4	4	0	0	0	0
46	Singapore	2,476	8	8	0	0	2	0
47	Spain	7,225	43	43	0	0	19	0
48	Sweden	2,243	5	5	0	0	1	0
49	Switzerland	10,772	3	3	0	0	6	0
50	Turkey	333	0	0	0	0	3	0
51	U.S.	102,592	1,235	1,235	0	0	212	0
52	United Kingdom	11,909	25	25	0	0	12	0
53	Virgin Islands, British	384	0	0	0	0	0	0
54	Other countries	18,064	644	644	0	0	83	0
55	Total	1,046,924	15,597	15,375	645,664	5,096	560	18

¹ The on-balance sheet exposure includes debt securities and loans and advances.

Credit quality of loans and advances to non-financial corporations by industry

Article 442 (c+e) CRR

Table EU CQ5 provides information about performing and non-performing exposures to non-financial corporations broken down by industry. The industry classification is based on NACE codes. NACE (Nomenclature des Activités Économiques dans la Communauté Européenne) is a European industry standard classification system for classifying business activities.

EU CQ5 – Credit quality of loans and advances to non-financial corporations by industry

							Jun 30, 2023
		a	b	c	d	e	f
		Gross carrying amount					Accumulated negative changes in fair value due to credit risk on non-performing exposures
		of which non-performing					
in € m.				of which defaulted	of which loans and advances subject to impairment	Accumulated impairment	
1	Agriculture, forestry and fishing	439	27	27	439	10	0
2	Mining and quarrying	2,382	43	43	2,306	30	0
3	Manufacturing	31,890	1,530	1,530	31,862	691	0
4	Electricity, gas, steam and air conditioning supply	5,157	70	70	5,078	22	0
5	Water supply	517	8	8	517	7	0
6	Construction	4,158	251	250	4,157	116	0
7	Wholesale and retail trade	20,996	749	749	20,941	344	0
8	Transport and storage	5,495	272	272	5,478	46	0
9	Accommodation and food service activities	1,840	77	77	1,840	30	0
10	Information and communication	7,923	201	201	7,885	138	0
11	Financial and insurance activities	40,239	1,070	1,070	39,779	549	0
12	Real estate activities	50,204	1,342	1,342	50,110	253	4
13	Professional, scientific and technical activities	9,522	172	172	9,521	82	0
14	Administrative and support service activities	10,408	423	423	10,192	154	0
15	Public administration and defense, compulsory social security	4,431	37	37	553	1	0
16	Education	253	7	7	253	3	0
17	Human health services and social work activities	4,555	66	66	4,555	28	0
18	Arts, entertainment and recreation	1,044	21	21	1,044	8	0
19	Other service activities	9,512	348	348	9,322	209	0
20	Total	210,964	6,714	6,714	205,833	2,720	4

							Dec 31, 2022
		a	b	c	d	e	f
		Gross carrying amount					Accumulated negative changes in fair value due to credit risk on non-performing exposures
		of which non-performing					
in € m.				of which defaulted	of which loans and advances subject to impairment	Accumulated impairment	
1	Agriculture, forestry and fishing	524	23	23	524	10	0
2	Mining and quarrying	2,440	70	70	2,400	32	0
3	Manufacturing	32,682	1,278	1,278	32,674	624	0
4	Electricity, gas, steam and air conditioning supply	6,878	51	51	6,803	42	0
5	Water supply	582	39	39	582	8	0
6	Construction	4,263	281	280	4,263	116	0
7	Wholesale and retail trade	22,916	764	763	22,877	437	0
8	Transport and storage	6,066	224	224	6,043	52	0
9	Accommodation and food service activities	1,968	117	117	1,968	66	0
10	Information and communication	8,033	143	143	7,970	121	0
11	Financial and insurance activities	39,160	969	969	38,869	535	0
12	Real estate activities	48,207	1,043	1,043	48,100	236	0
13	Professional, scientific and technical activities	9,533	186	186	9,529	87	0
14	Administrative and support service activities	8,842	536	467	8,651	143	0
15	Public administration and defense, compulsory social security	4,751	42	42	261	0	0
16	Education	249	4	4	249	3	0
17	Human health services and social work activities	4,502	83	83	4,502	26	0
18	Arts, entertainment and recreation	1,189	29	29	1,189	10	0
19	Other service activities	6,475	232	228	6,463	121	4
20	Total	209,260	6,114	6,039	203,918	2,668	4

Performing and non-performing exposures and related provisions

Article 442 (c) CRR

Table EU CR1 provides information about performing and non-performing exposures broken down by Supervisory Reporting counterparty classes.

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

Jun 30, 2023

in € m.	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions								
	Performing exposures			Non-performing exposures			Performing exposures - accumulated impairment and provisions			Non-performing exposures - accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions			Collaterals and financial guarantees received on		
	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3	Accumulated partial write-off	non-performing exposures	non-performing exposures
Cash balances at central banks and other demand deposits	168,950	168,183	767	143	0	143	3	3	1	0	0	0	0	148	0
Loans and advances															
Central banks	6,986	1,895	0	0	0	0	0	0	0	0	0	0	0	6,441	0
General governments	21,550	18,589	625	827	0	827	6	5	1	19	0	19	0	5,185	723
Credit institutions	49,565	34,614	1,566	26	0	19	52	51	1	1	0	1	0	19,982	0
Other financial corporations	184,168	120,129	5,287	1,268	0	1,029	75	52	23	175	0	161	7	103,948	397
Non-financial corporations	204,250	171,814	27,345	6,714	0	6,173	507	219	288	2,218	0	2,123	127	107,288	2,557
of which: SMEs	28,524	22,348	6,138	1,503	0	1,451	81	25	57	578	0	574	13	19,748	578
Households	207,515	190,233	17,282	4,353	173	4,176	599	237	361	1,579	17	1,559	15	150,999	1,794
Total Loans and advances	674,034	537,275	52,105	13,187	174	12,224	1,238	564	674	3,992	18	3,864	149	393,842	5,471
Debt securities															
Central banks	1,121	1,121	0	0	0	0	0	0	0	0	0	0	0	0	0
General governments	36,847	35,146	110	0	0	0	12	10	1	0	0	0	0	619	0
Credit institutions	1,723	1,638	0	0	0	0	0	0	0	0	0	0	0	142	0
Other financial corporations	5,917	4,114	244	54	0	39	5	1	4	13	0	0	0	561	0
Non-financial corporations	4,289	2,136	536	171	0	147	14	9	5	46	0	46	0	1,443	68
Total Debt securities	49,896	44,155	889	225	0	186	30	20	10	58	0	46	0	2,765	68
Off-balance sheet exposures															
Central banks	59	58	1	0	0	0	0	0	0	0	0	0	0	53	0
General governments	6,786	6,621	165	392	0	392	2	1	0	1	0	1	0	147	25
Credit institutions	7,224	7,187	37	0	0	0	1	1	0	0	0	0	0	470	0
Other financial corporations	50,166	48,295	1,872	132	0	131	21	15	6	7	0	7	0	11,485	4
Non-financial corporations	216,550	198,504	18,046	2,149	1	2,136	196	111	84	232	0	232	0	19,437	177
Households	29,896	28,380	1,516	63	0	63	19	11	8	19	0	19	0	8,347	28
Total Off-balance sheet exposures	310,680	289,045	21,636	2,735	1	2,722	239	141	98	260	0	260	0	39,940	235
Total¹	1,203,561	1,038,658	75,397	16,290	176	15,275	1,511	728	783	4,310	18	4,169	149	436,695	5,773

¹ Total including Cash balances at central banks and other demand deposits.

Dec 31, 2022

in € m.	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	
	Gross carrying amount/nominal amount								Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions							
	Performing exposures				Non-performing exposures			Performing exposures - accumulated impairment and provisions					Non-performing exposures - accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collaterals and financial guarantees received on	
	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3	Accumulated partial write-off	performing exposures	non-performing exposures	
Cash balances at central banks and other demand deposits	183,516	182,630	885	159	0	159	5	3	2	0	0	0	0	149	0	
Loans and advances																
Central banks	6,850	2,769	0	0	0	0	0	0	0	0	0	0	0	5,482	0	
General governments	15,794	14,088	418	862	0	862	5	5	0	8	0	8	0	3,503	797	
Credit institutions	44,893	32,721	833	44	0	36	54	53	1	1	0	1	0	15,952	0	
Other financial corporations	183,778	119,281	4,123	1,290	0	1,068	71	56	15	127	0	112	1	108,925	295	
Non-financial corporations	203,146	174,994	22,969	6,114	19	5,370	490	229	261	2,181	1	2,064	98	110,511	2,321	
of which: SMEs	31,153	25,244	5,884	1,512	1	1,363	88	27	60	600	0	597	15	21,940	576	
Households	210,392	194,394	15,998	4,042	161	3,875	593	245	349	1,445	16	1,427	15	152,055	1,640	
Total Loans and advances	664,853	538,246	44,340	12,352	180	11,212	1,214	588	626	3,761	17	3,612	113	396,427	5,052	
Debt securities																
Central banks	1,479	1,479	0	0	0	0	0	0	0	0	0	0	0	0	0	
General governments	41,124	39,694	98	19	0	19	16	14	1	10	0	10	0	100	0	
Credit institutions	1,784	1,773	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other financial corporations	6,344	4,839	190	39	0	26	4	1	4	13	0	0	0	256	0	
Non-financial corporations	4,701	2,362	122	350	0	326	19	13	6	76	0	76	0	1,839	193	
Total Debt securities	55,433	50,147	411	408	0	370	40	28	11	99	0	86	0	2,195	193	
Off-balance sheet exposures																
Central banks	62	61	1	0	0	0	0	0	0	0	0	0	0	12	0	
General governments	6,676	6,591	85	328	0	328	3	2	0	2	0	2	0	131	2	
Credit institutions	7,325	7,290	35	0	0	0	2	2	0	0	0	0	0	473	0	
Other financial corporations	48,489	47,520	968	147	0	146	17	14	2	21	0	21	0	12,466	13	
Non-financial corporations	217,146	201,268	15,878	2,304	4	2,292	200	117	83	270	0	270	0	20,984	519	
Households	31,343	30,267	1,076	58	0	58	29	18	11	17	0	17	0	9,146	17	
Total Off-balance sheet exposures	311,041	292,998	18,044	2,837	4	2,825	250	153	97	310	0	310	0	43,213	551	
Total¹	1,214,843	1,064,021	63,680	15,755	184	14,565	1,509	773	736	4,170	17	4,007	113	441,985	5,797	

¹ Total including Cash balances at central banks and other demand deposits.

Credit quality of performing and non-performing exposures by days past due

Article 442 (c-d) CRR

Table EU CQ3 provides information about performing and non-performing exposures by days past due broken down by Supervisory Reporting counterparty classes.

EU CQ3 – Credit quality of performing and non-performing exposures by past due days

	Jun 30, 2023											
	a	b	c	d	e	f	g	h	i	j	k	l
	Performing exposures							Non-performing exposure				
in € m.	Total	Not past due or past due <= 30 days	Past due >30d and <=90d	Total	Unlikely to pay that are not past due or past due <= 90d	Past due >90d and <=180d	Past due >180d and <=1yr	Past due >1yr and <=2yrs	Past due >2 and <=5 yrs	Past due >5 and <=7yrs	Past due >7 years	of which defaulted
Cash balances at central banks and other demand deposits	168,950	168,329	622	143	143	0	0	0	0	0	0	143
Loans and advances												
Central banks	6,986	6,986	0	0	0	0	0	0	0	0	0	0
General governments	21,550	21,540	10	827	606	47	174	0	0	0	0	827
Credit institutions	49,565	49,565	0	26	23	0	0	0	3	0	0	26
Other financial corporations	184,168	184,064	104	1,268	1,076	117	2	1	1	71	1	1,268
Non-financial corporations	204,250	203,692	558	6,714	4,966	318	343	279	439	92	278	6,714
of which:												
SME's	28,524	28,414	110	1,503	922	54	91	96	176	51	113	1,503
Households	207,515	206,710	806	4,353	2,190	327	457	474	692	81	131	4,236
Total Loans and advances	674,034	672,557	1,477	13,187	8,861	808	975	754	1,135	244	410	13,070
Debt securities												
Central banks	1,121	1,121	0	0	0	0	0	0	0	0	0	0
General governments	36,847	36,847	0	0	0	0	0	0	0	0	0	0
Credit institutions	1,723	1,723	0	0	0	0	0	0	0	0	0	0
Other financial corporations	5,917	5,917	0	54	54	0	0	0	0	0	0	54
Non-financial corporations	4,289	4,289	0	171	162	0	0	9	0	0	0	171
Total Debt securities	49,896	49,896	0	225	216	0	0	9	0	0	0	225
Off-balance sheet exposures												
Central banks	59	0	0	0	0	0	0	0	0	0	0	0
General governments	6,786	0	0	392	0	0	0	0	0	0	0	392
Credit institutions	7,224	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	50,166	0	0	132	0	0	0	0	0	0	0	132
Non-financial corporations	216,550	0	0	2,149	0	0	0	0	0	0	0	2,147
Households	29,896	0	0	63	0	0	0	0	0	0	0	63
Total Off-balance sheet exposures	310,680	0	0	2,735	0	0	0	0	0	0	0	2,734
Total¹	1,203,561	890,782	2,099	16,290	9,220	808	975	763	1,135	244	410	16,172

¹ Total including Cash balances at central banks and other demand deposits.

	Dec 31, 2022											
	a	b	c	d	e	f	g	h	i	j	k	l
	Performing exposures							Non-performing exposure				
in € m.	Total	Not past due or past due <= 30 days	Past due >30d and <=90d	Total	Unlikely to pay that are not past due or past due <= 90d	Past due >90d and <=180d	Past due >180d and <=1yr	Past due >1yr and <=2yrs	Past due >2 and <=5 yrs	Past due >5 and <=7yrs	Past due >7 years	of which defaulted
Cash balances at central banks and other demand deposits	183,516	182,796	720	159	159	0	0	0	0	0	0	159
Loans and advances												
Central banks	6,850	6,850	0	0	0	0	0	0	0	0	0	0
General governments	15,794	15,794	0	862	862	0	0	0	0	0	0	862
Credit institutions	44,893	44,893	0	44	44	0	0	0	0	0	0	44
Other financial corporations	183,778	183,628	151	1,290	1,204	4	1	1	8	71	1	1,290
Non-financial corporations	203,146	202,829	316	6,114	4,324	342	237	393	453	85	281	6,039
of which:												
SME's	31,153	31,102	51	1,512	873	54	114	120	182	53	117	1,511
Households	210,392	209,691	701	4,042	2,088	280	425	497	554	74	123	3,900
Total Loans and advances	664,853	663,685	1,168	12,352	8,521	627	663	891	1,016	231	404	12,135
Debt securities												
Central banks	1,479	1,479	0	0	0	0	0	0	0	0	0	0
General governments	41,124	41,124	0	19	19	0	0	0	0	0	0	19
Credit institutions	1,784	1,784	0	0	0	0	0	0	0	0	0	0
Other financial corporations	6,344	6,344	0	39	39	0	0	0	0	0	0	39
Non-financial corporations	4,701	4,701	0	350	163	0	186	0	0	0	0	350
Total Debt securities	55,433	55,433	0	408	221	0	186	0	0	0	0	408
Off-balance sheet exposures												
Central banks	62	0	0	0	0	0	0	0	0	0	0	0
General governments	6,676	0	0	328	0	0	0	0	0	0	0	328
Credit institutions	7,325	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	48,489	0	0	147	0	0	0	0	0	0	0	147
Non-financial corporations	217,146	0	0	2,304	0	0	0	0	0	0	0	2,299
Households	31,343	0	0	58	0	0	0	0	0	0	0	58
Total Off-balance sheet exposures	311,041	0	0	2,837	0	0	0	0	0	0	0	2,833
Total¹	1,214,843	901,914	1,887	15,755	8,901	627	850	891	1,016	231	404	15,534

¹ Total including Cash balances at central banks and other demand deposits.

Development of non-performing loans and advances

Article 442 (f) CRR

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

	Jun 30, 2023	Dec 31, 2022
	a	a
in € m.	Gross carrying amount	Gross carrying amount
1 Initial stock of non-performing loans and advances	12,352	12,314
2 Inflows to non-performing portfolios	3,200	3,557
3 Outflows from non-performing portfolios	(2,366)	(3,518)
4 Outflows due to write-offs	(482)	(601)
5 Outflow due to other situations ¹	(1,884)	(2,918)
6 Final stock of non-performing loans and advances	13,187	12,352

¹ Inflows and outflows include restructurings and modifications

Credit quality of forborne exposures

Article 442 (c) CRR

Exposures are being classified as forborne according to the criteria in Article 47b of the CRR.

EU CQ1 – Credit quality of forborne exposures

in € m.	Jun 30, 2023							
	a	b	c	d	e	f	g	h
	Gross carrying amount of forborne exposures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
	Performing forborne	Non-performing forborne	Non-performing forborne, of which defaulted	Non-performing forborne, of which impaired	on performing forborne exposures	on non-performing forborne exposures	Total	of which, non-performing exposures with forbearance measures
Cash balances at central banks and other demand deposits	0	0	0	0	0	0	0	0
Loans and advances	6,635	4,656	4,640	4,619	79	1,354	6,403	1,889
Central banks	0	0	0	0	0	0	0	0
General governments	84	0	0	0	0	0	81	0
Credit institutions	0	8	8	8	0	0	0	0
Other financial corporations	203	377	377	377	2	32	320	188
Non-financial corporations	4,253	3,099	3,095	3,074	47	952	4,019	1,172
Households	2,095	1,172	1,160	1,160	30	370	1,983	529
Debt securities	51	9	9	9	1	1	8	8
Loan commitments given	1,042	237	235	235	6	50	102	14
Total¹	7,728	4,901	4,884	4,863	86	1,405	6,513	1,911

¹ Total including Cash balances at central banks and other demand deposits.

	Dec 31, 2022							
	a	b	c	d	e	f	g	h
	Gross carrying amount of forborne exposures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
in € m.	Performing forborne	Non-performing forborne	Non-performing forborne, of which defaulted	Non-performing forborne, of which impaired	on performing forborne exposures	on non-performing forborne exposures	Total	of which, non-performing exposures with forbearance measures
Cash balances at central banks and other demand deposits	0	0	0	0	0	0	0	0
Loans and advances	6,681	4,432	4,337	4,244	75	1,205	6,642	1,943
Central banks	0	0	0	0	0	0	0	0
General governments	105	0	0	0	0	0	100	0
Credit institutions	0	8	8	8	0	0	0	0
Other financial corporations	200	440	440	440	1	30	376	189
Non-financial corporations	4,716	2,796	2,716	2,623	46	836	4,413	1,162
Households	1,660	1,188	1,174	1,174	28	339	1,753	591
Debt securities	16	186	186	186	0	0	202	186
Loan commitments given	1,316	365	361	361	9	55	338	74
Total¹	8,013	4,983	4,885	4,792	84	1,261	7,182	2,203

¹ Total including Cash balances at central banks and other demand deposits.

Minimum loss coverage for non-performing exposure

Minimum loss coverage for non-performing exposure under Pillar 1

On April 25, 2019 the European Commission published the amendment on Regulation (EU) 2019/630 on minimum loss coverage on non-performing exposure. This regulation established a prudential treatment for NPEs arising from loans originated from April 26, 2019 onwards ("CRR – new NPE's originated after April 26, 2019") and represents a Pillar 1 measure which is legally binding and applies to all banks established in the EU.

The CRR regulation on minimum loss coverage for non-performing exposure does not focus on NPEs arising from loans originated before April 26, 2019 ("CRR - NPE Stock").

The following table provides an overview on Deutsche Bank's CRR – new NPE's originated after April 26, 2019 as of June 30, 2023 and December 31, 2022.

CRR – new NPE's originated after April 26, 2019

	Jun 30, 2023			
	Time passed since exposures classified as non-performing			Total
in € m.	up to 2yrs	>2 and <=9yrs	>9yrs	
Non-Performing Exposure	4,840	1,145	0	5,984
Exposure value ¹	5,194	1,392	0	6,587
Total minimum coverage requirement	0	557	0	557
Total provisions and adjustments or deductions (uncapped)	1,013	557	0	1,570
Total provisions and adjustments or deductions (capped)	0	310	0	310
Applicable amount of insufficient coverage	0	247	0	247

¹ Exposure value in accordance with Article 47c CRR

	Dec 31, 2022			
	Time passed since exposures classified as non-performing			Total
in € m.	up to 2yrs	>2 and <=9yrs	>9yrs	
Non-Performing Exposure	3,994	1,353	0	5,347
Exposure value ¹	5,027	1,627	0	6,654
Total minimum coverage requirement	0	533	0	533
Total provisions and adjustments or deductions (uncapped)	1,169	505	0	1,674
Total provisions and adjustments or deductions (capped)	0	311	0	311
Applicable amount of insufficient coverage	0	222	0	222

¹ Exposure value in accordance with Article 47c CRR

Minimum loss coverage for non-performing exposure under Pillar 2

Non-performing exposures arising from clients defaulting after April 1, 2018

In March 2018 ECB published its “Addendum to the ECB Guidance to banks on non-performing loans: supervisory expectations for prudential provisioning of non-performing exposures”. The guidance focus on NPEs arising from clients defaulting after April 1, 2018 (“ECB – new NPE’s after April 1, 2018”). Like for the CRR – new NPE’s originated after April 26, 2019 a time dependent minimum loss coverage is required. The ECB guidance represents a Pillar 2 measure and its application is subject to a supervisory dialog between the bank and the ECB in context of the annual SREP process.

The ECB – new NPE’s after April 1, 2018 and the CRR – new NPE’s originated after April 26, 2019 differ in the following three key aspects:

- Timing of application: Exposures defaulting after April 1, 2018 are in scope of the ECB – new NPE’s after April 1, 2018, but are only in scope of the CRR – new NPE’s originated after April 26, 2019, if loans are originated after April 26, 2019
- Treatment of loans in the trading book / traded assets: the CRR – new NPE’s originated after April 26, 2019 excludes all loans in the regulatory trading book whereas the ECB – new NPE’s after April 1, 2018 excludes traded assets in accordance with the accounting classifications
- Treatment of Forbearance Measuring: the CRR – new NPE’s originated after April 26, 2019 considers a one year freeze period of minimum loss coverage for exposures where a forbearance measure has been granted. This freeze period for loans with forbearance measure does not exist under the ECB – new NPE’s after April 1, 2018

As long as the aforementioned differences exist, Deutsche Bank will report in the following table all NPE exposures under the ECB – new NPE’s after April 1, 2018, which are not covered in the CRR – new NPE’s originated after April 26, 2019.

The following table provides an overview on Deutsche Bank’s ECB – new NPE’s after April 1, 2018 as of June 30, 2023 and December 31, 2022, not reflected within the CRR – new NPE’s originated after April 26, 2019:

ECB – new NPE’s after April 1, 2018

in € m.	Jun 30, 2023			
	Time passed since exposures classified as non-performing			Total
	up to 2yrs	>2 and <=9yrs	>9yrs	
Non-Performing Exposure	5,262	3,339	0	8,601
Exposure value ¹	5,093	3,532	0	8,625
Total minimum coverage requirement	0	1,697	0	1,697
Total provisions and adjustments or deductions (uncapped)	1,282	1,660	0	2,942
Total provisions and adjustments or deductions (capped)	0	1,174	0	1,174
Applicable amount of insufficient coverage	0	524	0	524

¹ Exposure value in accordance with Article 47c CRR

in € m.	Dec 31, 2022			
	Time passed since exposures classified as non-performing			Total
	up to 2yrs	>2 and <=9yrs	>9yrs	
Non-Performing Exposure	4,912 ²	3,602	0	8,513 ²
Exposure value ¹	5,106	3,835	0	8,941
Total minimum coverage requirement	0	1,472	0	1,472
Total provisions and adjustments or deductions (uncapped)	1,473	1,618	0	3,092
Total provisions and adjustments or deductions (capped)	0	962	0	962
Applicable amount of insufficient coverage	0	510	0	510

¹ Exposure value in accordance with Article 47c CRR

² The numbers have been restated compared to the prior year disclosure

Non-performing exposures arising from clients defaulting before April 1, 2018

ECB announced on July 11, 2018 that legacy stock of NPEs would be addressed by discussing bank-specific supervisory expectations for the provisioning of NPEs.

In August 2019, the ECB published its “Communication on supervisory coverage expectations for NPEs” introducing a minimum loss coverage expectation for NPEs arising from clients defaulting before April 1, 2018 (ECB – NPE Stock).

In a first step, banks were allocated to three comparable groups on the basis of the bank’s net NPL ratios at the end of 2017 and in a second step an assessment of capacity regarding the potential impact was carried out for each individual bank with a horizon of end 2026.

Deutsche Bank has been assigned to Group 1, which requires 100% minimum loss coverage by year end 2024 for secured loans and by year end 2023 for unsecured loans.

The following table provides an overview on Deutsche Bank's ECB - NPE Stock as of June 30, 2023 and December 31, 2022.

ECB – NPE Stock

in € m.	Jun 30, 2023			
	Time passed since exposures classified as non-performing			Total
	up to 2yrs	>2 and <=9yrs	>9yrs	
Non-Performing Exposure	0	1,234	471	1,705
Exposure value ¹	0	2,762	6,347	9,109
Total minimum coverage requirement	0	2,058	5,701	7,758
Total provisions and adjustments or deductions (uncapped)	0	1,946	6,218	8,163
Total provisions and adjustments or deductions (capped)	0	1,824	5,616	7,440
Applicable amount of insufficient coverage	0	234	84	318

¹ Exposure value in accordance with Article 47c CRR

in € m.	Dec 31, 2022			
	Time passed since exposures classified as non-performing			Total
	up to 2yrs	>2 and <=9yrs	>9yrs	
Non-Performing Exposure	0	1,438	457 ²	1,895 ²
Exposure value ¹	0	3,413	6,418	9,832
Total minimum coverage requirement	0	2,521	5,768	8,289
Total provisions and adjustments or deductions (uncapped)	0	2,478	6,291	8,769
Total provisions and adjustments or deductions (capped)	0	2,284	5,690	7,974
Applicable amount of insufficient coverage	0	238	78	316

¹ Exposure value in accordance with Article 47c CRR

² The numbers have been restated compared to the prior year disclosure

The shortfall between the minimum loss coverage requirements for non-performing exposure for the ECB – new NPE's after April 1, 2018 and the ECB - NPE Stock and the risk reserves recorded in line with IFRS 9 for defaulted (Stage 3) assets amounted to €1.1 billion as of June 30, 2023 versus € 1.0 billion as of December 31, 2022 and was deducted from CET 1. This additional CET 1 charge can be considered as additional loss reserve and led to a € 936 million RWA relief in June 30, 2023 and € 933 million in December 31, 2022.

Reconciliation of non-performing exposure

The following table reconciles the non-performing exposure reported in template EU CR1 into the minimum loss coverage framework.

Reconciliation of non-performing exposure

in € m.	Jun 30, 2023	
	Exposure	Provisions
Total Non-Performing Exposure and related provisions	16,290	4,310
of which:		
CRR – new NPE's originated after April 26, 2019 ¹	5,984	1,100
ECB – new NPE's after April 1, 2018 ¹	8,601	2,467
ECB – NPE Stock	1,705	743

in € m.	Dec 31, 2022	
	Exposure	Provisions
Total Non-Performing Exposure and related provisions	15,755 ²	4,170 ²
of which:		
CRR – new NPE's originated after April 26, 2019 ¹	5,347	1,035
ECB – new NPE's after April 1, 2018 ¹	8,513 ²	2,314 ²
ECB – NPE Stock	1,895 ²	821

¹ Treatment of loans in the Trading Book / Traded Assets: the CRR – new NPE's originated after April 26, 2019 exclude all loans in the regulatory Trading Book whereas the ECB – new NPE's after April 1, 2018 exclude Traded Assets in accordance with the accounting classifications

² The numbers have been restated compared to the prior year disclosure

Collateral obtained by taking possession

Article 442 (c) CRR

Table EU CQ7 provides information about the collateral that has been obtained at the reporting date. Collateral obtained by taking possession includes assets that were not pledged by the debtor as collateral but obtained in exchange for the cancellation of debt.

The value at initial recognition reflects the gross carrying amount at the point in time of the initial recognition in the Group's balance sheet, while accumulated negative changes reflect the difference between the value at initial recognition and the carrying amount at the reporting date.

EU CQ7 – Collateral obtained by taking possession and execution processes

in € m.	Jun 30, 2023		Dec 31, 2022	
	a	b	a	b
	Collateral obtained by taking possession		Collateral obtained by taking possession	
	Value at initial recognition	Accumulated negative changes	Value at initial recognition	Accumulated negative changes
1 Property, plant and equipment (PP&E)	0	0	0	0
2 Other than PP&E	39	28	43	31
3 Residential immovable property	30	22	33	25
4 Commercial immovable property	9	6	10	7
5 Movable property (auto, shipping, etc.)	0	0	0	0
6 Equity and debt instruments	0	0	0	0
7 Other	0	0	0	0
8 Total	39	28	43	31

General quantitative information on credit risk mitigation

Overview of credit risk mitigation techniques

Article 453 (f) CRR

The table EU CR3 below shows a breakdown of unsecured and secured credit risk exposures and credit risk exposures secured by various credit risk mitigants for all loans and debt securities including the carrying amounts of the total population which are in default. Exposures unsecured (column a) represent the carrying amount of credit risk exposures (net of credit risk adjustments) that do not benefit from a credit risk mitigation technique, regardless of whether this technique is recognized in the CRR. Exposures secured (column b) represent the carrying amount of exposures that have at least one credit risk mitigation mechanism (collateral, financial guarantees, credit derivatives) associated with them. Exposure secured by various credit risk mitigants (column c-e) are the carrying amount of exposures (net of credit risk adjustments) partly or totally secured by collateral, financial guarantees and credit derivatives, whereby only the secured portion of the overall exposure is presented. The allocation of the carrying amount of multi-secured exposures to their different credit risk mitigation mechanisms is made by order of priority, starting with the credit risk mitigation mechanism expected to be called first in the event of a loss, and within the limits of the carrying amount primarily observed of the secured exposures. Moreover, no overcollateralization is considered.

EU CR3 – Credit Risk Mitigation techniques – Overview

in € m.	Jun 30, 2023				
	a	b	c	d	e
	Exposures unsecured: Carrying amount	Exposures secured: Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1 Total Loans and advances	451,769	399,313	357,947	41,366	0
2 Total Debt securities	47,200	2,832	1,626	1,206	0
3 Total exposures	498,969	402,145	359,573	42,572	0
4 of which: non-performing	3,823	5,538	4,093	1,446	0
5 of which: defaulted	3,706	5,488	4,044	1,444	0

		Dec 31, 2022				
		a	b	c	d	e
in € m.		Exposures unsecured: Carrying amount	Exposures secured: Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total Loans and advances	454,419	401,480	361,390	40,090	0
2	Total Debt securities	53,314	2,389	2,221	168	0
3	Total exposures	507,732	403,868	363,610	40,258	0
4	of which: non-performing	3,654	5,246	3,801	1,444	0
5	of which: defaulted	3,437	5,251	3,814	1,437	0

Secured and unsecured total exposures decreased from € 912 billion in December 2022 to € 901 billion in June 2023, driven by decreases in unsecured debt securities by € 6 billion as well as unsecured loans and advances by € 2.7 billion.

Credit risk and credit risk mitigation in the standardized approach

Quantitative information on the use of the standardized approach

Standardized approach exposure by risk weight before and after credit mitigation

Article 444 (e) CRR and Article 453 (g-i) CRR

The table below shows the credit risk exposure before and post credit conversion factors and credit risk mitigation obtained in the form of eligible financial collateral, guarantees and credit derivatives based on the EAD in the standardized approach as well as related RWA and average risk weights broken down by regulatory exposure classes and a split into on- and off-balance sheet exposures.

EU CR4 – Standardized approach – credit risk exposure and credit risk mitigation (CRM) effects

		Jun 30, 2023											
		a		b		c		d		e		f	
in € m. (unless stated otherwise)		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density							
Exposure classes		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density						
1	Central governments or central banks	90,842	48	90,884	8	8	0.01%						
2	Regional government or local authorities	1,608	5,400	1,608	4,034	11	0.19%						
3	Public sector entities	475	17	510	5	13	2.43%						
4	Multilateral development banks	446	0	446	0	0	0%						
5	International organizations	1,031	0	1,031	0	0	0%						
6	Institutions	235	299	246	28	143	51.95%						
7	Corporates	13,405	3,027	10,382	834	10,788	96.17%						
8	Retail	1,965	1,550	1,587	71	1,171	70.65%						
9	Secured by mortgages on immovable property	3,966	0	3,797	0	1,388	36.56%						
10	Exposures in default	728	12	698	4	855	121.88%						
11	Exposures associated with particularly high risk	138	17	135	1	204	150.00%						
12	Covered bonds	0	0	0	0	0	0%						
13	Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0%						
14	Collective investments undertakings (CIU)	455	8,180	455	2,246	3,293	121.90%						
15	Equity	53	0	53	0	53	100.00%						
16	Other items	137	0	137	0	27	20.00%						
17	Total	115,484	18,549	111,967	7,231	17,953	15.06%						

		Dec 31, 2022											
in € m. (unless stated otherwise)		a		b		c		d		e		f	
		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density							
Exposure classes		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density						
1	Central governments or central banks	111,853	45	111,879	1	8	0.01%						
2	Regional government or local authorities	2,439	5,347	2,438	4,045	10	0.15%						
3	Public sector entities	512	29	550	10	22	3.96%						
4	Multilateral development banks	644	0	644	0	0	0%						
5	International organizations	915	0	915	0	0	0%						
6	Institutions	3,430	303	3,457	137	149	4.15%						
7	Corporates	13,418	2,281	10,541	620	10,047	90.03%						
8	Retail	2,040	1,536	1,638	76	1,212	70.74%						
9	Secured by mortgages on immovable property	3,974	0	3,792	0	1,392	36.70%						
10	Exposures in default	910	37	870	9	1,097	124.86%						
11	Items associated with particularly high risk	36	17	36	1	56	150.00%						
12	Covered bonds	0	0	0	0	0	0%						
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0%						
14	Collective investments undertakings (CIU)	399	9,457	399	2,900	3,947	119.65%						
15	Equity exposures	0	0	0	0	0	0%						
16	Other items	16	0	16	0	15	94.78%						
17	Total	140,586	19,052	137,176	7,799	17,956	12.39%						

The RWA for credit risk (excluding CCR) in the standardized approach were at € 18.0 billion as of June 30, 2023, flat compared to December 31, 2022. The increase in RWA for the exposure class “corporates” is mainly driven by higher risk weights, whereas the increase in exposure class “items associated with particularly high risk” was due to an increase in exposures. These increases were offset by decreases in exposure classes “collective investments undertakings (CIU)” and “exposures in default” mainly due to reduced exposures.

In the following tables the EAD per regulatory exposure class are assigned to their standardized risk weights. Deducted or unrated items are split out separately. The exposures are shown after the shift to the exposure class of the protection seller, if applicable.

EU CR5 – Standardized approach

		Jun 30, 2023											
in € m.		a		b		c		d		e		f	
Exposure classes		0%		2%		4%		10%		20%		35%	
1	Central governments or central banks	90,856	0	0	0	32	0						
2	Regional governments or local authorities	5,604	0	0	0	27	0						
3	Public sector entities	454	0	0	0	59	0						
4	Multilateral development banks	446	0	0	0	0	0						
5	International organizations	1,031	0	0	0	0	0						
6	Institutions	0	0	0	0	147	0						
7	Corporates	96	0	83	0	237	0						
8	Retail exposures	0	0	0	0	0	180						
9	Exposures secured by mortgages on immovable property	0	0	0	0	0	3,322						
10	Exposures in default	0	0	0	0	0	0						
11	Exposures associated with particularly high risk	0	0	0	0	0	0						
12	Covered bonds	0	0	0	0	0	0						
13	Exposures to institutions and corporates with a short-term credit assessment	0	0	0	0	0	0						
14	Units or shares in collective investment undertakings (CIU)	1,485	0	0	0	310	0						
15	Equity exposures	0	0	0	0	0	0						
16	Other items	0	0	0	0	137	0						
17	Total	99,971	0	83	0	948	3,502						

		Jun 30, 2023					
in € m.		Risk Weight					
		g	h	i	j	k	l
Exposure classes		50%	70%	75%	100%	150%	250%
1	Central governments or central banks	4	0	0	0	0	0
2	Regional governments or local authorities	10	0	0	0	0	0
3	Public sector entities	1	0	0	0	0	0
4	Multilateral development banks	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0
6	Institutions	29	0	0	99	0	0
7	Corporates	77	0	0	10,656	67	0
8	Retail	0	0	1,477	0	0	0
9	Secured by mortgages on immovable property	476	0	0	0	0	0
10	Exposures in default	0	0	0	394	307	0
11	Items associated with particularly high risk	0	0	0	0	136	0
12	Covered bonds	0	0	0	0	0	0
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
14	Collective investments undertakings (CIU)	43	0	0	653	0	0
15	Equity exposures	0	0	0	53	0	0
16	Other items	0	0	0	0	0	0
17	Total	640	0	1,477	11,856	510	0

		Jun 30, 2023				
in € m.		Risk Weight				
		m	n	o	p	q
Exposure classes		370%	1250%	Others	Total	Of which: unrated
1	Central governments or central banks	0	0	0	90,892	90,892
2	Regional governments or local authorities	0	0	0	5,641	5,631
3	Public sector entities	0	0	0	515	514
4	Multilateral development banks	0	0	0	446	446
5	International organizations	0	0	0	1,031	1,031
6	Institutions	0	0	0	274	246
7	Corporates	0	1	0	11,217	10,981
8	Retail	0	0	0	1,657	1,657
9	Secured by mortgages on immovable property	0	0	0	3,797	3,797
10	Exposures in default	0	0	0	701	701
11	Items associated with particularly high risk	0	0	0	136	136
12	Covered bonds	0	0	0	0	0
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0
14	Collective investments undertakings (CIU)	0	197	13	2,701	2,637
15	Equity exposures	0	0	0	53	53
16	Other items	0	0	0	137	137
17	Total	0	198	13	119,198	118,858

		Dec 31, 2022					
in € m.		Risk Weight					
		a	b	c	d	e	f
Exposure classes		0%	2%	4%	10%	20%	35%
1	Central governments or central banks	111,868	0	0	0	3	0
2	Regional governments or local authorities	6,436	0	0	0	46	0
3	Public sector entities	485	0	0	0	50	0
4	Multilateral development banks	645	0	0	0	0	0
5	International organizations	915	0	0	0	0	0
6	Institutions	3,188	125	0	0	140	0
7	Corporates	208	0	0	0	1,080	0
8	Retail	0	0	0	0	0	183
9	Secured by mortgages on immovable property	0	0	0	0	0	3,274
10	Exposures in default	0	0	0	0	0	0
11	Items associated with particularly high risk	0	0	0	0	0	0
12	Covered bonds	0	0	0	0	0	0
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
14	Collective investments undertakings (CIU)	1,985	0	0	0	87	0
15	Equity exposures	0	0	0	0	0	0
16	Other items	0	0	0	0	1	0
17	Total	125,730	125	0	0	1,407	3,456

		Dec 31, 2022					
in € m.		Risk Weight					
		g	h	i	j	k	l
Exposure classes		50%	70%	75%	100%	150%	250%
1	Central governments or central banks	4	0	0	5	0	0
2	Regional governments or local authorities	0	0	0	0	0	0
3	Public sector entities	24	0	0	0	0	0
4	Multilateral development banks	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0
6	Institutions	44	0	0	97	0	0
7	Corporates	72	0	0	9,757	36	0
8	Retail	0	0	1,531	0	0	0
9	Secured by mortgages on immovable property	519	0	0	0	0	0
10	Exposures in default	0	0	0	442	437	0
11	Items associated with particularly high risk	0	0	0	0	37	0
12	Covered bonds	0	0	0	0	0	0
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
14	Collective investments undertakings (CIU)	40	0	0	945	3	0
15	Equity exposures	0	0	0	0	0	0
16	Other items	0	0	0	15	0	0
17	Total	704	0	1,531	11,260	513	0

		Dec 31, 2022				
in € m.		Risk Weight				
		m	n	o	p	q
Exposure classes		370%	1250%	Others	Total	Of which: unrated
1	Central governments or central banks	0	0	0	111,881	111,880
2	Regional governments or local authorities	0	0	0	6,483	6,483
3	Public sector entities	0	0	0	560	536
4	Multilateral development banks	0	0	0	645	645
5	International organizations	0	0	0	915	915
6	Institutions	0	0	0	3,594	3,560
7	Corporates	0	7	0	11,160	11,064
8	Retail	0	0	0	1,714	1,714
9	Secured by mortgages on immovable property	0	0	0	3,792	3,792
10	Exposures in default	0	0	0	879	879
11	Items associated with particularly high risk	0	0	0	37	37
12	Covered bonds	0	0	0	0	0
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0
14	Collective investments undertakings (CIU)	0	229	12	3,299	3,268
15	Equity exposures	0	0	0	0	0
16	Other items	0	0	0	16	16
17	Total	0	236	12	144,975	144,789

Credit risk exposure and credit risk mitigation in the internal-rating-based approach

Quantitative information on the use of the IRB approach

Foundation IRB exposure

Article 452 (g) (i-v) CRR

The following series of tables details Deutsche Bank's foundation internal rating based (IRB) exposures distributed on its internal rating scale for all relevant regulatory exposure classes. The tables exclude the counterparty credit risk position from derivatives and securities financing transactions which are presented separately in the section "Counterparty credit risk" in this report.

The tables show the on-balance sheet as well as the off-balance sheet exposure with their corresponding exposure-weighted credit conversion factors. All undrawn commitment exposure values shown below are assigned to the exposure class of the borrower and not to the exposure class of the counterparty providing Deutsche Bank credit protection.

In addition, the tables provide the exposure post credit risk mitigation (CRM) and credit conversion factor (CCF), where exposures covered by guarantees or credit derivatives are assigned to the protection seller. The exposure post CCF & CRM is presented in conjunction with exposures-weighted average PD, LGD, maturity as well as the RWA and the average risk weight. The tables provide the defaulted exposure separately. Further details in the tables are number of obligors, regulatory expected loss and provisions comprising specific risk adjustments.

EU CR6 – FIRB approach – Credit risk exposures by exposure class and PD range

Jun 30, 2023												
in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	0	0	0	20	0.00	0.0	45.00	2.5	0	0.00	0	–
0.00 to <0.10	0	0	0	20	0.00	0.0	45.00	2.5	0	0.00	0	–
0.10 to <0.15	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.15 to <0.25	0	1	0	0	0.20	0.0	64.80	2.5	0	63.70	0	–
0.25 to <0.50	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.50 to <0.75	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.75 to <2.50	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.75 to <1.75	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
1.75 to <2.5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <10.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
5 to <10	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
10.00 to <100.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
10 to <20	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
20 to <30	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
30.00 to <100.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
100.00 (Default)	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
Sub-total	0	1	0	20	0.00	0.0	45.28	2.5	0	0.89	0	–
Institutions												
0.00 to <0.15	4	17	0	3	0.05	0.0	21.24	2.5	0	10.59	0	–
0.00 to <0.10	4	12	0	3	0.04	0.0	19.18	2.5	0	8.79	0	–
0.10 to <0.15	0	5	0	0	0.11	0.0	68.12	2.5	0	51.59	0	–
0.15 to <0.25	0	3	0	0	0.17	0.0	19.50	2.5	0	19.81	0	–
0.25 to <0.50	46	58	0	46	0.25	0.0	12.34	2.5	7	14.47	0	–
0.50 to <0.75	0	1	0	0	0.70	0.0	25.49	2.5	0	48.16	0	–
0.75 to <2.50	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.75 to <1.75	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
1.75 to <2.5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <10.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
5 to <10	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
10.00 to <100.00	3	0	0	3	20.00	0.0	45.00	2.5	9	286.67	0	–
10 to <20	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
20 to <30	3	0	0	3	20.00	0.0	45.00	2.5	9	286.67	0	–
30.00 to <100.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
100.00 (Default)	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
Sub-total	53	78	0	52	1.42	0.1	14.81	2.5	16	30.50	0	–

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Corporates												
0.00 to <0.15	1,420	1,492	0	2,008	0.06	1.1	14.70	2.5	163	8.10	0	0
0.00 to <0.10	1,380	1,399	0	1,980	0.06	0.7	14.40	2.5	155	7.85	0	0
0.10 to <0.15	39	93	0	28	0.11	0.4	35.37	2.5	7	25.23	0	–
0.15 to <0.25	746	1,101	0	611	0.17	2.6	20.62	2.5	127	20.75	0	0
0.25 to <0.50	1,568	2,795	0	1,353	0.33	3.5	17.12	2.5	324	23.97	1	0
0.50 to <0.75	729	874	0	608	0.66	2.2	19.66	2.5	223	36.64	1	0
0.75 to <2.50	642	772	0	538	1.30	1.3	16.73	2.5	203	37.75	1	0
0.75 to <1.75	492	520	0	421	1.10	1.1	17.79	2.5	163	38.74	1	0
1.75 to <2.5	151	252	0	117	2.01	0.2	12.93	2.5	40	34.21	0	0
2.50 to <10.00	145	300	0	137	4.48	0.2	12.63	2.5	57	41.92	1	0
2.50 to <5	92	126	0	87	3.41	0.1	12.79	2.5	34	39.19	0	0
5 to <10	53	175	0	49	6.37	0.1	12.34	2.5	23	46.73	0	0
10.00 to <100.00	74	94	0.45	51	26.36	1.3	22.99	2.5	63	123.59	3	1
10 to <20	7	12	0	7	13.84	0.0	12.33	2.5	4	64.66	0	–
20 to <30	45	66	0.65	23	20.51	1.3	35.79	2.5	45	193.74	2	1
30.00 to <100.00	22	16	0	21	36.60	0.0	12.33	2.5	14	65.36	1	0
100.00 (Default)	3	1	0.46	3	100.00	3.0	34.28	2.5	0	0.00	1	0
Sub-total	5,327	7,429	0.01	5,309	0.75	15.1	16.81	2.5	1,160	21.85	8	3
of which:												
SMEs												
0.00 to <0.15	4	9	0	18	0.05	0.1	26.65	2.5	2	9.52	0	–
0.00 to <0.10	0	4	0	15	0.04	0.0	24.77	2.5	1	8.05	0	–
0.10 to <0.15	3	4	0	3	0.11	0.0	35.81	2.5	1	16.75	0	–
0.15 to <0.25	7	15	0	5	0.20	0.1	39.93	2.5	1	28.65	0	–
0.25 to <0.50	15	49	0	10	0.37	0.2	27.35	2.5	3	27.61	0	–
0.50 to <0.75	19	26	0	16	0.70	0.1	31.49	2.5	6	40.05	0	–
0.75 to <2.50	58	39	0	54	1.17	0.1	14.45	2.5	13	23.70	0	0
0.75 to <1.75	46	19	0	43	0.97	0.1	14.33	2.5	9	21.94	0	0
1.75 to <2.5	12	20	0	11	1.93	0.0	14.90	2.5	3	30.51	0	–
2.50 to <10.00	18	25	0	17	4.19	0.0	12.46	2.5	5	30.42	0	–
2.50 to <5	11	20	0	11	3.34	0.0	12.49	2.5	3	29.47	0	–
5 to <10	7	6	0	6	5.75	0.0	12.41	2.5	2	32.18	0	–
10.00 to <100.00	14	18	0	12	29.38	0.1	14.90	2.5	8	66.58	1	0
10 to <20	2	10	0	2	14.00	0.0	12.33	2.5	2	68.71	0	–
20 to <30	4	7	0	2	21.31	0.1	26.62	2.5	2	102.67	0	0
30.00 to <100.00	8	1	0	8	36.16	0.0	12.33	2.5	4	55.75	0	–
100.00 (Default)	0	0	0	0	100.00	0.0	43.58	2.5	0	0.00	0	0
Sub-total	134	181	0	133	3.91	0.7	19.90	2.5	38	28.89	1	0

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Other												
0.00 to <0.15	1,416	1,484	0	1,990	0.06	1.0	14.59	2.5	161	8.08	0	0
0.00 to <0.10	1,380	1,395	0	1,965	0.06	0.6	14.32	2.5	154	7.85	0	0
0.10 to <0.15	36	89	0	25	0.11	0.4	35.32	2.5	7	26.29	0	–
0.15 to <0.25	739	1,086	0	607	0.17	2.5	20.47	2.5	125	20.69	0	0
0.25 to <0.50	1,553	2,746	0	1,342	0.33	3.3	17.04	2.5	321	23.94	1	0
0.50 to <0.75	710	848	0	593	0.66	2.0	19.35	2.5	217	36.55	1	0
0.75 to <2.50	584	733	0	484	1.31	1.2	16.98	2.5	190	39.33	1	0
0.75 to <1.75	446	501	0	378	1.11	1.0	18.18	2.5	153	40.66	1	0
1.75 to <2.5	139	232	0	106	2.02	0.2	12.72	2.5	37	34.59	0	0
2.50 to <10.00	127	275	0	120	4.52	0.1	12.65	2.5	52	43.56	1	0
2.50 to <5	81	106	0	76	3.42	0.1	12.83	2.5	31	40.60	0	0
5 to <10	46	169	0	44	6.46	0.1	12.33	2.5	21	48.73	0	0
10.00 to <100.00	60	76	0.56	39	25.43	1.3	25.49	2.5	55	141.25	2	1
10 to <20	4	2	0	4	13.75	0.0	12.33	2.5	3	62.57	0	–
20 to <30	41	59	0.72	21	20.43	1.2	36.73	2.5	43	203.12	2	1
30.00 to <100.00	15	15	0	14	36.84	0.0	12.33	2.5	10	70.76	1	0
100.00 (Default)	3	1	0.51	2	100.00	3.0	33.77	2.5	0	0.00	1	0
Sub-total	5,193	7,248	0.01	5,176	0.67	14.4	16.73	2.5	1,122	21.67	7	2
All exposure classes												
Total	5,381	7,508	0.01	5,381	0.76	15.2	16.90	2.5	1,176	21.86	8	3

Dec 31, 2022

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	0	0	0	23	0.00	0.0	45.00	2.5	0	0.00	0	–
0.00 to <0.10	0	0	0	23	0.00	0.0	45.00	2.5	0	0.00	0	–
0.10 to <0.15	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.15 to <0.25	0	0	0	0	0.23	0.0	42.69	2.5	0	47.61	0	–
0.25 to <0.50	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.50 to <0.75	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.75 to <2.50	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.75 to <1.75	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
1.75 to <2.5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <10.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
5 to <10	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
10.00 to <100.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
10 to <20	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
20 to <30	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
30.00 to <100.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
100.00 (Default)	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
Sub-total	0	0	0	23	0.00	0.0	44.98	2.5	0	0.3200	0	–
Institutions												
0.00 to <0.15	4	12	0	3	0.05	0.0	39.39	2.5	1	18.71	0	–
0.00 to <0.10	4	12	0	3	0.05	0.0	39.37	2.5	1	18.64	0	–
0.10 to <0.15	0	0	0	0	0.11	0.0	42.69	2.5	0	31.53	0	–
0.15 to <0.25	1	3	0	0	0.15	0.0	12.39	2.5	0	11.69	0	–
0.25 to <0.50	0	0	0	0	0.38	0.0	42.69	2.5	0	61.54	0	–
0.50 to <0.75	0	1	0	0	0.64	0.0	24.33	2.5	0	43.09	0	–
0.75 to <2.50	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
0.75 to <1.75	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
1.75 to <2.5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <10.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
2.50 to <5	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
5 to <10	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
10.00 to <100.00	3	3	0	3	20.00	0.0	45.00	2.5	9	285.79	0	–
10 to <20	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
20 to <30	3	3	0	3	20.00	0.0	45.00	2.5	9	285.79	0	–
30.00 to <100.00	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
100.00 (Default)	0	0	0	0	0.00	0.0	0.00	0.0	0	0.00	0	–
Sub-total	8	19	0	6	9.97	0.1	41.61	2.5	10	151.86	0	–

Dec 31, 2022

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Corporates												
0.00 to <0.15	1,429	1,496	0	1,980	0.07	1.1	14.65	2.5	164	8.29	0	0
0.00 to <0.10	1,391	1,409	0	1,950	0.06	0.7	14.40	2.5	157	8.07	0	0
0.10 to <0.15	38	87	0	30	0.11	0.4	31.23	2.5	7	22.78	0	–
0.15 to <0.25	1,048	1,268	0	870	0.17	2.6	17.73	2.5	151	17.37	0	0
0.25 to <0.50	1,508	2,068	0	1,345	0.31	3.3	17.07	2.5	318	23.64	1	0
0.50 to <0.75	582	653	0.03	484	0.66	2.0	21.53	2.5	194	40.14	1	0
0.75 to <2.50	483	572	0	400	1.30	1.1	16.27	2.5	151	37.72	1	0
0.75 to <1.75	388	414	0	327	1.15	0.9	16.52	2.5	122	37.45	1	0
1.75 to <2.5	95	159	0	73	1.94	0.2	15.13	2.5	28	38.94	0	0
2.50 to <10.00	149	166	0	135	4.68	0.2	17.59	2.5	79	58.60	1	0
2.50 to <5	110	96	0	97	3.56	0.1	18.05	2.5	55	56.97	1	0
5 to <10	39	70	0	38	7.48	0.1	16.42	2.5	24	62.70	0	0
10.00 to <100.00	96	82	1.92	62	23.71	2.1	28.49	2.5	91	148.14	5	1
10 to <20	8	9	0	6	13.83	0.0	12.55	2.5	4	69.05	0	–
20 to <30	72	65	2.41	41	20.85	2.1	29.69	2.5	60	148.13	3	1
30.00 to <100.00	17	7	0	15	35.68	0.0	31.92	2.5	27	181.53	2	0
100.00 (Default)	8	2	0.49	7	100.00	4.8	122.57	2.5	0	0.00	3	1
Sub-total	5,303	6,307	0.03	5,283	0.83	17.1	16.91	2.5	1,149	21.75	12	3
of which:												
SMEs												
0.00 to <0.15	3	11	0	19	0.05	0.1	23.34	2.5	1	7.76	0	–
0.00 to <0.10	1	6	0	17	0.04	0.0	23.48	2.5	1	7.48	0	–
0.10 to <0.15	2	5	0	2	0.11	0.0	22.13	2.5	0	10.29	0	–
0.15 to <0.25	6	15	0	4	0.21	0.1	42.33	2.5	1	30.80	0	–
0.25 to <0.50	14	33	0	10	0.35	0.2	29.85	2.5	3	27.73	0	–
0.50 to <0.75	27	22	0	26	0.72	0.1	22.01	2.5	8	30.72	0	–
0.75 to <2.50	22	30	0	18	1.59	0.1	17.33	2.5	6	32.88	0	–
0.75 to <1.75	12	14	0	10	1.27	0.1	21.44	2.5	3	35.48	0	–
1.75 to <2.5	9	16	0	9	1.94	0.0	12.73	2.5	3	29.97	0	–
2.50 to <10.00	29	23	0	25	5.00	0.0	12.49	2.5	8	30.25	0	0
2.50 to <5	18	15	0	14	3.35	0.0	12.60	2.5	4	27.65	0	0
5 to <10	11	8	0	11	7.03	0.0	12.36	2.5	4	33.44	0	–
10.00 to <100.00	18	9	0	14	20.03	0.1	26.49	2.5	15	107.49	1	0
10 to <20	4	3	0	4	14.18	0.0	12.33	2.5	3	72.34	0	–
20 to <30	11	5	0	8	20.15	0.1	37.53	2.5	10	135.40	1	0
30.00 to <100.00	3	1	0	2	35.81	0.0	12.33	2.5	1	69.71	0	0
100.00 (Default)	1	0	0	1	100.00	0.0	39.24	2.5	0	0.00	0	0
Sub-total	119	143	0	116	4.74	0.7	21.54	2.5	41	35.63	2	1

Dec 31, 2022

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Other												
0.00 to <0.15	1,426	1,486	0	1,961	0.07	1.0	14.57	2.5	163	8.29	0	0
0.00 to <0.10	1,391	1,404	0	1,933	0.06	0.6	14.32	2.5	156	8.07	0	0
0.10 to <0.15	36	82	0	28	0.11	0.3	31.84	2.5	7	23.62	0	-
0.15 to <0.25	1,042	1,253	0	866	0.17	2.5	17.61	2.5	150	17.30	0	0
0.25 to <0.50	1,493	2,035	0	1,336	0.31	3.1	16.98	2.5	315	23.61	1	0
0.50 to <0.75	555	631	0.03	458	0.66	1.9	21.50	2.5	186	40.67	1	0
0.75 to <2.50	462	542	0	382	1.29	1.0	16.22	2.5	145	37.95	1	0
0.75 to <1.75	376	400	0	317	1.15	0.9	16.37	2.5	119	37.51	1	0
1.75 to <2.5	86	142	0	64	1.94	0.1	15.45	2.5	26	40.13	0	0
2.50 to <10.00	120	143	0	111	4.61	0.1	18.74	2.5	72	64.97	1	0
2.50 to <5	92	80	0	83	3.60	0.1	18.95	2.5	52	61.80	1	0
5 to <10	28	62	0	27	7.67	0.0	18.08	2.5	20	74.68	0	0
10.00 to <100.00	78	73	2.15	48	24.74	2.1	29.05	2.5	77	159.57	4	1
10 to <20	3	7	0	2	13.04	0.0	13.06	2.5	1	61.48	0	-
20 to <30	61	60	2.62	33	21.01	2.1	27.88	2.5	50	151.06	2	1
30.00 to <100.00	14	6	0	13	35.66	0.0	34.22	2.5	26	194.68	2	0
100.00 (Default)	7	1	0.61	6	100.00	4.8	136.06	2.5	0	0.00	2	1
Sub-total	5,184	6,164	0.03	5,167	0.74	16.4	16.81	2.5	1,108	21.43	10	2
All exposure classes												
Total	5,311	6,326	0.03	5,313	0.83	17.2	17.07	2.5	1,159	21.81	12	3

Advanced IRB exposure

Article 452 (g) (i-v) CRR

The following series of tables details Deutsche Bank's advanced internal rating based (IRB) exposures distributed on its internal rating scale for all relevant regulatory exposure classes. The tables exclude the counterparty credit risk position from derivatives and securities financing transactions which are presented separately in the section "Counterparty credit risk" in this report.

The tables show the on-balance sheet as well as the off-balance sheet exposure with their corresponding exposure-weighted credit conversion factors. All undrawn commitment exposure values shown below are assigned to the exposure class of the borrower and not to the exposure class of the counterparty providing Deutsche Bank credit protection.

In addition, the tables provide the exposure post CRM and CCF, where exposures covered by guarantees or credit derivatives are assigned to the protection seller.

The exposure post CCF and CRM is presented in conjunction with exposures-weighted average PD, LGD, maturity as well as the RWA and the average risk weight. The effect of double default, as far as applicable to exposures outside of former Postbank, is considered in the average risk weight. It implies that for a guaranteed exposure a loss only occurs if the primary obligor and the guarantor fail to meet their obligations at the same time. The tables provide the defaulted exposure separately, where Deutsche Bank applies an LGD estimate already incorporating potential unexpected losses in the loss rate estimate as required by Article 181 (1) (h) CRR.

Further details in the tables are number of obligors, regulatory expected loss and provisions comprising specific risk adjustments.

EU CR6 – AIRB approach – Credit risk exposures by exposure class and PD range

Jun 30, 2023												
in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	112,211	272	34.76	125,248	0.00	0.1	50.38	1.2	1,057	0.84	2	0
0.00 to <0.10	111,660	210	30.12	124,666	0.00	0.1	50.42	1.2	933	0.75	1	0
0.10 to <0.15	551	62	50.50	583	0.13	0.0	43.86	2.5	124	21.24	0	0
0.15 to <0.25	1,036	37	34.61	1,364	0.23	0.0	50.00	1.8	654	47.91	2	0
0.25 to <0.50	1,792	1	24.29	1,567	0.39	0.0	45.05	2.4	960	61.28	3	0
0.50 to <0.75	388	2	49.26	241	0.64	0.0	49.96	1.3	180	74.51	1	0
0.75 to <2.50	4,997	358	35.29	4,283	1.76	0.0	98.96	5.0	10,465	244.35	1	1
0.75 to <1.75	45	0	100.00	1	1.07	0.0	49.82	4.4	1	140.61	0	0
1.75 to <2.5	4,951	358	35.29	4,282	1.76	0.0	98.97	5.0	10,464	244.37	1	1
2.50 to <10.00	1,973	543	41.44	435	4.45	0.0	35.31	3.0	377	86.68	6	6
2.50 to <5	1,112	397	40.27	336	3.33	0.0	36.55	2.5	232	69.02	4	3
5 to <10	861	146	44.61	99	8.23	0.0	31.11	4.5	145	146.35	2	3
10.00 to <100.00	898	18	36.60	797	14.36	0.0	40.72	0.9	1,518	190.46	48	1
10 to <20	778	18	35.01	677	13.00	0.0	39.09	1.1	1,226	180.97	34	1
20 to <30	120	0	0.00	120	22.01	0.0	50.00	0.01	292	244.37	13	0
30.00 to <100.00	0	0	100.00	0	34.11	0.0	23.8572	0.38	0	131.17	0	0
100.00 (Default)	1,331	392	35.02	273	100.00	0.0	15.82	2.3	253	92.51	34	20
Sub-total	124,625	1,624	37.20	134,209	0.37	0.2	51.69	1.3	15,464	11.52	96	29
Institutions												
0.00 to <0.15	6,583	3,745	38.92	6,824	0.06	0.4	45.72	0.9	1,316	19.28	3	1
0.00 to <0.10	6,560	3,667	38.99	6,773	0.06	0.3	45.85	0.9	1,109	16.37	2	1
0.10 to <0.15	23	77	35.63	51	0.13	0.0	27.74	1.4	207	408.36	2	0
0.15 to <0.25	1,001	1,104	53.62	1,649	0.16	0.1	36.13	0.9	384	23.26	1	0
0.25 to <0.50	933	1,398	40.56	4,430	0.40	0.1	78.93	2.1	761	17.18	2	1
0.50 to <0.75	866	214	53.65	785	0.70	0.0	44.13	1.2	650	82.76	3	2
0.75 to <2.50	335	95	30.80	342	1.57	0.1	12.26	2.5	120	35.06	1	0
0.75 to <1.75	137	41	39.98	134	1.12	0.0	20.04	3.1	72	53.22	0	0
1.75 to <2.5	198	54	23.89	208	1.86	0.0	7.23	2.2	48	23.31	1	0
2.50 to <10.00	2,311	516	35.48	2,304	3.28	0.0	10.52	2.0	588	25.51	9	3
2.50 to <5	2,287	307	45.13	2,257	3.24	0.0	9.86	2.0	514	22.77	8	2
5 to <10	24	209	21.28	46	5.38	0.0	43.04	2.7	74	159.53	1	0
10.00 to <100.00	19	63	38.25	42	13.21	0.0	19.57	1.1	39	92.83	1	0
10 to <20	19	63	38.27	42	13.20	0.0	19.56	1.1	39	92.73	1	0
20 to <30	0	0	0.00	0	0.00	0.0	0.00	0.0	0	0.00	0	–
30.00 to <100.00	0	0	20.01	0	34.11	4.0	49.50	5.0	0	310.81	0	0
100.00 (Default)	394	0	0.00	392	100.00	0.0	0.85	4.9	29	7.30	1	1
Sub-total	12,442	7,135	41.60	16,769	3.03	0.7	46.84	1.5	3,886	23.17	21	7

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Corporates												
0.00 to <0.15	50,583	94,270	31.54	84,008	0.07	13.0	33.03	2.3	16,734	19.92	28	6
0.00 to <0.10	44,283	86,999	30.92	74,964	0.06	10.7	34.44	2.3	14,356	19.15	16	4
0.10 to <0.15	6,301	7,270	38.99	9,044	0.13	2.3	21.21	2.5	2,378	26.29	12	3
0.15 to <0.25	27,943	27,762	30.05	35,325	0.19	5.4	25.50	2.3	7,843	22.20	16	12
0.25 to <0.50	33,425	64,710	17.26	43,028	0.36	10.2	30.32	2.3	15,825	36.78	43	33
0.50 to <0.75	22,356	14,141	37.54	26,600	0.64	5.3	28.75	2.3	12,232	45.99	47	33
0.75 to <2.50	48,693	30,283	34.18	52,903	1.53	8.7	27.91	2.3	30,980	58.56	192	148
0.75 to <1.75	23,775	14,830	33.56	25,246	1.14	5.6	27.54	2.3	14,570	57.71	79	67
1.75 to <2.5	24,918	15,453	34.77	27,657	1.89	3.2	28.25	2.2	16,410	59.33	113	82
2.50 to <10.00	32,575	23,566	29.80	35,380	4.53	3.8	23.17	2.4	25,309	71.53	346	281
2.50 to <5	22,174	19,267	28.27	25,163	3.48	2.8	25.38	2.5	18,411	73.17	212	189
5 to <10	10,401	4,299	36.67	10,217	7.11	1.1	17.73	2.1	6,898	67.51	135	92
10.00 to <100.00	3,751	1,222	51.07	3,548	17.97	0.6	18.07	2.2	3,108	87.60	122	79
10 to <20	2,689	932	53.62	2,585	13.36	0.3	15.53	2.2	1,928	74.58	57	41
20 to <30	446	142	52.18	374	22.73	0.1	35.08	1.7	604	161.46	27	23
30.00 to <100.00	617	147	33.87	589	35.20	0.3	18.45	2.3	576	97.83	38	15
100.00 (Default)	16,816	2,191	34.15	16,245	100.00	2.9	21.93	3.1	4,843	29.81	3,366	3,668
Sub-total	236,142	258,144	28.40	297,037	6.65	49.9	28.49	2.3	116,873	39.35	4,159	4,262
of which:												
SMEs												
0.00 to <0.15	3,453	1,688	38.41	4,234	0.07	2.9	23.21	3.6	493	11.64	1	0
0.00 to <0.10	2,640	1,290	39.93	3,297	0.05	1.7	22.87	3.7	333	10.12	0	0
0.10 to <0.15	813	398	33.46	937	0.12	1.2	24.41	3.0	159	16.99	0	0
0.15 to <0.25	1,734	1,639	30.31	2,159	0.20	2.2	34.20	3.0	594	27.52	1	1
0.25 to <0.50	2,604	2,496	31.56	3,295	0.37	5.0	42.74	2.8	1,402	42.55	5	3
0.50 to <0.75	1,990	1,103	38.02	2,255	0.67	2.2	41.35	2.3	1,149	50.96	6	3
0.75 to <2.50	3,556	1,830	35.60	3,794	1.42	3.3	39.47	2.5	2,347	61.87	22	16
0.75 to <1.75	2,242	895	40.20	2,427	1.12	2.1	34.78	2.5	1,214	50.04	9	7
1.75 to <2.5	1,314	935	31.20	1,367	1.95	1.2	47.80	2.4	1,133	82.86	12	9
2.50 to <10.00	2,362	1,423	34.43	2,296	4.69	1.6	39.10	2.2	1,893	82.46	40	31
2.50 to <5	1,570	1,145	34.17	1,597	3.67	1.1	41.31	2.2	1,307	81.83	23	20
5 to <10	792	277	35.52	699	7.03	0.5	34.03	2.3	586	83.89	17	11
10.00 to <100.00	366	62	52.19	285	22.38	0.3	42.38	2.6	442	155.15	25	20
10 to <20	121	36	52.16	111	13.99	0.1	41.52	2.6	153	137.62	6	4
20 to <30	155	13	34.07	81	22.04	0.1	59.70	0.8	171	210.57	10	14
30.00 to <100.00	91	13	70.08	92	32.78	0.1	28.17	4.1	118	127.46	9	2
100.00 (Default)	1,343	88	37.38	1,254	100.00	0.4	24.28	3.3	481	38.35	275	300
Sub-total	17,410	10,328	34.45	19,572	7.73	17.9	35.17	2.8	8,802	44.97	376	375

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Specialized Lending												
0.00 to <0.15	2,347	23	80.87	2,366	0.10	0.1	6.29	3.1	405	17.11	8	0
0.00 to <0.10	626	2	19.98	626	0.07	0.0	5.15	4.1	29	4.59	0	0
0.10 to <0.15	1,721	21	85.90	1,739	0.11	0.0	6.70	2.7	376	21.62	8	0
0.15 to <0.25	2,531	231	64.14	2,581	0.18	0.1	7.91	3.0	229	8.86	0	0
0.25 to <0.50	7,248	458	31.38	7,260	0.36	0.2	8.11	2.4	833	11.47	2	2
0.50 to <0.75	5,485	1,543	89.01	6,742	0.67	0.2	18.99	2.8	2,310	34.27	8	6
0.75 to <2.50	13,929	1,672	50.44	14,331	1.68	0.5	9.73	2.0	3,419	23.86	23	16
0.75 to <1.75	5,124	786	64.54	5,349	1.22	0.2	11.43	2.3	1,485	27.77	8	7
1.75 to <2.5	8,806	887	37.94	8,982	1.95	0.3	8.71	1.9	1,934	21.53	15	10
2.50 to <10.00	11,910	2,309	42.96	12,390	4.68	0.3	10.51	2.0	3,762	30.36	51	36
2.50 to <5	8,044	1,706	47.74	8,351	3.51	0.2	12.12	2.0	2,717	32.54	30	22
5 to <10	3,865	604	29.45	4,039	7.12	0.1	7.20	1.9	1,045	25.86	21	14
10.00 to <100.00	1,756	105	20.95	1,629	16.46	0.0	8.12	2.5	681	41.82	26	13
10 to <20	1,555	94	21.30	1,425	13.31	0.0	7.48	2.3	536	37.64	15	12
20 to <30	31	0	36.85	31	25.62	0.0	9.12	3.1	17	54.41	1	1
30.00 to <100.00	171	11	18.03	173	40.84	0.0	13.22	3.5	128	74.08	10	0
100.00 (Default)	3,518	128	40.49	3,304	100.00	0.1	21.58	2.9	476	14.41	679	615
Sub-total	48,724	6,470	55.54	50,603	8.84	1.5	11.39	2.3	12,115	23.94	797	690
Other												
0.00 to <0.15	44,783	92,559	31.40	77,408	0.07	10.0	34.38	2.2	15,836	20.46	19	6
0.00 to <0.10	41,017	85,707	30.78	71,040	0.06	8.9	35.23	2.2	13,994	19.70	15	4
0.10 to <0.15	3,766	6,851	39.17	6,367	0.13	1.1	24.71	2.4	1,842	28.93	4	2
0.15 to <0.25	23,678	25,893	29.73	30,584	0.19	3.1	26.37	2.2	7,020	22.95	14	10
0.25 to <0.50	23,572	61,756	16.58	32,474	0.36	4.9	34.02	2.2	13,591	41.85	36	28
0.50 to <0.75	14,882	11,495	30.58	17,603	0.63	3.0	30.88	2.1	8,772	49.84	32	23
0.75 to <2.50	31,207	26,780	33.07	34,777	1.48	5.0	34.15	2.4	25,213	72.50	147	116
0.75 to <1.75	16,409	13,149	31.26	17,470	1.12	3.4	31.47	2.3	11,870	67.95	62	53
1.75 to <2.5	14,798	13,631	34.81	17,308	1.85	1.6	36.85	2.4	13,343	77.09	85	63
2.50 to <10.00	18,303	19,834	27.94	20,693	4.41	1.9	28.98	2.6	19,653	94.97	255	214
2.50 to <5	12,559	16,416	25.84	15,214	3.44	1.5	30.98	2.7	14,387	94.56	159	147
5 to <10	5,744	3,418	38.03	5,479	7.11	0.5	23.41	2.3	5,267	96.12	97	67
10.00 to <100.00	1,628	1,055	54.00	1,635	18.71	0.3	23.75	1.8	1,985	121.43	71	46
10 to <20	1,013	803	57.45	1,049	13.36	0.1	23.70	2.0	1,238	118.10	36	25
20 to <30	260	129	53.96	262	22.60	0.1	30.49	1.8	416	158.80	16	8
30.00 to <100.00	355	123	31.50	324	32.88	0.1	18.46	1.2	331	102.04	20	13
100.00 (Default)	11,955	1,974	33.59	11,688	100.00	2.3	21.78	3.1	3,886	33.25	2,412	2,753
Sub-total	170,009	241,346	27.41	226,862	6.06	30.5	31.72	2.3	95,957	42.30	2,987	3,196

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Retail												
0.00 to <0.15	41,745	16,438	53.30	51,082	0.08	3,134.6	25.70	15.1	2,042	4.00	11	6
0.00 to <0.10	26,062	10,131	64.53	33,191	0.06	2,286.2	26.51	14.5	1,034	3.11	6	3
0.10 to <0.15	15,683	6,307	35.26	17,891	0.11	848.4	24.19	16.2	1,008	5.64	5	3
0.15 to <0.25	28,689	3,710	62.17	31,295	0.19	949.5	21.67	21.8	2,593	8.29	13	10
0.25 to <0.50	43,009	4,204	65.67	45,882	0.37	995.5	22.97	22.3	6,702	14.61	40	25
0.50 to <0.75	32,270	2,877	76.37	34,359	0.69	561.4	23.29	25.1	8,037	23.39	55	38
0.75 to <2.50	38,926	3,303	68.12	40,925	1.37	1,584.5	31.95	20.2	18,445	45.07	205	132
0.75 to <1.75	25,378	2,315	69.24	26,883	1.04	948.0	29.62	22.7	10,189	37.90	104	63
1.75 to <2.5	13,548	988	65.49	14,042	2.01	636.5	36.42	15.5	8,256	58.79	101	70
2.50 to <10.00	16,450	908	60.28	16,599	4.99	762.7	37.59	15.7	12,588	75.83	302	257
2.50 to <5	10,440	681	57.87	10,541	3.66	536.9	39.41	14.4	7,517	71.32	149	123
5 to <10	6,011	227	67.52	6,059	7.32	225.8	34.42	17.8	5,070	83.68	153	134
10.00 to <100.00	4,157	139	65.48	4,099	21.34	175.8	34.01	17.2	4,923	120.10	300	219
10 to <20	2,276	87	68.21	2,273	13.31	91.6	32.92	17.2	2,441	107.42	100	79
20 to <30	816	20	58.93	788	22.07	32.6	35.71	16.5	1,031	130.81	63	52
30.00 to <100.00	1,066	32	62.17	1,038	38.36	51.7	35.12	17.6	1,451	139.72	137	88
100.00 (Default)	3,888	77	55.81	3,750	100.00	207.5	49.76	9.2	1,399	37.30	1,957	1,866
Sub-total	209,136	31,655	59.88	227,992	2.86	8,371.7	26.77	19.9	56,729	24.88	2,882	2,552
of which:												
Secured by real estate property SMEs												
0.00 to <0.15	3,199	267	59.48	3,358	0.07	14.8	13.44	15.5	74	2.20	0	0
0.00 to <0.10	2,265	200	60.37	2,386	0.06	10.6	13.14	15.5	42	1.77	0	0
0.10 to <0.15	935	67	56.82	973	0.11	4.3	14.16	15.7	32	3.25	0	0
0.15 to <0.25	1,114	72	55.59	1,154	0.18	5.0	13.86	15.7	50	4.37	0	0
0.25 to <0.50	1,684	93	57.80	1,737	0.36	8.3	14.60	15.6	136	7.82	1	1
0.50 to <0.75	289	30	85.39	302	0.56	0.7	16.28	16.5	36	11.93	0	0
0.75 to <2.50	1,375	65	58.58	1,398	1.28	5.5	14.97	15.7	262	18.75	3	4
0.75 to <1.75	1,053	54	59.18	1,080	1.02	4.3	14.79	15.7	176	16.25	2	2
1.75 to <2.5	323	12	55.84	318	2.16	1.2	15.58	15.7	87	27.26	1	2
2.50 to <10.00	330	16	60.94	333	5.04	1.4	16.12	15.4	147	44.26	3	4
2.50 to <5	197	11	67.78	198	3.64	0.8	16.38	15.7	77	38.67	1	2
5 to <10	133	5	46.77	134	7.11	0.6	15.74	14.9	71	52.54	1	2
10.00 to <100.00	59	1	41.14	58	22.16	0.3	15.26	14.3	42	72.36	2	2
10 to <20	32	1	40.87	32	13.89	0.2	15.44	15.7	21	66.45	1	1
20 to <30	11	0	32.36	11	25.39	0.1	13.42	10.5	8	71.15	0	0
30.00 to <100.00	16	0	50.80	16	37.13	0.1	16.15	14.1	13	85.47	1	1
100.00 (Default)	91	1	58.50	84	100.00	0.4	27.50	11.8	41	48.77	23	23
Sub-total	8,142	545	60.01	8,426	1.71	36.4	14.35	15.6	789	9.36	32	34

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Secured by real estate property non-SMEs												
0.00 to <0.15	35,854	959	55.02	36,381	0.08	268.7	16.60	19.3	1,283	3.53	6	4
0.00 to <0.10	22,495	622	54.58	22,834	0.06	166.8	16.42	19.0	645	2.82	3	2
0.10 to <0.15	13,359	337	55.84	13,546	0.11	101.9	16.91	19.8	638	4.71	3	2
0.15 to <0.25	25,646	724	80.61	26,229	0.19	188.5	17.07	24.6	1,895	7.23	9	8
0.25 to <0.50	37,787	1,413	87.66	39,022	0.37	239.8	18.67	24.7	4,940	12.66	27	19
0.50 to <0.75	29,880	1,503	99.31	31,367	0.69	181.1	21.38	26.7	7,040	22.45	47	32
0.75 to <2.50	26,794	1,237	92.00	27,916	1.33	191.4	22.16	26.6	10,477	37.53	104	61
0.75 to <1.75	18,917	906	91.59	19,737	1.02	145.1	21.59	28.3	6,402	32.44	64	35
1.75 to <2.5	7,877	331	93.14	8,179	2.07	46.3	23.52	22.5	4,075	49.82	40	26
2.50 to <10.00	7,430	191	90.80	7,584	5.24	51.5	19.82	26.9	5,336	70.36	79	76
2.50 to <5	4,311	119	92.11	4,410	3.74	31.4	20.14	26.3	2,702	61.28	33	33
5 to <10	3,119	71	88.60	3,174	7.32	20.2	19.37	27.7	2,634	82.99	45	44
10.00 to <100.00	2,329	47	90.96	2,356	21.66	14.8	21.29	25.4	2,850	120.96	109	62
10 to <20	1,285	28	95.63	1,308	13.34	8.1	20.95	25.3	1,482	113.29	36	24
20 to <30	432	6	95.43	434	21.97	2.9	21.28	25.3	565	130.00	20	13
30.00 to <100.00	612	13	78.50	613	39.22	3.9	22.01	25.7	802	130.93	53	25
100.00 (Default)	1,321	19	95.11	1,294	100.00	11.6	23.30	21.1	642	49.62	316	246
Sub-total	167,040	6,091	85.59	172,148	1.75	1,147.4	19.17	24.3	34,464	20.02	696	507
Qualifying Revolving												
0.00 to <0.15	47	9,370	68.86	6,499	0.07	2,141.6	67.35	0.0	215	3.31	3	1
0.00 to <0.10	26	7,290	68.75	5,038	0.06	1,630.2	68.00	0.0	140	2.77	2	1
0.10 to <0.15	21	2,079	69.26	1,461	0.12	511.5	65.10	0.0	76	5.18	1	0
0.15 to <0.25	44	1,705	67.40	1,193	0.19	471.9	64.26	0.0	88	7.39	1	0
0.25 to <0.50	109	1,125	66.87	861	0.35	392.4	65.14	0.0	104	12.05	2	1
0.50 to <0.75	71	375	61.71	302	0.57	135.7	60.21	0.0	52	17.17	1	0
0.75 to <2.50	252	583	65.88	636	1.33	395.1	65.19	0.0	214	33.63	6	3
0.75 to <1.75	172	463	66.67	481	1.05	281.0	65.48	0.0	138	28.71	3	2
1.75 to <2.5	80	120	62.83	155	2.19	114.1	64.28	0.0	76	48.86	2	1
2.50 to <10.00	133	126	63.82	213	5.20	144.2	63.68	0.0	184	86.60	7	5
2.50 to <5	72	78	62.67	121	3.76	82.2	62.95	0.1	85	70.09	3	2
5 to <10	61	47	65.71	92	7.08	62.0	64.64	0.0	100	108.33	4	3
10.00 to <100.00	94	28	68.82	113	24.16	54.3	61.34	0.0	203	179.91	17	9
10 to <20	43	20	69.02	57	14.02	28.5	60.97	0.0	88	153.62	5	3
20 to <30	10	3	61.44	12	23.67	6.3	66.75	0.0	24	202.98	2	1
30.00 to <100.00	40	4	73.49	43	37.72	19.5	60.36	0.0	91	208.34	10	5
100.00 (Default)	115	12	69.19	121	100.00	55.9	68.87	0.0	108	89.27	80	87
Sub-total	865	13,322	68.13	9,939	1.81	3,791.1	66.30	0.0	1,169	11.76	117	107

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Other retail SMEs												
0.00 to <0.15	723	2,433	26.03	1,318	0.08	46.6	50.75	3.3	121	9.15	1	0
0.00 to <0.10	367	749	54.18	768	0.06	27.4	51.88	3.8	54	7.03	0	0
0.10 to <0.15	356	1,683	13.50	550	0.12	19.3	49.17	2.5	67	12.11	0	0
0.15 to <0.25	327	507	33.49	495	0.20	15.4	52.98	4.0	91	18.38	1	0
0.25 to <0.50	491	677	32.54	653	0.37	21.7	53.11	3.3	174	26.59	1	0
0.50 to <0.75	368	460	33.20	375	0.62	10.2	55.06	4.1	137	36.54	1	0
0.75 to <2.50	937	611	43.54	927	1.38	16.8	59.37	3.8	494	53.26	7	3
0.75 to <1.75	536	369	44.18	561	1.06	11.2	58.02	4.0	271	48.26	3	1
1.75 to <2.5	401	242	42.57	366	1.87	5.6	61.43	3.5	223	60.94	4	2
2.50 to <10.00	770	273	38.16	506	4.48	10.5	63.12	2.8	357	70.50	13	8
2.50 to <5	585	231	38.23	399	3.65	7.4	63.53	2.9	278	69.59	9	5
5 to <10	185	42	37.78	106	7.62	3.1	61.60	2.4	79	73.93	5	3
10.00 to <100.00	208	31	37.31	89	19.37	2.8	61.36	2.1	84	95.08	10	6
10 to <20	100	19	40.14	51	12.83	1.3	57.32	1.9	40	79.57	3	2
20 to <30	50	7	34.48	19	22.70	0.7	64.45	2.1	20	107.64	2	1
30.00 to <100.00	58	5	30.86	19	33.27	0.7	68.98	2.6	24	123.58	4	3
100.00 (Default)	355	22	35.95	256	100.00	4.0	67.20	1.9	128	49.93	175	218
Sub-total	4,179	5,014	31.23	4,618	6.82	128.0	55.87	3.4	1,584	34.31	209	235
Other retail non-SMEs												
0.00 to <0.15	1,921	3,410	29.02	3,526	0.08	662.8	45.04	3.6	349	9.91	1	1
0.00 to <0.10	909	1,269	51.93	2,165	0.05	451.3	42.07	3.4	153	7.07	1	0
0.10 to <0.15	1,013	2,141	15.44	1,361	0.11	211.5	49.77	4.0	196	14.42	1	0
0.15 to <0.25	1,558	702	51.81	2,223	0.19	268.7	50.24	8.2	468	21.06	2	1
0.25 to <0.50	2,938	896	55.34	3,609	0.37	333.4	57.93	9.0	1,349	37.38	8	4
0.50 to <0.75	1,663	509	57.91	2,013	0.67	233.8	42.54	9.9	771	38.33	6	5
0.75 to <2.50	9,567	808	52.54	10,047	1.51	975.7	56.88	5.9	6,997	69.65	85	62
0.75 to <1.75	4,700	524	51.58	5,023	1.10	506.4	57.72	6.3	3,202	63.75	31	22
1.75 to <2.5	4,867	284	54.32	5,024	1.92	469.3	56.05	5.6	3,795	75.55	54	39
2.50 to <10.00	7,788	302	59.53	7,964	4.78	555.1	53.09	6.2	6,563	82.41	200	165
2.50 to <5	5,275	242	57.74	5,412	3.58	415.1	53.65	5.9	4,376	80.85	103	82
5 to <10	2,513	61	66.67	2,552	7.32	140.0	51.89	6.8	2,187	85.70	97	83
10.00 to <100.00	1,467	32	53.44	1,484	20.70	103.6	51.25	6.4	1,744	117.54	162	140
10 to <20	814	18	55.70	824	13.23	53.5	49.17	6.6	809	98.18	55	49
20 to <30	313	4	44.12	313	21.99	22.6	53.61	6.0	415	132.59	38	36
30.00 to <100.00	340	10	53.17	347	37.26	27.5	54.07	6.3	521	149.96	69	55
100.00 (Default)	2,007	23	36.17	1,996	100.00	135.7	64.46	2.8	480	24.06	1,363	1,291
Sub-total	28,909	6,682	41.51	32,861	8.73	3,268.8	53.68	6.3	18,723	56.97	1,828	1,669
All exposure classes												
Total	582,345	298,558	32.10	676,007	4.03	8,422.5	32.97	8.0	192,951	28.54	7,159	6,850

Dec 31, 2022

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	110,755	372	24.56	122,838	0.00	0.1	50.36	1.3	1,020	0.83	2	0
0.00 to <0.10	110,410	370	24.58	122,493	0.00	0.1	50.36	1.3	970	0.79	1	0
0.10 to <0.15	345	2	20.01	345	0.14	0.0	49.57	2.0	50	14.37	0	0
0.15 to <0.25	795	1	22.50	1,130	0.23	0.0	50.00	2.0	563	49.82	1	0
0.25 to <0.50	1,303	1	28.99	1,019	0.39	0.0	48.83	2.7	738	72.43	2	0
0.50 to <0.75	803	2	47.01	415	0.64	0.0	50.01	1.1	296	71.45	1	0
0.75 to <2.50	5,027	183	35.12	4,525	1.76	0.0	97.12	4.8	10,930	241.54	2	1
0.75 to <1.75	73	16	36.34	26	0.99	0.0	37.50	2.7	20	76.15	0	0
1.75 to <2.5	4,955	167	35.00	4,499	1.76	0.0	97.46	4.8	10,911	242.49	2	1
2.50 to <10.00	1,193	709	39.85	304	6.47	0.0	42.82	3.1	318	104.76	5	5
2.50 to <5	599	135	35.85	138	4.69	0.0	49.38	4.7	117	84.77	0	2
5 to <10	593	575	40.78	166	7.95	0.0	37.36	1.7	201	121.40	5	3
10.00 to <100.00	874	22	35.01	784	13.01	0.0	50.00	1.0	1,797	229.17	51	2
10 to <20	874	22	35.01	784	13.01	0.0	50.00	1.0	1,797	229.17	51	2
20 to <30	0	0	0.00	0	22.01	0.0	50.00	2.0	0	279.27	0	–
30.00 to <100.00	0	0	0.00	0	0.00	0.0	0.00	0.0	0	0.00	0	–
100.00 (Default)	1,422	328	35.02	271	100.00	0.0	17.86	1.7	225	83.13	12	10
Sub-total	122,172	1,619	34.75	131,285	0.37	0.2	51.87	1.5	15,887	12.10	77	18
Institutions												
0.00 to <0.15	7,608	5,063	39.15	12,843	0.05	0.4	60.21	1.5	1,429	11.13	2	1
0.00 to <0.10	7,531	4,765	39.47	12,663	0.05	0.4	60.67	1.5	1,386	10.95	2	1
0.10 to <0.15	77	298	34.05	179	0.13	0.0	28.22	2.5	43	23.86	0	0
0.15 to <0.25	471	402	42.90	668	0.16	0.1	43.51	0.6	192	28.74	0	0
0.25 to <0.50	392	700	33.47	674	0.33	0.1	47.98	1.1	410	60.83	1	0
0.50 to <0.75	1,034	200	62.37	1,071	0.69	0.0	39.59	1.2	753	70.31	3	2
0.75 to <2.50	1,435	206	53.12	1,463	1.82	0.1	8.17	2.6	368	25.14	3	1
0.75 to <1.75	159	39	60.65	188	1.13	0.0	13.52	2.3	55	29.15	0	0
1.75 to <2.5	1,276	167	51.35	1,275	1.93	0.0	7.38	2.7	313	24.55	2	1
2.50 to <10.00	1,426	529	37.46	1,475	3.59	0.0	9.87	2.0	498	33.74	6	4
2.50 to <5	1,338	160	70.98	1,329	3.22	0.0	8.35	1.9	360	27.11	4	3
5 to <10	88	369	22.93	146	7.00	0.0	23.70	2.8	137	94.00	2	1
10.00 to <100.00	2	52	43.81	23	13.21	0.0	6.29	1.9	7	32.26	0	0
10 to <20	2	52	43.81	23	13.21	0.0	6.29	1.9	7	32.26	0	0
20 to <30	0	0	0.00	0	0.00	0.0	0.00	0.0	0	0.00	0	–
30.00 to <100.00	0	0	0.00	0	0.00	0.0	0.00	0.0	0	0.00	0	–
100.00 (Default)	2,465	0	100.00	2,466	100.00	0.0	0.37	5.0	83	3.35	8	1
Sub-total	14,832	7,153	39.77	20,682	12.40	0.7	43.74	2.0	3,740	18.08	24	10

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in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Corporates												
0.00 to <0.15	64,316	102,120	32.29	101,576	0.07	16.4	30.78	2.3	18,059	17.78	31	10
0.00 to <0.10	53,353	95,097	32.10	87,717	0.06	13.4	32.61	2.2	14,738	16.80	20	7
0.10 to <0.15	10,963	7,023	34.87	13,859	0.13	3.0	19.23	2.5	3,321	23.96	11	3
0.15 to <0.25	23,844	25,553	29.24	30,744	0.20	5.4	26.17	2.5	7,203	23.43	15	13
0.25 to <0.50	31,550	63,781	17.88	40,073	0.36	9.1	33.17	2.2	16,585	41.39	46	36
0.50 to <0.75	22,026	12,195	37.09	25,698	0.64	4.8	28.78	2.4	11,963	46.55	49	37
0.75 to <2.50	48,242	27,216	36.19	51,944	1.47	7.6	29.31	2.3	30,340	58.41	189	146
0.75 to <1.75	24,121	14,352	34.38	25,912	1.11	4.7	26.79	2.1	13,578	52.40	76	55
1.75 to <2.5	24,121	12,864	38.22	26,031	1.83	2.9	31.82	2.5	16,762	64.39	113	91
2.50 to <10.00	32,886	24,994	27.14	35,447	5.02	3.7	20.20	2.5	23,239	65.56	321	255
2.50 to <5	20,747	20,484	25.31	23,391	3.70	2.6	23.32	2.5	16,550	70.75	191	176
5 to <10	12,139	4,510	35.43	12,056	7.58	1.1	14.14	2.3	6,689	55.48	130	79
10.00 to <100.00	4,254	1,798	43.23	4,253	16.76	0.6	17.66	2.1	3,318	78.02	125	90
10 to <20	2,932	1,466	43.13	3,061	13.13	0.3	17.72	2.1	2,394	78.20	73	49
20 to <30	716	181	45.67	649	22.22	0.1	17.44	2.0	411	63.28	18	21
30.00 to <100.00	606	151	41.25	543	32.26	0.2	15.15	2.0	514	94.58	33	21
100.00 (Default)	16,488	2,259	34.64	16,389	100.00	3.0	23.67	3.1	4,479	27.33	3,607	4,164
Sub-total	243,606	259,916	28.69	306,124	6.56	50.7	28.42	2.3	115,186	37.63	4,382	4,749
of which:												
SMEs												
0.00 to <0.15	4,224	2,660	32.97	5,291	0.07	4.9	23.09	3.4	484	9.15	1	1
0.00 to <0.10	3,063	1,897	34.33	3,859	0.06	3.2	22.68	3.6	300	7.78	0	0
0.10 to <0.15	1,161	762	29.59	1,432	0.12	1.7	24.17	3.0	184	12.84	0	0
0.15 to <0.25	1,947	1,440	34.96	2,412	0.20	2.5	35.78	3.2	695	28.81	2	2
0.25 to <0.50	2,413	2,011	34.52	2,929	0.36	4.2	43.39	2.8	1,213	41.40	5	3
0.50 to <0.75	2,392	1,037	40.16	2,556	0.66	1.8	40.52	2.3	1,242	48.60	7	4
0.75 to <2.50	3,682	1,831	34.91	3,863	1.42	2.6	40.05	2.2	2,387	61.78	22	16
0.75 to <1.75	2,152	1,187	35.14	2,384	1.11	1.5	37.44	2.2	1,261	52.90	10	6
1.75 to <2.5	1,531	644	34.48	1,479	1.92	1.1	44.27	2.3	1,125	76.10	12	9
2.50 to <10.00	1,955	1,332	34.33	1,914	4.82	1.3	41.19	2.2	1,697	88.64	37	25
2.50 to <5	1,349	1,041	31.89	1,320	3.62	0.9	42.02	2.5	1,120	84.84	20	17
5 to <10	605	291	43.09	594	7.49	0.4	39.35	1.6	577	97.09	17	8
10.00 to <100.00	453	101	28.87	330	20.31	0.3	41.32	2.7	503	152.15	26	25
10 to <20	204	35	26.07	184	13.95	0.1	40.84	2.3	252	136.70	11	9
20 to <30	135	42	26.37	54	21.52	0.1	61.86	0.9	120	221.20	7	12
30.00 to <100.00	115	24	37.46	92	32.36	0.1	30.09	4.4	131	142.26	9	4
100.00 (Default)	2,513	147	35.92	2,505	100.00	1.8	47.44	1.7	706	28.16	1,166	1,541
Sub-total	19,579	10,558	34.75	21,801	12.64	19.4	36.93	2.7	8,926	40.94	1,265	1,616

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in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Specialized Lending												
0.00 to <0.15	4,035	51	32.93	3,951	0.11	0.1	4.41	3.2	163	4.14	0	0
0.00 to <0.10	1,870	38	20.01	1,794	0.08	0.0	3.27	3.4	45	2.53	0	0
0.10 to <0.15	2,165	14	69.13	2,157	0.13	0.0	5.36	3.1	118	5.47	0	0
0.15 to <0.25	4,051	248	31.55	4,072	0.21	0.1	4.76	2.6	220	5.40	0	2
0.25 to <0.50	3,815	535	75.37	4,059	0.39	0.1	11.88	2.7	809	19.92	2	2
0.50 to <0.75	5,568	745	84.69	6,277	0.66	0.2	15.23	2.8	1,750	27.88	6	7
0.75 to <2.50	9,441	1,300	40.22	9,576	1.49	0.3	8.00	2.2	1,863	19.46	11	11
0.75 to <1.75	4,742	563	46.95	4,847	1.13	0.1	7.98	2.1	861	17.77	4	3
1.75 to <2.5	4,699	737	35.07	4,729	1.87	0.2	8.02	2.2	1,002	21.19	7	8
2.50 to <10.00	15,802	2,103	27.08	15,732	5.47	0.4	6.34	2.2	3,360	21.36	49	40
2.50 to <5	9,472	1,308	31.37	9,404	3.90	0.3	7.75	2.0	2,246	23.88	28	26
5 to <10	6,330	794	20.01	6,328	7.79	0.2	4.24	2.4	1,114	17.61	22	14
10.00 to <100.00	1,626	225	24.31	1,681	14.89	0.0	5.30	2.5	384	22.87	15	11
10 to <20	1,427	219	24.39	1,480	12.97	0.0	5.19	2.5	316	21.37	10	11
20 to <30	120	2	34.31	121	22.01	0.0	2.51	1.9	17	14.12	1	0
30.00 to <100.00	79	4	13.89	80	39.77	0.0	11.48	3.6	51	63.88	4	0
100.00 (Default)	3,661	158	28.28	3,648	100.00	0.1	21.87	3.1	466	12.78	765	751
Sub-total	47,999	5,364	43.26	48,996	10.15	1.4	9.09	2.5	9,016	18.40	849	825
Other												
0.00 to <0.15	56,058	99,409	32.27	92,334	0.07	11.5	32.35	2.1	17,411	18.86	29	9
0.00 to <0.10	48,420	93,161	32.06	82,064	0.06	10.2	33.71	2.1	14,393	17.54	19	6
0.10 to <0.15	7,637	6,247	35.44	10,270	0.14	1.3	21.46	2.3	3,019	29.39	10	3
0.15 to <0.25	17,847	23,865	28.87	24,259	0.19	2.9	28.81	2.4	6,288	25.92	13	10
0.25 to <0.50	25,322	61,236	16.84	33,086	0.35	4.8	34.87	2.0	14,564	44.02	40	30
0.50 to <0.75	14,065	10,413	33.38	16,865	0.62	2.8	32.04	2.2	8,971	53.19	36	26
0.75 to <2.50	35,119	24,085	36.07	38,505	1.47	4.7	33.53	2.3	26,090	67.76	155	119
0.75 to <1.75	17,228	12,601	33.74	18,681	1.10	3.0	30.31	2.1	11,455	61.32	62	45
1.75 to <2.5	17,891	11,484	38.63	19,824	1.82	1.7	36.57	2.5	14,635	73.82	94	74
2.50 to <10.00	15,130	21,559	26.70	17,801	4.64	2.0	30.18	2.7	18,181	102.14	235	190
2.50 to <5	9,926	18,135	24.50	12,667	3.55	1.5	32.93	3.0	13,184	104.08	143	133
5 to <10	5,204	3,425	38.36	5,134	7.32	0.5	23.41	2.2	4,997	97.35	92	56
10.00 to <100.00	2,174	1,473	47.10	2,242	17.63	0.3	23.45	1.7	2,431	108.44	84	54
10 to <20	1,301	1,212	47.01	1,396	13.20	0.1	27.94	1.7	1,825	130.73	53	29
20 to <30	461	137	51.73	474	22.36	0.1	16.15	2.2	273	57.71	11	8
30.00 to <100.00	412	123	42.79	372	30.62	0.1	12.25	1.1	333	89.40	21	17
100.00 (Default)	10,314	1,954	35.06	10,236	100.00	1.0	18.49	3.4	3,307	32.31	1,676	1,871
Sub-total	176,028	243,994	28.11	235,327	5.25	29.9	31.66	2.3	97,244	41.32	2,268	2,308

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in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Retail												
0.00 to <0.15	43,858	16,684	54.72	53,567	0.08	3,111.3	25.91	15.1	3,770	7.04	36	6
0.00 to <0.10	27,419	11,138	64.48	35,105	0.06	2,395.2	26.82	14.5	1,101	3.14	6	3
0.10 to <0.15	16,439	5,547	35.13	18,462	0.11	716.1	24.17	16.4	2,670	14.46	30	3
0.15 to <0.25	29,064	4,607	63.71	32,029	0.19	1,125.3	22.22	22.0	2,639	8.24	14	11
0.25 to <0.50	43,079	4,487	66.84	46,065	0.37	933.5	22.86	22.7	6,730	14.61	40	27
0.50 to <0.75	31,789	3,316	80.02	34,275	0.69	555.6	23.18	25.3	7,993	23.32	55	42
0.75 to <2.50	38,618	3,629	69.17	40,838	1.38	1,495.1	30.79	20.2	18,479	45.25	204	136
0.75 to <1.75	24,830	2,612	70.91	26,574	1.02	862.4	29.19	23.8	9,986	37.58	104	65
1.75 to <2.5	13,788	1,017	64.68	14,264	1.83	632.7	28.32	13.1	8,493	59.54	100	70
2.50 to <10.00	16,509	986	60.34	16,685	4.98	785.9	37.24	15.9	12,565	75.31	301	261
2.50 to <5	10,602	700	57.13	10,681	3.67	549.8	38.75	14.9	7,567	70.85	149	125
5 to <10	5,907	286	68.19	6,004	7.31	236.1	34.56	17.6	4,998	83.24	152	136
10.00 to <100.00	3,873	160	69.47	3,844	11.65	162.5	52.38	39.4	4,362	113.47	273	208
10 to <20	2,286	101	71.89	2,299	13.30	85.5	32.62	17.5	2,428	105.63	100	81
20 to <30	763	27	65.24	747	22.13	36.8	36.22	15.9	976	130.68	60	51
30.00 to <100.00	825	31	65.37	799	35.83	40.2	35.81	16.8	958	119.92	113	77
100.00 (Default)	3,608	87	65.61	3,582	100.00	195.4	49.19	9.4	1,341	37.42	1,824	1,727
Sub-total	210,399	33,954	61.82	230,884	2.57	8,364.7	26.87	20.4	57,877	25.07	2,746	2,419
of which:												
Secured by real estate property SMEs												
0.00 to <0.15	3,409	320	58.74	3,597	0.07	15.9	13.55	15.5	80	2.21	0	0
0.00 to <0.10	2,425	249	59.05	2,572	0.06	11.5	13.25	15.5	46	1.79	0	0
0.10 to <0.15	984	71	57.64	1,025	0.11	4.5	14.31	15.6	34	3.28	0	0
0.15 to <0.25	1,163	90	62.64	1,219	0.18	5.2	13.94	15.8	54	4.42	0	0
0.25 to <0.50	1,752	109	57.98	1,815	0.36	8.5	14.90	15.7	145	7.98	1	1
0.50 to <0.75	210	20	67.25	220	0.56	0.7	14.09	16.7	22	10.18	0	0
0.75 to <2.50	1,379	89	66.96	1,429	1.27	5.4	14.87	15.8	264	18.49	3	4
0.75 to <1.75	1,083	76	70.00	1,129	1.03	4.3	14.90	15.8	185	16.41	2	2
1.75 to <2.5	296	13	48.91	299	2.15	1.1	14.76	16.1	79	26.33	1	2
2.50 to <10.00	303	15	38.49	301	5.01	1.3	15.72	15.1	131	43.39	2	3
2.50 to <5	186	12	35.67	184	3.67	0.7	15.27	15.4	67	36.12	1	2
5 to <10	117	2	52.44	117	7.13	0.5	16.43	14.5	64	54.81	1	2
10.00 to <100.00	65	1	42.28	64	21.35	0.3	15.54	15.4	47	73.72	2	2
10 to <20	38	1	43.35	38	14.71	0.2	15.86	16.3	27	72.28	1	1
20 to <30	14	0	40.69	13	26.13	0.1	16.32	14.5	11	82.09	1	0
30.00 to <100.00	13	0	26.98	13	36.43	0.1	13.72	13.7	9	69.32	1	0
100.00 (Default)	74	0	40.44	73	100.00	0.4	30.21	10.6	37	51.04	22	26
Sub-total	8,354	644	60.07	8,717	1.52	37.7	14.35	15.6	780	8.95	31	37

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Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Secured by real estate property non-SMEs												
0.00 to <0.15	37,203	1,321	54.22	37,919	0.08	281.7	17.12	19.4	1,382	3.64	6	4
0.00 to <0.10	23,466	861	53.79	23,929	0.06	175.8	16.87	19.1	692	2.89	3	2
0.10 to <0.15	13,736	460	55.04	13,989	0.11	105.9	17.55	20.0	690	4.93	3	2
0.15 to <0.25	25,919	928	76.91	26,633	0.19	194.0	17.37	24.9	1,954	7.34	9	9
0.25 to <0.50	37,800	1,833	85.01	39,355	0.37	246.4	18.81	24.9	5,010	12.73	28	20
0.50 to <0.75	29,473	1,924	99.45	31,381	0.69	182.7	21.31	26.8	7,015	22.35	46	35
0.75 to <2.50	26,511	1,628	90.45	27,965	1.34	196.3	21.16	26.5	10,765	38.50	107	65
0.75 to <1.75	18,334	1,254	90.08	19,452	1.00	148.7	21.55	29.8	6,303	32.40	65	38
1.75 to <2.5	8,177	374	91.72	8,513	1.76	47.6	11.16	17.8	4,462	52.42	41	27
2.50 to <10.00	7,484	224	87.88	7,664	5.17	52.1	20.05	27.3	5,410	70.59	79	78
2.50 to <5	4,477	152	88.98	4,602	3.75	32.3	20.45	26.8	2,864	62.24	35	34
5 to <10	3,007	71	85.55	3,062	7.30	19.9	19.45	28.0	2,546	83.13	44	44
10.00 to <100.00	2,108	52	93.75	2,143	5.00	14.0	53.92	65.6	2,395	111.72	97	59
10 to <20	1,274	37	95.40	1,307	13.33	7.9	20.68	25.8	1,459	111.66	36	25
20 to <30	391	7	88.69	394	22.14	2.7	21.17	24.8	509	129.34	18	13
30.00 to <100.00	442	8	90.53	443	35.04	3.4	21.39	25.4	426	96.23	44	21
100.00 (Default)	1,249	20	94.00	1,265	100.00	11.5	22.91	21.4	620	49.05	301	244
Sub-total	167,746	7,930	83.72	174,324	1.48	1,178.8	19.56	24.9	34,552	19.82	674	514
Qualifying Revolving												
0.00 to <0.15	47	9,604	68.82	6,656	0.06	2,134.6	67.21	0.0	203	3.05	3	0
0.00 to <0.10	29	7,918	68.84	5,480	0.05	1,716.4	67.54	0.0	146	2.66	2	0
0.10 to <0.15	18	1,686	68.71	1,176	0.11	418.1	65.67	0.0	57	4.87	1	0
0.15 to <0.25	54	2,393	66.86	1,654	0.18	626.5	63.57	0.0	120	7.26	2	0
0.25 to <0.50	113	976	65.02	747	0.37	345.5	65.13	0.0	95	12.74	2	1
0.50 to <0.75	70	402	58.73	306	0.69	140.4	59.21	0.0	60	19.52	1	0
0.75 to <2.50	218	525	63.19	550	1.42	343.5	64.86	0.0	193	35.12	5	3
0.75 to <1.75	132	368	63.93	367	1.10	224.0	66.00	0.0	109	29.69	3	1
1.75 to <2.5	86	157	61.44	183	2.06	119.5	62.59	0.0	84	46.02	2	1
2.50 to <10.00	164	210	63.64	298	5.36	164.3	61.57	0.0	258	86.64	10	6
2.50 to <5	91	113	61.91	160	3.72	94.2	61.14	0.0	110	68.39	4	2
5 to <10	73	98	65.63	137	7.27	70.1	62.07	0.0	148	107.92	6	4
10.00 to <100.00	70	44	65.54	98	21.05	44.4	61.42	0.0	171	173.66	13	7
10 to <20	32	32	66.07	53	13.19	23.1	60.91	0.0	80	150.26	4	2
20 to <30	16	8	62.09	21	21.59	9.9	61.82	0.0	40	187.75	3	2
30.00 to <100.00	21	4	67.69	24	37.59	11.4	62.17	0.0	52	212.16	6	3
100.00 (Default)	103	16	67.99	114	100.00	50.5	68.73	0.0	99	87.52	73	76
Sub-total	838	14,169	67.65	10,422	1.63	3,849.7	65.92	0.0	1,200	11.51	109	94

Dec 31, 2022

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	On-balance sheet exposures	Off-balance- sheet exposures pre- CCF	Exposure weighted average CCF (in %)	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors (in 1,000s)	Exposure weighted average LGD (%)	Exposure weighted average maturity (in years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount (in %)	Expected Loss amount	Value adjustments and Provisions
Other retail SMEs												
0.00 to <0.15	868	2,431	26.62	1,470	0.08	47.0	50.30	3.2	135	9.16	1	0
0.00 to <0.10	431	789	53.49	828	0.06	29.0	51.95	4.0	58	7.00	0	0
0.10 to <0.15	437	1,642	13.71	642	0.12	18.0	48.17	2.2	77	11.95	0	0
0.15 to <0.25	344	511	32.48	511	0.20	15.8	53.38	4.3	95	18.58	1	0
0.25 to <0.50	530	696	31.59	689	0.37	21.9	53.35	3.2	184	26.68	1	0
0.50 to <0.75	379	449	34.74	377	0.62	10.2	56.04	3.8	141	37.37	1	0
0.75 to <2.50	974	639	44.30	969	1.35	16.2	59.61	3.9	515	53.16	8	3
0.75 to <1.75	540	414	44.64	611	1.06	10.8	57.31	4.0	292	47.72	4	1
1.75 to <2.5	434	225	43.67	358	1.86	5.4	63.53	3.5	224	62.47	4	2
2.50 to <10.00	777	277	38.83	501	4.50	10.3	63.65	2.7	355	70.93	13	8
2.50 to <5	599	229	39.52	390	3.63	7.4	64.35	2.8	273	70.09	9	5
5 to <10	178	48	35.57	111	7.56	3.0	61.19	2.4	82	73.87	5	3
10.00 to <100.00	188	28	41.24	81	19.85	2.6	66.79	2.2	84	104.01	10	6
10 to <20	91	16	42.22	44	13.17	1.3	66.04	2.2	41	91.94	4	2
20 to <30	44	7	45.67	18	22.53	0.7	64.72	2.2	20	109.81	2	1
30.00 to <100.00	52	5	31.98	19	33.02	0.7	70.50	2.3	24	126.91	4	3
100.00 (Default)	318	19	38.65	257	100.00	3.6	67.09	1.8	134	51.95	176	212
Sub-total	4,379	5,050	31.65	4,857	6.51	127.6	55.90	3.3	1,643	33.84	210	231
Other retail non-SMEs												
0.00 to <0.15	2,331	3,009	32.22	3,925	0.08	632.1	42.93	3.7	1,971	50.21	26	1
0.00 to <0.10	1,068	1,321	52.89	2,295	0.06	462.5	39.46	3.6	159	6.92	1	1
0.10 to <0.15	1,263	1,688	16.04	1,630	0.11	169.6	47.80	3.8	1,812	111.16	25	1
0.15 to <0.25	1,585	684	58.31	2,013	0.19	283.9	49.62	10.7	416	20.66	2	2
0.25 to <0.50	2,884	873	59.93	3,459	0.38	311.1	57.96	9.6	1,296	37.46	8	5
0.50 to <0.75	1,657	521	64.23	1,991	0.68	221.6	41.89	10.6	755	37.91	6	5
0.75 to <2.50	9,536	749	48.53	9,926	1.51	933.7	55.50	6.1	6,741	67.91	82	61
0.75 to <1.75	4,741	500	49.86	5,014	1.10	474.6	55.94	6.3	3,097	61.76	30	22
1.75 to <2.5	4,795	249	45.86	4,911	1.92	459.1	55.05	5.9	3,644	74.19	52	39
2.50 to <10.00	7,781	260	58.09	7,920	4.81	557.8	52.11	6.3	6,410	80.94	196	166
2.50 to <5	5,249	194	51.46	5,345	3.60	415.2	52.77	5.9	4,253	79.58	101	82
5 to <10	2,532	66	77.49	2,575	7.32	142.7	50.73	7.0	2,157	83.76	96	84
10.00 to <100.00	1,444	34	61.34	1,457	19.92	101.2	50.32	6.6	1,665	114.24	151	134
10 to <20	850	15	58.87	857	13.22	53.1	48.09	6.7	821	95.88	55	51
20 to <30	298	5	64.25	301	21.97	23.5	53.29	6.3	396	131.80	36	35
30.00 to <100.00	295	14	62.85	300	37.01	24.6	53.69	6.5	447	149.06	59	49
100.00 (Default)	1,865	31	62.57	1,873	100.00	129.4	64.03	3.0	450	24.01	1,252	1,169
Sub-total	29,082	6,161	45.14	32,564	8.38	3,170.9	52.48	6.6	19,703	60.51	1,723	1,543
All exposure classes												
Total	591,009	302,642	32.70	688,976	4.22	8,416.4	32.83	8.2	192,690	27.97	7,229	7,196

Total IRB exposure covered by credit derivatives

Article 453 (j) CRR

The table below presents the Group's IRB exposures, split into FIRB and AIRB. The table shows the RWA by the relevant exposure classes prior and after the usage of CRM techniques in the form of credit derivatives, where the exposure is then assigned to the exposure class of the protection seller.

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

in € m.		Jun 30, 2023		Dec 31, 2022	
		a	b	a	b
		pre-credit derivatives RWA	Actual RWA	pre-credit derivatives RWA	Actual RWA
1	Exposures under FIRB				
2	Central governments and central banks	0	0	0	0
3	Institutions	16	16	10	10
3a	Corporates	1,690	1,690	1,746	1,750
	of which:				
4	SMEs	38	38	41	41
5	Specialized lending	530	530	601	601
	Others	1,122	1,122	1,103	1,108
6a	Sub-total FIRB	1,706	1,706	1,755	1,760
7	Exposures under AIRB				
8	Central governments and central banks	15,464	15,604	15,887	15,887
9	Institutions	3,836	3,886	3,675	3,740
9a	Corporates	118,000	116,733	116,539	115,186
	of which:				
10	SMEs	8,802	8,791	8,926	8,926
11	Specialized lending	12,115	12,125	9,016	9,016
	Others	97,084	95,816	98,596	97,244
12a	Retail	56,729	56,729	57,877	57,877
	of which:				
13	Secured by real estate property SMEs	789	789	780	780
14	Secured by real estate property non-SMEs	34,464	34,464	34,552	34,552
15	Qualifying revolving	1,169	1,169	1,200	1,200
16	Other retail SMEs	1,584	1,584	1,643	1,643
17	Other retail non-SMEs	18,723	18,723	19,703	19,703
19a	Sub-total AIRB	194,029	192,951	193,978	192,690
20	Total	195,734	194,657	195,734	194,450

Deutsche Bank's RWA for exposures under the IRB approach is € 194.7 billion as of June 30, 2023, in comparison to € 194.5 billion as of the prior period. The increase of € 0.2 billion is predominantly driven by an increase in RWA within the Group's AIRB for the exposure class "corporates – specialised lending". This increase was partly offset by decreases within the Group's AIRB for the exposure classes "corporates – others", "retail – other non-SMEs" and "central governments and central banks". The RWA for corporate exposures mainly benefitted from the application of credit derivatives.

Total IRB exposure covered by the use of CRM techniques

Article 453 (g) CRR

The two tables below present the Group's FIRB and AIRB exposures and the extent of the use of CRM techniques broken down by exposure classes. The CRM techniques are separately shown for funded credit protection and unfunded credit protection. For funded credit protection the table also presents a split between the part of exposures covered by other eligible collateral and the part of exposures covered by other funded credit protection. Additionally, the RWA without substitution effects (reduction effects only) and the RWA with substitution effects (both reduction and substitution effects) are shown.

EU CR7-A – Foundation IRB approach – Extent of the use of CRM techniques

														Jun 30, 2023																																	
														m	n																																
														Credit risk Mitigation methods in the calculation of RWEAs																																	
														Unfunded credit protection (UFCP)																																	
														Funded credit protection (FCP)																																	
														Part of exposures covered by Other eligible collaterals (%)		Part of exposures covered by Other funded credit protection (%)																															
														of which: Part of exposures covered by Immovable property		of which: Part of exposures covered by Receivables		of which: Part of exposures covered by Other physical collateral		of which: Part of exposures covered by Cash on deposit		of which: Part of exposures covered by Life insurance policies		of which: Part of exposures covered by Instruments held by a third party		Part of exposures covered by Guarantees		Part of exposures covered by Credit Derivatives		RWA without substitution effects (reduction effects only)		RWA with substitution effects (both reduction and substitution effects)															
in € m. (unless stated otherwise)	Total exposures	Part of exposures covered by Financial Collaterals (%)	Total	Collaterals (%)	Total	Collaterals (%)	Total	Collaterals (%)	Total	Collaterals (%)	Total	Collaterals (%)	Total	Collaterals (%)																																	
1	Central governments and central banks																							20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	
2	Institutions																							52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16	16
3	Corporates																							6,114	0.00	9.48	9.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,689	1,690	
3	of which:																																														
3.1	SME																							133	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38	38	
3.2	Specialized lending																							824	0.00	70.30	70.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	530	530	
3.3	Other																							5,157	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,122	1,122	
4	Total																							6,186	0.00	9.37	9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,706	1,706	

Dec 31, 2022

	a	b	c	d	e	f	g	h	i	j	k	l	m	n
	Credit risk mitigation techniques												Credit risk Mitigation methods in the calculation of RWEAs	
	Funded credit protection (FCP)												Unfunded credit protection (UFCP)	
	in € m. (unless stated otherwise)	Total exposures	Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Other eligible collaterals (%)				Part of exposures covered by Other funded credit protection (%)					RWA without substitution effects (reduction effects only)	RWA with substitution effects (both reduction and substitution effects)
Total				Collaterals (%)	of which: Part of exposures covered by Immovable property Collaterals (%)	of which: Part of exposures covered by Receivables (%)	of which: Part of exposures covered by Other physical collateral (%)	Total	Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)	Part of exposures covered by Guarantees (%)		
Central governments and central banks	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
1 Institutions	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10	10
2 Corporates	6,204	0.00	10.15	10.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,750	1,750
3 of which:														
3.1 SME	116	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41	41
3.2 Specialized lending	921	0.00	68.29	68.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	601	601
3.3 Other	5,167	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,107	1,108
4 Total	6,233	0.00	10.10	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,760	1,760

EU CR7-A – Advanced IRB approach – Extent of the use of CRM techniques

Jun 30, 2023

	a	b	c	d	e	f	g	h	i	j	k	l	m	n
	Credit risk mitigation techniques												Credit risk Mitigation methods in the calculation of RWEAs	
	Funded credit protection (FCP)												Unfunded credit protection (UFCP)	
	in € m. (unless stated otherwise)	Total exposures	Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Other eligible collaterals (%)				Part of exposures covered by Other funded credit protection (%)					RWA without substitution effects (reduction effects only)	RWA with substitution effects (both reduction and substitution effects)
Total				Collaterals (%)	of which: Part of exposures covered by Immovable property Collaterals (%)	of which: Part of exposures covered by Receivables (%)	of which: Part of exposures covered by Other physical collateral (%)	Total	Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)	Part of exposures covered by Guarantees (%)		
Central governments and central banks	134,209	0.02	0.07	0.07	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.00	16,705	15,604
1 Institutions	17,119	12.44	0.87	0.87	0.00	0.00	0.95	0.94	0.01	0.00	0.00	0.00	3,782	3,886
2 Corporates	298,477	16.43	19.98	19.34	0.49	0.16	1.29	1.02	0.35	0.00	1.91	0.00	116,999	116,733
3 of which:														
3.1 SME	19,572	7.90	21.63	20.61	0.06	0.95	0.40	0.19	0.21	0.00	12.22	0.00	8,863	8,791
3.2 Specialized lending	50,603	1.44	61.27	61.27	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.00	12,592	12,125
3.3 Other	228,302	20.48	10.69	9.94	0.63	0.12	1.64	1.31	0.45	0.00	1.46	0.00	95,544	95,816

Jun 30, 2023

	a	b	c	d	e	f	g	h	i	j	k	l	m	n
	Credit risk mitigation techniques												Credit risk Mitigation methods in the calculation of RWEAs	
	Funded credit protection (FCP)												Unfunded credit protection (UFCP)	
	Part of exposures covered by Other eligible collaterals (%)						Part of exposures covered by Other funded credit protection (%)							
				of which: Part of exposures covered by Immovable property Collaterals (%)	of which: Part of exposures covered by Receivables (%)	of which: Part of exposures covered by Other physical collateral (%)		of which: Part of exposures covered by Cash on deposit (%)	of which: Part of exposures covered by Life insurance policies (%)	of which: Part of exposures covered by Instruments held by a third party (%)	Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)	RWA without substitution effects (reduction effects only)	RWA with substitution effects (both reduction and substitution effects)
in € m. (unless stated otherwise)	Total exposures	Part of exposures covered by Financial Collaterals (%)	Total				Total							
4 Retail	227,992	2.77	56.91	56.73	0.18	0.01	0.28	0.00	0.28	0.00	0.70	0.00	56,485	56,729
of which:														
4.1 Secured by real estate property SMEs	8,426	1.83	71.70	71.24	0.44	0.03	1.46	0.01	1.45	0.00	4.53	0.00	801	789
4.2 Secured by real estate property non-SMEs	172,148	2.37	71.77	71.61	0.16	0.00	0.26	0.00	0.25	0.00	0.21	0.00	34,498	34,464
4.3 Qualifying revolving	9,939	0.59	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.00	1,169	1,169
4.4 Other retail SMEs	4,618	4.11	2.19	0.14	1.68	0.37	0.88	0.01	0.87	0.00	13.92	0.00	1,490	1,584
4.5 Other retail non-SMEs	32,861	5.58	0.18	0.13	0.05	0.01	0.11	0.01	0.10	0.00	0.62	0.00	18,528	18,723
5 Total	677,797	8.48	27.98	27.64	0.27	0.07	0.71	0.50	0.25	0.00	1.08	0.00	193,971	192,951

Dec 31, 2022

	a	b	c	d	e	f	g	h	i	j	k	l	m		n											
													Credit risk mitigation techniques											Credit risk Mitigation methods in the calculation of RWEAs		
													Funded credit protection (FCP)											Unfunded credit protection (UFCP)		
													Part of exposures covered by Other eligible collaterals (%)					Part of exposures covered by Other funded credit protection (%)						Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)	RWA without substitution effects (reduction effects only)
in € m. (unless stated otherwise)	Total exposures	Part of exposures covered by Financial Collaterals (%)	Total	of which: Part of exposures covered by Immovable property Collaterals (%)	of which: Part of exposures covered by Receivables (%)	of which: Part of exposures covered by Other physical collateral (%)	Total	of which: Part of exposures covered by Cash on deposit (%)	of which: Part of exposures covered by Life insurance policies (%)	of which: Part of exposures covered by Instruments held by a third party (%)																
Central governments and central banks	131,284	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	16,317	15,887											
1 Institutions	20,682	11.03	1.70	1.70	0.00	0.00	0.57	0.56	0.01	0.00	0.00	0.00	0.00	3,647	3,740											
2 Corporates	306,125	17.83	19.98	19.12	0.70	0.16	1.46	1.02	0.44	0.00	1.84	0.00	116,340	115,186												
of which:																										
3.1 SME	21,801	6.74	21.18	20.18	0.12	0.87	1.26	0.36	0.90	0.00	11.46	0.00	9,017	8,926												
3.2 Specialized lending	48,996	1.67	66.03	66.03	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.00	9,392	9,016												
3.3 Other	235,328	22.22	10.29	9.26	0.90	0.13	1.76	1.27	0.49	0.00	1.33	0.00	97,931	97,244												
4 Retail	230,884	2.80	56.75	56.56	0.18	0.01	0.32	0.00	0.32	0.00	0.72	0.00	57,665	57,877												
of which:																										
4.1 Secured by real estate property SMEs	8,717	1.85	71.16	70.66	0.47	0.03	1.68	0.01	1.67	0.00	4.49	0.00	788	780												
4.2 Secured by real estate property non-SMEs	174,324	2.32	71.51	71.35	0.16	0.00	0.29	0.00	0.29	0.00	0.22	0.00	34,583	34,552												
4.3 Qualifying revolving	10,422	0.58	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00	1,200	1,200												
4.4 Other retail SMEs	4,857	4.07	2.15	0.13	1.66	0.37	0.91	0.01	0.90	0.00	13.72	0.00	1,538	1,643												
4.5 Other retail non-SMEs	32,564	6.16	0.16	0.10	0.05	0.01	0.12	0.01	0.11	0.00	0.65	0.00	19,556	19,703												
5 Total	688,976	9.19	27.95	27.50	0.37	0.07	0.78	0.47	0.30	0.00	1.06	0.00	193,969	192,690												

Development of credit risk RWA

Article 438 (h) CRR

The following table provides an analysis of key drivers for RWA movements observed for credit risk, excluding counterparty credit risk, covered in the IRB approaches in the current and previous reporting period.

EU CR8 – RWA flow statement of credit risk exposures under the IRB approach

		Three months ended Jun 30, 2023	Three months ended Mar 31, 2023
		a	a
in € m.		RWA	RWA
1	Risk weighted exposure amount as at the end of the previous reporting period	192,378	192,160
2	Asset size	(305)	312
3	Asset quality	916	1,277
4	Model updates	0	0
5	Methodology and policy	(78)	(78)
6	Acquisitions and disposals	0	0
7	Foreign exchange movements	(653)	(1,293)
8	Other	0	0
9	Risk weighted exposure amount as at the end of the reporting period	192,257	192,378

Organic changes in the Group's portfolio size and composition are considered in the category "asset size". The category "asset quality" represents the effects from portfolio rating migrations, loss given default, model parameter recalibrations as well as collateral coverage and netting activities. "Model updates" include model refinements and further roll out of advanced internal models. RWA movements resulting from externally, regulatory-driven changes, e.g. applying new regulations, are considered in the "methodology and policy" section. "Acquisition and disposals" is relating to significant exposure movements which can be clearly assigned to acquisition or disposal related activities. Changes that cannot be attributed to the above categories are reflected in the category "other".

The decrease in RWA for credit risk exposures under the IRB approach of 0.1% or € 0.1 billion since March 31, 2023, is primarily resulting from foreign exchange movements and a reduction in the category "assets size" reflecting lower exposures under the IRB approach due to new synthetic securitizations within the Corporate Bank, partly offset by business growth within the Investment Bank. These decreases were partly offset by the category "asset quality" reflecting a RWA increase stemming in particular from counterparty rating deteriorations.

Specialized lending and equity exposures in the banking book

Article 438 (e) CRR

The table below summarizes the foundation approach exposure for specialized lending where a former Postbank portfolio is part of the "income-producing real estate and high volatility commercial real estate" slotting category. Deutsche Bank does not treat any further exposures under the slotting approach as they are covered under the AIRB. Consequently, Deutsche Bank does not disclose tables for "Project finance", "Object finance" and "Commodities finance". For the calculation of minimum capital requirements regulatory risk weights are applied where potential risk mitigating factors are already considered in the assignment of the risk weight. The table presents the on- and off-balance-sheet exposures, the EAD and RWA as well as the associated regulatory expected losses.

EU CR10.02 – Specialized lending: Income-producing real estate and high volatility commercial real estate (Slotting approach)

in € m.
(unless stated otherwise)

Jun 30, 2023

Regulatory categories	Specialized lending Remaining maturity	a	b	c	d	e	f
		On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Expected losses
Category 1	Less than 2.5 years	215	33	50%	240	120	0
	Equal to or more than 2.5 years	521	7	70%	527	369	2
Category 2	Less than 2.5 years	46	31	70%	69	48	0
	Equal to or more than 2.5 years	4	0	90%	4	4	0
Category 3	Less than 2.5 years	0	0	115%	0	0	0
	Equal to or more than 2.5 years	0	0	115%	0	0	0
Category 4	Less than 2.5 years	0	0	250%	0	0	0
	Equal to or more than 2.5 years	0	0	250%	0	0	0
Category 5	Less than 2.5 years	0	0	–	0	0	0
	Equal to or more than 2.5 years	1	0	–	1	0	2
Total	Less than 2.5 years	261	64	–	309	168	0
	Equal to or more than 2.5 years	527	7	–	532	372	4

in € m.
(unless stated otherwise)

Dec 31, 2022

Regulatory categories	Specialized lending Remaining maturity	a	b	c	d	e	f
		On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Expected losses
Category 1	Less than 2.5 years	225	50	50%	262	131	0
	Equal to or more than 2.5 years	519	3	70%	522	365	2
Category 2	Less than 2.5 years	73	0	70%	73	51	0
	Equal to or more than 2.5 years	33	35	90%	60	54	0
Category 3	Less than 2.5 years	0	0	115%	0	0	0
	Equal to or more than 2.5 years	0	0	115%	0	0	0
Category 4	Less than 2.5 years	0	0	250%	0	0	0
	Equal to or more than 2.5 years	0	0	250%	0	0	0
Category 5	Less than 2.5 years	0	0	–	0	0	0
	Equal to or more than 2.5 years	4	0	–	4	0	4
Total	Less than 2.5 years	298	50	–	335	182	0
	Equal to or more than 2.5 years	556	38	–	585	419	7

As part of the advanced IRBA Deutsche Bank uses supervisory defined risk weights according to the simple risk weight approach for the Group's equity positions. The table below presents the on- and off-balance-sheet exposures, the EAD, RWA and capital requirements for the categories of equity exposures as set out in Article 155 (2) CRR. For all these positions no credit risk mitigation techniques have been applied.

EU CR10.05 – Equity exposures under the simple risk-weighted approach

in € m.
(unless stated otherwise)

Jun 30, 2023

Categories	Equities under the simple risk-weighted approach					
	a	b	c	d	e	f
	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Capital requirements
Private equity exposures sufficiently diversified	552	0	190%	552	1,049	4
Exchange-traded equity exposures	44	1,556	290%	1,600	4,640	13
All other equity exposures	1,478	9	370%	1,487	5,502	36
Total	2,074	1,565	–	3,639	11,191	53

in € m.
(unless stated otherwise)

Dec 31, 2022

Categories	Equities under the simple risk-weighted approach					
	a	b	c	d	e	f
	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Capital requirements
Private equity exposures sufficiently diversified	541	0	190%	541	1,028	4
Exchange-traded equity exposures	24	869	290%	893	2,591	7
All other equity exposures	1,450	25	370%	1,474	5,455	35
Total	2,014	894	–	2,909	9,074	47

Deutsche Bank's RWA for equity exposures under the simple risk-weighted approach were at € 11.2 billion as of June 30, 2023, in comparison to € 9.1 billion in the prior period. The increase of € 2.1 billion is predominantly driven by exchange-traded equity exposures.

Counterparty credit risk (CCR)

Estimate of alpha factor

Article 439 (k) CRR

Under the IMM approach the EAD is calculated as the product of the effective expected positive exposure and a multiplier 'alpha' (α). The scaling factor alpha is applied in order to correct for correlations between counterparties, concentration risk, and to account for the level of volatility/correlation that might coincide with a downturn. Deutsche Bank received regulatory approval to use its own calibrated alpha factor. For its regulatory capital calculation, however, a regulatory minimum level of 1.25 needs to be applied.

CCR exposures by model approach and development

Article 439 (f, g, k) CRR

The following table shows the methods used for calculating the regulatory requirements for CCR exposure including the main parameters for each method. Exposures relevant for CVA charges and exposures cleared through a central counterparty are presented separately in table EU CCR2 and EU CCR8, respectively. Deutsche Bank does not make use of the original exposure method for derivatives nor the financial collateral simple method for SFTs. Deutsche Bank also uses the new SA-CCR to calculate the exposure at default for derivatives. This approach still consists of a replacement cost and a potential future exposure but also considers a multiplier. The multiplier differentiates between margined and non-margined trades and recognizes netting and hedging benefits as well as collateralization. Under the IMM only the effective expected positive exposure and the exposure at default are presented. For the calculation of the Group's CCR RWA the higher of the stressed effective expected positive exposure and the unstressed effective expected positive exposure is taken into consideration. The simulation process of future market values in the internal model also includes the impact from regulatory netting and collateralization across all asset classes.

EU CCR1 – Analysis of CCR exposure by approach

		Jun 30, 2023							
		a	b	c	d	e	f	g	h
in € m. (unless stated otherwise)		Replacement cost (RC)	Potential future exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre-CRM	Exposure value post- CRM	Exposure value	RWA
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)	1,710	1,980	–	1.4	8,170	5,166	5,166	1,991
2	IMM (for derivatives and SFTs)	–	–	48,229	1.25	670,642	60,492	60,286	18,698
	of which:								
2a	Securities financing transactions netting sets	–	–	21,240	–	573,371	26,551	26,551	2,340
2b	Derivatives and long settlement transactions netting sets	–	–	26,989	–	97,271	33,942	33,736	16,358
2c	from Contractual cross- product netting sets	–	–	0	–	0	0	0	0
3	Financial collateral simple method (for SFTs)	–	–	–	–	0	0	0	0
4	Financial collateral comprehensive method (for SFTs)	–	–	–	–	52,264	24,086	24,086	1,755
5	VaR for SFTs	–	–	–	–	0	0	0	0
6	Total	–	–	–	–	731,077	89,745	89,539	22,444

		Dec 31, 2022							
		a	b	c	d	e	f	g	h
in € m. (unless stated otherwise)		Replacement cost (RC)	Potential future exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre-CRM	Exposure value post- CRM	Exposure value	RWA
	EU - Original Exposure								
EU1	Method (for derivatives)	0	0	–	1.4	0	0	0	0
	EU - Simplified SA-CCR (for derivatives)	0	0	–	1.4	0	0	0	0
EU2	SA-CCR (for derivatives)	1,758	2,679	–	1.4	10,799	6,212	6,212	2,216
	IMM (for derivatives and SFTs)	–	–	53,755	1.25	601,058	67,437	67,193	19,251
	of which:								
2a	Securities financing transactions netting sets	–	–	26,336	–	488,416	32,920	32,920	2,587
2b	Derivatives and long settlement transactions netting sets	–	–	27,419	–	112,642	34,517	34,273	16,664
2c	from Contractual cross- product netting sets	–	–	0	–	0	0	0	0
3	Financial collateral simple method (for SFTs)	–	–	–	–	0	0	0	0
4	Financial collateral comprehensive method (for SFTs)	–	–	–	–	37,392	21,212	21,212	1,370
5	VaR for SFTs	–	–	–	–	0	0	0	0
6	Total	–	–	–	–	649,248	94,861	94,617	22,837

The size of Deutsche Bank's on- and off-balance-sheet derivative business is at € 533.1 billion as of June 30, 2023 (€ 620.6 billion as of December 31, 2022), which makes around 41% of its total assets.

Deutsche Bank's CCR RWA stands at € 22.4 billion as of June 30, 2023, reflecting a decrease of € 0.4 billion from December 31, 2022. The decrease is predominantly driven by reduced derivative exposures under IMM, higher CRM benefit for SFTs under IMM and a reduction in RWA under SA-CCR for derivatives, partly offset by increased RWA in the financial collateral comprehensive method for securities financing transactions.

CCR exposures development

Article 438 (h) CRR

The following table provides an analysis of key drivers for RWA movements observed for counterparty credit risk exposures calculated under the internal model method (IMM) in the current and previous reporting period.

EU CCR7 – RWA flow statement of counterparty credit risk exposures under the internal model method

		Three months ended Jun 30, 2023	Three months ended Mar 31, 2023
		a	a
in € m.		RWA	RWA
1	Counterparty credit risk RWA under the IMM opening balance	19,353	19,406
2	Asset size	(536)	68
3	Credit quality of counterparties	366	127
4	Model updates (IMM only)	0	0
5	Methodology and policy (IMM only)	0	0
6	Acquisitions and disposals	0	0
7	Foreign exchange movements	(183)	(247)
8	Other	0	0
9	Counterparty credit risk RWA under the IMM closing balance	19,000	19,353

Organic changes in portfolio size and composition are considered in the category "asset size". The category "credit quality of counterparties" represents the effects from portfolio rating migrations, loss given default, model parameter recalibrations as well as collateral coverage and netting activities. "Model updates (IMM only)" include model refinements and further roll out of advanced internal models. RWA movements resulting from externally, regulatory-driven changes, e.g. applying new regulations, are considered in the "methodology and policy (IMM only)" section. "Acquisition and disposals" is relating to significant exposure movements which can be clearly assigned to acquisition or disposal related activities. Changes that cannot be attributed to the above categories are reflected in the category "other".

The RWA for counterparty credit risk exposures under the IMM decreased by 1.8% or € 0.4 billion since March 31, 2023, and is primarily driven by the category “asset size”, reflecting lower exposures for SFTs due to increased benefit from credit risk mitigation techniques as well as foreign exchange movements. These decreases were partly offset by the increase in category “credit quality of counterparties” which is resulting from counterparty ratings deterioration.

CCR CVA capital charge

Article 439 (h) CRR

The table below provides a breakdown of the credit valuation adjustment (CVA) RWA into advanced and standardized approaches. In addition, the incremental contributions from the VaR and stressed VaR components are highlighted. We calculate the majority of the CVA based on our own internal model as approved by the competent supervisory authority, which is consistent with the advanced method, driving the reported CVA RWA of € 6.4 billion (98%), whilst the standardized method covers only € 136 million (2%) of the total CVA RWA. The stressed VaR component is the main driver of advanced CVA RWA, which results from the stressed period volatilities considered. The overall RWA increase of € 0.4 billion is primarily driven by removal of pension fund exemptions and business activities.

EU CCR2 – CVA capital charge

	in € m.	Jun 30, 2023		Dec 31, 2022	
		a	b	a	b
		Exposure value	RWA	Exposure value	RWA
1	Total portfolios subject to the Advanced Method	56,715	6,449	59,735	6,121
2	(i) VaR component (including the 3x multiplier)	0	1,169	0	849
3	(ii) Stressed VaR component (including the 3x multiplier)	0	5,280	0	5,273
4	Transactions subject to the Standardised method	680	136	362	63
	Transactions subject to the Alternative approach (Based on the Original Exposure Method)	0	0	0	0
5	Total transactions subject to own funds requirements for CVA risk	57,395	6,585	60,097	6,184

1. Comparatives aligned to current presentation

CCR exposures to central counterparties

Article 439 (i) CRR

The table below presents an overview of Deutsche Bank’s exposures and RWA to central counterparties arising from transactions, margins and contributions to default funds. As of June 30, 2023, Deutsche Bank mainly reported exposures to qualifying central counterparties (QCCP) as defined in Article 4 (88) CRR.

EU CCR8 – Exposures to CCPs

	Jun 30, 2023		Dec 31, 2022	
	a	b	a	b
in € m.	Exposure value	RWA	Exposure value	RWA
1 Exposures to QCCPs (total)	-	664	-	652
Exposures for trades at QCCPs (excluding initial margin and default fund contributions)	6,613	132	7,959	159
of which:				
3 (i) OTC derivatives	1,756	35	2,981	60
4 (ii) Exchange-traded derivatives	1,516	30	1,435	29
5 (iii) Securities financing transactions	3,341	67	3,543	71
6 (iv) Netting sets where cross-product netting has been approved	0	0	0	0
7 Segregated initial margin	6,290	-	5,695	-
8 Non-segregated initial margin	2,571	51	2,781	56
9 Pre-funded default fund contributions	1,265	481	1,510	437
10 Unfunded default fund contributions	1,986	0	2,390	0
11 Exposures to non-QCCPs (total)	-	333	-	323
Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions)	142	212	8	8
of which:				
13 (i) OTC derivatives	94	142	0	0
14 (ii) Exchange-traded derivatives	0	0	0	0
15 (iii) Securities financing transactions	47	71	8	8
16 (iv) Netting sets where cross-product netting has been approved	0	0	0	0
17 Segregated initial margin	0	-	0	-
18 Non-segregated initial margin	0	0	0	0
19 Prefunded default fund contributions	10	121	6	73
20 Unfunded default fund contributions	0	0	19	242

CCR exposures in the standardized approach

Article 444 (e) CRR

The following table provides the counterparty credit risk exposures in the standardized approach broken down by risk weights and regulatory exposure classes. This table excludes risk weighted exposure amounts derived from own funds requirements for CVA risk but includes exposures cleared through a CCP.

EU CCR3 – Standardized approach – CCR exposures by regulatory portfolio and risk

in € m.	Jun 30, 2023						
	Risk Weight						
Exposure classes	a	b	c	d	e	f	g
	0%	2%	4%	10%	20%	50%	70%
1 Central governments or central banks	2,925	0	0	0	0	0	0
2 Regional governments or local authorities	141	0	0	0	0	0	0
3 Public sector entities	229	0	0	0	1	0	0
4 Multilateral development banks	64	0	0	0	0	0	0
5 International organizations	0	0	0	0	0	0	0
6 Institutions	8	9,184	2	0	195	0	0
7 Corporates	77	0	0	0	256	6	0
8 Retail	0	0	0	0	0	0	0
Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0
9 Other items	0	0	0	0	0	0	0
10							
11 Total	3,444	9,184	2	0	453	6	0

		Jun 30, 2023				
in € m.		Risk Weight				
		h	i	j	k	l
Exposure classes		75%	100%	150%	Others	Total
1	Central governments or central banks	0	0	0	0	2,925
2	Regional governments or local authorities	0	0	0	0	141
3	Public sector entities	0	0	0	0	231
4	Multilateral development banks	0	0	0	0	64
5	International organizations	0	0	0	0	0
6	Institutions	0	19	0	0	9,407
7	Corporates	0	967	0	0	1,306
8	Retail	1	0	0	0	1
9	Institutions and corporates with a short-term credit assessment	0	0	0	0	0
10	Other items	0	30	144	0	174
11	Total	1	1,016	144	0	14,248

		Dec 31, 2022						
in € m.		Risk Weight						
		a	b	c	d	e	f	g
Exposure classes		0%	2%	4%	10%	20%	50%	70%
1	Central governments or central banks	2,979	0	0	0	0	0	0
2	Regional governments or local authorities	159	0	0	0	0	0	0
3	Public sector entities	278	0	0	0	4	0	0
4	Multilateral development banks	394	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0	0
6	Institutions	4	10,739	1	0	79	3	0
7	Corporates	57	0	0	0	31	5	0
8	Retail	0	0	0	0	0	0	0
9	Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0
10	Other items	0	0	0	0	0	0	0
11	Total	3,871	10,739	1	0	114	9	0

		Dec 31, 2022				
in € m.		Risk Weight				
		h	i	j	k	l
Exposure classes		75%	100%	150%	Others	Total
1	Central governments or central banks	0	0	0	0	2,979
2	Regional governments or local authorities	0	0	0	0	159
3	Public sector entities	0	0	0	0	282
4	Multilateral development banks	0	0	0	0	394
5	International organizations	0	0	0	0	0
6	Institutions	0	14	0	0	10,841
7	Corporates	0	1,023	0	0	1,116
8	Retail	1	0	0	0	1
9	Institutions and corporates with a short-term credit assessment	0	0	0	0	0
10	Other items	0	79	3	0	82
11	Total	1	1,115	3	0	15,853

CCR exposures within the foundation IRBA

Article 452 (g) CRR

The following tables disclose Deutsche Bank's foundation IRBA counterparty credit risk exposures, i.e., derivatives and securities financing transactions, distributed on its internal rating scale for exposure classes central governments and central banks, institutions as well as corporates with its relevant subcategories. CVA charges or exposures cleared through a CCP are excluded.

Deutsche Bank discloses the exposure after CCF and CRM, where exposures covered by guarantees or credit derivatives are assigned to the protection seller.

The exposure after CCF and CRM is presented in conjunction with exposures-weighted average PD, RWAs, the average risk weight and the number of obligors. In addition, it provides the average LGD and average maturity, which is regulatory pre-defined in the foundation IRB. The tables provide the defaulted exposure separately.

EU CCR4 – FIRB approach – CCR exposures by portfolio and PD scale

in € m. (unless stated otherwise)							Jun 30, 2023
Exposure class/ PD scale	a	b	c	d	e	f	g
	Exposure value	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Density of risk weighted exposure amounts
Central governments and central banks							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Institutions							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Corporates							
0.00 to <0.15	0	N/M	0	N/M	N/M	0	0
0.15 to <0.25	0	N/M	0	N/M	N/M	0	0
0.25 to <0.50	0	0.38	0.0	45.00	2.5	0	70.00
0.50 to <0.75	15	0.69	0.0	45.00	2.5	11	70.00
0.75 to <2.50	0	1.23	0.0	45.00	2.5	0	50.00
2.50 to <10.00	0	N/M	0	N/M	N/M	0	0
10.00 to <100.00	0	N/M	0	N/M	N/M	0	0
100.00 (Default)	1	100.00	0.0	45.00	2.5	0	0
Sub-total	17	7.17	0.0	45.00	2.5	11	65.42
of which:							
SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Specialized Lending							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0.38	0.0	45.00	2.5	0	70.00
0.50 to <0.75	15	0.69	0.0	45.00	2.5	11	70.00
0.75 to <2.50	0	1.23	0.0	45.00	2.5	0	50.00
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	1	100.00	0.0	45.00	2.5	0	0
Sub-total	17	7.17	0.0	45.00	2.5	11	65.42
Other							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Total	17	7.17	0.0	45.00	2.5	11	65.42

							Dec 31, 2022
in € m.							
(unless stated otherwise)							
	a	b	c	d	e	f	g
Exposure class/ PD scale	Exposure value	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Density of risk weighted exposure amounts
Central governments and central banks							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Institutions							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Corporates							
0.00 to <0.15	0	0.11	0.0	45.00	2.5	0	70.00
0.15 to <0.25	0	N/M	0	N/M	N/M	0	0
0.25 to <0.50	0	0.38	0.0	45.00	2.5	0	50.00
0.50 to <0.75	0	N/M	0	N/M	N/M	0	0
0.75 to <2.50	0	N/M	0	N/M	N/M	0	0
2.50 to <10.00	0	N/M	0	N/M	N/M	0	0
10.00 to <100.00	0	N/M	0	N/M	N/M	0	0
100.00 (Default)	0	N/M	0	N/M	N/M	0	0
Sub-total¹	0	0.23	0.0	45.00	2.5	0	62.96
of which:							
SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Specialized Lending							
0.00 to <0.15	0	0.11	0.0	45.00	2.5	0	70.00
0.15 to <0.25	0	0	0	0	2.5	0	0
0.25 to <0.50	0	0.38	0.0	45.00	2.5	0	50.00
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total¹	0	0.23	0.0	45.00	2.5	0	62.96
Other							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Total	0	0.23	0.0	45.00	2.5	0	62.96

CCR exposures within the advanced IRBA

Article 452 (g) CRR

The following tables disclose Deutsche Bank's advanced IRBA counterparty credit risk exposures, i.e. derivatives and securities financing transactions, distributed on its internal rating scale for exposure classes central governments and central banks, institutions as well as corporates with its relevant subcategories. CVA charges or exposures cleared through a CCP are excluded.

Deutsche Bank discloses the exposure after CCF and CRM, where exposures covered by guarantees or credit derivatives are assigned to the protection seller.

The exposure after CCF and CRM is presented in conjunction with exposure-weighted average PD, LGD, and maturity as well as the RWA, the average risk weight (RW) and the number of obligors. The effect of double default, as far as applicable to exposures outside of former Postbank, is considered in the average RW. It implies that for a guaranteed exposure a loss only occurs if the primary obligor and the guarantor fail to meet their obligations at the same time. The tables provide the defaulted exposure separately, where Deutsche Bank applies an LGD estimate already incorporating potential unexpected losses in the loss rate estimate as required by Article 181 (1)(h) CRR.

EU CCR4 – AIRB approach – CCR exposures by portfolio and PD scale

Jun 30, 2023

in € m. (unless stated otherwise)							
	a	b	c	d	e	f	g
Exposure class/ PD scale	Exposure value	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Density of risk weighted exposure amounts
Central governments and central banks							
0.00 to <0.15	12,912	0.02	0.1	42.70	0.6	407	3.15
0.15 to <0.25	135	0.22	0.0	41.69	1.9	58	42.84
0.25 to <0.50	10	0.32	0.0	31.33	3.0	4	42.53
0.50 to <0.75	8	0.64	0.0	45.05	2.7	6	81.95
0.75 to <2.50	55	0.88	0.0	26.27	5.0	40	73.85
2.50 to <10.00	705	4.68	0.0	18.91	1.7	420	59.61
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	13,824	0.26	0.1	41.40	0.7	936	6.77
Institutions							
0.00 to <0.15	11,819	0.06	0.3	36.75	1.2	1,930	16.33
0.15 to <0.25	1,081	0.16	0.1	45.25	1.1	354	32.71
0.25 to <0.50	859	0.33	0.1	38.85	1.2	449	52.25
0.50 to <0.75	876	0.70	0.0	39.88	0.6	620	70.79
0.75 to <2.50	103	1.78	0.0	57.61	1.8	114	110.45
2.50 to <10.00	1,025	3.18	0.0	5.97	0.5	213	20.74
10.00 to <100.00	0	14.31	0.0	45.00	1.0	0	214.43
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	15,764	0.32	0.5	35.78	1.1	3,679	23.34
Corporates							
0.00 to <0.15	40,461	0.05	6.7	33.93	1.1	5,125	12.67
0.15 to <0.25	2,816	0.18	1.0	50.97	2.6	1,553	55.15
0.25 to <0.50	4,999	0.35	1.3	49.23	2.4	3,150	63.02
0.50 to <0.75	2,187	0.66	0.9	51.69	1.8	1,995	91.23
0.75 to <2.50	3,393	1.42	1.5	40.39	1.9	3,251	95.80
2.50 to <10.00	988	4.07	0.5	48.15	2.4	1,436	145.35
10.00 to <100.00	40	23.94	0.0	27.79	1.3	57	144.27
100.00 (Default)	104	100.00	0.1	23.04	1.3	152	146.75
Sub-total	54,988	0.46	12.1	37.43	1.4	16,720	30.41
of which:							
SMEs							
0.00 to <0.15	2,895	0.04	0.3	31.76	0.5	143	4.95
0.15 to <0.25	37	0.21	0.1	37.58	2.9	13	34.09
0.25 to <0.50	245	0.38	0.2	51.02	0.8	95	38.57
0.50 to <0.75	201	0.64	0.2	70.05	0.7	150	74.70
0.75 to <2.50	312	1.50	0.3	45.86	1.7	252	80.90
2.50 to <10.00	103	3.94	0.1	63.85	2.5	134	129.80
10.00 to <100.00	3	20.75	0.0	80.90	1.2	10	308.95
100.00 (Default)	45	100.00	0.0	38.23	1.1	84	185.72
Sub-total	3,841	1.50	1.1	37.16	0.7	880	22.90
Specialized Lending							
0.00 to <0.15	3	0.06	0.0	49.66	3.9	38	1,223.94
0.15 to <0.25	1	0.22	0.0	48.36	3.2	0	59.67
0.25 to <0.50	12	0.39	0.0	44.90	3.6	9	77.31
0.50 to <0.75	251	0.70	0.0	9.89	3.7	45	17.96
0.75 to <2.50	22	1.50	0.1	40.03	2.7	21	97.22
2.50 to <10.00	121	5.61	0.0	26.58	4.3	129	106.93
10.00 to <100.00	0	13.00	0.0	49.38	1.5	0	233.55
100.00 (Default)	1	100.00	0.0	13.48	4.9	0	35.98
Sub-total	411	2.45	0.2	17.82	3.8	244	59.41
Other							
0.00 to <0.15	37,563	0.05	6.4	34.09	1.2	4,944	13.16
0.15 to <0.25	2,778	0.18	0.9	51.15	2.6	1,540	55.43
0.25 to <0.50	4,742	0.35	1.2	49.15	2.5	3,046	64.24
0.50 to <0.75	1,736	0.65	0.7	55.60	1.7	1,801	103.73
0.75 to <2.50	3,060	1.41	1.1	39.84	1.9	2,977	97.31
2.50 to <10.00	764	3.85	0.4	49.45	2.1	1,173	153.54
10.00 to <100.00	36	24.27	0.0	23.16	1.3	47	129.77
100.00 (Default)	58	100.00	0.0	11.38	1.4	68	118.55
Sub-total	50,736	0.37	10.8	37.61	1.4	15,596	30.74

Jun 30, 2023

in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	Exposure value	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Density of risk weighted exposure amounts
Retail							
0.00 to <0.15	5	0.08	0.2	13.94	1.8	0	3.05
0.15 to <0.25	2	0.19	0.1	36.34	5.0	0	13.96
0.25 to <0.50	2	0.35	0.1	53.67	3.5	1	31.41
0.50 to <0.75	3	0.60	0.1	62.80	2.6	1	46.31
0.75 to <2.50	6	1.42	0.1	72.59	1.7	5	79.82
2.50 to <10.00	7	3.93	0.1	79.65	1.3	7	109.16
10.00 to <100.00	1	21.26	0.0	79.78	1.4	1	174.99
100.00 (Default)	1	100.00	0.0	16.50	1.0	1	206.25
Sub-total	24	4.44	0.6	57.28	2.0	16	66.41
of which:							
Secured by real estate property SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Secured by real estate property non-SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Qualifying Revolving							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Other retail SMEs							
0.00 to <0.15	0	0.08	0.0	27.58	1.5	0	5.15
0.15 to <0.25	0	0.22	0.0	73.79	1.3	0	26.23
0.25 to <0.50	0	0.37	0.0	72.40	2.3	0	35.91
0.50 to <0.75	2	0.62	0.0	72.89	1.3	1	47.98
0.75 to <2.50	2	1.33	0.0	76.83	1.3	2	69.15
2.50 to <10.00	3	4.96	0.0	80.86	1.3	2	96.21
10.00 to <100.00	0	20.89	0.0	77.30	0.9	0	142.64
100.00 (Default)	1	100.00	0.0	16.50	1.0	1	206.25
Sub-total	8	10.04	0.1	71.37	1.3	7	80.42
Other retail non-SMEs							
0.00 to <0.15	4	0.08	0.2	13.38	1.9	0	2.97
0.15 to <0.25	1	0.19	0.0	24.82	6.2	0	10.19
0.25 to <0.50	1	0.34	0.1	47.10	3.9	0	29.83
0.50 to <0.75	2	0.58	0.0	52.61	4.0	1	44.62
0.75 to <2.50	4	1.47	0.1	69.87	1.9	3	86.66
2.50 to <10.00	4	3.29	0.0	78.88	1.2	5	117.37

							Jun 30, 2023
in € m. (unless stated otherwise)							
	a	b	c	d	e	f	g
Exposure class/ PD scale	Exposure value	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Density of risk weighted exposure amounts
10.00 to <100.00	0	21.52	0.0	81.57	1.7	1	198.39
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	16	1.63	0.5	50.21	2.4	10	59.38
Total (all exposure classes)	84,600	0.40	13.4	37.78	1.2	21,352	25.24

Dec 31, 2022

in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	Exposure value	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
Central governments and central banks							
0.00 to <0.15	11,006	0.01	0.1	42.80	0.5	260	2.36
0.15 to <0.25	208	0.23	0.0	45.68	1.7	96	46.14
0.25 to <0.50	0	0.39	0.0	50.00	1.0	0	53.48
0.50 to <0.75	9	0.64	0.0	45.34	1.9	7	71.45
0.75 to <2.50	126	1.52	0.0	42.83	2.8	135	106.83
2.50 to <10.00	626	3.34	0.0	12.01	2.1	247	39.48
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	11,976	0.21	0.1	41.24	0.6	745	6.22
Institutions							
0.00 to <0.15	12,948	0.05	0.3	39.63	1.1	1,938	14.97
0.15 to <0.25	564	0.17	0.1	40.02	1.3	180	31.87
0.25 to <0.50	802	0.32	0.1	46.50	1.6	497	61.97
0.50 to <0.75	535	0.70	0.0	45.93	1.2	456	85.23
0.75 to <2.50	1,044	1.78	0.0	18.44	0.4	539	51.66
2.50 to <10.00	81	4.26	0.0	47.94	3.0	161	198.91
10.00 to <100.00	0	14.31	0.0	45.00	1.0	1	214.46
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	15,974	0.22	0.5	38.86	1.1	3,772	23.61
Corporates							
0.00 to <0.15	45,872	0.04	6.9	35.33	1.3	6,282	13.69
0.15 to <0.25	4,718	0.20	1.0	35.28	1.6	1,412	29.93
0.25 to <0.50	4,521	0.35	1.2	46.23	2.1	2,479	54.82
0.50 to <0.75	2,069	0.65	0.9	58.62	1.8	2,121	102.52
0.75 to <2.50	3,151	1.39	1.3	41.19	1.8	3,032	96.25
2.50 to <10.00	1,043	4.14	0.5	51.12	2.4	1,466	140.59
10.00 to <100.00	67	23.15	0.1	57.50	1.5	214	319.57
100.00 (Default)	94	100.00	0.1	26.78	2.0	158	168.18
Sub-total	61,535	0.42	11.8	37.49	1.4	17,164	27.89
of which:							
SMEs							
0.00 to <0.15	2,357	0.04	0.3	31.58	0.8	134	5.70
0.15 to <0.25	29	0.21	0.1	36.76	1.3	6	22.17
0.25 to <0.50	198	0.36	0.2	60.23	1.3	98	49.62
0.50 to <0.75	278	0.65	0.1	80.66	1.0	258	92.80
0.75 to <2.50	243	1.58	0.3	74.14	1.3	298	122.87
2.50 to <10.00	199	3.37	0.1	60.83	2.0	127	63.76
10.00 to <100.00	1	16.64	0.0	68.90	1.7	1	215.16
100.00 (Default)	45	100.00	0.0	30.38	1.3	92	201.74
Sub-total	3,350	1.78	1.2	42.21	0.9	1,015	30.31
Specialized Lending							
0.00 to <0.15	11	0.06	0.0	49.37	4.4	4	37.08
0.15 to <0.25	11	0.23	0.0	22.08	4.7	4	35.45
0.25 to <0.50	191	0.43	0.0	3.22	4.9	12	6.31
0.50 to <0.75	12	0.64	0.0	51.39	4.0	13	107.51
0.75 to <2.50	90	1.65	0.0	23.78	2.4	44	48.68
2.50 to <10.00	101	7.20	0.0	29.67	4.7	141	139.18
10.00 to <100.00	3	13.35	0.0	50.21	2.3	6	248.44
100.00 (Default)	12	100.00	0.0	29.80	5.0	7	62.21
Sub-total	430	5.13	0.1	17.76	4.3	231	53.69
Other							
0.00 to <0.15	43,504	0.04	6.6	35.53	1.3	6,143	14.12
0.15 to <0.25	4,679	0.20	0.9	35.30	1.6	1,402	29.97
0.25 to <0.50	4,132	0.35	1.0	47.54	2.0	2,368	57.31
0.50 to <0.75	1,779	0.65	0.8	55.23	1.9	1,850	104.00
0.75 to <2.50	2,818	1.37	1.0	38.90	1.8	2,690	95.47
2.50 to <10.00	743	3.93	0.3	51.43	2.2	1,198	161.37
10.00 to <100.00	64	23.61	0.0	57.68	1.5	206	323.46
100.00 (Default)	37	100.00	0.0	21.36	1.9	59	161.39
Sub-total	57,755	0.30	10.6	37.37	1.5	15,918	27.56
Retail							
0.00 to <0.15	6	0.08	0.2	10.82	0.8	0	2.43

Dec 31, 2022

in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	Exposure value	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
0.15 to <0.25	1	0.20	0.1	38.43	5.9	0	15.97
0.25 to <0.50	2	0.35	0.1	52.96	2.8	1	33.75
0.50 to <0.75	3	0.58	0.1	48.85	2.2	1	36.56
0.75 to <2.50	6	1.50	0.1	71.89	1.8	5	82.63
2.50 to <10.00	6	3.79	0.1	80.91	1.3	7	114.33
10.00 to <100.00	1	15.75	0.0	81.89	1.4	2	151.00
100.00 (Default)	0	100.00	0.0	16.50	1.4	1	206.25
Sub-total	26	3.58	0.6	54.68	1.8	17	65.60
of which:							
Secured by real estate property SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Secured by real estate property non-SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Qualifying Revolving							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Other retail SMEs							
0.00 to <0.15	0	0.09	0.0	37.22	1.4	0	7.38
0.15 to <0.25	0	0.23	0.0	81.90	1.1	0	29.40
0.25 to <0.50	0	0.40	0.0	37.80	2.6	0	19.18
0.50 to <0.75	1	0.63	0.0	79.35	1.4	1	52.59
0.75 to <2.50	2	1.50	0.0	72.57	1.4	1	69.21
2.50 to <10.00	2	4.40	0.0	80.04	1.4	2	93.45
10.00 to <100.00	1	13.65	0.0	82.24	1.1	1	125.26
100.00 (Default)	0	100.00	0.0	16.50	1.4	1	206.25
Sub-total	6	9.12	0.1	72.15	1.4	5	83.51
Other retail non-SMEs							
0.00 to <0.15	6	0.08	0.2	9.90	0.8	0	2.26
0.15 to <0.25	1	0.19	0.0	33.38	6.5	0	14.41
0.25 to <0.50	2	0.35	0.1	53.75	2.8	1	34.51
0.50 to <0.75	2	0.56	0.0	33.84	2.5	1	28.68
0.75 to <2.50	4	1.50	0.1	71.56	2.0	4	89.23
2.50 to <10.00	5	3.57	0.1	81.23	1.3	6	121.95
10.00 to <100.00	1	17.87	0.0	81.53	1.7	1	177.20
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	20	1.86	0.5	49.23	1.9	12	60.01
Total (all exposure classes)	89,512	0.35	13.1	38.24	1.3	21,699	24.24

CCR exposures after credit risk mitigation

Article 439 (e) CRR

The following table presents information on Deutsche Bank's counterparty credit risk (CCR) exposure and the composition of collateral used in both derivatives transactions and securities financing transactions (SFTs).

Table EU CCR5 discloses a breakdown of all types of collateral posted or received to support or reduce CCR exposures related to derivatives and SFTs. For SFTs, collateral refers to both legs of the transaction as collateral received and collateral posted.

EU CCR5 – Composition of collateral for exposures to CCR

		Jun 30, 2023							
		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	
in € m.		Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
1	Cash – domestic currency	0	42,460	0	33,507	862	95,974	0	111,709
2	Cash – other currencies	471	41,131	2	26,384	26,368	137,448	0	204,563
3	Domestic sovereign debt	101	151	0	342	0	2,718	0	1,246
4	Other Sovereign debt	0	0	0	0	31	4,668	21	6,349
5	Government agency debt	0	0	0	0	0	0	0	0
6	Corporate bonds	1,698	26,489	17	11,743	1,402	272,338	7,281	268,670
7	Equity securities	386	2,934	0	0	528	64,584	30,189	36,356
8	Other collateral	5,787	3,479	6,316	2,429	0	3,818	0	3,554
9	Total	8,444	116,644	6,336	74,407	29,192	581,548	37,491	632,446

		Dec 31, 2022							
		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	
in € m.		Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
1	Cash – domestic currency	1	47,352	0	37,744	291	66,754	0	84,802
2	Cash – other currencies	444	44,940	3	24,644	14,148	140,973	0	197,678
3	Domestic sovereign debt	99	161	0	1,809	0	2,691	0	1,024
4	Other Sovereign debt	0	0	0	0	9	6,940	57	8,892
5	Government agency debt	0	0	0	0	0	0	0	0
6	Corporate bonds	1,280	23,625	0	5,461	1,662	237,388	4,015	210,635
7	Equity securities	280	3,254	0	0	472	73,304	22,675	43,038
8	Other collateral	5,399	3,126	5,713	9,355	0	4,748	0	1,051
9	Total	7,502	122,458	5,715	79,014	16,582	532,798	26,746	547,120

Credit derivatives exposures

Article 439 (j) CRR

The table below discloses the exposure of the credit derivative transactions split into protection bought and sold, as well as a split into product types.

EU CCR6 – Credit derivatives exposures

		Jun 30, 2023		Dec 31, 2022	
		a	b	a	b
in € m.		Protection bought	Protection sold	Protection bought	Protection sold
Notionals					
1	Single-name credit default swaps	9,291	190	10,328	331
2	Index credit default swaps	349	93	76	2
3	Total return swaps	1,029	0	1,070	0
4	Credit options	0	0	0	0
5	Other credit derivatives	648,628	614,883	773,091	738,277
6	Total notionals	659,298	615,166	784,565	738,611
Fair values					
7	Positive fair value (asset)		3,198	3,623	6,208
8	Negative fair value (liability)		(7,467)	(5,943)	(2,351)

Deutsche Bank's total notionals for credit derivative exposures are at € 1,274.5 billion as of June 30, 2023, reflecting a decrease of € 248.7 billion from December 31, 2022, which was predominately driven by other credit derivatives in the trading book.

Exposure to securitization positions

Banking and trading book securitization exposures

Article 449 (j) CRR

The amounts reported in the following two tables provide details of the Group's securitization exposures separately for the regulatory non-trading and trading book. The details of the Group's trading book securitization positions subject to the market risk standardized approach (MRSA) are included in this chapter.

The table EU SEC1 details the total non-trading book securitization exposure split by exposure type that the Group has securitized in its capacity as either originator or sponsor and finally positions which have been purchased through investment activities as investor. Each table provides a break-down by traditional and synthetic as well as simple, transparent and standardized ('simple, transparent and standardised securitisation' or 'STS securitisation' means a securitisation that meets the requirements set out in Article 18 of Regulation (EU) 2017/2402) securitization transactions. The originator and sponsor columns (a-k) also contain retained positions, even where the Group does not achieve significant risk transfer (SRT) and shows the current retention of its contribution to the originated or sponsored amount. The amounts reported are the securitized principal notional amounts where no significant risk transfer is achieved. If significant risk transfer is achieved, then the EAD are shown. As the Group ceased the use of asset backed commercial paper programs in 2015, there are no securitizations positions subject to the internal assessment approach as of June 30, 2023.

The table EU SEC2 provides the total purchased or retained securitization exposure held in the bank's regulatory trading book separately for originator, sponsor and investor activities split by exposure type of the securitized assets and also further broken down into traditional and synthetic transactions as well as simple transparent and standardized securitizations. The amounts reported are the EAD.

EU SEC1 – Securitization exposures in the non-trading book

Jun 30, 2023															
	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			Synthetic				Traditional		Synthetic		Traditional		Synthetic	
in € m.	STS	of which: SRT	Non-STS	of which: SRT	Total	of which: SRT	Subtotal	STS	Non-STS		Subtotal	STS	Non-STS		Subtotal
Total exposures	214	0	67	67	24,903	24,903	25,184	0	2,048	0	2,048	463	45,587	0	46,050
Retail	214	0	40	40	0	0	254	0	1,440	0	1,440	451	13,077	0	13,527
of which:															
Residential Mortgage	0	0	40	40	0	0	40	0	1,423	0	1,423	444	4,870	0	5,314
Credit Card	0	0	0	0	0	0	0	0	0	0	0	0	201	0	201
Other retail exposures	214	0	0	0	0	0	214	0	17	0	17	7	8,005	0	8,012
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale	0	0	27	27	24,903	24,903	24,930	0	608	0	608	12	32,511	0	32,523
of which:															
Loans to corporates	0	0	0	0	24,903	24,903	24,903	0	418	0	418	0	23,582	0	23,582
Commercial Mortgage	0	0	27	27	0	0	27	0	85	0	85	0	269	0	269
Lease and receivables	0	0	0	0	0	0	0	0	105	0	105	0	2,907	0	2,907
Other wholesale	0	0	0	0	0	0	0	0	0	0	0	12	5,752	0	5,765
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Dec 31, 2022															
	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			Synthetic				Traditional		Synthetic		Traditional		Synthetic	
in € m.	STS	of which: SRT	Non-STS	of which: SRT	Total	of which: SRT	Subtotal	STS	Non-STS	Synthetic	Subtotal	STS	Non-STS		Subtotal
Total exposures	214	0	72	72	20,496	20,496	20,781	0	2,444	0	2,444	506	47,437	0	47,943
Retail	214	0	41	41	0	0	255	0	1,820	0	1,820	489	13,490	0	13,979
of which:															
Residential Mortgage	0	0	41	41	0	0	41	0	1,785	0	1,785	481	6,120	0	6,602
Credit Card	0	0	0	0	0	0	0	0	0	0	0	0	438	0	438
Other retail exposures	214	0	0	0	0	0	214	0	34	0	34	8	6,931	0	6,939
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale	0	0	31	31	20,496	20,496	20,527	0	625	0	625	16	33,947	0	33,964
of which:															
Loans to corporates	0	0	0	0	20,496	20,496	20,496	0	437	0	437	1	25,148	0	25,149
Commercial Mortgage	0	0	31	31	0	0	31	0	88	0	88	0	284	0	284
Lease and receivables	0	0	0	0	0	0	0	0	100	0	100	0	3,089	0	3,089
Other wholesale	0	0	0	0	0	0	0	0	0	0	0	15	5,426	0	5,442
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

EU SEC2 – Securitization exposures in the trading book

												Jun 30, 2023		
	a	b	c		d	e	f	g		h	i	j	k	l
	Institution acts as originator				Institution acts as sponsor				Institution acts as investor					
	Traditional		Synthetic	Subtotal	Traditional		Synthetic	Subtotal	Traditional		Synthetic	Subtotal		
in € m.	STS	Non-STS			STS	Non-STS			STS	Non-STS				
Total exposures	0	189	0	189	0	0	0	0	4	1,940	0	1,945		
Retail	0	0	0	0	0	0	0	0	3	617	0	620		
of which:														
Residential Mortgage	0	0	0	0	0	0	0	0	3	512	0	514		
Credit Card	0	0	0	0	0	0	0	0	0	10	0	10		
Other retail exposures	0	0	0	0	0	0	0	0	1	95	0	95		
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0		
Wholesale	0	189	0	189	0	0	0	0	1	1,323	0	1,324		
of which:														
Loans to corporates	0	0	0	0	0	0	0	0	0	730	0	730		
Commercial Mortgage	0	188	0	188	0	0	0	0	0	378	0	378		
Lease and receivables	0	0	0	0	0	0	0	0	0	70	0	70		
Other wholesale	0	0	0	0	0	0	0	0	1	146	0	146		
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0		

...

												Dec 31, 2022		
	a	b	c		d	e	f	g		h	i	j	k	l
	Institution acts as originator				Institution acts as sponsor				Institution acts as investor					
	Traditional		Synthetic	Subtotal	Traditional		Synthetic	Subtotal	Traditional		Synthetic	Subtotal		
in € m.	STS	Non-STS			STS	Non-STS			STS	Non-STS				
Total exposures	0	133	0	133	0	0	0	0	2	1,979	0	1,980		
Retail	0	0	0	0	0	0	0	0	2	612	0	613		
of which:														
Residential Mortgage	0	0	0	0	0	0	0	0	1	530	0	531		
Credit Card	0	0	0	0	0	0	0	0	0	5	0	5		
Other retail exposures	0	0	0	0	0	0	0	0	1	77	0	78		
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0		
Wholesale	0	133	0	133	0	0	0	0	0	1,367	0	1,367		
of which:														
Loans to corporates	0	0	0	0	0	0	0	0	0	943	0	943		
Commercial Mortgage	0	132	0	132	0	0	0	0	0	239	0	239		
Lease and receivables	0	0	0	0	0	0	0	0	0	48	0	48		
Other wholesale	0	0	0	0	0	0	0	0	0	137	0	137		
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0		

Overall, the aggregate exposure volume generated by the securitization business was at about € 75.4 billion as of June 30, 2023, which was an increase of € 2.1 billion compared to December 31, 2022. A large majority of the exposure resided in the non-trading book with € 73.3 billion, whereas the trading book portion represented only a minor contribution of € 2.1 billion aggregate exposure value. That was an increase of € 2.1 billion in the non-trading book mainly driven by new originator synthetic positions while in the trading book, the exposure volume has remained stable compared to December 31, 2022.

As of June 30, 2023, in the non-trading book there were two dominant contributions, which together cover € 71 billion of the total € 73.3 billion aggregate exposure volume of that book. One dominant part consisted of the traditional securitizations with a volume of € 46.1 billion, where the Group acts as investor by purchasing securitization investments. The other dominant part was composed of the synthetic securitization transactions with a volume of € 24.9 billion, where the Group acts as originator. Compared to December 31, 2022, this is a net increase of € 4.4 billion, which shows the Group's increased activity in issuing new synthetic originator securitizations. From a securitized asset perspective, the dominant asset types were loans to corporates and mortgages (commercial mortgages and residential mortgages). In the non-trading book the loans to corporates represented € 48.9 billion of exposure volume, or 67% of the overall exposure volume, and in the trading book the loans to corporates covered € 0.7 billion, representing 34% of the total exposure volume of that book. The mortgages represented the dominant part in the trading book with € 1.1 billion out of € 2.1 billion, representing 51% of the that book. In the non-trading book with a contribution of € 7.2 billion the mortgages were a less dominant part, representing 10% of exposure volume of that book. Together, the securitized asset types "Loans to corporates" and "Mortgage", represented around € 57.9 billion of € 75.4 billion overall securitization position exposure, which represented 77% of that volume.

Of the overall volume of securitization business of € 75.4 billion only a minority of € 1.5 billion was classified as simple, transparent and standardized (STS). This represented 2% of the overall exposure volume in securitizations.

Securitization exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor

Article 449 (k)(i) CRR

The table EU SEC3 presents the retained or purchased non-trading book securitizations, where the Group acts as originator or sponsor.

Firstly, the exposure values are broken down by risk-weight bands (columns a-e). Additionally, the Group presents the exposure values, risk weighted exposure amounts and capital requirements separately for each regulatory RWA calculation approach (columns f-q). All just mentioned values are vertically broken down by traditional and synthetic transactions, securitization and re-securitization, as well as by retail or wholesale and a specific column for STS traditional transactions.

For the meaning of the names used in the following sections for the regulatory calculation approaches of the securitization framework (SEC-IRBA, SEC-SA and SEC-ERBA), please see the short description below.

- SEC-IRBA (Articles 259 and 260 CRR): Approach to be used in case the securitized assets would be treated under the IRBA approach if not securitized and reside on the Group's books; at least 95 % of the exposure value of the securitized assets need to be treated under the IRBA approaches in order to apply this approach; there are a number of additional requirements in order to apply this approach (see Article 258 CRR)
- SEC-SA (Articles 261 and 262 CRR): In case SEC-IRBA is not applicable, the SEC-SA is generally to be applied; for this the capital requirement ratio under the SA approach (KSA) of the pool of securitized assets needs to be calculated as if it was not securitized and as if it was on the Group's book; in addition, the delinquent asset ratio on the pool level needs to be determined
- SEC-ERBA (Articles 263 and 264 CRR): This can be applied, if an eligible external or inferred rating is available; the risk weight is determined by a lookup table from the rating letter and the maturity of the position; in case the SEC-ERBA is available there are certain rules to determine when the SEC-ERBA is to be used instead of the SEC-SA (for details see Article 254 CRR)
- 1,250 %: In all other cases, a risk weight of 1,250 % is applied

EU SEC3 – Securitization exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor

																		Jun 30, 2023
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)					RWA (by regulatory approach)					Capital charge after cap		
in € m.	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	
Total exposures	26,462	0	508	42	6	26,895	30	88	6	4,363	128	45	70	371	4	4	6	
Traditional transactions	2,081	0	0	34	0	1,997	30	88	0	304	128	45	0	21	4	4	0	
Securitization	2,081	0	0	34	0	1,997	30	88	0	304	128	45	0	21	4	4	0	
Retail underlying	1,453	0	0	27	0	1,434	21	25	0	215	100	36	0	14	2	3	0	
of which:																		
STS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wholesale	628	0	0	6	0	563	8	63	0	88	28	9	0	7	2	1	0	
of which:																		
STS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Synthetic transactions	24,382	0	508	8	6	24,898	0	0	6	4,059	0	0	69	350	0	0	6	
Securitization	24,382	0	508	8	6	24,898	0	0	6	4,059	0	0	69	350	0	0	6	
Retail underlying	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wholesale	24,382	0	508	8	6	24,898	0	0	6	4,059	0	0	69	350	0	0	6	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

																		Dec 31, 2022
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)					RWA (by regulatory approach)					Capital charge after cap		
in € m.	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	
Total exposures	22,238	711	10	44	8	22,840	40	124	8	3,607	136	55	104	298	5	4	8	
Traditional transactions	2,417	53	10	35	0	2,352	40	124	0	356	136	55	1	25	5	4	0	
Securitization	2,417	53	10	35	0	2,352	40	124	0	356	136	55	0	25	5	4	0	
Retail underlying	1,820	1	10	29	0	1,813	32	16	0	272	109	37	0	18	3	3	0	
of which:																		
STS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wholesale	597	52	0	7	0	540	7	109	0	84	26	18	0	7	2	1	0	
of which:																		
STS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Synthetic transactions	19,821	658	0	8	8	20,487	0	0	8	3,251	0	0	104	272	0	0	8	
Securitization	19,821	658	0	8	8	20,487	0	0	8	3,251	0	0	104	272	0	0	8	
Retail underlying	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wholesale	19,821	658	0	8	8	20,487	0	0	8	3,251	0	0	104	272	0	0	8	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

The overall exposure volume of the securitization exposures in the non-trading book was € 73.1 billion by June 30, 2023, of which € 27.0 billion were represented by positions for which the Group acts as originator or sponsor, which was an increase of € 4.0 billion compared to December 31, 2022. The securitization exposure for these two roles were concentrated in the lowest risk-weight band, with risk-weights equal to or lower than 20%. These positions were almost exclusively treated by the SEC-IRBA method of the securitization framework of CRR. This reflected first and foremost the way the own synthetic on-balance sheet securitizations, which covered € 24.9 billion or 92% of the € 27.0 billion of exposure volume, were structured, namely such that the senior tranche, which attracts a minimal risk-weight, was kept, while subordinated tranches were transferred to third parties. Consequently, the RWA before capping and the capital requirements were also concentrated under the method of SEC-IRBA. Accordingly, the overall capital requirements for originators and sponsors amount increased by € 69.7 million from € 315 million as of December 31, 2022 to € 385 million by June 30, 2023, of which € 371 million or around 96% were treated under SEC-IRBA. Compared to December 31, 2022, there was on June 30, 2023 a 17% increase in exposure levels and a 22% increase of capital requirements due to the increased activity in issuing new synthetic transactions by Deutsche Bank.

Securitization exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor

Article 449 (k)(ii) CRR

The table EU SEC4 presents the purchased non-trading book securitizations, where the Group acts as investor, i.e. wherever the Group is not acting as originator or sponsor.

Firstly, the exposure values are broken down by risk-weight bands (columns a-e). Additionally, the Group presents the exposure values, risk weighted exposure amounts and capital requirements for securitization positions provided separately for each regulatory RWA calculation approach (columns f-q). All these values are vertically broken down by traditional and synthetic transactions, securitization and re-securitization, as well as by retail or wholesale and a specific row for STS for traditional transactions.

EU SEC4 – Securitization exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor

																		Jun 30, 2023
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)					RWA (by regulatory approach)					Capital charge after cap		
in € m.	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	
Total exposures	42,284	1,960	1,481	316	9	19,292	766	25,983	9	3,509	1,120	5,570	112	251	58	403	9	
Traditional transactions	42,284	1,960	1,481	316	9	19,292	766	25,983	9	3,509	1,120	5,570	112	251	58	403	9	
Securitization	42,284	1,960	1,481	316	9	19,292	766	25,983	9	3,509	1,120	5,570	108	251	58	403	9	
Retail underlying	11,272	1,195	899	157	4	8,368	486	4,669	4	1,807	746	1,559	51	119	30	94	4	
of which:																		
STS	451	0	0	0	0	0	66	384	0	0	7	38	0	0	1	3	0	
Wholesale	31,013	765	582	158	5	10,924	281	21,314	5	1,702	373	4,010	56	132	28	310	5	
of which:																		
STS	11	0	0	1	0	0	12	0	0	0	4	0	0	0	0	0	0	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	
Synthetic transactions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Retail underlying	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wholesale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

																		Dec 31, 2022
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)					RWA (by regulatory approach)					Capital charge after cap		
in € m.	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	SEC-IRBA	SEC-ERBA(incl uding IAA)	SEC-SA	1250% / deductions	
Total exposures	43,867	2,269	1,547	247	13	20,378	1,025	26,527	13	3,760	967	6,963	159	273	49	397	13	
Traditional transactions	43,867	2,269	1,547	247	13	20,378	1,025	26,527	13	3,760	967	6,963	159	273	49	397	13	
Securitization	43,867	2,269	1,547	247	13	20,378	1,025	26,527	13	3,760	967	6,963	156	273	49	397	13	
Retail underlying	11,490	1,288	1,009	189	3	9,202	529	4,245	3	1,975	701	2,482	35	134	29	90	3	
of which:																		
STS	489	0	0	0	0	0	94	395	0	0	9	40	0	0	1	3	0	
Wholesale	32,377	981	538	58	10	11,176	496	22,282	10	1,784	266	4,481	121	139	20	307	10	
of which:																		
STS	16	0	0	0	0	0	16	0	0	0	2	0	0	0	0	0	0	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	
Synthetic transactions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Retail underlying	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wholesale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-securitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

The overall exposure volume of the securitization exposures in the non-trading book was € 73.1 billion by June 30, 2023, for € 46.1 billion or 63% of which the Group acts as investor, which was a decrease of € 1.9 billion compared with December 31, 2022. With € 42.3 billion, or 92% of the exposure volume, the majority of the exposure volume of the investor portfolio was concentrated in the lowest risk-weight bucket, with risk-weights below or equal to 20%. A minor portion of € 2.0 billion or 4% is allocated to the second lowest risk-weight bucket of risk-weights greater than 20% and lower than or equal to 50%. The two most important methods applied to the investor portfolio were the SEC-IRBA and the SEC-SA. The SEC-SA was applied to an exposure volume of € 26.0 billion or 56% and the SEC-IRBA was applied to € 19.0 billion or 42% of the full investor exposure amount. A minority portion of € 0.8 billion was covered by the SEC-ERBA. The least beneficial approach resulting in 1250% risk-weight had to be applied only to € 9.0 million exposure volume of this portfolio. Consequently, also with respect to capital requirements after the cap, the two approaches SEC-IRBA and SEC-SA covered the major part, namely € 654 million or 91% of the investor portfolio capital requirements. The SEC-SA covered € 403 million or 56% and the SEC-IRBA covered € 251 million or 35% of the investor portfolio capital requirements of € 722 million, which was a decrease of € 10.0 million compared to December 31, 2022 with an amount of € 732 million.

Compared to December 31, 2022 there was an increase of € 2.1 billion in the overall securitisation exposure volume in the non-trading book. That movement was mainly resulting from a decrease of € 1.9 billion in the investor activities and an increase of € 4.0 billion in the originator and sponsor business, which was mainly due to two new synthetic originator transactions. The two main components of that € 2.1 billion movement were an increase of € 2.6 billion within the lowest risk-weight bucket, with risk-weights below or equal to 20%, and a decrease of € 1.0 billion in the second lowest risk-weight bucket of risk-weights greater than 20% and lower than or equal to 50%. As a result, the overall capital requirements of the non-trading book increased by 5.7% from € 1,047 million as of December 31, 2022, to € 1,106 million by June 30, 2023.

Exposures securitized by the institution - Exposures in default and specific credit risk adjustments

Article 449 (I) CRR

The table EU SEC5 presents the outstanding nominal amounts where the Group acts as originator or sponsor along with exposures which have been classified as defaulted according to Article 178 CRR and its relating specific credit risk adjustments in accordance with Article 110 CRR. The amounts are broken down by the exposure type of the securitized exposures. The outstanding nominal amounts shown correspond to the share of the Group's contribution to the securitized assets.

EU SEC5 – Article 449 (I) CRR - Exposures securitized by the institution - Exposures in default and specific credit risk adjustments

	Jun 30, 2023		
	a	b	c
	Exposures securitized by the institution - Institution acts as originator or as sponsor		
	Total outstanding nominal amount		Total amount of specific credit risk adjustments made during the period
in € m.	Total	of which exposures in default	
Total exposures	129,388	4,004	280
Retail (total)	37,943	2,052	0
Residential mortgage	33,315	1,998	0
Credit card	0	0	0
Other retail exposures	4,505	54	0
Re-securitization	123	0	0
Wholesale (total)	91,445	1,952	280
Loans to corporates	29,838	263	280
Commercial mortgage	61,395	1,687	0
Lease and receivables	194	1	0
Other wholesale	0	0	0
Re-securitization	18	1	0

in € m.	Dec 31, 2022		
	a	b	c
	Exposures securitized by the institution - Institution acts as originator or as sponsor		
	Total outstanding nominal amount		Total amount of specific credit risk adjustments made during the period
	Total	of which exposures in default	
Total exposures	125,044	3,757	164
Retail (total)	36,811	1,930	0
Residential mortgage	32,251	1,876	0
Credit card	0	0	0
Other retail exposures	4,465	54	0
Re-securitization	95	0	0
Wholesale (total)	88,233	1,827	164
Loans to corporates	24,115	137	164
Commercial mortgage	64,006	1,690	0
Lease and receivables	112	0	0
Other wholesale	0	0	0
Re-securitization	1	0	0

The total outstanding nominal amount of securitized assets where the Group acts as originator or sponsor was € 129 billion as of June 30, 2023, which was an increase of 4.3 billion compared with December 31, 2022. The major drivers were an increase of loans to corporates by € 5.7 billion and a decrease of € 2.6 billion in commercial mortgages. The outstanding nominal amount where the Group acts as originator contributed the majority of € 125.3 billion or 97% of the total outstanding nominal amount. The outstanding nominal amount where the Group acts as sponsor was represented by € 4.1 billion or 3% of the total outstanding amount. The total outstanding nominal amount of securitized assets consisted of € 61.4 billion commercial mortgages, € 33.3 billion residential mortgages and € 29.8 billion loans to corporates. In relative terms mortgages contributed 73% and loans to corporates 23% of the total outstanding nominal amount.

Securitized assets flagged as defaulted by June 30, 2023 added up to a total of € 4.0 billion, which were split into € 1.7 billion commercial mortgages, € 2.0 billion residential mortgages and € 0.3 billion loans to corporates. In relative terms the defaulted asset ratios were 2.7% for commercial mortgages, 6% for residential mortgages and 0.9% for loans to corporates. Overall, the ratio of defaulted assets in the pools of these securitization was at 3.1%, which is a slight increase of 0.1 percentage point compared to December 31, 2022.

Market risk

Own funds requirements under the Market Risk Standardized Approach

Article 445 CRR

As of June 30, 2023, the securitization positions, for which the specific interest rate risk is calculated using the market risk standardized approach, generated capital requirements of € 200 million corresponding to risk weighted-assets of € 2.5 billion. As of December 31, 2022 these positions generated capital requirements of € 196 million corresponding to risk weighted-assets of € 2.4 billion.

The capital requirement for Collective Investment Undertakings under the market risk standardized approach was € 18 million corresponding to risk weighted-assets of € 220 million as of June 30, 2023, compared with € 10 million and € 129 million, respectively, as of December 31, 2022.

EU MR1 – Market risk under the standardized approach

in € m.	Jun 30, 2023	Dec 31, 2022
	a	a
	RWA	RWA
Outright products		
1 Interest rate risk (general and specific) ¹	137	165
2 Equity risk (general and specific) ²	87	47
3 Foreign exchange risk ³	177	196
4 Commodity risk	0	0
Options		
5 Simplified approach	0	0
6 Delta-plus method	0	0
7 Scenario approach	0	0
8 Securitization (specific risk) ⁴	2,503	2,449
9 Total	2,904	2,857

¹ Interest Rate risk RWA includes € 90 million from collective investment undertakings and € 47 million as per Article 325b of CRR which relates to consolidation of exposures of certain legal entities for own funds requirements

² Equity risk RWA of € 87 million is from collective investment undertakings

³ Foreign Exchange risk RWA includes € 43 million from collective investment undertakings and € 134 million related to placeholders for foreign exchange exposures

Own funds requirements for market risk under the IMA

Regulatory capital requirements for market risk

Article 455 (e) CRR

The table below presents all internal model-related components relevant for the capital requirement calculation for market risk.

EU MR2-A – Market Risk under the internal models approach (IMA)

in € m.	Jun 30, 2023		Dec 31, 2022	
	a	b	a	b
	RWA	Capital requirements	RWA	Capital requirements
1 VaR (higher of values a and b)	5,653	452	7,413	593
a) Previous day's VaR (Article 365(1) (VaRt-1))	–	144	–	122
b) Multiplication factor (mc) x average of previous 60 working days (VaRavg)	–	452	–	593
2 SVaR (higher of values a and b)	6,000	480	12,221	978
a) Latest SVaR (sVaRt-1)	–	141	–	154
b) Multiplication factor (ms) x average of previous 60 working days (sVaRavg)	–	480	–	978
3 Incremental risk charge -IRC (higher of values a and b)	7,653	612	3,639	291
a) Most recent IRC value	–	612	–	270
b) 12 weeks average IRC measure	–	587	–	291
4 Comprehensive Risk Measure – CRM (higher of values a, b and c)	–	–	–	–
a) Most recent risk measure of comprehensive risk measure	–	–	–	–
b) 12 weeks average of comprehensive risk measure	–	–	–	–
c) Comprehensive risk measure Floor	–	–	–	–
5 Other	241	19	0	0
6 Total	19,548	1,564	23,274	1,862

¹ Includes Risk not in VaR

As of June 30, 2023, the Internal Models Approach (IMA) components for market risk totaled € 19.5 billion, which was a decrease of € 3.7 billion since December 31, 2022. The decrease in average value-at risk and stressed value-at-risk was driven by reduction in capital multiplier from 4.85 to 3.90 due to decrease in qualitative multiplier from 1.0 to 0.5 following ECB's approval and decrease in buy & hold back testing outliers from 9 to 5. Additionally, average stressed value-at-risk decreased by rates and foreign exchange positional changes under Fixed Income and Currencies (FIC) Trading business. The increase in incremental risk charge was driven by increase in market value on European sovereigns under Global Rates business.

Development of market risk RWA

Article 438 (h) CRR

The following table provides an analysis of key drivers for movements observed for market risk RWA covered by internal models (i.e. value-at-risk, stressed value-at-risk, incremental risk charge and comprehensive risk measure) in the current and previous reporting period. It also shows the corresponding movements in capital requirements, derived from RWA with an 8% capital ratio.

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

in € m.	Three months ended Jun 30, 2023						
	a	b	c	d	e	f	g
	VaR	SVaR	IRC	Comprehensive risk measure	Other ²	Total RWA	Total capital requirements
1 Market Risk RWA opening balance	6,684	9,168	5,578	–	0	21,430	1,714
1a Regulatory adjustment ¹	(5,191)	(7,565)	(1,932)	–	0	(14,688)	(1,175)
1b RWA at the previous quarter-end (end of the day)	1,492	1,603	3,646	–	0	6,742	539
2 Movement in risk levels	292	171	4,007	–	241	4,711	377
3 Model updates/changes	0	0	0	–	0	0	0
4 Methodology and policy	0	0	0	–	0	0	0
5 Acquisitions and disposals	0	0	0	–	0	0	0
6 Foreign exchange movements	0	0	0	–	0	0	0
6a Market data changes and recalibrations	12	(10)	0	–	0	2	0
7 Other	0	0	0	–	0	0	0
8a RWA at the end of the reporting period (end of the day)	1,797	1,764	7,653	–	241	11,455	916
8b Regulatory adjustment ¹	3,857	4,236	0	–	0	8,093	647
8 Market Risk RWA closing balance	5,653	6,000	7,653	–	241	19,548	1,564

¹ Indicates the difference between reported RWA (based on 60day average) and RWA (based on VaR / SVaR as of quarter-end) at the beginning (1b) and end (8a) of the reporting period.

² Includes Risk not in VaR

		Three months ended Mar 31, 2023						
		a	b	c	d	e	f	g
in € m.		VaR	SVaR	IRC	Compre- hensive risk measure	Other ²	Total RWA	Total capital requirements
1	Market Risk RWA opening balance	7,413	12,221	3,639	–	0	23,274	1,862
1a	Regulatory adjustment ¹	(5,885)	(10,300)	(262)	–	0	(16,447)	(1,316)
1b	RWA at the previous quarter-end (end of the day)	1,528	1,921	3,377	–	0	6,827	546
2	Movement in risk levels	(105)	(318)	269	–	0	(154)	(12)
3	Model updates/changes	0	0	0	–	0	0	0
4	Methodology and policy	0	0	0	–	0	0	0
5	Acquisitions and disposals	0	0	0	–	0	0	0
6	Foreign exchange movements	0	0	0	–	0	0	0
6a	Market data changes and recalibrations	69	0	0	–	0	69	6
7	Other	0	0	0	–	0	0	0
8a	RWA at the end of the reporting period (end of the day)	1,492	1,603	3,646	–	0	6,742	539
8b	Regulatory adjustment ¹	5,191	7,565	1,932	–	0	14,688	1,175
8	Market Risk RWA closing balance	6,684	9,168	5,578	–	0	21,430	1,714

¹ Indicates the difference between reported RWA (based on 60day average) and RWA (based on VaR / SVaR as of quarter-end) at the beginning (1b) and end (8b) of the reporting period.

The market risk RWA movements due to position changes are represented in line “Movement in risk levels”. Changes to the Group’s market risk RWA internal models, such as methodology enhancements or risk scope extensions, are included in the category of “Model updates/changes”. In the “Methodology and policy” category the Group reflects regulatory driven changes to its market risk RWA models and calculations. Significant acquisitions and disposals would be assigned to the line item “Acquisition and disposals”. The impacts of “Foreign exchange movements” are not calculated for IMA (Internal Models Approach) components. Changes in market data levels, return assumptions for negative market levels, volatilities, correlations, liquidity and ratings are included under the “Market data changes and recalibrations” category.

As of June 30, 2023, the IMA components for market risk totaled € 19.5 billion, which was a decrease of € 1.9 billion since March 31, 2023. The decrease in average value-at-risk and stressed value-at-risk was driven by reduction in capital multiplier from 4.35 to 3.90 due to decrease in buy & hold back testing outliers from 9 to 5. Additionally, average stressed value-at-risk decreased by positional changes on European sovereigns under Global Rates business. The increase in incremental risk charge was driven by increase in market value on European sovereigns under Global Rates business.

Other quantitative information for market risk under the internal models approach

Overview of Value-at-Risk Metrics

Article 455 (d) CRR

The following table, EU MR3, displays the maximum, minimum, average and the ending for the reporting period values resulting from the different types of models. This table is based on the spot values of the metrics as opposed to the regulatory defined calculation (e.g. not considering any comparisons between spot and average values used in the actual RWA calculations). The VaR and SVaR are both based on ten day holding periods.

EU MR3 – IMA values for trading portfolios¹

in € m.		Jun 30, 2023	Dec 31, 2022
		a	a
VaR (10 day 99 %)			
1	Maximum value	183.9	155.7
2	Average value	120.5	122.6
3	Minimum value	71.4	89.9
4	Period end	159.1	123.0
SVaR (10 day 99 %)			
5	Maximum value	326.8	309.4
6	Average value	146.9	205.1
7	Minimum value	80.4	127.0
8	Period end	120.0	174.6
IRC (99.9 %)			
9	Maximum value	904.6	385.0
10	Average value	516.6	283.8
11	Minimum value	291.7	211.8
12	Period end	612.3	270.2
Comprehensive risk capital charge (99.9 %)			
13	Maximum value	–	–
14	Average value	–	–
15	Minimum value	–	–
16	Period end	–	–

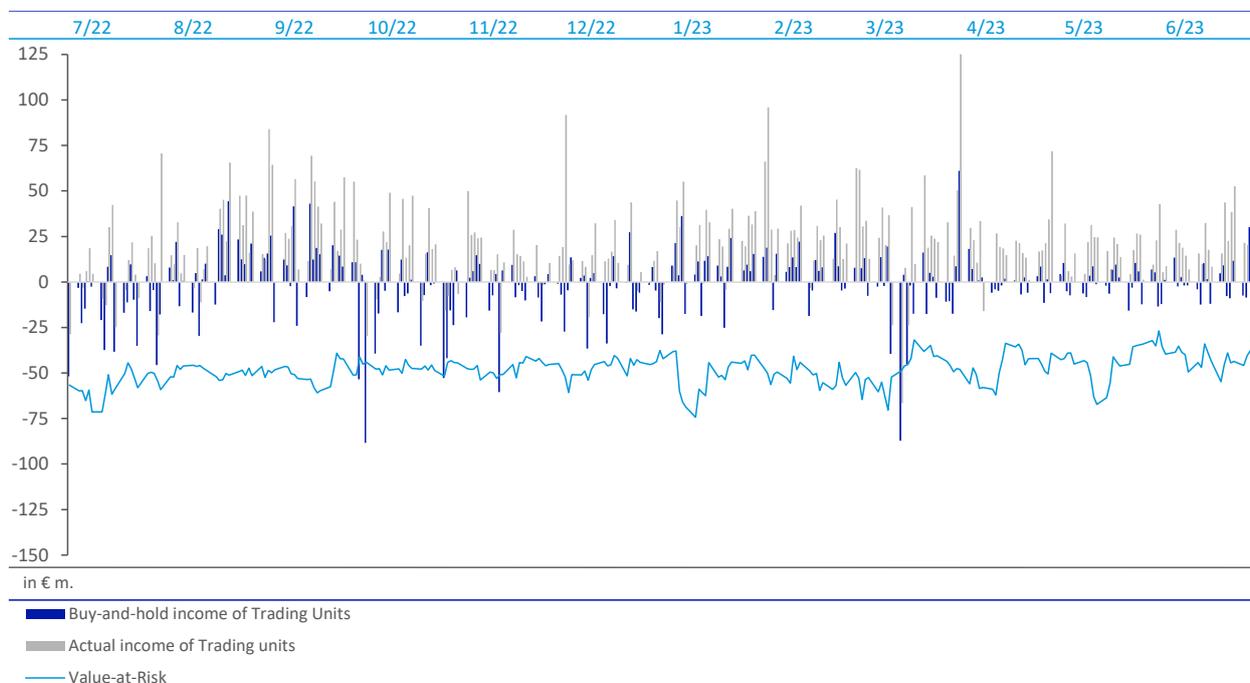
¹ Amounts show the maximum, average and minimum for the preceding six-month period.

Comparison of end-of-day VaR measures with one-day changes in portfolio's value

Article 455 (g) CRR

The following graph shows the trading units daily buy-and-hold and actual income in comparison to the value-at-risk (1 day holding period) as of the close of the previous business day for the trading days of the reporting period. The value-at-risk is presented in negative amounts to visually compare the estimated potential loss of the Group's trading positions with the buy and hold income.

EU MR4 – Comparison of VaR estimates with gains and losses



During the reporting period January 2023 – June 2023, the Group observed 1 Actual and 1 buy-and-hold backtesting outlier. The outlier was driven by the market volatility and risk off sentiment following Silicon Valley Bank collapse in the first quarter 2023, leading to market moves that were larger than those within the preceding one-year period used in the value-at-risk calculation. In the last 1-year period Group observed 1 Actual and 5 buy-and-hold backtesting outliers. This includes an

additional buy-and-hold backtesting outlier which was observed in the fourth quarter 2022 due to backdated re-attribution of buy-and-hold income.

Exposure to interest rate risk in the banking book

Changes in the economic value of equity and net interest income

Article 448 (a-b,d) CRR

The following table shows the impact on the Group's net interest income in the non-trading book as well as the change of the economic value for the banking book positions from interest rate changes under the six standard scenarios defined by the EBA.

EU IRRBB1 - Changes in the economic value of equity and net interest income under six supervisory shock scenarios

in € bn.	Changes of the economic value of equity		Changes of the net interest income ¹	
	Jun 30, 2023	Dec 31, 2022	Jun 30, 2023	Dec 31, 2022
Parallel up	(4.1)	(4.6)	0.7	1.9
Parallel down	0.7	1.3	(0.5)	(1.1)
Steeper	(0.3)	(0.1)	(0.1)	(0.4)
Flattener	(1.1)	(1.4)	0.3	1.5
Short rates up	(2.3)	(2.4)	0.5	2.3
Short rates down	0.8	1.2	(0.2)	(1.2)
Maximum	(4.1)	(4.6)	(0.5)	(1.2)

¹ Changes of the net interest income (NII) reflects the difference between projected NII in the respective scenario with shifted rates vs. market implied rates. Sensitivities are based on a static balance sheet at constant exchange rates, excluding trading positions and DWS. Figures do not include Mark to Market (MtM) / Other Comprehensive Income (OCI) effects on centrally managed positions not eligible for hedge accounting

The maximum economic value of equity loss was € (4.1) billion as of June 2023, compared to € (4.6) billion as of December 2022.

The reduction in the economic value of equity loss for the "Parallel up" interest rate scenario in the first half of 2023 was mainly driven by changes in the interest rate risk position of Deutsche Bank's Treasury in the course of the changing interest rate environment. Another contributing factor was from an enhancement in the modelling of the interest rate profile of the German mortgage portfolio relating to Project Unity.

The maximum one-year loss in net interest income (NII) was € (0.5) billion as of June 2023, compared to € (1.2) billion as of December 2022.

The reduction in the maximum net interest income loss in the "Parallel down" scenario was mainly driven by the increasing interest rate environment.

Environmental, social and governance (ESG) risks

Article 449a CRR

ESG disclosures are included in accordance with Article 449a CRR and the EBA ITS 2022/01. ESG risks are the risks of current and future losses arising from any negative financial, operational and/or reputational impacts on Deutsche Bank's clients, invested assets and/or operations as it relates to ESG factors.

Environmental risk includes both physical and transition risks related to climate change. Physical risks are the risks of losses arising from any negative impact on the bank from acute near-term risks such as extreme weather events or chronic longer-term impacts of rising temperatures. Transition risks are driven by policy, behavioral and technology changes required to foster the transition to a low carbon economy and can also impact the bank's clients and invested assets. In addition, there are other environmental risks resulting from factors such as water stress, biodiversity loss, land erosion and depletion. All of these environmental risks can impact the bank's assets, operations and its clients.

Social risks include losses arising from any negative financial impact on Deutsche Bank because of current or prospective impacts from social factors, such as matters related to human rights or workforce management: while governance risks are

the risk of losses arising from governance factors such as anti-financial crime or non-compliance with policies or regulations. Both of these risks can impact the bank's assets, operations and its clients.

As ESG disclosure requirements and its metrics are evolving and are being newly implemented in the banking industry, there remains uncertainty on how disclosure requirements could be interpreted and there are limitations on the amount and granularity of available data. As a result, Deutsche bank's interpretations, methodologies, and availability of data will be further enhanced in the future as additional guidance and information becomes available.

ESG risks

ESGT1-3

Governance

Deutsche Bank believes it is part of the Group's responsibility to support and where possible, accelerate the transformation towards a more sustainable society and economy. Thus, the bank supports the European Commission's Action Plan on sustainable finance as a crucial contribution toward the European Union's achievement of its climate commitment under the Paris Agreement and its wider sustainability agenda.

The Group Sustainability Committee, chaired by the bank's Chief Executive Officer, acts as the senior decision-making body for sustainability-related matters at group level, including those related to ESG risks and the bank's net zero targets. In 2022, the bank enhanced its sustainability governance by appointing a Chief Sustainability Officer and establishing a Sustainability Strategy Steering Committee responsible for monitoring the timely and complete implementation of the bank's sustainability transformation agenda and escalating material risks or issues to the Group Sustainability Committee. The bank also established the Net-Zero Forum responsible for the assessment of new transactions with a significant impact on the bank's financed emissions and/or net zero targets with representatives from business divisions, Risk, and the Chief Sustainability Office. Both groups are chaired by the Chief Sustainability Officer.

Each of Deutsche Bank's core business divisions integrates climate and broader ESG risks into its planning and risk appetite statements as part of the bank's annual strategic planning process, which approved by the Management Board.

Within the Chief Risk Office, the Group Risk Committee, chaired by the Chief Risk Officer, is established by the Management Board to serve as the central forum for review and decision making on matters related to risk, capital, and liquidity. This includes oversight of the Bank's climate and environmental risk management frameworks. A number of delegated fora of the Group Risk Committee are responsible for management and decision making in relation to specific elements of ESG risks, such as the Enterprise Risk Committee and the Non-Financial Risk Committee.

ESG topics are also regularly discussed in business unit risk councils and other committees and fora.

To closely and visibly link the bank's sustainability strategy and performance with the compensation of the Management Board, the bank's strategic sustainability goals are reflected in the compensation system, which forms the basis of the Management Board's total compensation. The variable components of the Management Board's compensation are linked to several ESG targets, such as the amount of sustainable financing and investments, and concretely defined targets from the area of climate risk management. ESG related factors are also incorporated, where appropriate, into the Balanced Scorecards used for assessing individual and divisional performance and compensation.

Strategy and processes

Sustainability is a key theme of "Deutsche Bank's Global Hausbank" strategy. The bank is embedding sustainability into its policies, processes, and products, focusing on four pillars:

- Sustainable Finance
- Policies & Commitments
- People & Operations
- Thought Leadership & Stakeholder Engagement

The bank's business activities, own operations, relations with employees or suppliers, and respective processes are covered by these four pillars and address the ESG-related risk factors. Managing these risks and providing solutions to ESG-related challenges are part of the bank's sustainability strategy and risk management processes. Seizing business opportunities arising from ESG challenges, Deutsche Bank set the target of achieving a cumulative volume of € 500 billion in sustainable financing and investment, as defined in the bank's Sustainable Finance Framework, from the beginning of 2020 until the end of 2025 (excluding DWS). The Sustainable Finance Framework outlines the methodology and associated procedures for classifying financial products and services offered by Deutsche Bank as sustainable. The framework specifies the classification

logic, the eligibility parameter criteria, the applicable environmental and social due diligence requirements, as well as the verification and monitoring process. It is aligned to the extent possible with the requirements of the EU Taxonomy Regulation.

Risk Management

Managing emerging ESG risks to the bank's balance sheet and operations is a key component of the Group's sustainability strategy. Deutsche Bank has set interim (2030) and final (2050) net zero aligned targets for four carbon intensive sectors and has established frameworks and processes for enhanced due diligence in relation to sectors and clients identified as having elevated inherent environmental and social risks and/or elevated impacts on the bank's financed emissions and net zero pathways. In March 2023, the bank updated its thermal coal policy and tightened criteria used to determine the scope of the policy. Moreover, the bank's Environmental and Social policy framework prohibits business activity in certain high impact areas. The bank's Reputational Risk Framework is utilized to discuss any counterparty concerns that are perceived to be in contradiction with Deutsche Bank's values and beliefs including those driven by ESG factors. Deutsche Bank's ESG risk management frameworks are discussed in more detail below. Deutsche Bank regularly performs a materiality assessment to determine the relevance of individual non-financial topics across ESG. The bank follows the Global Reporting Initiative (GRI) standard and applies the concept of double materiality (i.e., considering the potential positive and negative impacts Deutsche Bank may have on the environment and society and the potential financial impacts for Deutsche Bank arising from ESG topics). The results of the materiality assessment drive the bank's sustainability agenda and the selection of topics reported in its Non-Financial Report.

The Chief Risk Office, in addition, conducts a comprehensive and granular materiality assessment of climate and other environmental risks to identify potential impacts across key impacted risk types in the short, medium, and long-term. Results are integrated into the Group's risk identification processes and risk inventory and reviewed against internal controls. The 2022 materiality assessment concluded that climate transition risk is the most material risk driver for the Group in the short-to-medium term (below five year horizon).

Environmental risk

ESGT1

Governance

Overall governance and oversight of environmental risks are fully aligned and embedded in the ESG committees and frameworks described above Risks. To allow for the monitoring of climate risk metrics in the bank's portfolios, the Group Risk Committee, and the Group Sustainability Committee receive quarterly climate and environmental risk reports that include financed emissions, exposure to carbon-intensive sectors, alignment with portfolio decarbonization targets and other climate risk-related topics, including key industry and regulatory developments.

Strategy and processes

In October 2022, Deutsche Bank published its net zero emission reduction targets for four key carbon-intensive sectors in the bank's corporate lending portfolio:

- Oil and Gas (Upstream)
- Power Generation
- Automotives (Light Duty Vehicles)
- Steel production

Quantitative thresholds around these targets have been integrated into the Group's Risk Appetite Statement, together with a broader threshold on the overall carbon footprint of the bank's corporate loan commitments. New transactions or limit extensions with a significant impact on the bank's financed emissions and/or net zero targets are reviewed by a dedicated Net Zero Forum. The forum's review includes an assessment of client sustainability disclosures, transition strategies, decarbonization targets and governance.

Deutsche Bank publishes annually absolute emissions and progress towards net zero aligned targets following the standard from the Partnership for Carbon Accounting Financials, relevant international greenhouse gases emissions reporting protocols and emerging best-practice climate portfolio alignment methodologies.

Deutsche Bank strives to do business responsibly. This involves properly identifying transactions and/or clients that might expose the bank to potential environmental issues. The bank has defined sectors having an inherently elevated potential for negative environmental impacts and requires enhanced due diligence based on the provisions summarized in the bank's Environmental and Social Policy Framework. For some sectors, the bank has made specific commitments. For example, since 2016 Deutsche Bank does not finance any new coal projects, be it in power or thermal coal mining.

As part of the bank's environmental and social due diligence, the bank engages where required with clients to understand risks and mitigants associated with a transaction or a counterparty.

In 2022, the bank began preparing a portfolio review of its coal clients in the Asia-Pacific region. The preparations included defining the scope of clients covered by the review as well as updating the related questionnaires. The review is scheduled to start in 2023. A similar review in 2021 for coal power clients in the United States and Europe led to insights into clients' progress on their carbon footprint and existing transition plans. Building on this, a process for a client transition dialogue is being developed to support clients on their way to a more sustainable business model. In 2022, the bank also continued to perform the systematic review of its global business activities in the Oil and Gas sector, set a target to significantly reduce the volume of financed emissions (Scope 3) by 2030 for the sector, and started the dialog with its clients on their decarbonization strategies.

In accordance with Article 8 of the Taxonomy Regulation and the related Climate Disclosures Delegated Act, as well as the Commission Delegated Regulation (EU) 2022/1214, Deutsche Bank disclosed for the reporting periods 2021 and 2022 the proportion of exposures to taxonomy eligible and taxonomy non-eligible economic activities in its covered assets (i.e. total assets less exposures towards central governments, central banks, supranational issuers and the trading portfolio), as well as several key performance indicators related to the proportion of selected exposures in their total assets. The assessment of taxonomy eligible economic activities of corporate clients is performed for in-scope counterparties and products as described in the aforementioned regulations. Where the use of proceeds is known, the bank reports the exposures to the corporate client to the extent and proportion that the project funded finances are taxonomy eligible economic activity and also discloses the portion that is non-eligible. For general purpose lending or where the use of proceeds is not known, Deutsche Bank looks to the counterparty's disclosures to determine the percentage of its capital expenditures that are used for eligible and non-eligible economic activities. Building renovation loans and motor vehicle loans are currently not included in the taxonomy eligible disclosure. Residential real estate loans against households collateralized by residential immovable property are considered as taxonomy eligible. Eligible activities will be tested against the Technical Screening Criteria starting in 2023, to determine alignment with the EU Taxonomy.

Risk management

Climate change and environmental degradation may lead to the emergence of new sources of financial and non-financial risks. Transition risks to the bank's portfolios are increasingly likely to materialize in the short-to-medium term as governments introduce ambitious climate-related targets and policies, as society adapts its behavior and as investor appetite for carbon intensive clients / sectors becomes more selective. These risks include but are not limited to:

- Increased default risk and/or valuation losses on exposures to clients and assets that may be impacted by climate physical and/or transition risks, such as climate-related developments in policy and regulations, the emergence of disruptive technology or business models, shifting market sentiment, and societal preferences
- Reputational risks resulting from a failure to adapt to climate risks, which may also lead to litigation by parties seeking compensation after suffering loss or damage, and
- Business disruption risks to the bank's offices, employees, and processes in locations facing physical climate risks, such as extreme weather events and/or disruptive longer-term increases in global temperatures

In addition, climate and other environmental risks are considered as risk drivers of all other main risk types of the bank: credit risk, non-financial risk, liquidity risk, and market risk) and is, incorporated into their respective management frameworks. The integration of climate and other environmental risks in the risk type frameworks of the bank is overseen by the Enterprise Risk Committee.

Deutsche Bank's framework for the management of environmental risks has four key elements and each one considers the short, medium and long-term effects of environmental risks:

- Risk identification and materiality assessment
- Risk measurement, monitoring and mitigation, integration into risk type frameworks and processes
- Scenario analysis and stress testing, and
- Risk metrics, targets, and integration in appetite

Deutsche Bank relies on a number of different industry frameworks and standards for the management of climate and other environmental risks. The overall risk assessment and reporting framework reflects the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Estimation of financed emissions are based on the standard from the Partnership for Carbon Accounting Financials (PCAF). Methodologies for the bank's sector decarbonization targets are proprietary, but these methodologies significantly apply the Paris Agreement Capital Transition Assessment (PACTA) approaches and are in line with those set by peers.

Deutsche Bank conducts comprehensive materiality assessments of climate and other environmental risks to identify key impacts across potentially affected risk types. The drivers considered in the materiality analysis are climate transition risks

arising from policy, technology and behavioral changes, acute and chronic physical risks and other environmental risks. Material climate and environmental risk drivers are then managed through the relevant risk type frameworks of the bank (Strategic, Credit, Market, Liquidity, Operational and Reputational risks).

The impact assessment uses a combination of stress test results, other scenario and sensitivity analysis and qualitative expert judgement. The risk drivers covered in the materiality assessment are used to integrate climate risk considerations into the risk identification process, which functions as a basis for the group risk inventory, and the Internal Capital Adequacy Assessment Process.

Deutsche Bank is committed to align its loan portfolios with emission reduction pathways needed to achieve net zero by 2050. The bank's decarbonization targets, together with the quantitative risk appetite thresholds integrated into the Group Risk Appetite Statement, are the main levers used to mitigate climate transition risks by progressively reducing the carbon intensity of the bank's portfolio.

In addition, Deutsche Bank's Environmental and Social Policy Framework, including the bank's provisions for the fossil fuel sectors outlines specific restrictions and escalation requirements for sectors with inherently elevated potential for negative environmental impacts.

To support the bank's materiality assessment, monitor portfolio alignment to decarbonization targets, and for risk management purposes, Deutsche Bank uses a number of complementary KPI and metrics such as:

- Upstream Oil & Gas: Scope 3 Absolute financed emissions (million tons of CO₂)
- Power Generation: Physical emission intensity (kgCO₂e per MWh)
- Automotive (Light Duty Vehicles) sector: Physical emission intensity (gCO₂e per vehicle km)
- Steel production sector: Physical emission intensity (kgCO₂e per ton of steel)
- Corporate loan commitments: absolute financed emissions (scope 1 and 2, million tons of CO₂e) and annual increase in financed emissions
- Corporate loan outstanding: absolute financed emissions (scope 1 and 2, million tons of CO₂e)
- Sectors in scope of net-zero targets: Share of net-zero clients
- Relevant sectors in scope of net-zero targets: Technology mix
- Financed emissions for selected mortgage and commercial real estate portfolios (using proxies based on Energy Performance Certificate ratings and internal methodologies)
- Exposure to physical climate risk for uncollateralised loans and loans collateralised by Real Estate assets
- Exposure to other environmental (nature-related) risks

Furthermore, climate and broader environmental risk drivers are integrated into the frameworks and processes of Deutsche Bank's main risk types: Credit, Market, Liquidity and Non Financial (Operational / Reputational) risks.

- Credit risk - climate risk drivers are integrated across the different stages of the transaction lifecycle, including transaction approval / client onboarding, risk classification and credit ratings, portfolio analysis and monitoring, collateral valuation. Since the end of 2022, the bank has strengthened its processes by adding new climate risk assessment requirements at transaction credit approval (for newly onboarded and existing clients in the sectors covered by its targets), and climate risk criteria into its watchlist inclusion assessment; since the end of 2022, the bank has strengthened its processes by adding new climate risk assessment requirements at transaction credit approval (for newly onboarded and existing clients in the sectors covered by its targets), and introducing climate risk triggers into its watchlist inclusion criteria
- Market risk - climate related risks are currently managed within the existing risk framework and treated as a price trigger, in the same way as market events such as central bank announcements or earnings announcements
- Liquidity risk - Deutsche Bank uses stress testing and pathway analysis to assess the impact of climate risk; in particular, the bank's stressed Net Liquidity Position scenarios, that are run on a daily basis, include climate disasters as possible triggers of stress
- Operational Risk Management Framework - climate risk identification takes place through analysis of past internal and external operational risk events; exploratory scenario analysis is also used to analyze potential event situations and the effectiveness of related controls to identify areas for further risk mitigation and strengthening of the control environment Business Continuity and Third Party Risk Management frameworks are in place to manage risks of disruption to processes and services taking an all-hazards approach
- Reputational risk - impacts arising from the bank's business activities in higher risk sectors are managed through its Environmental and Social Policy Framework, an integral part of the bank's Reputational Risk Framework which outlines specific restrictions, escalation and due diligence requirements for sectors with elevated environmental risks

Data and methodologies for measuring and assessing climate related risks for selected products and portfolios are still under development. Lack of availability of comprehensive and consistent climate and environmental risk disclosures by clients means that risk analysis is heavily reliant on proxy emission estimates and top down, sectoral/product-based taxonomies. In

2022 the bank migrated to strategic ESG data partners for transition risk data and onboarded new data to monitor transition pathways and physical risks.

Risk appetite for the four sectors in-scope of the de-carbonization targets is calibrated to science-based emission reduction pathways aligned with the International Energy Agency net zero scenario. Some deviation from net-zero pathway is allowed in earlier years given simplified assumption of linear reduction and potential for portfolio and economic volatility to impact alignment. In addition to sector-level appetite, a threshold on overall carbon footprint of corporate loan commitments is in place to avoid reputational risks associated with disclosure of large increases in financed emissions.

Targets for four additional key carbon intensive sectors will be disclosed by the Bank in the second half of 2023. Quantitative thresholds around the new targets will be embedded into our risk appetite framework, similarly to the thresholds already applied to the bank's existing decarbonisation targets.

Risk appetite is monitored quarterly via a dedicated Climate Report. Breaches in risk appetite are escalated to the Group Risk Committee and the Group Sustainability Committee.

Social risk

ESGT2

Governance

As part of Deutsche Bank's overall ESG governance, the bank established a group-wide Human Rights Forum with a mandate to ensure oversight of the bank's human rights management across key stakeholders (i.e., the bank's employees, suppliers, and clients).

The Human Rights Forum is co-chaired by the Chief Sustainability Officer and Head of Group Sustainability and reports to the bank's Group Sustainability Committee chaired by the Chief Executive Officer. It consists of senior representatives from the bank's business divisions and infrastructure functions and meets bi-monthly.

The Forum complements the bank's established risk management and due diligence processes within its business activities and operations. In line with the Group's reputational risk management processes, individual cases related to potential social challenges linked to a client profile or transaction may get escalated to one of the bank's Regional Reputational Risk Committees or referred to the Group Reputational Risk Committee co-chaired by the Chief Risk Officer and Head of the Corporate Bank.

To fight modern slavery and human trafficking, the Anti-Financial Crime (AFC) function of Deutsche Bank has established a dedicated working group, which is a sub-group of the group-wide Human Rights Forum and has the objective to develop and pursue concrete measures and initiatives within the AFC function.

Strategy and processes

Deutsche Bank's materiality assessment considers human rights as a material social topic for both the bank and its stakeholders. While it remains the governments' legal obligation to protect against human rights abuses by persons, including businesses, through appropriate policies, legislation, and adjudication, Deutsche Bank acknowledges its corporate responsibility pursuant to the "Protect, Respect and Remedy" framework of the UN Guiding Principles on Business and Human Rights.

This responsibility includes the need to respect human rights by avoiding adverse human rights impacts through the bank's own activities and by seeking to prevent or mitigate adverse human rights impacts which are directly linked to Deutsche Bank's operations, products, or services. As such, the bank has established policies and processes to ensure human rights are respected in its activities, and across its operations. Deutsche Bank's Human Rights Statement is publicly available.

Deutsche Bank's objectives in terms of the bank's contribution to preventing, minimizing, or resolving human rights related and social challenges and risks cover:

- Understanding where the bank's business activities might trigger human rights impacts to identify, prevent and/or mitigate adverse human rights impacts or offer financial solutions helping to address social and human rights related challenges
- Identifying sectors and jurisdictions having inherently higher risks of negatively impacting human rights
- Ensuring that the bank's policies and procedures adequately address human rights issues including the bank's commitment to respect human rights embedded in Deutsche Bank's Code of Conduct
- Defining the bank's risk appetite in case potential negative human rights issues cannot be excluded
- Providing transparency on the bank's human rights management approach

Risk Management

Deutsche Bank takes steps to prevent, minimize and/or resolve adverse human rights impacts by understanding where its business activities and operations might trigger a negative impact on human rights. The bank's minimum standards relating to social risks are:

- Deutsche Bank will not engage in business activities where the Group has substantiated evidence of material adverse human rights impacts and it is determined through its internal processes that such adverse human rights impacts cannot be avoided or appropriately mitigated
- Enhanced due diligence to identify and assess the nature of actual and potential human rights impacts with which the bank may be directly or indirectly linked
- Enhanced due diligence requirements in the defense sector with exclusions including controversial weapons, conflict countries, private military security companies, as well as civilian-use automatic and semi-automatic firearms and human-out-of-the-loop weapon systems
- Enhanced due diligence requirements with regards to adult entertainment with exclusion of any business directly associated with adult entertainment (commercial enterprises related to the sale or purchase of sex-related services, ranging from individual workers in prostitution to the pornographic entertainment industry), associated branded products or services or prostitution
- Enhanced due diligence required related to gambling with exclusion of online gambling Business-to-Consumer operators with exposure to markets where gambling is prohibited

Know-Your-Client Process

As a global bank, Deutsche Bank operates in many jurisdictions across the world and supports many sectors with its financial services which provide an opportunity to help addressing social challenges, but also might expose the bank to the risk of being linked to adverse social impacts. The bank's Know-Your-Client processes utilize a range of tools to identify adverse issues related to a client. For example, the bank considers media screening as part of its onboarding and regular client review processes. In case adverse social issues are being identified the client must be referred to the bank's Group Sustainability function for further assessment in line with the bank's requirements for enhanced due diligence.

Deutsche Bank has established enhanced due diligence requirements for clients active in sectors and geographies identified as being sensitive to negative human rights impacts. The bank's requirements build on international standards such as the UN Guiding Principles on Business and Human Rights and the International Labour Organization's Core Labor Standards and integrate human rights considerations such as child and labor rights, health and safety of workers and communities including indigenous peoples' rights. The respective social due diligence provisions are developed by the bank's central Group Sustainability function and are embedded into Deutsche Bank's reputational risk procedures.

While assessing its clients' human rights related practices, the bank expects as a minimum compliance with respective national laws and regulations and, where appropriate, the bank embeds industry specific internationally recognized best practices and standards.

As a signatory to the Equator Principles, the bank's due diligence for project financing in scope of the Equator Principles application follows the respective requirements, including the International Finance Corporation's Performance Standards 5 and 7, which specifically addresses social topics such as resettlement and indigenous rights.

If Deutsche Bank has concerns about a client with regards to human rights, it consults with relevant stakeholders. This might include direct engagement with the client as well as with civil society representatives that are familiar with the situation. Where appropriate, the bank obtains the advice of independent experts. Based on the available information and its assessment of the risks that have been identified, the bank decides on the further course of action, which may include termination of a business relationship.

Being a global financial institution that provides a broad range of products and services also exposes Deutsche Bank to diverse financial crime risks, including modern slavery and human trafficking. Deutsche Bank's bank-wide framework for the prevention of financial crime is inter alia preventing, deterring, and detecting client activities that might be linked to potential human rights violations. The Principles for the Management of Financial Crime Risks outline the responsibilities and accountabilities of the AFC function and of all Deutsche Bank employees and describe the essential organizational requirements and relevant processes for the management of financial crime risks across the 1st and 2nd line of defense. Global AFC policies define minimum standards for managing financial crime risks, including those with implications for human rights. These bank-wide policies are supplemented by country-specific policies and procedures that reflect national laws and regulations.

Further to the policies and processes stipulating the due diligence requirements regarding social and human rights management practices of clients, Deutsche Bank policies and procedures also address potential sector-inherent adverse social impacts associated with product offering by certain sectors. Especially the bank has established policies regarding the defense sector, gaming industry as well as adult entertainment sector, which are addressed in the bank's Reputational Risk

Framework's minimum standards. In accordance with the Reputational Risk Framework matters linked to these industries must be reviewed by subject matter experts.

Externally Deutsche Bank reports on progress in implementing its human rights approach by publishing an annual Modern Slavery and Human Trafficking Statement and in the "Human Rights" chapter of the annual Non-Financial Report.

The Reputational Risk Team provides monthly updates on reputational risk topics to the Regional Reputational Risk Committee chairs and secretaries of the Unit Reputational Risk Assessment Process, as well as quarterly updates to the Group Reputational Risk Committee. The Risk and Capital Profile Report, which includes updates on reputational risks, is distributed to the Management Board on a monthly basis and to the Supervisory Board on a quarterly basis. It includes details such as the number of reputational risk issues assessed by the various committees and their decisions.

Governance risk

ESGT3

Governance

Types of governance risk include counterparties with issues such as transparency and inclusiveness, or clients involved in bribery and corruption scandals, or accused of tax avoidance or optimization. Deutsche Bank addresses these concerns via different frameworks and processes including those relating to reputational risk and AFC.

The Reputational Risk Framework is in place to manage the process through which active decisions are taken on matters which may pose a reputational risk, before the event, and in doing so to prevent damage to Deutsche Bank's reputation wherever possible. It is also utilized to discuss any counterparty concerns that are perceived to be in contradiction with Deutsche Bank's values and beliefs. Concerns can be driven by environmental, social and governance factors.

AFC acts as an independent function setting policies and minimum control standards for the management and mitigation of financial crime risks at Deutsche Bank, including those relating to clients or counterparties that may be the subject of allegations of bribery and corruption. Deutsche Bank's business divisions are responsible and accountable for the implementation and operationalization of these policies and standards. The Management Board ensures that AFC can execute its tasks independently and effectively.

Strategy and processes

Deutsche Bank has limited appetite for transactions or relationships with material reputational risk or in areas which inherently pose a higher reputational risk such as the defense, gaming, or adult entertainment sectors, where there are ethical concerns and potential concerns of corruption and bribery. Reputational risk cannot be precluded as it can be driven by unforeseeable changes in perception of the Group's practices by various stakeholders (e.g., public, clients, shareholders and regulators). Deutsche Bank strives to promote sustainable standards that will enhance profitability and minimize reputational risk. Additionally, Deutsche Bank has no tolerance for its employees or third parties acting on its behalf engaging in bribery or corruption.

Risk management

Under the Reputational Risk Framework, all employees are responsible for identifying potential reputational risks and reporting them by means of the Unit Reputational Risk Assessment Process (Unit RRAP). Through the Unit Reputational Risk Assessment Process relevant stakeholders are consulted for input, such as country management, key control functions, and other second-line subject matter experts. The Unit Reputational Risk Assessment Process is chaired by a business division's relevant senior manager and applies to all matters deemed to pose moderate or greater reputational risk. If a matter is considered to pose a material reputational risk and/or meets one of the bank's mandatory referral criteria, it is referred for further review to the relevant Regional Reputational Risk Committee. In exceptional circumstances, matters are referred to the Group Reputational Risk Committee.

To the extent the bank engages with third parties either to act on its behalf or as part of a joint venture or strategic investment, AFC will conduct appropriate levels of due diligence before entering into such a relationship to gain comfort with regard to the counterparty's controls and whether engaging with the counterparty is within risk appetite. Equally, all new client adoptions are assessed for bribery and corruption concerns, and, where appropriate, will be reviewed as part of the reputational risk process described above.

Climate change transition risk

Financed emissions are emissions that banks and investors finance through on-balance sheet lending and investing activities. Greenhouse gases (GHG) can be distinguished into three categories: Scope 1, 2 and 3.

- Scope 1: Direct GHG emissions occur from sources owned or controlled by the counterparty
- Scope 2: Indirect GHG emissions from generation of purchased or acquired electricity, steam, heating, or cooling consumed by the counterparty
- Scope 3: Other indirect GHG emissions not included in Scope 2 occurring in the value chain of the counterparty; it can be further broken down into upstream emissions i.e., life cycle of materials, products or services up to the point of sale and downstream emissions i.e., distribution, storage, use and end-of-life treatment of products and services

Deutsche Bank reports estimated financed emissions for the corporate lending portfolio in the Non-Financial Report and will start reporting its estimates of financed emissions for exposures in the banking book in the Pillar 3 Report in 2024. The Bank calculates its financed emissions based on the standard of the Partnership for Carbon Accounting Financials (PCAF) and plans to use the same standard for its Pillar 3 disclosures in the future.

Table ESG1 highlights potential transition risks the Group is exposed to on loans and advances, debt securities and equity instruments in the banking book as clients transition to a low-carbon and climate-resilient economy. Transition risk is deemed to be higher for those exposures not aligned with the EU Paris-Benchmark and exposures with a longer maturity, especially from clients operating in carbon-related sectors and highly contributing to climate change.

Determination of clients not aligned with the EU Paris-Benchmark is done on a best-efforts basis either based on available third-party data or relevant NACE codes. The coverage of available information on counterparty exposures is expected to improve over time and could result in further counterparties being identified as not aligned.

For those exposures excluded from the EU-Paris aligned Benchmarks, the bank manages these exposures within its risk management framework and in accordance with the bank's net zero targets and Environmental and Social Framework, and related sectoral policies, where applicable.

Exposures to financial corporates are included in "K - Financial and insurance activities". The industry classification is based on the counterparty's NACE code. Determined exposures against holding companies have been re-allocated to a different NACE code based on their economic operating model.

The total across all NACE codes increased due to the implementation of EBA Q&A 2022_6600 by including all financial corporations. In addition, the re-allocation of holding companies led to significant exposure shifts among NACE codes. The aforementioned does not allow a like for like comparison of June 30, 2023 and December 31, 2022.

IESG1 – Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and maturity

Jun 30, 2023

	a	b	d	e	f	g	h	l	m	n	o	p	
	Gross carrying amount				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions								
	in € m.	of which: exposures towards companies excluded from EU Paris-aligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	of which: stage 2 exposures	of which: non-performing exposures	of which: stage 2 exposures	of which: non-performing exposures		<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity	
1	Exposures towards sectors that highly contribute to climate change*	150,776	6,792	21,859	5,602	2,065	206	1,703	124,833	12,895	7,879	5,169	3.5
2	A - Agriculture, forestry and fishing	767	80	87	30	13	1	10	562	103	81	20	4.0
3	B - Mining and quarrying	3,224	2,128	120	88	75	2	65	2,633	579	10	2	2.5
4	B.05 - Mining of coal and lignite	31	26	8	3	2	0	2	11	19	1	0	5.0
5	B.06 - Extraction of crude petroleum and natural gas	1,423	1,297	13	0	3	1	0	1,004	418	1	1	3.1
6	B.07 - Mining of metal ores	316	316	24	6	4	0	2	314	0	2	0	1.5
7	B.08 - Other mining and quarrying	167	89	61	3	2	0	1	127	33	5	2	4.1
8	B.09 - Mining support service activities	477	135	0	30	19	0	18	462	14	2	0	2.6
9	C - Manufacturing	38,276	1,965	5,520	1,812	744	81	621	34,520	2,902	736	118	1.9
10	C.10 - Manufacture of food products	3,680	41	594	83	63	9	49	3,351	266	49	14	1.9
11	C.11 - Manufacture of beverages	901	16	64	12	4	0	3	825	70	5	1	1.3
12	C.12 - Manufacture of tobacco products	0	0	0	0	0	0	0	0	0	0	0	0.0
13	C.13 - Manufacture of textiles	780	0	58	42	15	1	14	641	84	50	4	2.6
14	C.14 - Manufacture of wearing apparel	228	0	39	30	21	0	21	189	18	20	1	2.9
15	C.15 - Manufacture of leather and related products	111	0	19	8	6	0	5	92	10	9	0	2.6
16	C.16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	262	0	28	17	14	0	14	221	19	17	5	3.8
17	C.17 - Manufacture of pulp, paper and paperboard	749	0	124	14	11	2	8	649	81	18	2	2.2
18	C.18 - Printing and service activities related to printing	206	0	37	9	4	1	3	159	21	21	5	4.5
19	C.19 - Manufacture of coke oven products	1,257	1,106	212	59	2	1	0	1,141	115	1	1	1.5
20	C.20 - Production of chemicals	3,147	207	468	80	41	6	31	2,733	371	39	3	2.1
21	C.21 - Manufacture of pharmaceutical preparations	1,534	23	185	53	9	4	3	1,318	203	13	0	2.3
22	C.22 - Manufacture of rubber products	1,789	1	374	55	48	9	38	1,562	199	26	1	2.1
23	C.23 - Manufacture of other non-metallic mineral products	766	0	113	25	20	1	18	648	102	11	4	2.3
24	C.24 - Manufacture of basic metals	2,059	119	372	238	64	5	56	1,940	76	41	2	1.6
25	C.25 - Manufacture of fabricated metal products, except machinery and equipment	2,135	1	387	93	62	4	55	1,758	278	83	16	2.9
26	C.26 - Manufacture of computer, electronic and optical products	2,652	0	260	14	20	5	11	2,466	138	46	2	1.9
27	C.27 - Manufacture of electrical equipment	2,893	0	376	458	124	6	115	2,686	154	47	6	1.4
28	C.28 - Manufacture of machinery and equipment n.e.c.	3,832	0	608	140	91	6	81	3,462	269	89	13	1.9
29	C.29 - Manufacture of motor vehicles, trailers and semi-trailers	4,219	96	410	150	48	10	35	4,111	92	14	1	0.9
30	C.30 - Manufacture of other transport equipment	1,028	0	141	120	11	3	7	970	44	12	1	1.6
31	C.31 - Manufacture of furniture	313	0	82	18	16	1	14	247	44	14	7	3.4
32	C.32 - Other manufacturing	3,103	0	537	66	32	6	23	2,755	219	105	24	2.7

Jun 30, 2023

	a	b	d	e	f	g	h	l	m	n	o	p	
	Gross carrying amount				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions								
	of which: exposures towards companies excluded from EU Paris-aligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation				of which: stage 2 exposures		of which: non-performing exposures		of which: stage 2 exposures		of which: non-performing exposures		Average weighted maturity
in € m.								<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years		
33	C.33 - Repair and installation of machinery and equipment	90	0	5	0	0	0	78	3	5	5	3.7	
34	D - Electricity, gas, steam and air conditioning supply	6,719	1,487	376	94	26	4	14	5,091	1,230	393	5	3.4
35	D35.1 - Electric power generation, transmission and distribution	5,934	1,391	248	93	23	3	13	4,621	977	332	4	3.3
36	D35.11 - Production of electricity	3,637	966	168	92	19	2	13	2,759	658	217	3	3.4
37	D35.2 - Manufacture of gas; distribution of gaseous fuels through mains	687	94	88	0	2	1	0	402	228	56	0	4.9
38	D35.3 - Steam and air conditioning supply	0	0	0	0	0	0	0	0	0	0	0	0.0
39	E - Water supply; sewerage, waste management and remediation activities	682	0	41	8	8	0	6	513	98	66	4	3.7
40	F - Construction	5,014	0	730	261	122	10	104	3,588	475	592	359	5.7
41	F.41 - Construction of buildings	2,360	0	272	135	68	2	62	1,886	188	143	143	4.9
42	F.42 - Civil engineering	642	0	96	15	11	1	9	439	103	92	8	5.1
43	F.43 - Specialised construction activities	1,935	0	362	110	43	6	33	1,188	184	354	209	7.2
44	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	23,140	1,105	2,903	918	562	38	500	20,205	1,226	1,326	383	2.5
45	H - Transportation and storage	6,825	26	1,022	450	72	13	51	5,473	720	573	59	3.5
46	H.49 - Land transport and transport via pipelines	1,447	26	403	62	25	8	15	1,296	98	25	28	2.7
47	H.50 - Water transport	1,456	0	410	48	15	3	12	922	145	389	1	5.4
48	H.51 - Air transport	1,530	0	100	265	15	1	13	1,329	135	65	1	3.5
49	H.52 - Warehousing and support activities for transportation	2,066	0	105	72	16	1	11	1,622	330	88	26	3.2
50	H.53 - Postal and courier activities	325	0	4	3	1	0	1	304	13	6	3	1.0
51	I - Accommodation and food service activities	1,840	0	560	77	30	4	24	1,077	368	260	134	6.7
52	L - Real estate activities	64,289	0	10,499	1,865	414	52	308	51,169	5,193	3,842	4,084	4.5
53	Exposures towards sectors other than those that highly contribute to climate change*	186,427	759	13,378	2,565	1,042	134	732	132,549	14,485	6,231	33,162	11.3
54	K - Financial and insurance activities ¹	134,900	78	8,502	1,304	390	64	226	94,417	7,916	2,401	30,165	13.8
55	Exposures to other sectors (NACE codes J, M - U)	51,527	681	4,876	1,262	653	71	505	38,131	6,569	3,830	2,997	4.8
56	Total	337,203	7,550	35,237	8,167	3,107	340	2,435	257,381	27,380	14,110	38,331	7.8

¹ Includes exposures to financial corporates as per EBA Q&A 2022_6600

Dec 31, 2022

	a	b	d	e	f	g	h	l	m	n	o		
	Gross carrying amount				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions								
	in € m.	of which: exposures towards companies excluded from EU Paris-aligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	of which: stage 2 exposures	of which: non-performing exposures		of which: stage 2 exposures	of which: non-performing exposures	<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity	
1	Exposures towards sectors that highly contribute to climate change*	129,488	6,223	16,613	4,314	1,665	153	1,392	104,191	12,997	7,472	4,828	3.7
2	A - Agriculture, forestry and fishing	524	23	76	23	10	1	8	263	152	86	23	5.9
3	B - Mining and quarrying	2,474	2,190	137	70	32	5	23	1,798	662	12	3	3.3
4	B.05 - Mining of coal and lignite	42	35	9	8	3	1	2	20	20	2	0	4.8
5	B.06 - Extraction of crude petroleum and natural gas	1,395	1,394	15	0	4	2	0	854	540	1	1	3.7
6	B.07 - Mining of metal ores	483	483	64	27	7	2	4	480	0	3	0	1.8
7	B.08 - Other mining and quarrying	143	104	24	3	2	0	1	95	42	5	2	4.3
8	B.09 - Mining support service activities	411	175	24	32	17	0	15	350	61	0	0	3.0
9	C - Manufacturing	32,571	1,802	4,747	1,309	624	66	523	29,042	2,484	906	139	2.0
10	C.10 - Manufacture of food products	3,212	1	387	94	52	4	44	2,850	294	54	14	1.9
11	C.11 - Manufacture of beverages	897	0	87	12	5	1	3	827	65	5	1	1.1
12	C.12 - Manufacture of tobacco products	0	0	0	0	0	0	0	0	0	0	0	0.0
13	C.13 - Manufacture of textiles	840	0	74	41	22	0	21	704	83	50	3	2.6
14	C.14 - Manufacture of wearing apparel	235	0	38	30	21	0	20	191	19	24	1	3.4
15	C.15 - Manufacture of leather and related products	121	0	19	8	6	0	5	101	11	8	1	2.6
16	C.16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	251	0	25	17	15	0	14	207	21	18	4	4.1
17	C.17 - Manufacture of pulp, paper and paperboard	770	0	125	19	11	1	9	663	87	18	2	2.0
18	C.18 - Printing and service activities related to printing	228	0	35	9	5	1	4	180	22	20	6	4.6
19	C.19 - Manufacture of coke oven products	1,768	1,514	213	58	3	2	0	1,611	156	1	0	1.5
20	C.20 - Production of chemicals	3,062	246	487	96	53	5	45	2,677	167	215	4	2.0
21	C.21 - Manufacture of pharmaceutical preparations	1,017	0	120	1	6	4	1	951	49	17	0	1.5
22	C.22 - Manufacture of rubber products	1,647	2	223	55	45	4	39	1,398	215	32	2	2.0
23	C.23 - Manufacture of other non-metallic mineral products	733	0	148	27	21	2	18	622	96	11	4	2.5
24	C.24 - Manufacture of basic metals	1,727	38	407	236	65	10	53	1,554	131	40	3	2.0
25	C.25 - Manufacture of fabricated metal products, except machinery and equipment	2,285	1	366	99	64	4	58	1,869	310	88	18	2.8
26	C.26 - Manufacture of computer, electronic and optical products	1,245	0	199	13	14	1	10	1,157	42	44	2	1.8
27	C.27 - Manufacture of electrical equipment	2,655	0	490	97	39	5	29	2,445	160	43	6	1.5
28	C.28 - Manufacture of machinery and equipment n.e.c.	3,543	0	416	121	80	3	73	3,170	263	81	29	2.0
29	C.29 - Manufacture of motor vehicles, trailers and semi-trailers	3,049	0	425	172	39	11	25	2,952	81	16	1	0.9
30	C.30 - Manufacture of other transport equipment	706	0	226	39	11	3	7	604	54	47	1	2.3
31	C.31 - Manufacture of furniture	342	0	77	19	16	1	15	273	47	15	8	3.3
32	C.32 - Other manufacturing	1,379	1	152	24	13	1	10	1,195	104	58	21	2.6
33	C.33 - Repair and installation of machinery and equipment	58	0	7	1	0	0	0	45	3	4	6	5.5

Dec 31, 2022

	a	b	d	e	f	g	h	l	m	n	o		
	Gross carrying amount				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions								
		of which: exposures towards companies excluded from EU Paris-aligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	of which: stage 2 exposures	of which: non-performing exposures		of which: stage 2 exposures	of which: non-performing exposures	<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity	
in € m.													
34	D - Electricity, gas, steam and air conditioning supply	7,018	936	563	75	48	5	33	4,992	1,556	428	42	3.5
35	D35.1 - Electric power generation, transmission and distribution	6,071	872	454	73	45	4	32	4,437	1,233	361	41	4.3
36	D35.11 - Production of electricity	3,401	863	430	73	45	4	32	2,472	636	253	40	3.7
37	D35.2 - Manufacture of gas; distribution of gaseous fuels through mains	885	64	98	0	2	1	0	524	298	62	0	4.9
38	D35.3 - Steam and air conditioning supply	62	0	10	1	1	0	1	30	25	5	1	6.4
39	E - Water supply; sewerage, waste management and remediation activities	582	56	63	39	8	1	6	412	100	66	4	4.2
40	F - Construction	4,663	0	700	281	116	9	102	3,430	419	517	297	5.2
41	F.41 - Construction of buildings	2,370	0	352	120	65	4	57	2,024	157	112	78	3.6
42	F.42 - Civil engineering	298	0	62	38	14	1	13	166	46	68	18	8.3
43	F.43 - Specialised construction activities	1,994	0	285	122	37	4	31	1,240	216	337	201	6.7
44	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	22,867	1,183	2,551	766	437	30	386	19,978	1,178	1,347	363	2.3
45	H - Transportation and storage	6,195	32	642	254	85	8	66	4,838	817	481	59	3.5
46	H.49 - Land transport and transport via pipelines	1,246	32	99	74	21	1	16	1,063	130	25	28	2.9
47	H.50 - Water transport	1,507	0	362	24	10	3	5	890	264	353	1	5.3
48	H.51 - Air transport	955	0	18	74	35	0	35	951	3	0	1	2.3
49	H.52 - Warehousing and support activities for transportation	2,090	0	147	78	17	4	9	1,596	371	98	26	3.5
50	H.53 - Postal and courier activities	396	0	17	3	1	0	1	338	49	6	3	1.4
51	I - Accommodation and food service activities	1,968	0	466	117	66	5	60	1,229	378	237	123	6.4
52	L - Real estate activities	50,626	0	6,668	1,381	239	22	187	38,208	5,251	3,392	3,775	5.1
53	Exposures towards sectors other than those that highly contribute to climate change*	192,105	560	11,232	3,559	1,299	133	987	139,533	15,453	6,588	30,531	10.8
54	K - Financial and insurance activities ¹	153,992	559	7,625	2,323	735	74	532	112,770	10,571	2,841	27,810	12.1
55	Exposures to other sectors (NACE codes J, M - U)	38,113	0	3,607	1,236	564	59	455	26,762	4,883	3,747	2,722	5.5
56	Total	321,592	6,782	27,844	7,873	2,964	286	2,379	243,724	28,450	14,060	35,359	7.9

¹ Includes exposures to other financial corporates

Energy efficiency of real estate collateral

Table ESG2 highlights the energy efficiency of commercial and residential real estate collateralizing loans on Deutsche Bank's balance sheet. The information includes energy efficiency measured in terms of kWh/m² energy consumption and Energy Performance Certificate (EPC) labels.

In general, energy efficiency data is not available for most collateral. While some local EPC data bases are available for Spain and Italy, a major part of the Group's portfolios is located in countries without any public source of EPC data. However, for a larger portion of the portfolio, the Deutsche Bank is able to estimate EPCs based on collateral information and external data bases such as PCAF and Hotmaps. If contracts are secured by multiple properties, the kWh/m² are allocated on a pro rata basis to each of the properties based on the weighted average lending value.

Loans collateralized by immovable property are predominantly arising from the bank's German residential real estate portfolio (€ 158.9 billion) where Deutsche Bank has a good market coverage and energy efficiency can be estimated with a robust methodology. Due to the large amount of newly constructed properties in its' German mortgage portfolio, a high proportion of the gross carrying amount is shown with low energy efficiency levels. Deutsche Bank started collecting EPCs for new residential real estate loans for portfolios within the EU mid 2022. Yet due to data protection schemes, EPCs are not systematically collected from private households. Hence, a low amount of actual EPC labels is available for residential immovable properties. For all private household clients, Deutsche Bank collects EPC documentation where it's legally necessary for the client to have an EPC label for the property. A significant portion of the Deutsche Bank's reported numbers on collected EPC labels are linked to the Spanish mortgage portfolio. Processes for collecting energy efficiency labels for commercial immovable properties is in process of being developed. Loans collateralized with garages and plots (included in residential immovable property), do not have a kWh/m² estimate and are classified as 0 kWh/m² in column b. For loans where an EPC label is not available, these exposures are reported under column o.

For portfolios outside of the EU there is a lack of comprehensive and consistent local energy-efficiency standards which are comparable to the EU. Deutsche Bank is in the process of collecting, but does not yet have systematic, reliable data to estimate kWh/m² for these portfolios. Hence, most non-EU portfolios are reported without kWh/m² or EPC information.

ESG2 – Banking book - Climate change transition risk: Loans collateralised by immovable property - Energy efficiency of the collateral

		Jun 30, 2023															
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
		Total gross carrying amount															Without EPC label of collateral
		Level of energy efficiency (EP score in kWh/m ² of collateral)							Level of energy efficiency (EPC label of collateral)							of which: level of energy efficiency (EP score in kWh/m ² of collateral) estimated (in %)	
		in € m.	0; <= 100	> 100; <= 200	> 200; <= 300	> 300; <= 400	> 400; <= 500	> 500	A	B	C	D	E	F	G		
1	Total EU area	204,039	58,238	63,166	52,009	698	658	175	235	237	353	626	1,646	755	1,215	198,971	85
2	Of which Loans collateralized by commercial immovable property	28,035	694	4,965	153	4	40	4	4	3	4	6	5	7	7	28,000	21
3	Of which Loans collateralized by residential immovable property	175,993	57,544	58,200	51,856	694	618	160	231	234	349	620	1,642	749	1,208	170,960	96
4	Of which Collateral obtained by taking possession: residential and commercial immovable properties	11	0	0	0	0	0	11	-	-	-	-	0	-	-	11	0
5	Of which Level of energy efficiency (EP score in kWh/m ² of collateral) estimated	170,062	57,165	61,328	50,647	260	537	124	-	-	-	-	-	-	-	169,526	100
6	Total non-EU area	42,947	148	246	62	3	1	1	-	1	2	1	11	1	5	42,927	1
7	Of which Loans collateralized by commercial immovable property	37,581	1	25	0	0	0	0	-	-	-	-	0	-	-	37,581	0
8	Of which Loans collateralized by residential immovable property	5,366	147	221	62	3	1	1	-	1	2	1	11	1	5	5,345	8
9	Of which Collateral obtained by taking possession: residential and commercial immovable properties	0	0	0	0	0	0	0	-	-	-	-	-	-	-	0	0
10	Of which Level of energy efficiency (EP score in kWh/m ² of collateral) estimated	449	146	242	58	1	0	1	-	-	-	-	-	-	-	441	100

Exposures to Top 20 carbon-intensive firms

Table ESG4 highlights the aggregate exposure Deutsche Bank has towards the top 20 most carbon-intensive firms and its subsidiaries in the world by gross carrying amount (including loans and advances, debt securities and equity instruments) in the banking book and weighted average maturity. The underlying data source for identifying the top 20 most carbon-intensive firms is the publicly available list from the Carbon Majors Database.

ESG4 - Exposures in the banking book to the top 20 carbon-intensive firms in the world

		Jun 30, 2023			
		a	b	d	e
		Gross carrying amount (aggregate)	Gross carrying amount towards the counterparties compared to total gross carrying amount (aggregate in %)	Weighted average maturity	Number of top 20 polluting firms included
1	in € m.				
1	Top 20 polluting firms	2,931	0.46	1.5	16

		Dec 31, 2022			
		a	b	d	e
		Gross carrying amount (aggregate)	Gross carrying amount towards the counterparties compared to total gross carrying amount (aggregate in %)	Weighted average maturity	Number of top 20 polluting firms included
1	in € m.				
1	Top 20 polluting firms	3,215	0.51	1.7	17

Deutsche Bank's exposure reduced towards the Top 20 firms by € 0.3 billion resulting in lower a lower overall exposure ratio of 0.46% and a lower weighted average maturity of 1.5 years.

Climate change - physical risk

Acute and chronic climate change events are defined as the likelihood of gradual changes in weather and climate conditions. These changes can have a potential impact on economic output and productivity, can cause sudden damage to properties, disruption of supply chains, and depreciation of assets, as well as additional cost related to operational downtime.

The bank utilizes data provided by Standard & Poor's (S&P) to map locations as having acute or chronic hazard scores. S&P's exposure scores forecast climate event probabilities for eight hazards and four climate scenarios. The exposure scores represent the likelihood of each climate hazard and scenario over the next eight decades.

For purposes of determining Deutsche Bank's physical risk, it has selected the exposure scores from the Representative Concentration Pathways 6 (RCP6) (2.0° – 3.7°) scenario projection for the decade 2020-2030 to determine if an exposure has an acute risk to climate change events. Acute risks are defined by seven S&P hazards (i.e., tropical cyclone, extreme heat, extreme cold, fluvial floods, coastal floods, wildfire and drought). An exposure is impacted by acute climate risk if the exposure scores are above a 98% confidence interval for any one out of the seven S&P hazards.

A loan is reported as being impacted by chronic climate risk when the hazard exposure score is above the 98% confidence level for the 2040-2050 decade for either a tropical cyclone, fluvial floods, coastal floods, heat stress and drought in addition to water stress, reflecting the impacts of longer-term shifts in climate patterns on these hazards. Continuous enhancements to processes, refinement of methodology and forward looking information can result in changes to exposures subject to physical risk.

If the loan has real estate as collateral, the bank provides S&P with the properties zip code to determine the exposure score. For larger companies with multiple, regionally diversified locations and loans not secured by real estate, S&P provides an exposure score from their internal asset and client database, which aggregates the risk based on the company's multiple locations, operations, etc. If the borrower is not in S&P's database and does not have real estate as collateral, Deutsche Bank will use the clients domiciled address to determine the appropriate exposure score based on similar locations with information available from S&P. As of June 30, 2023, the Group obtained exposure scores on 97% of the German Private Bank real estate loans and 78% of the international banking book across Private Bank, Corporate Bank and Investment Bank. Continuous

enhancements to processes, refinement of methodology and forward looking information can result in changes to exposures subject to physical risk.

Table ESG5 provides information on exposures in the banking book (including loans and advances and debt securities) towards non-financial corporates with a geographical grouping in four regions: Europe, the Middle East and Africa (EMEA), Asia Pacific, North America and Latin America. The gross carrying amount of the loans do not consider any risk mitigation, adaption or resilience measures the bank may have taken to reduce the risk of physical loss or any costs related to climate change.

Determined exposures against holding companies have been re-allocated to a different NACE code based on their economic operating model. This re-allocation of holding companies has led to significant exposure shifts among NACE codes. Further, as per EBA Q&A 2022_6654 loans collateralized by immovable property are reported within the NACE code of the obligor as well as within rows for loans are collateralized by immovable property.

The beforementioned does not allow a like for like comparison of June 30, 2023, and December 31, 2022.

Climate change mitigating actions not covered in EU Taxonomy

The following table ESG10 provides an overview of on balance-sheet loans and bonds as of June 30, 2023 that are supporting the transition toward sustainable growth and a low-carbon economy.

Loans aimed at climate change mitigation were assessed in accordance with Deutsche Bank Green Financing Framework. These loans support projects related to mitigation of climate change transition risk, such as generation of renewable energy, development and implementation of products or technology that reduce the use of energy, green buildings, clean transportation as well as development of energy-efficient data centers, hosting, and related activities. Bonds aimed at climate change mitigation were facilitated by Deutsche Bank as part of its target to achieve at least € 500 billion in sustainable financing and investments between 2020 and year end 2025, as defined in the Group's Sustainable Finance Framework. Reported numbers are on balance-sheet positions as of June 30, 2023.

The majority of the € 12 billion assets reported by Deutsche Bank in ESG10 is loans.

As ESG metrics are being newly implemented in the banking industry, there are limitations on the amount and granularity of available data. As a result, Deutsche Bank's disclosure of on balance-sheet loans and bonds supporting the transition toward sustainable growth and a low-carbon economy will be further enhanced over time as more granular data is obtained and additional information becomes available.

Furthermore, ESG10 is supposed to include exposures aimed at mitigating climate change-related risks that are not covered by the Green Asset Ratio disclosure in Templates 7 and 8. Given that Templates 7 and 8 are not required to be disclosed until year end 2023, ESG10 currently covers all exposures aimed at mitigation of climate change-related risks, including those potentially aligned with the EU Taxonomy and relevant for Green Asset ratio calculation. From year end 2023, exposures aligned with the EU Taxonomy will no longer be included in this table and will be disclosed in Templates 7 and 8.

ESG10 – Other climate change risk mitigating actions that are not covered in the EU Taxonomy

						Jun 30, 2023
	in € m.	b	c	d	e	f
Type of financial instrument	Type of counterparty	Gross carrying amount	Type of risk mitigated (Climate change transition risk)	Type of risk mitigated (Climate change physical risk)	Qualitative information on the nature of the mitigating actions	
1		101	Climate change transition risk		Projects pertaining to renewable energy generation (solar, wind and hydro power), energy efficiency, clean transportation, green buildings, and sustainable management of natural resources and land use	
2	Financial corporations					
	Non-financial corporations	84	Climate change transition risk			
3	Of which Loans collateralised by commercial immovable property	0				
4	Households	0				
5	Bonds (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)					
6	Of which Loans collateralised by residential immovable property	0				
7	Of which building renovation loans	0				
	Other counterparties	626	Climate change transition risk		Projects pertaining to renewable energy generation (solar, wind and hydro power), energy efficiency, clean transportation, green buildings, and sustainable management of natural resources and land use	
8	Financial corporations	533	Climate change transition risk			
9					Loans for projects for setting up and operating Solar, Wind and Biomass Power plants (renewable energy). Loans to energy efficient commercial buildings	
	Non-financial corporations	4,746	Climate change transition risk			
10	Loans (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)				Loans for energy efficient commercial buildings	
11	Of which Loans collateralised by commercial immovable property	1,769	Climate change transition risk			
12	Households	6,369	Climate change transition risk		Loans for construction and acquisition of new and existing energy efficient residential buildings	
13	Of which Loans collateralised by residential immovable property	6,369	Climate change transition risk			
14	Of which building renovation loans	0			Loans for construction and acquisition of new and existing energy efficient residential buildings	
	Other counterparties	0				

Dec 31, 2022

	in € m.	b	c	d	e	f	
	Type of financial instrument	Type of counterparty	Gross carrying amount	Type of risk mitigated (Climate change transition risk)	Type of risk mitigated (Climate change physical risk)	Qualitative information on the nature of the mitigating actions	
1						Projects pertaining to renewable energy generation (solar, wind and hydro power), energy efficiency, clean transportation, green buildings, and sustainable management of natural resources and land use	
2		Financial corporations	62 ¹	Climate change transition risk			
3		Non-financial corporations	142 ¹	Climate change transition risk			
4	Bonds (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Of which Loans collateralised by commercial immovable property	0				
5		Households	0				
6		Of which Loans collateralised by residential immovable property	0				
7		Of which building renovation loans	0				
8			Other counterparties	631 ¹	Climate change transition risk		Projects pertaining to renewable energy generation (solar, wind and hydro power), energy efficiency, clean transportation, green buildings, and sustainable management of natural resources and land use
9			Financial corporations	414	Climate change transition risk		Loans for projects for setting up and operating Solar, Wind and Biomass Power plants (renewable energy). Loans to energy efficient commercial buildings
10	Loans (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Non-financial corporations	3,484 ¹	Climate change transition risk			
11		Of which Loans collateralised by commercial immovable property	1,260	Climate change transition risk		Loans for energy efficient commercial buildings	
12		Households	5,230	Climate change transition risk		Loans for construction and acquisition of new and existing energy efficient residential buildings	
13		Of which Loans collateralised by residential immovable property	5,230	Climate change transition risk		Loans for construction and acquisition of new and existing energy efficient residential buildings	
14		Of which building renovation loans	0				
		Other counterparties	0				

¹ December 31, 2022 Bonds and Loans have been updated by € 312 million and € (212) million to € 835 million and € 9,128 million respectively

Liquidity risk

Qualitative information on LCR

Article 451a CRR (EU LIQB)

The Liquidity Coverage Ratio (LCR)

The LCR is intended to promote the short-term resilience of a bank's liquidity risk profile over a 30 day stress scenario. The ratio is defined as the amount of High Quality Liquid Assets ("HQLA") that could be used to raise liquidity, measured against the total volume of net cash outflows, arising from both contractual and modelled exposures, in a stressed scenario.

The Group's average LCR of 136% (twelve months average) has been calculated in accordance with the Commission Delegated Regulation (EU) 2015/61 and the EBA Guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 CRR.

The Group's Liquidity Coverage Ratio was 137% as of June 30, 2023, or € 55 billion of excess over the regulatory minimum of 100%. This compares to 143%, or € 63 billion of excess liquidity at March 31, 2023. The decrease is primarily related to TLTRO repayment, buy back of senior non preferred issuances and Tier 2 issuance calls with other offsetting business movements.

Concentration of funding and liquidity sources

Diversification of the Group's funding profile in terms of investor types, regions and products is an important element of the Group's liquidity risk management framework. The Group's most stable funding sources stem from capital markets issuances and equity, as well as from Private Bank and Corporate Bank deposits. Other customer deposits and secured funding and short positions are additional sources of funding. Unsecured wholesale funding represents unsecured wholesale liabilities sourced primarily by the Treasury Pool Management team. Given the relatively short-term nature of these liabilities, it is predominantly used to fund liquid trading assets.

To promote the additional diversification of the Group's refinancing activities, the bank holds a license to issue mortgage Pfandbriefe. The Group continues to run a program for the purpose of issuing Covered Bonds under Spanish law (Cedulas) and participate in the ECB's TLTRO program. Additionally, the Group also issues green bonds under the Group's Sustainable Finance Framework. The Group also issued an inaugural Panda bond, following recent regulatory changes by PBoC and SAFE to facilitate foreign remittance of Panda bond proceeds

Unsecured wholesale funding comprises a range of institutional products, such as certificate of deposits, commercial papers as well as Money Market deposits.

To avoid any unwanted reliance on these short-term funding sources, and to promote a sound funding profile which complies with the defined risk appetite, the Group has implemented limits (across tenors) on these funding sources which are derived from daily stress testing analysis. In addition, the bank limits the total volume of unsecured wholesale funding to manage the reliance on this funding source as part of the overall funding diversification.

Composition of HQLA

The average HQLA of € 217 billion has been calculated in accordance with the Commission Delegated Regulation (EU) 2015/61 and the EBA Guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 CRR.

The HQLA as of June 30, 2023 of € 204 billion is primarily held in Level 1 cash and central bank reserves (71%) and Level 1 high quality securities (26%). This compares to € 208 billion at March 31, 2023 which was primarily held in Level 1 cash and central bank reserves (67%) and Level 1 high quality securities (30%).

Derivative exposures and potential collateral calls

The majority of outflows related to derivative exposures and other collateral requirements shown in item 11 below are in relation to derivative contractual cash outflows that are offset by derivative cash inflows shown below in item 19 Other cash inflows.

Other significant outflows included in item 11 relate to the impact of an adverse market scenario on derivatives based on the 24 month historical look back approach and the potential posting of additional collateral as a result of a 3 notch downgrade of Deutsche Bank's credit rating (as per regulatory requirements).

Currency mismatch in the LCR

The LCR is calculated for EUR and USD which have been identified as significant currencies (having liabilities > 5% of total group liabilities excluding regulatory capital and off balance sheet liabilities) in accordance with the Commission Delegated Regulation (EU) 2015/61. In addition to the above the Group also calculates an LCR for the GBP currency. No explicit LCR risk appetite is set for the significant currencies. However, limits have been defined over the respective significant currency stressed Net Liquidity Position (sNLP). This allows the internal monitoring and management of risks stemming from currency mismatches that may arise from liquidity inflows and outflows over the short-term horizon.

Other items in the LCR calculation that are not captured in the LCR disclosure template but that the institution considers relevant for its liquidity profile

The Pillar 3 disclosure obligations require Banks to disclose the 12 months rolling averages each quarter. The Group does not consider anything else relevant for disclosure.

Quantitative information on LCR

Article 451a CRR

EU LIQ1 – LCR disclosure template

in € bn.	Total unweighted value (average)				Total weighted value (average)			
	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022
Quarter ending on								
Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
High-quality liquid assets								
1 Total high-quality liquid assets (HQLA)	–	–	–	–	217	219	218	218
Cash-outflows								
2 Retail deposits and deposits from small business costumers	277	278	278	277	15	15	15	15
of which:								
3 Stable deposits	131	131	130	129	7	7	7	6
4 Less stable deposits	65	67	67	66	8	9	9	8
5 Unsecured wholesale funding	240	246	249	248	103	106	108	108
of which:								
6 Operational deposits (all counterparties) and deposits in network of cooperative banks	85	88	89	89	21	22	22	22
7 Non-operational deposits (all counterparties)	154	157	158	157	81	83	84	84
8 Unsecured debt	1	1	2	2	1	1	2	2
9 Secured wholesale funding	–	–	–	–	10	10	11	11
10 Additional requirements	224	225	225	220	76	76	74	71
of which:								
11 Outflows related to derivative exposures and other collateral requirements	29	29	28	27	25	25	25	23
12 Outflows related to loss of funding on debt products	0	0	0	0	0	0	0	0
13 Credit and liquidity facilities	195	196	197	193	51	51	50	48
14 Other contractual funding obligations	62	63	64	66	9	9	9	8
15 Other contingent funding obligations	268	264	257	246	2	2	3	4
16 Total cash outflows	–	–	–	–	215	219	220	217
Cash - inflows								
17 Secured lending (e.g. reverse repos)	307	307	314	310	10	12	14	14
18 Inflows from fully performing exposures	52	54	54	54	37	37	38	38
19 Other cash inflows	12	12	12	11	12	12	12	11
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	–	–	–	–	3	4	5	5
EU 19b Excess inflows from a related specialized credit institution	–	–	–	–	0	0	0	0
20 Total cash inflows	372	372	380	375	56	58	59	58
of which:								
EU 20a Fully exempt inflows	0	0	0	0	0	0	0	0
EU 20b Inflows subject to 90 % cap	0	0	0	0	0	0	0	0
EU 20c Inflows subject to 75 % cap	347	345	351	345	56	58	59	58
Total adjusted value								
21 Liquidity buffer	–	–	–	–	217	219	218	218
22 Total net cash outflows	–	–	–	–	160	161	161	160
23 Liquidity coverage ratio (%)	–	–	–	–	136	136	135	136

Net Stable Funding Ratio

The NSFR requires banks to maintain a stable funding profile in relation to its on- and off-balance sheet activities. The ratio is defined as the amount of available stable funding (the portion of capital and liabilities expected to be a stable source of funding), relative to the amount of required stable funding (a function of the liquidity characteristics of various assets held).

The Group's Net Stable Funding Ratio (NSFR) as of June 30, 2023, was 119% or a surplus of € 97 billion over the regulatory minimum of 100%. This compares to 120%, or a surplus of € 99 billion over the regulatory minimum of 100% as of December 31, 2022. The decrease was primarily on account of TLTRO repayment, buy back of senior non preferred issuances and Tier 2 issuance call offset by other business movements

EU LIQ2 – Net stable funding ratio template

		Jun 30, 2023				
		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
in € b.		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	72	0	0	12	84
2	Own funds	72	0	0	9	81
3	Other capital instruments	–	0	0	3	3
4	Retail deposits	–	237	27	4	252
5	Stable deposits	–	168	23	3	185
6	Less stable deposits	–	70	4	1	68
7	Wholesale funding:	–	382	35	129	251
8	Operational deposits	–	72	0	0	36
9	Other wholesale funding	–	310	35	129	215
10	Interdependent liabilities	–	0	0	0	0
11	Other liabilities:	17	118	3	4	5
12	NSFR derivative liabilities	17	–	–	–	–
13	All other liabilities and capital instruments not included in the above categories	–	118	3	4	5
14	Total available stable funding (ASF)	–	–	–	–	592
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	–	–	–	–	10
EU 15a	Assets encumbered for more than 12m in cover pool	–	0	0	24	20
16	Deposits held at other financial institutions for operational purposes	–	0	0	0	0
17	Performing loans and securities:	–	177	32	411	397
18	Performing securities financing transactions with financial customers collateralized by Level 1 HQLA subject to 0% haircut	–	62	1	0	1
19	Performing securities financing transaction with financial customers collateralized by other assets and loans and advances to financial institutions	–	29	9	59	66
20	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs,	–	52	15	135	160
	of which:					
21	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	1	0	4	2
22	Performing residential mortgages,	–	10	1	134	92
	of which:					
23	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	9	0	110	83
24	Other loans and securities that are not default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products	–	24	6	83	79
25	Interdependent assets	–	0	0	0	0
26	Other assets:	0	145	1	22	51
27	Physical traded commodities	–	–	–	0	0
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	–	–	–	6	5
29	NSFR derivative assets	–	–	–	2	2
30	NSFR derivative liabilities before deduction of variation margin posted	–	–	–	46	2
31	All other assets not included in the above categories	–	91	1	22	41
32	Off-balance sheet items	–	93	29	142	17
33	Total required stable funding (RSF)	–	–	–	–	496
34	Net Stable Funding Ratio (in percent)	–	–	–	–	119

		Mar 31, 2023				
		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
in € b.		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	71	0	0	12	83
2	Own funds	71	0	0	9	81
3	Other capital instruments	–	0	0	3	3
4	Retail deposits	–	243	24	3	253
5	Stable deposits	–	170	20	3	184
6	Less stable deposits	–	72	4	1	70
7	Wholesale funding:	–	363	43	128	253
8	Operational deposits	–	77	0	0	39
9	Other wholesale funding	–	286	43	128	214
10	Interdependent liabilities	–	0	0	0	0
11	Other liabilities:	11	146	2	4	5
12	NSFR derivative liabilities	11	–	–	–	–
13	All other liabilities and capital instruments not included in the above categories	–	146	2	4	5
14	Total available stable funding (ASF)	–	–	–	–	595
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	–	–	–	–	17
EU 15a	Assets encumbered for more than 12m in cover pool	–	0	0	24	21
16	Deposits held at other financial institutions for operational purposes	–	0	0	0	0
17	Performing loans and securities:	–	192	29	404	392
18	Performing securities financing transactions with financial customers collateralized by Level 1 HQLA subject to 0% haircut	–	70	2	0	2
19	Performing securities financing transaction with financial customers collateralized by other assets and loans and advances to financial institutions	–	29	9	57	64
20	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs,	–	54	13	146	160
	of which:					
21	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	1	0	5	4
22	Performing residential mortgages,	–	9	1	125	92
	of which:					
23	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	8	1	113	83
24	Other loans and securities that are not default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products	–	30	5	76	74
25	Interdependent assets	–	0	0	0	0
26	Other assets:	0	138	1	23	51
27	Physical traded commodities	–	–	–	0	0
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	–	–	–	7	6
29	NSFR derivative assets	–	–	–	1	1
30	NSFR derivative liabilities before deduction of variation margin posted	–	–	–	45	2
31	All other assets not included in the above categories	–	84	1	22	41
32	Off-balance sheet items	–	88	27	135	16
33	Total required stable funding (RSF)	–	–	–	–	497
34	Net Stable Funding Ratio (in percent)	–	–	–	–	120

		Dec 31, 2022				
		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
in € b.		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
Available stable funding (ASF) Items						
1	Capital items and instruments	71	0	0	12	82
2	Own funds	71	0	0	10	80
3	Other capital instruments	–	0	0	2	2
4	Retail deposits	–	252	22	3	259
5	Stable deposits	–	170	20	2	182
6	Less stable deposits	–	82	2	1	76
7	Wholesale funding:	–	372	37	127	259
8	Operational deposits	–	88	0	0	44
9	Other wholesale funding	–	285	37	127	216
10	Interdependent liabilities	–	88	0	0	0
11	Other liabilities:	17	110	3	4	5
12	NSFR derivative liabilities	17	–	–	–	–
13	All other liabilities and capital instruments not included in the above categories	–	110	3	4	5
14	Total available stable funding (ASF)	–	–	–	–	606
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	–	–	–	–	19
EU 15a	Assets encumbered for more than 12m in cover pool	–	0	0	25	21
16	Deposits held at other financial institutions for operational purposes	–	0	0	0	0
17	Performing loans and securities:	–	179	36	405	396
18	Performing securities financing transactions with financial customers collateralized by Level 1 HQLA subject to 0% haircut	–	61	5	0	3
19	Performing securities financing transaction with financial customers collateralized by other assets and loans and advances to financial institutions	–	26	9	57	64
20	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs,	–	55	15	145	161
	of which:					
21	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	3	0	7	6
22	Performing residential mortgages,	–	8	1	126	93
	of which:					
23	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	8	0	113	83
24	Other loans and securities that are not default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products	–	29	6	76	75
25	Interdependent assets	–	0	0	0	0
26	Other assets:	0	125	1	22	55
27	Physical traded commodities	–	–	–	0	0
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	–	–	–	7	6
29	NSFR derivative assets	–	–	–	6	6
30	NSFR derivative liabilities before deduction of variation margin posted	–	–	–	56	3
31	All other assets not included in the above categories	–	57	1	22	40
32	Off-balance sheet items	–	94	25	140	16
33	Total required stable funding (RSF)	–	–	–	–	507
34	Net Stable Funding Ratio (in percent)	–	–	–	–	120

		Sep 30, 2022				
		a	b	c	d	e
		Unweighted value by residual maturity				Weighted value
		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
in € b.						
Available stable funding (ASF) Items						
1	Capital items and instruments	70	0	0	12	82
2	Own funds	70	0	0	10	80
3	Other capital instruments	–	0	0	2	2
4	Retail deposits	–	250	21	3	256
5	Stable deposits	–	171	19	2	183
6	Less stable deposits	–	79	2	1	73
7	Wholesale funding:	–	382	57	121	266
8	Operational deposits	–	88	0	0	44
9	Other wholesale funding	–	294	57	121	222
10	Interdependent liabilities	–	0	0	0	0
11	Other liabilities:	23	152	2	1	2
12	NSFR derivative liabilities	23	–	–	–	–
13	All other liabilities and capital instruments not included in the above categories	–	152	2	1	2
14	Total available stable funding (ASF)	–	–	–	–	606
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	–	–	–	–	19
EU 15a	Assets encumbered for more than 12m in cover pool	–	0	0	24	20
16	Deposits held at other financial institutions for operational purposes	–	0	0	0	0
17	Performing loans and securities:	–	181	41	407	406
18	Performing securities financing transactions with financial customers collateralized by Level 1 HQLA subject to 0% haircut	–	53	7	0	5
19	Performing securities financing transaction with financial customers collateralized by other assets and loans and advances to financial institutions	–	28	10	60	68
20	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs,	–	65	15	138	161
	of which:					
21	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	4	1	8	7
22	Performing residential mortgages,	–	4	1	132	96
	of which:					
23	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk	–	4	1	111	79
24	Other loans and securities that are not default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products	–	31	7	77	77
25	Interdependent assets	–	0	0	0	0
26	Other assets:	0	167	2	23	60
27	Physical traded commodities	–	–	–	0	0
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	–	–	–	7	6
29	NSFR derivative assets	–	–	–	10	10
30	NSFR derivative liabilities before deduction of variation margin posted	–	–	–	76	4
31	All other assets not included in the above categories	–	74	2	23	40
32	Off-balance sheet items	–	99	26	146	16
33	Total required stable funding (RSF)	–	–	–	–	522
34	Net Stable Funding Ratio (in percent)	–	–	–	–	116

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