Deutsche Bank

Pillar 3 Report as of June 30, 2018

Content

Regulatory Framework

Introduction

This Report provides Pillar 3 disclosures on the consolidated level of Deutsche Bank Group as required by the global regulatory framework for capital and liquidity, established by the Basel Committee on Banking Supervision, also known as Basel 3. On European level these are implemented in the disclosure requirements as laid down in Part Eight of the “Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms” (Capital Requirements Regulation, or “CRR”) and the “Directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms” (Capital Requirements Directive 4, or “CRD 4”). Germany implemented these CRD 4 requirements into national law in Section 26a of the German Banking Act (“Kreditwesengesetz” or “KWG”). Further disclosure guidance has been provided by the European Banking Authority (“EBA”) in its “Final Report on the Guidelines on Disclosure Requirements under Part Eight of Regulation (EU) No 575/2013” (“EBA Guideline”, EBA/GL/2016/11, version 2*).

This Pillar 3 Report provides an update to our disclosures on own funds, risk weighted assets, credit, market and operational risk, securitization positions, leverage exposure and ratios as well as unencumbered assets. For further details regarding risk and regulatory-related information please also refer to the respective sections in our Interim Report as of June 30, 2018. Per regulation it is not required to have Pillar 3 disclosures audited. As such the information provided in this Pillar 3 Report is unaudited.

Basel 3 and CRR/CRD 4

In the European Union, the Basel 3 capital framework was implemented by the CRR and CRD 4. As a single rulebook the CRR is directly applicable to credit institutions and investment firms in the European Union and provides the grounds for the determination of regulatory own funds, regulatory capital requirements, leverage and liquidity as well as other relevant regulations. In addition, the CRD 4 was implemented into German law by means of further amendments to the KWG and the German Solvency Regulation (SolvV) and accompanying regulations. Jointly, these laws and regulations represent the new regulatory framework applicable in Germany.

The new regulatory framework became effective on January 1, 2014, subject to transitional rules. When referring to Deutsche Bank results according to transitional rules we use the term “CRR/CRD 4”. When referring to results according to full application of the final CRR/CRD 4 framework (without consideration of applicable transitional methodology) we use the term “CRR/CRD 4 fully loaded”. CRR/CRD 4 maintains transitional rules permitting the grandfathering of equity investments at a risk-weight of 100 %. These transitional arrangements have been considered lastly for December 31, 2017 and expired thereafter, resulting in no difference anymore for RWA under the fully loaded or transitional regime.

Since 2015 the Common Equity Tier 1 (CET 1) minimum capital requirement applicable to the Group is 4.5 % of risk-weighted assets. In addition to this minimum capital requirement, various capital buffer requirements were phased in starting 2016 and will become fully effective from 2019 onwards. The development and maintenance of a high quality capital base which should primarily consist of Common Equity Tier 1 reflects one of the core elements of the CRR/CRD 4 framework. Specific regulatory adjustments were subject to transitional rules. For instance, deductions for deferred tax assets that rely on future profitability or deductions for indirect and synthetic holdings of own instruments and capital instruments issued by financial sector entities were phased in. These phase-in arrangements to the CET 1 were still applicable for December 31, 2017 reporting as the phase-in percentage was at 80 % in 2017. They are not applicable from January 1, 2018 onwards as the phase-in percentage increased to 100 %. At the same time minority interest only recognizable under the transitional rules is now phased out with a 100 % phase-out rate since January 1, 2018.

Transitional arrangements are still applicable for Additional Tier 1 (AT1) and Tier 2 (T2) capital. Capital instruments that no longer qualify as AT1 or T2 capital under the CRR/CRD 4 fully loaded rules are subject to grandfathering rules during the transitional period and are being phased out from 2013 to 2022 with their recognition capped at 50 % in 2017, 40 % in 2018 and the cap decreasing by ten percentage points every year thereafter.

Additionally, the leverage ratio has been introduced as a non-risk based capital requirement to complement the risk-based capital requirements. The CRR/CRD 4 requires banks to calculate and disclose a regulatory leverage ratio that is generally based on the accounting value as the relevant exposure measure for assets. Specific regulatory exposure measures apply to derivatives and securities financing transactions as well as off-balance sheet exposures and must be added to determine the total leverage exposure.

The CRR/CRD 4 framework further introduced new liquidity standards. The Liquidity Coverage Ratio (LCR) aims to measure a bank's short-term resilience to a severe liquidity stress scenario during a stress period of 30 calendar days. Detailed rules for the calculation of the LCR are set out in the delegated act adopted in October 2014. The LCR became a binding minimum requirement as of October 1, 2015 and is phased in progressively: the phase-in percentage is now at 100 % from 2018 and was 80 % from 2017.

The Net Stable Funding Ratio (NSFR) requires banks to maintain a stable funding profile in relation to their on- and off-balance sheet exposures. Within the European Trilogue a revision of the Capital Requirement Regulation ("CRR") is proposed to implement the NSFR into EU legislation. It is expected that a binding minimum ratio for the NSFR will apply from end of 2020.

There are still some interpretation uncertainties with regard to CRR/CRD 4 rules and some of the related binding Technical Standards are not yet available in their final version. Thus, we will continue to refine our assumptions and models in line with evolution of our as well as the industry's understanding and interpretation of the rules. Against this background, current CRR/CRD 4 measures may not be comparable to previous expectations. Also, our CRR/CRD 4 measures may not be comparable with similarly labeled measures used by our competitors as our competitors' assumptions and estimates regarding such implementation may differ from ours.

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, maintain sufficient capital to face these risks and apply appropriate risk management techniques to maintain adequate capitalization. The Internal Liquidity Adequacy Assessment Process ("ILAAP") focuses on maintaining sufficient liquidity risk management. The Supervisory Review and Evaluation Process ("SREP") refers to the common methodology and standards used by the European Central Bank (ECB) in its role under the Single Supervisory Mechanism (SSM). In accordance with Article 97 of the Capital Requirements Directive (CRD 4), supervisors regularly review the arrangement, strategies, process and mechanisms implemented by banks and evaluate: (a) the risks to which the institution might be exposed; (b) the risks the institution might pose to the financial system in general; and (c) the risks revealed by stress testing.

MREL and TLAC

Under the Single Resolution Mechanism ("SRM") regulation, the Bank Recovery and Resolution Directive ("BRRD") and the German Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz, "SAG") banks in the European Union ("EU") are required to meet at all times a robust minimum requirement for own funds and eligible liabilities ("MREL") which is determined on a case-by-case basis by the competent resolution authority.

The Single Resolution Board ("SRB") has set a binding MREL which was communicated to Deutsche Bank via the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, "BaFin") in the second quarter 2018. The MREL ratio on a consolidated basis has been set at 9.14% of Total Liabilities and Own Funds ("TLOF") and applies immediately. The MREL ratio is in line with our expectations and consistent with our funding plans. As of June 30, 2018 TLOF was € 1,102 billion and available MREL was € 119 billion, corresponding to a ratio of 10.8 %. This means that Deutsche Bank has a comfortable buffer of own funds and eligible liabilities which is € 18 billion above MREL.

The European minimum requirement for own funds and eligible liabilities is specifically designed to require banks to maintain a sufficient amount of instruments which are eligible to absorb losses in resolution without recourse to taxpayers' money. Within the European Trilogue a revision of the CRR as well as amendments to the SRM regulation and the BRRD are proposed. Under this proposal the instruments which qualify as MREL are Common Equity Tier 1, Additional Tier 1 and Tier 2 instruments as well as certain eligible unsecured liabilities. In addition, the proposal introduces a minimum requirement for European global systemically important institutions (G-SIIs) starting at 16 % of RWAs or 6 % of leverage exposure and amounting to 18 % of RWAs and 6.75 % of leverage exposure when fully phased-in (details concerning timing are subject to the ongoing legislative process). If deemed necessary, the resolution authority would be able to request a firm-specific add-on.

Furthermore, under the German Banking Act, as amended by the German Resolution Mechanism Act, which was published in November 2015, senior bonds rank junior to other senior liabilities, without constituting subordinated debt, in insolvency proceedings opened on or after January 1, 2017. On December 27, 2017, an EU Directive amending the ranking of unsecured debt instruments in the insolvency hierarchy for the purpose of banks' resolution and insolvency proceedings has been published which introduces a common EU approach to banks' creditor hierarchy, thereby enhancing legal certainty in the event of resolution. The Directive introduces non-preferred senior debt instruments as a separate category of senior debt. These new instruments will rank junior to all other senior liabilities but will be senior to sub-ordinated debt provided they have an original contractual maturity of at least one year, do not contain embedded derivatives or be derivatives themselves and the contractual documentation explicitly refers to their lower ranking under normal insolvency proceedings. Member States are required to transpose the amending Directive into national law by December 29, 2018. The new provisions will apply to unsecured debt instruments issued on or after the date of when the respective national law enters into force. Any senior bonds that rank junior to other senior liabilities in accordance with the German Banking Act provisions published in November 2015 will be grandfathered and represent non-preferred senior debt instruments according to the EU Directive published on December 27, 2017.

Own funds

Capital Adequacy

The calculation of our regulatory capital incorporates the capital requirements following the “Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms” (Capital Requirements Regulation or “CRR”) and the “Directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms” (Capital Requirements Directive 4 or “CRD 4”) as implemented into German law. The information in this section as well as in the section “Article 438 (c-f) CRR - Overview of capital requirements” is based on the regulatory principles of consolidation.

Article 437 (1)(a,d-e) CRR - Regulatory capital composition, Prudential filters and deduction items

Development of regulatory capital

Our CRR/CRD 4 Tier 1 capital as of June 30, 2018 amounted to € 55.5 billion, consisting of a Common Equity Tier 1 (CET 1) capital of € 47.9 billion and Additional Tier 1 (AT1) capital of € 7.6 billion. The CRR/CRD 4 Tier 1 capital was € 2.2 billion lower than at the end of 2017, driven by a decrease in CET 1 capital of € 2.9 billion and an increased AT1 capital by € 0.7 billion since year end 2017.

The € 2.9 billion decrease of CRR/CRD 4 CET 1 capital was largely the result of increased regulatory adjustments due to a phase-in rate of 100 % in 2018 compared to a phase-in rate of 80 % in 2017. Based on ECB guidance and following the EBA Guidelines on payment commitments, effective January 1, 2018 Deutsche Bank treats irrevocable payment commitments related to the Deposit Guarantee Scheme and the Single Resolution Fund as an additional CET 1 capital deduction instead of Risk-weighted assets. This capital deduction as of June 30, 2018 was at € 0.5 billion. The adoption of IFRS 9 effective January 1, 2018 decreased capital by € 0.4 billion. Furthermore our CET 1 capital was reduced by € 0.5 billion in the second quarter of 2018 due to the payment of our shareholder’s dividend for the financial year 2017 (11 cts/share following the Annual General Meeting) and the yearly AT1 coupon payment which was not accrued in CET1 capital as a consequence of the negative net income of financial year 2017 following Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4). As of June 30,2018 our positive net income of € 0.5 billion was completely offset by our dividend and AT1 coupon accrual of € 0.5 billion for the first half of 2018 which is in line with the ECB Decision (EU) (2015/656) on the recognition of interim or year-end profits in CET 1 capital in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4). The negative effects on CET 1 capital were partially offset by a positive impact of € 0.9 billion from our partial Initial Public Offering (“IPO”) of DWS Group GmbH & Co. KGaA (“DWS”).

The € 0.7 billion increase in CRR/CRD 4 AT1 capital was the result of positive effects from reduced regulatory adjustments of € 1.7 billion that were phased out from AT1 capital and a negative counter-effect from the call and redemption of one legacy Hybrid AT1 instrument with a notional amount of € 1 billion in the second quarter of 2018. The regulatory adjustments from AT1 capital reflect the residual amount of certain CET 1 deductions that are subtracted from CET 1 capital under fully loaded rules, but are allowed to reduce AT1 capital during the transitional period. The phase-in rate for these deductions on the level of CET 1 capital increased to 100 % in 2018 (80 % in 2017) and decreased correspondingly on the level of AT1 capital to 0 % in 2018 (20 % in 2017).

Our fully loaded CRR/CRD 4 Tier 1 capital as of June 30, 2018 was € 52.5 billion, compared to € 52.9 billion at the end of 2017. Our fully loaded CRR/CRD 4 CET 1 capital amounted to € 47.9 billion as of June 30, 2018, compared to € 48.3 billion as of December 31, 2017. Our fully loaded CRR/CRD 4 Additional Tier 1 capital amounted to € 4.6 billion as per end of June 2018, unchanged compared to year end 2017.

The decrease of our fully loaded CET 1 capital of € 0.4 billion compared to year end 2017 capital was mainly the result of the deduction of irrevocable payment commitments to the Single Resolution Fund and the Deposit Guarantee Schemes of € 0.5 billion, the IFRS 9 adoption impact of € 0.4 billion and the payment of 11 cts/share dividend totaling to € 0.2 billion and the AT1 coupons of € 0.3 billion in the second quarter of 2018. These negative effects were reduced by a positive CET 1 contribution of € 0.9 billion from our partial IPO of DWS.

Own funds template (incl. RWA and Capital Ratios)

		Jun 30, 2018		Dec 31, 2017		
	in € m.	CRR/CRD 4 fully-loaded	CRR/CRD 4	CRR/CRD 4 fully loaded	CRR/CRD 4	Refe-rences[1]
	Common Equity Tier 1 (CET 1) capital: instruments and reserves					
1	Capital instruments, related share premium accounts and other reserves	45,347	45,347	45,195	45,195	A
	Thereof: Instrument type 1 (ordinary shares)[2]	45,347	45,347	45,195	45,195	A
	Thereof: Instrument type 2	0	0	0	0	
	Thereof: Instrument type 3	0	0	0	0	
2	Retained earnings	16,360	16,360	17,977	17,977	B
3	Accumulated other comprehensive income (loss), net of tax	449	449	696	660	C
3a	Funds for general banking risk	0	0	0	0	
4	Amount of qualifying items referred to in Art. 484 (3) CRR and the related share premium accounts subject to phase-out from CET 1	N/M	0	N/M	0	
5	Minority interests (amount allowed in consolidated CET 1)	861	861	0	33	D
5a	Independently reviewed interim profits net of any foreseeable charge or dividend[3]	0	0	(751)	(751)	B
6	**Common Equity Tier 1 (CET 1) capital before regulatory adjustments**	**63,016**	**63,016**	63,116	63,114	
	Common Equity Tier 1 (CET 1) capital: regulatory adjustments					
7	Additional value adjustments (negative amount)[4]	(1,214)	(1,214)	(1,204)	(1,204)	
8	Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	(8,500)	(8,500)	(8,394)	(6,715)	E
10	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) CRR are met) (negative amount)	(2,865)	(2,865)	(3,004)	(2,403)	F
11	Fair value reserves related to gains or losses on cash flow hedges	(25)	(25)	(28)	(28)	
12	Negative amounts resulting from the calculation of expected loss amounts	(191)	(191)	(502)	(408)	
13	Any increase in equity that results from securitized assets (negative amount)	0	0	(2)	(2)	
14	Gains or losses on liabilities designated at fair value resulting from changes in own credit standing[5]	(438)	(438)	(73)	(45)	
15	Defined benefit pension fund assets (negative amount)	(1,043)	(1,043)	(1,125)	(900)	G
16	Direct, indirect and synthetic holdings by an institution of own CET 1 instruments (negative amount)[6]	(42)	(42)	(144)	(117)	
17	Direct, indirect and synthetic holdings of the CET 1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	0	0	0	0	
18	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	0	0	
19	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	0	0	
20a	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	0	0	
	Thereof:					
20b	Qualifying holdings outside the financial sector (negative amount)	0	0	0	0	
20c	Securitization positions (negative amount)	0	0	0	0	
20d	Free deliveries (negative amount)	0	0	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) CRR are met) (negative amount)	0	0	0	0	F
22	Amount exceeding the 15 % threshold (negative amount)	0	0	0	0	
	Thereof:					
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	0	0	
25	Deferred tax assets arising from temporary differences	0	0	0	0	F
25a	Losses for the current financial year (negative amount)	0	0	0	0	
25b	Foreseeable tax charges relating to CET 1 items (negative amount)	0	0	0	0	
26a	Regulatory adjustments relating to unrealized gains and losses pursuant to Article 467 and 468 CRR	N/M	N/M	N/M	(144)	
26b	Amount to be deducted from or added to CET 1 capital with regard to additional filters and deductions required pre CRR[8]	(14)	(14)	(19)	(19)	
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	0	0	0	0	
27a	Other regulatory adjustments	(801)	(801)	(322)	(322)	
28	**Total regulatory adjustments to Common Equity Tier 1 (CET 1) capital**	**(15,133)**	**(15,133)**	(14,816)	(12,306)	

	in € m.	Jun 30, 2018 CRR/CRD 4 fully-loaded	Jun 30, 2018 CRR/CRD 4	Dec 31, 2017 CRR/CRD 4 fully loaded	Dec 31, 2017 CRR/CRD 4	References[1]
29	Common Equity Tier 1 (CET 1) capital	**47,884**	**47,884**	48,300	50,808	
	Additional Tier 1 (AT1) capital: instruments					
30	Capital instruments and the related share premium accounts	4,676	4,676	4,676	4,676	H
	Thereof:					
31	Classified as equity under applicable accounting standards	4,676	4,676	4,676	4,676	H
32	Classified as liabilities under applicable accounting standards	0	0	0	0	
33	Amount of qualifying items referred to in Article 484 (4) CRR and the related share premium accounts subject to phase out from AT1	N/M	2,973	N/M	3,904	I
34	Qualifying Tier 1 capital included in consolidated AT1 capital issued by subsidiaries and held by third parties	0	0	0	0	
35	Thereof: instruments issued by subsidiaries subject to phase out	N/M	0	N/M	0	
36	Additional Tier 1 (AT1) capital before regulatory adjustments	**4,676**	**7,648**	4,676	8,579	
	Additional Tier 1 (AT1) capital: regulatory adjustments					
37	Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	(80)	(80)	(55)	(26)	H
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	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	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	0	0	
41a	Residual amounts deducted from AT1 capital with regard to deduction from CET 1 capital during the transitional period pursuant to Article 472 CRR	N/M	N/M	N/M	(1,730)	
	Thereof:					
	Goodwill and other intangible assets (net of related tax liabilities)	N/M	N/M	N/M	(1,679)	E
	Negative amounts resulting from the calculation of expected loss amounts	N/M	N/M	N/M	(51)	
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)	0	0	0	0	
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	**(80)**	**(80)**	(55)	(1,756)	
44	Additional Tier 1 (AT1) capital	**4,596**	**7,568**	4,621	6,823	
45	Tier 1 capital (T1 = CET 1 + AT1)	**52,479**	**55,452**	52,921	57,631	
	Tier 2 (T2) capital: instruments and provisions					
46	Capital instruments and the related share premium accounts[9]	9,366	6,393	10,272	6,348	J
47	Amount of qualifying items referred to in Article 484 (5) CRR and the related share premium accounts subject to phase out from T2	N/M	0	N/M	0	J
48	Qualifying own funds instruments included in consolidated T2 capital issued by subsidiaries and held by third parties	23	23	159	187	J
49	Thereof: instruments issued by subsidiaries subject to phase out	N/M	0	N/M	0	
50	Credit risk adjustments	0	0	0	0	
51	Tier 2 (T2) capital before regulatory adjustments	**9,389**	**6,416**	10,432	6,536	
	Tier 2 (T2) capital: regulatory adjustments					
52	Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans (negative amount)	(157)	(157)	(102)	(100)	J
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	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	0	0	
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	0	0	0	0	
56a	Residual amounts deducted from Tier 2 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to Article 472 CRR	N/M	N/M	N/M	(51)	
	Thereof:					

	in € m.	Jun 30, 2018 CRR/CRD 4 fully-loaded	Jun 30, 2018 CRR/CRD 4	Dec 31, 2017 CRR/CRD 4 fully loaded	Dec 31, 2017 CRR/CRD 4	References[1]
	Negative amounts resulting from the calculation of expected loss amounts	N/M	N/M	N/M	(51)	
57	Total regulatory adjustments to Tier 2 (T2) capital	(157)	(157)	(102)	(151)	
58	Tier 2 (T2) capital	9,233	6,260	10,329	6,384	
59	Total capital (TC = T1 + T2)	61,712	61,712	63,250	64,016	
60	Total risk-weighted assets	348,319	348,319	344,212	343,316	
	Thereof:					
	Credit Risk (including Settlement Risk)	215,508	215,508	215,184	214,288	
	Credit Valuation Adjustment (CVA)	8,885	8,885	6,451	6,451	
	Market Risk	30,437	30,437	30,966	30,966	
	Operational Risk	93,489	93,489	91,610	91,610	
	Capital ratios and buffers					
61	Common Equity Tier 1 capital ratio (as a percentage of risk-weighted assets)	13.7	13.7	14.0	14.8	
62	Tier 1 capital ratio (as a percentage of risk-weighted assets)	15.1	15.9	15.4	16.8	
63	Total capital ratio (as a percentage of risk-weighted assets)	17.7	17.7	18.4	18.6	
64	Institution specific buffer requirement (CET 1 requirement in accordance with Art. 92 (1) (a) CRR plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk-weighted assets)	9.0	7.9	9.0	6.75	
	Thereof:					
65	Capital conservation buffer requirement	2.5	1.875	2.5	1.25	
66	Countercyclical buffer requirement	N/M	0.04	N/M	0.02	
67	Systemic risk buffer requirement	0.0	0.0	0.0	0.0	
67a	Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	2.0	1.5	2.0	1.0	
68	Common Equity Tier 1 capital available to meet buffers (as a percentage of risk-weighted assets)[10]	9.1	9.0	9.4	10.2	
	Amounts below the thresholds for deduction (before risk weighting)					
72	Direct, indirect and synthetic holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10 % threshold and net of eligible short positions)[7]	3,943	3,943	3,893	3,893	
73	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 below 10 % threshold and net of eligible short positions)	747	747	710	710	
75	Deferred tax assets arising from temporary differences (amount below 10 % threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met)	4,081	4,081	3,846	3,846	
	Applicable caps on the inclusion of provisions in Tier 2 capital					
76	Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)	0	0	0	0	
77	Cap on inclusion of credit risk adjustments in T2 under standardized approach	260	260	263	263	
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	0	0	0	0	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	1,041	1,041	1,029	1,029	
	Capital instruments subject to phase-out arrangements					
80	Current cap on CET 1 instruments subject to phase out arrangements	N/M	0	N/M	0	
81	Amount excluded from CET 1 due to cap (excess over cap after redemptions and maturities)	N/M	0	N/M	0	
82	Current cap on AT1 instruments subject to phase out arrangements	N/M	6,263	N/M	6,263	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	N/M	0	N/M	0	
84	Current cap on T2 instruments subject to phase out arrangements	N/M	1,688	N/M	1,688	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	N/M	0	N/M	0	

N/M – Not meaningful
1 References provide the mapping of regulatory balance sheet items used to calculate regulatory capital (for more information refer to the Pillar 3 Report 2017 where this is reflected in the column "References" in the section "EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories"). Where applicable, more detailed information are provided in the respective reference footnote section.
2 Based on EBA list as referred to in Article 26 (3) CRR.
3 No interim profits to be 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 € 1.2 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 € 0.3 billion.
5 Gains and losses on liabilities of the institution that are valued at fair value that result from changes in the own credit standing of the institution according to Article 33 (1) (b) CRR as well as all fair value gains and losses arising from the institution's own credit risk related to derivative liabilities according to Article 33 (1) (c) CRR.
6 Excludes holdings that are already considered in the accounting base of Common Equity.
7 Based on our current interpretation no deduction amount expected.
8 Prudential filter for fund for home loans and savings protection ("Fonds zur bauspartechnischen Absicherung").
9 Amortization is taken into account.

[10] Calculated as the CET 1 capital less any CET 1 items used to meet Tier 1 and Total capital requirements; this is before consideration of Pillar 2 SREP requirements.

[A] Common shares, additional paid-in capital and common shares in treasury reflect regulatory eligible CET 1 capital instruments.
[B] The position retained earnings in the regulatory balance sheet includes net income (loss) attributable to Deutsche Bank shareholders and additional equity components of € 481 million (2017: € (751) million). This item is excluded from the position retained earnings in the transitional template for regulatory capital and shown separately along with accrual for dividend and AT1 coupons of € (481) million (2017: € 0 million) in the position independently reviewed interim profits net of any foreseeable charge or dividend.
[C] Difference to regulatory balance sheet position driven by prudential filters for unrealized gains and losses.
[D] Phase-out of minority interests (i.e noncontrolling interests) at a rate of 0 % in 2018 (20 % in 2017).
[E] Regulatory applicable amount is goodwill and other intangible assets of € 8,791 million (2017: € 8,635 million) plus goodwill from equity method investments of € 63 million (2017: € 64 million) as per regulatory balance sheet reduced by deferred tax liabilities on other intangibles of € 355 million (2017: € 305 million). Total CET 1 deduction amount is phased-in at a rate of 100 % in 2018 (2017: 80 %). Residual amount is deducted from AT1 capital.
[F] Differences to balance sheet position mainly driven by adjustments as set out in Article 38 (2) to (5) CRR (e.g. regulatory offsetting requirements).
[G] Phase-in at a rate of 100 % in 2018 (80 % in 2017).
[H] Additional equity components reflects regulatory eligible AT1 capital instruments.
[I] 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).
[J] Difference to regulatory balance sheet driven by regulatory adjustments as set out in Articles 62 to 71 CRR (e.g. maturity deduction, noncontrolling interests).

Reconciliation of shareholders' equity to regulatory capital

in € m.	Jun 30, 2018 CRR/CRD 4	Dec 31, 2017 CRR/CRD 4
Total shareholders' equity per accounting balance sheet[1]	**62,656**	63,174
Deconsolidation/Consolidation of entities	(20)	(58)
Thereof:		
Additional paid-in capital	(9)	(6)
Retained earnings	(144)	(228)
Accumulated other comprehensive income (loss), net of tax	134	176
Total shareholders' equity per regulatory balance sheet	**62,637**	63,116
Minority Interests (amount allowed in consolidated CET 1)[1]	861	33
Accrual for dividend and AT1 coupons[2]	(481)	0
Reversal of deconsolidation/consolidation of the position Accumulated other comprehensive income (loss), net of tax, during transitional period	0	(35)
Common Equity Tier 1 (CET 1) capital before regulatory adjustments	**63,016**	63,114
Prudential filters	(1,678)	(1,422)
Thereof:		
Additional value adjustments	(1,214)	(1,204)
Any increase in equity that results from securitized assets	0	(2)
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	(463)	(72)
Regulatory adjustments relating to unrealized gains and losses pursuant to Art. 467 and 468 CRR	0	(144)
Regulatory adjustments	(13,456)	(10,884)
Thereof:		
Goodwill and other intangible assets (net of related tax liabilities)	(8,500)	(6,715)
Deferred tax assets that rely on future profitability	(2,865)	(2,403)
Negative amounts resulting from the calculation of expected loss amounts	(191)	(408)
Defined benefit pension fund assets	(1,043)	(900)
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
Other	(857)	(458)
Common Equity Tier 1 capital	**47,884**	50,808
Additional Tier 1 capital	**7,568**	6,823
Additional Tier 1 Notes (AT1 Notes)	4,596	4,649
Per balance sheet	4,675	4,675
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	(80)	(25)
Hybrid capital securities	2,973	3,891
Per balance sheet	3,143	5,491
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	(170)	(1,601)
Other regulatory adjustments	0	13
Deductions from Additional Tier 1 capital	0	(1,730)
Tier 1 capital	**55,452**	57,631
Tier 2 capital	**6,260**	6,384
Subordinated debt	5,980	6,155
Per balance sheet	7,358	8,100
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	(1,378)	(1,944)
Thereof:		
Amortization according to Art. 64 CRR	(724)	(1,065)
Other	(654)	(880)
Other regulatory adjustments	280	280
Deductions from Tier 2 capital	0	(51)
Total capital	**61,712**	64,016

[1] Our partial IPO of DWS led to a € 0.9 billion CET 1 contribution which is reflected in the total shareholders' equity per accounting balance sheet at € 84 million and minority interests at € 861 million.
[2] No interim profits to be recognized as per ECB Decision (EU) 2015/656 in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4).

Development of regulatory capital

in € m.	Jun 30, 2018 CRR/CRD 4	Dec 31, 2017 CRR/CRD 4
Common Equity Tier 1 (CET 1) capital - opening amount	50,808	47,782
Common shares, net effect	0	1,760
Thereof:		
New shares issued (+)	0	1,760
Shares retired (–)	0	0
Additional paid-in capital	219	6,153
Retained earnings	(385)	(795)
Thereof:		
Actuarial gains (losses) rel. to defined benefit plans, net of tax and Currency Translation Adjustment (CTA)	(129)	(91)
Net income attributable to Deutsche Bank Shareholders	481	(751)
Common shares in treasury, net effect/(+) sales (–) purchase	(67)	(9)
Movements in accumulated other comprehensive income	(67)	(2,748)
Thereof:		
Foreign currency translation, net of tax	319	(2,646)
Unrealized gains and losses	(370)	6
Other	(17)	(108)
Accrual for dividend and Additional Tier 1 (AT1) coupons[1]	(481)	0
Thereof:		
Gross dividends (deduction)	(427)	0
Shares issued in lieu of dividends (add back)	0	0
Gross AT1 coupons (deduction)	(54)	0
Additional value adjustments	(10)	194
Goodwill and other intangible assets (net of related tax liabilities)	(1,784)	(1,653)
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	(462)	(91)
Negative amounts resulting from the calculation of expected loss amounts	217	(219)
Removal of gains/losses resulting from changes in own credit standing in liabilities designated at fair value (net of tax)	(393)	183
Defined benefit pension fund assets	(143)	(333)
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	354
Other, including regulatory adjustments	432	230
Common Equity Tier 1 (CET 1) capital - closing amount	47,884	50,808
Additional Tier 1 (AT1) capital - opening amount	6,823	7,703
New Additional Tier 1 eligible capital issues	0	0
Matured and called instruments	(1,008)	(2,376)
Transitional arrangements	1,730	1,708
Thereof:		
Amount excluded from Additional Tier 1 capital due to cap	0	0
Goodwill and other intangible assets (net of related tax liabilities)	1,679	1,696
Negative amounts resulting from the calculation of expected loss amounts	51	12
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	23	(212)
Additional Tier 1 (AT1) capital - closing amount	7,568	6,823
Tier 1 capital (T1 = CET 1 + AT1)	55,452	57,631
Tier 2 (T2) capital - opening amount	6,384	6,672
New Tier 2 eligible capital issues	0	801
Matured and called instruments	(157)	(198)
Amortization adjustments	(111)	(317)
Transitional arrangements	51	12
Thereof:		
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	51	12
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	92	(586)
Tier 2 (T2) capital - closing amount	6,260	6,384
Total regulatory capital (TC = T1 + T2)	61,712	64,016

[1] No interim profits to be recognized as per ECB Decision (EU) 2015/656 in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4).

Article 437 (1)(b-c) CRR - Main features of capital instruments

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 (www.db.com/ir/capital-instruments). In addition, this website provides full terms and conditions of all Common Equity Tier 1, Additional Tier 1 and Tier 2 capital instruments.

Article 437 (1)(f) CRR - Capital ratios different to CRR

The own funds capital ratios provided for Deutsche Bank Group are built upon the CRR regulations.

Capital requirements

Article 438 (c-f) CRR - Overview of capital requirements

The table below shows RWA and regulatory capital requirements broken down by risk types and model approaches compared to the previous quarter-end.

EU OV1 – Overview of RWA

			Jun 30, 2018		Mar 31, 2018	
			a1	b1	a2	b2
		in € m.	RWA	Minimum capital requirements	RWA	Minimum capital requirements
	1	Credit risk (excluding CCR)	166,706	13,336	167,328	13,386
		thereof:				
Art 438(c)(d)	2	The standardized approach	19,118	1,529	20,421	1,634
Art 438(c)(d)	3	The foundation IRB (FIRB) approach	3,491	279	3,580	286
Art 438(c)(d)	4	The advanced IRB (AIRB) approach	137,650	11,012	136,434	10,915
Art 438(d)	5	Equity IRB under the simple risk-weighted approach or the IMA	6,447	516	6,892	551
Art 107 Art 438(c)(d)	6	Counterparty credit risk (CCR)	37,717	3,017	40,956	3,276
		thereof:				
Art 438(c)(d)	7	Mark to market	4,522	362	4,949[1]	396[1]
Art 438(c)(d)	8	Original exposure	0	0	0	0
	9	The standardized approach	0	0	0	0
	9a	Financial collateral comprehensive method (for SFTs)	2,270	182	2,980	238
	10	Internal model method (IMM)	21,524	1,722	24,721	1,978
Art 438(c)(d)	11	Risk exposure amount for contributions to the default fund of a CCP	516	41	366	29
Art 438(c)(d)	12	Credit Valuation Adjustment (CVA)	8,885	711	7,572	606
Art 438(e)	13	Settlement risk	358	29	115	9
Art 449(o)(i)	14	Securitization exposures in the banking book (after the cap)	7,541	603	8,701	696
		thereof:				
	15	IRB approach	6,718	537	7,783	623
		thereof:				
	16	IRB supervisory formula approach (SFA)	4,828	386	5,824	466
	17	Internal assessment approach (IAA)	0	0	0	0
	18	Standardized approach	824	66	917	73
	19	Market risk	30,437	2,435	33,169	2,654
		thereof:				
	20	Standardized approach	4,516	361	6,205	496
	21	IMA	25,921	2,074	26,965	2,157
Art 438(e)	22	Large exposures	0	0	0	0
Art 438(f)	23	Operational risk	93,489	7,479	93,025	7,442
		thereof:				
	24	Basic indicator approach	0	0	0	0
	25	Standardized approach	0	0	0	0
	26	Advanced measurement approach	93,489	7,479	93,025	7,442
Art 437(2), 48,60	27	Amounts below the thresholds for deduction (subject to 250 % risk weight)	12,070	966	10,943	875
Art 500	28	Floor adjustment	0	0	0	0
	29	Total	**348,319**	**27,866**	354,235	28,339

The RWA according to CRR/CRD 4 fully-loaded were € 348.3 billion as of June 30, 2018, compared to € 354.2 billion as of March 31, 2018. The decrease of € 5.9 billion is mainly driven by reductions in counterparty credit risk and market risk RWA stemming from termination of trades as well as generally lower market risk levels. The RWA related to our securitization exposures principally decreased as the renewal of synthetic securitization positions resulted in significantly reduced maturity mismatch add-ons. This overall decrease is partly offset by increased CVA RWA which is driven by several methodological changes and RWA subject to 250 % risk weighting reflecting our RWA for deferred tax assets.

The movements of RWA for the specific risk types are discussed further down in this report for credit risk in section “Article 438 (d) CRR - Development of Credit Risk RWA” on page 46, for counterparty credit risk in section “Article 438 (d) CRR - Development of Counterparty Credit Risk RWA” on page 61 and for market risk in section “Article 455 (e) CRR - Regulatory capital requirements for market risk“ on page 64.

Article 438 CRR - Specialized lending and equity exposures in the banking book

The table below summarizes our foundation approach exposure for specialized lending on an EAD basis. For the calculation of minimum capital requirements regulatory risk weights are applied where potential risk mitigating factors are already considered in the assignment of a risk weight to a specific structure. Additional credit risk mitigation techniques have not been applied.

For specific exposures in the advanced IRBA we are required to apply regulatory defined risk weights. In the following section we summarize our IRBA exposures for equities and other non-credit obligation assets falling under this requirement. Credit risk mitigation techniques have not been applied.

EU CR10 – IRB (specialized lending and equities)

	in € m. (unless stated otherwise)						Jun 30, 2018
	Specialized lending						
Regulatory categories	Remaining maturity	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Expected losses
Category 1	Less than 2.5 years	89	11	50 %	99	49	0
	Equal to or more than 2.5 years	923	152	70 %	1,080	756	4
Category 2	Less than 2.5 years	30	9	70 %	36	25	0
	Equal to or more than 2.5 years	111	88	90 %	178	160	1
Category 3	Less than 2.5 years	2	0	115 %	3	3	0
	Equal to or more than 2.5 years	30	1	115 %	31	36	1
Category 4	Less than 2.5 years	8	0	250 %	7	19	1
	Equal to or more than 2.5 years	6	0	250 %	7	17	1
Category 5	Less than 2.5 years	9	0	–	9	0	5
	Equal to or more than 2.5 years	24	0	–	24	0	12
Total	Less than 2.5 years	138	20	–	155	97	6
	Equal to or more than 2.5 years	1,095	240	–	1,320	969	19

	Equities under the simple risk-weighted approach					
Categories	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Capital requirements
Private equity exposures sufficiently diversified	425	8	190 %	433	822	66
Exchange-traded equity exposures	4	119	290 %	122	354	28
All other equity exposures	1,369	56	370 %	1,424	5,270	422
Total	1,797	182	–	1,979	6,447	516

	in € m. (unless stated otherwise)						Dec 31, 2017
	Specialized lending						
Regulatory categories	Remaining maturity	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Expected losses
Category 1	Less than 2.5 years	105	37	50 %	134	67	0
	Equal to or more than 2.5 years	853	93	70 %	926	648	4
Category 2	Less than 2.5 years	17	18	70 %	28	20	0
	Equal to or more than 2.5 years	117	99	90 %	192	173	2
Category 3	Less than 2.5 years	2	0	115 %	3	4	0
	Equal to or more than 2.5 years	36	1	115 %	38	43	1
Category 4	Less than 2.5 years	8	0	250 %	7	19	1
	Equal to or more than 2.5 years	5	0	250 %	6	15	0
Category 5	Less than 2.5 years	22	0	–	42	0	21
	Equal to or more than 2.5 years	0	0	–	0	0	0
Total	Less than 2.5 years	153	55	–	215	109	22
	Equal to or more than 2.5 years	1,012	194	–	1,162	879	7

	Equities under the simple risk-weighted approach					
Categories	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Capital requirements
Private equity exposures sufficiently diversified	355	7	190 %	362	687	55
Exchange-traded equity exposures	7	261	290 %	268	776	62
All other equity exposures	1,060	91	370 %	1,329	4,916	393
Total[1]	1,422	359	–	1,959[2]	6,380	510

[1] The table reflects the fully loaded RWA amounts and does not include the (0.9) billion € RWA transitional adjustment due to the grandfathering of equity investments and the respective shift of exposure from the advanced IRB to the standard approach.
[2] Total exposure amount has been restated to properly reflect the sum across all equity exposures.

Article 438 CRR - Other non-credit obligation assets in the banking book

The table below presents the exposures assigned to the exposure class “other non-credit obligation assets” as outlined in Article 156 CRR. We split the table into cash positions in accordance with Article 156 (a) CRR, which receive a risk weight of 0 % as well as other positions receiving a risk weight of 100 %. Additional credit risk mitigation techniques have not been applied.

Credit risk exposures of other non-credit obligation assets

		Jun 30, 2018		Dec 31, 2017	
in € m.	Risk Weight	EAD	RWA	EAD	RWA
Risk Position					
Other non-credit obligation assets - cash	0 %	2,762	0	2,363	0
Other non-credit obligation assets - other	100 %	4,511	4,511	4,109	4,109
Total EAD other non-credit obligation assets	–	7,273	4,511	6,471	4,109

Article 440 CRR - Capital buffers

Minimum capital requirements and additional capital buffers

The Pillar 1 CET 1 minimum capital requirement applicable to the Group is 4.50 % of risk-weighted assets (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.

In addition to these minimum capital requirements, the following combined capital buffer requirements have been phased in starting 2016 (other than the systemic risk buffer, if any, which is not subject to any phase-in) and will become fully effective from 2019 onwards. The G-SII buffer requirement of 2.00 % CET 1 capital of RWA in 2019 was phased in with 1.50 % in 2018. The capital conservation buffer requirement of 2.50 % CET 1 capital of RWA in 2019 implemented in Section 10c German Banking Act, based on Article 129 CRD 4, was phased in with 1.875 % in 2018. 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, 2018, the countercyclical capital buffer rate was at 0.04 %.

Additionally, Deutsche Bank AG has been classified by BaFin as an “other systemically important institution” (O-SII) with an additional buffer requirement of 2.00 % that has to be met on a consolidated level. For Deutsche Bank, the O-SII buffer amounts to 1.32 % in 2018. Unless certain exceptions apply, only the higher of the systemic risk buffer (currently not applicable), G-SII buffer and O-SII buffer must be applied. Accordingly, the O-SII buffer requirement was not applicable as per June 30, 2018.

On December 19, 2017, Deutsche Bank was informed by the ECB of its decision regarding prudential minimum capital requirements for 2018, following the results of the 2017 SREP. The decision requires Deutsche Bank to maintain a phase-in CET 1 ratio of at least 10.67 % on a consolidated basis, beginning on January 1, 2018. This CET 1 capital requirement comprises the Pillar 1 minimum capital requirement of 4.50 %, the Pillar 2 requirement (SREP Add-on) of 2.75 %, the phase-in capital conservation buffer of 1.875 %, the countercyclical buffer (currently 0.04 %) and the phase-in G-SII buffer of 1.50 %.

Further information about minimum capital requirements, additional capital buffers as well as Pillar 2 requirements (SREP) applicable to us can be found in our Annual Report 2017.

Credit risk and credit risk mitigation

General qualitative information on credit risk

Article 442 (a) CRR - Definitions of past due and impairment

Loans are considered to be past due if contractually agreed payments of principal and/or interest remain unpaid by the borrower, except if those are acquired through consolidation. The latter are considered to be past due if payments of principal and/or interest, which were expected at a certain payment date at the time of the initial consolidation of the loans, are unpaid by the borrower.

The Group has aligned its definition of "credit impaired" under IFRS 9 to the default definition as per Art. 178 of the Capital Requirements Regulation (CRR) for regulatory purposes. As a consequence, credit impaired Financial Assets (or Stage 3 Financial Assets) consist of two types of defaulted financial assets: firstly financial assets, where the Group expects an impairment loss reflected in an allowance for credit losses and secondly financial assets, where the group does not expect an impairment loss (e.g. due to high quality collateral or sufficient expected future cash flows following thorough due diligence). This is a major difference to our impairment definition under IAS 39, where Financial Assets were only considered to be impaired if the Group expected to suffer an impairment loss.

Article 442 (b) CRR - Credit risk adjustments

Following the introduction of IFRS 9 in 2018, the impairment definition has changed compared to prior year. IFRS 9 accounting rules have been applied for the current reporting period and will continue to be used onwards, while comparative numbers have been based on IAS 39 accounting rules. Credit risk adjustments and credit risk adjustment charges of the period are therefore not comparable.

The determination of impairment losses and allowance moves from an incurred credit loss model under IAS 39, whereby credit losses are recognized when a defined loss event occurs, to an expected credit loss model under IFRS 9, where allowances for loan losses are recorded upon initial recognition of the Financial Asset, based on expectations of potential credit losses at the time of initial recognition.

For a detailed description of the Group's risk accounting policies, please refer to IFRS 9 Transition Report available on our webpage.

General quantitative information on credit risk

Article 442 (g) CRR - Defaulted exposures by regulatory exposure class and industry

Tables EU CR1-A and EU CR1-B provide asset quality information of the Group's on- and off balance sheet exposures subject to the credit risk framework broken down by regulatory exposure classes and industries respectively.

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).

The amounts shown below are based on IFRS accounting values according to the regulatory scope of consolidation. An exposure is being classified as defaulted if the default criteria according to Article 178 CRR are met. As confirmed by EBA (EBA/OP/2017/02) specific credit risk adjustments consist of all types of allowance for credit losses held against financial instruments subject to impairment according to IFRS 9 for the current fiscal year (IAS 39 for the prior fiscal year). The Group does not record any credit risk adjustment which qualify as general credit risk adjustment. The credit risk adjustment charges of the period are provided for a six month period in column "f".

EU CR1-A – Credit quality of exposures by exposure class and instrument

								Jun 30, 2018
		a	b	c	d	e	f	g
		Gross carrying values of						
	in € m.	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period six months ended Jun 30, 2018[1]	Net values (a+b-c-d)
1	Central governments and central banks	118	118,637	15	0	0	(1)	118,740
2	Institutions	27	26,716	7	0	0	2	26,736
3	Corporates	6,389	367,913	1,866	0	415	18	372,436
	Thereof:							
5	SMEs	559	17,882	259	0	88	12	18,183
4	Specialized Lending	1,763	33,036	455	0	43	(21)	34,344
5a	Other	4,067	316,994	1,151	0	284	27	319,910
6	Retail	3,703	218,183	2,241	0	446	269	219,645
	Thereof:							
8	Secured by real estate property SMEs	100	9,818	47	0	3	10	9,871
9	Secured by real estate property Non-SMEs	1,627	156,640	610	0	131	106	157,657
10	Qualifying Revolving	64	16,698	82	0	18	7	16,680
12	Other SMEs	267	5,940	218	0	15	18	5,989
13	Other Non-SMEs	1,644	29,087	1,283	0	278	128	29,448
14	Equity	0	1,666	0	0	0	0	1,666
14a	Other non-credit obligation asset	0	6,469	0	0	0	1	6,468
15	Total IRB approach	10,238	739,583	4,129	0	861	289	745,692
16	Central governments or central banks	0	124,377	2	0	0	0	124,375
17	Regional governments or local authorities	0	10,499	4	0	0	3	10,495
18	Public sector entities	0	6,197	2	0	0	(1)	6,196
19	Multilateral Development Banks	0	3,932	0	0	0	0	3,931
20	International Organizations	0	1,672	0	0	0	0	1,672
21	Institutions	0	1,679	10	0	0	0	1,669
22	Corporates	0	19,103	27	0	55	(8)	19,076
24	Retail	0	4,572	45	0	21	17	4,527
26	Secured by mortgages on immovable property	0	4,094	10	0	0	0	4,083
28	Exposures in default	1,362	0	425	0	26	0	937
29	Items associated with particularly high risk	244	119	162	0	5	1	201
30	Covered bonds	0	0	0	0	0	0	0
31	Claims on institutions and corporates with a short- term credit assessment	0	0	0	0	0	0	0
32	Collective investments undertakings (CIU)	0	0	0	0	0	0	0
33	Equity exposures	0	195	0	0	0	0	195
34	Other items	0	2	0	0	0	0	2
35	Total standardized approach	1,606	176,440	687	0	107	12	177,359
36	Total	11,843	916,023	4,816	0	968	301	923,051
	thereof:							
37	Loans	9,953	380,410	4,480	0	968	298	385,883
38	Debt Securities	152	57,083	13	0	0	1	57,222
39	Off-balance sheet exposures	1,046	239,119	322	0	0	3	239,842

[1] Credit risk adjustment charges of the period do not include recoveries.

								Dec 31, 2017
		a	b	c	d	e	f	g
		Gross carrying values of						
	in € m.	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period six months ended Dec 31, 2017[1]	Net values (a+b-c-d)
1	Central governments and central banks	124	116,428	11	0	0	7	116,542
2	Institutions	49	26,777	9	0	0	0	26,817
3	Corporates	6,342	358,457	2,169	0	265	179	362,630
	Thereof:							
5	SMEs	535	16,429	272	0	36	(38)	16,693
4	Specialized Lending	1,755	31,140	551	0	99	93	32,345
5a	Other	4,052	310,888	1,346	0	129	124	313,593
6	Retail	3,612	215,613	1,498	0	806	247	217,727
	Thereof:							
8	Secured by real estate property SMEs	110	9,776	25	0	7	0	9,861
9	Secured by real estate property Non-SMEs	1,644	155,438	366	0	105	(7)	156,716
10	Qualifying Revolving	59	16,948	66	0	64	57	16,941
12	Other SMEs	215	5,652	128	0	30	13	5,739
13	Other Non-SMEs	1,584	27,798	913	0	597	183	28,469
14	Equity	0	1,475	0	0	0	0	1,476
14a	Other non-credit obligation asset	0	7,882	0	0	0	0	7,882
15	Total IRB approach	10,127	726,633	3,686	0	1,071	434	733,073
16	Central governments or central banks	0	153,171	0	0	0	0	153,171
17	Regional governments or local authorities	0	12,209	1	0	0	0	12,208
18	Public sector entities	0	6,507	1	0	0	(3)	6,505
19	Multilateral Development Banks	0	5,234	0	0	0	0	5,234
20	International Organizations	0	2,125	0	0	0	0	2,125
21	Institutions	0	1,796	0	0	0	0	1,796
22	Corporates	0	14,464	19	0	169	(17)	14,445
24	Retail	0	4,837	20	0	138	(29)	4,817
26	Secured by mortgages on immovable property	0	3,951	4	0	0	(1)	3,948
28	Exposures in default	1,439	3	427	0	99	(11)	1,014
29	Items associated with particularly high risk	262	154	162	0	0	13	254
30	Covered bonds	0	0	0	0	0	0	0
31	Claims on institutions and corporates with a short- term credit assessment	0	0	0	0	0	0	0
32	Collective investments undertakings (CIU)	0	0	0	0	0	0	0
33	Equity exposures	0	140	0	0	0	0	140
34	Other items	0	124	0	0	0	0	124
35	Total standardized approach	1,700	204,715	634	0	406	(49)	205,781
36	Total[2]	11,827	931,347	4,321	0	1,477	385	938,854
	Thereof:							
37	Loans	10,055	374,117	4,027	0	1,477	414	380,145
38	Debt Securities	42	70,237	7	0	0	0	70,273
39	Off-balance sheet exposures	1,698	232,645	287	0	0	(29)	234,056

[1] Credit risk adjustment charges of the period do not include recoveries.
[2] The table reflects the fully loaded exposure view and therefore does not include the exposure shift from the advanced IRB to the standard approach of grandfathered equity investments.

EU CR1-B – Credit quality of exposures by industry

								Jun 30, 2018
		a	b	c	d	e	f	g
		Gross carrying values of						
	in € m.	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period six months ended Jun 30, 2018[1]	Net values (a+b-c-d)
1	Agriculture, forestry and fishing	86	1,475	27	0	2	5	1,533
2	Mining and quarrying	505	10,078	52	0	19	(7)	10,531
3	Manufacturing	1,554	87,458	573	0	82	24	88,439
4	Electricity, gas, steam and air conditioning supply	102	11,279	34	0	2	13	11,348
5	Water supply, sewerage, waste management and remediation activities	61	1,491	9	0	0	0	1,543
6	Construction	592	11,397	319	0	26	(2)	11,670
7	Wholesale and retail trade, repair of motor vehicles and motorcycles	735	37,255	461	0	158	49	37,530
8	Transport and storage	1,007	12,182	386	0	94	4	12,803
9	Accommodation and food service activities	75	4,285	25	0	1	1	4,335
10	Information and communication	140	27,862	81	0	7	(1)	27,921
10a	Financial and insurance activities	1,370	352,811	325	0	84	(20)	353,856
11	Real estate activities	833	41,141	141	0	29	(41)	41,833
12	Professional, scientific and technical activities	393	16,453	96	0	8	(6)	16,750
13	Administrative and support service activities	129	12,329	34	0	10	(2)	12,424
14	Public administration and defense, compulsory social security	119	45,227	21	0	0	3	45,325
15	Education	8	585	8	0	4	3	586
16	Human health services and social work activities	37	6,145	19	0	1	6	6,162
17	Arts, entertainment and recreation	51	2,593	15	0	1	1	2,629
18	Other service activities	136	13,623	46	0	7	1	13,713
18a	Activities of households as employers, undifferentiated goods- and services-producing activities of households for own use	3,911	219,491	2,142	0	432	269	221,260
18b	Activities of extraterritorial organizations and bodies	0	863	0	0	0	0	863
19	Total	11,843	916,023	4,816	0	968	301	923,051

[1] Credit risk adjustment charges of the period do not include recoveries.

Dec 31, 2017

		a	b	c	d	e	f	g
		Gross carrying values of						
	in € m.	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period six months ended Dec 31, 2017[1]	Net values (a+b-c-d)
1	Agriculture, forestry and fishing	79	1,439	25	0	11	6	1,493
2	Mining and quarrying	719	8,468	82	0	2	34	9,105
3	Manufacturing	1,124	81,564	554	0	209	52	82,134
4	Electricity, gas, steam and air conditioning supply	17	4,929	5	0	1	0	4,940
5	Water supply, sewerage, waste management and remediation activities	11	1,190	8	0	2	(1)	1,194
6	Construction	545	10,787	330	0	64	10	11,002
7	Wholesale and retail trade, repair of motor vehicles and motorcycles	645	31,461	375	0	162	30	31,731
8	Transport and storage	1,048	12,891	443	0	260	56	13,497
9	Accommodation and food service activities	55	4,199	20	0	5	1	4,234
10	Information and communication	175	22,353	73	0	28	9	22,455
10a	Financial and insurance activities	1,369	355,552	307	0	35	2	356,613
11	Real estate activities	1,019	33,418	174	0	82	1	34,263
12	Professional, scientific and technical activities	456	13,922	122	0	25	12	14,256
13	Administrative and support service activities	180	11,828	34	0	38	1	11,975
14	Public administration and defense, compulsory social security	129	61,694	13	0	0	4	61,810
15	Education	12	547	8	0	5	0	552
16	Human health services and social work activities	57	6,450	30	0	4	4	6,478
17	Arts, entertainment and recreation	173	2,464	19	0	1	0	2,617
18	Other service activities	462	43,137	159	0	62	(21)	43,440
18a	Activities of households as employers, undifferentiated goods- and services-producing activities of households for own use	3,551	222,015	1,539	0	483	185	224,026
18b	Activities of extraterritorial organizations and bodies	0	1,039	0	0	0	0	1,039
19	Total	11,827	931,347	4,321	0	1,477	385	938,854

[1] Credit risk adjustment charges of the period do not include recoveries.

Article 442 (h) CRR - Defaulted exposures by geographical area, past due, non-performing and forborne exposures

Table EU CR1-C provides asset quality information of the Group's on- and off balance sheet exposures subject to the credit risk framework broken down by significant geographical regions as well as countries.

We consider a country as being significant, if it contributes to an aggregate of 90 % of our total exposure. An area is considered significant if it contains at least one significant country. The geographical distribution is based on the legal domicile of the counterparty or issuer.

The amounts shown below are based on IFRS accounting values according to the regulatory scope of consolidation. An exposure is being classified as defaulted if the default criteria according to Article 178 CRR are met. As confirmed by EBA (EBA/OP/2017/02) specific credit risk adjustments consist of all types of allowance for credit losses held against financial instruments subject to impairment according to IFRS 9 for the current fiscal year (IAS 39 for the prior fiscal year). The Group does not record any credit risk adjustment which qualify as general credit risk adjustment. The credit risk adjustment charges of the period are provided for a six month period in column "f".

EU CR1-C – Credit quality of exposures by geography

								Jun 30, 2018
		a	b	c	d	e	f	g
		Gross carrying values of						
	in € m.	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period six months ended Jun 30, 2018[1]	Net values (a+b-c-d)
1	Europe	9,480	579,012	4,251	0	734	321	584,241
	Thereof:							
2	Germany	3,634	388,830	1,938	0	339	205	390,527
3	United Kingdom	473	25,581	43	0	13	4	26,010
4	France	17	11,927	14	0	0	1	11,931
5	Luxembourg	38	19,927	22	0	0	(5)	19,943
6	Italy	2,152	29,454	1,188	0	36	66	30,418
7	Netherlands	679	18,567	264	0	26	1	18,982
8	Spain	814	23,160	391	0	250	30	23,582
9	Ireland	412	7,061	20	0	(7)	(3)	7,452
10	Switzerland	422	16,748	31	0	0	2	17,139
11	Poland	265	10,766	145	0	6	19	10,886
12	Belgium	7	5,654	4	0	5	1	5,658
13	Other Europe	567	21,336	191	0	66	(1)	21,712
14	North America	1,217	251,597	236	0	158	(30)	252,578
	Thereof:							
15	U.S.	887	236,160	177	0	124	(30)	236,870
16	Cayman Islands	125	2,957	3	0	15	1	3,078
17	Canada	32	3,780	15	0	0	(3)	3,797
18	Other North America	173	8,700	40	0	19	2	8,833
19	Asia/Pacific	852	69,379	278	0	44	4	69,954
	Thereof:							
20	Japan	91	6,689	2	0	(10)	(6)	6,778
21	Australia	35	4,382	8	0	0	(2)	4,410
22	India	424	12,207	167	0	4	16	12,464
23	China	23	8,346	25	0	0	0	8,344
24	Singapore	149	8,977	9	0	0	(4)	9,117
25	Hong Kong	37	6,796	2	0	0	0	6,832
26	Other Asia/Pacific	93	21,983	66	0	49	(1)	22,010
27	Other geographical areas	294	16,035	51	0	33	6	16,278
28	Total	11,843	916,023	4,816	0	968	301	923,051

[1] Credit risk adjustment charges of the period do not include recoveries.

								Dec 31, 2017
		a	b	c	d	e	f	g
		Gross carrying values of						
	in € m.	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period six months ended Dec 31, 2017[1]	Net values (a+b-c-d)
1	Europe	9,139	610,808	3,675	0	1,338	328	616,271
	Thereof:							
2	Germany	3,638	414,301	1,596	0	578	1,107	416,343
3	United Kingdom	521	24,764	39	0	10	15	25,245
4	France	7	16,565	9	0	0	3	16,564
5	Luxembourg	134	20,969	41	0	0	18	21,062
6	Italy	1,662	31,710	952	0	3	119	32,420
7	Netherlands	901	19,272	304	0	1	18	19,869
8	Spain	747	20,102	284	0	672	2	20,565
9	Ireland	561	5,822	15	0	1	(1)	6,368
10	Switzerland	90	17,328	40	0	20	(4)	17,378
11	Poland	202	10,958	141	0	37	11	11,019
12	Belgium	20	5,495	7	0	0	1	5,508
13	Other Europe	655	23,520	246	0	54	18	23,929
14	North America	1,774	235,782	329	0	71	19	237,228
	Thereof:							
15	U.S.	1,460	221,682	256	0	47	12	222,886
16	Cayman Islands	39	2,744	3	0	0	(3)	2,780
17	Canada	54	3,433	20	0	24	3	3,467
18	Other North America	221	7,924	50	0	0	7	8,095
19	Asia/Pacific	650	68,102	288	0	26	34	68,465
	Thereof:							
20	Japan	134	7,119	2	0	0	0	7,251
21	Australia	56	3,770	12	0	0	0	3,813
22	India	319	12,771	152	0	0	19	12,938
23	China	23	8,446	30	0	0	6	8,439
24	Singapore	26	7,364	8	0	25	(1)	7,382
25	Hong Kong	2	6,107	5	0	0	(1)	6,105
26	Other Asia/Pacific	90	22,525	78	0	0	10	22,537
27	Other geographical areas	264	16,655	29	0	43	3	16,890
28	Total	11,827	931,347	4,321	0	1,477	385	938,854

[1] Credit risk adjustment charges of the period do not include recoveries.

Table EU CR1-D provides a breakdown of the Group’s loans and debt securities, where contractually agreed payments of principal or interest remain unpaid by the borrower by ageing of the overdue amounts irrespective of the impairment status of the borrower. The amounts shown are based on IFRS accounting values gross of credit risk adjustments according to the regulatory scope of consolidation.

EU CR1-D – Ageing of past-due exposures

				Jun 30, 2018			Dec 31, 2017
		1	2	3	1	2	3
	in € m.	Loans	Debt Securities	Total exposures	Loans	Debt Securities	Total exposures
a	≤ 30 days	3,503	0	3,503	3,299	0	3,299
b	> 30 days ≤ 60 days	602	0	602	550	0	550
c	> 60 days ≤ 90 days	343	0	343	311	0	311
d	> 90 days ≤ 180 days	833	0	833	874	0	875
e	> 180 days ≤ 1 year	675	0	676	635	0	635
f	> 1 year	2,584	0	2,584	2,544	0	2,544

Table EU CR1-E provides an overview of the Group’s non-performing and forborne exposures as per EBA definitions (Implementing Technical Standards (ITS) on Supervisory reporting on forbearance and non-performing exposures under article 99(4) of Regulation (EU) No 575/2013) as well as of the impairments booked against and collaterals/guarantees received for these exposures. Amounts in the table below reflect accounting values according to the regulatory scope of consolidation and include all debt instruments other than held for trading as per our IFRS balance sheet as well as off balance sheet exposures. For further information on the Group’s treatment of forbearances, please refer to the “Asset quality” section on page 111 of our Annual Report 2017.

EU CR1-E – Non-performing and forborne exposures

	in € m.	Jun 30, 2018			Dec 31, 2017[1]		
		010	020	030	010	020	030
		Debt securities	Loans and advances	Off-balance-sheet exposures	Debt securities	Loans and advances	Off-balance-sheet exposures
a	Gross carrying amount of performing and non-performing exposures	56,741	823,255	256,906	59,952	806,091	251,464
	thereof:						
b	Performing but past due >30 days and <=90 days	0	662	0	0	600	0
c	Performing forborne	0	1,860	138	0	1,800	103
d	Non-performing:	129	10,750	1,074	107	10,206	1,706
	thereof:						
e	Defaulted	129	10,199	1,072	107	9,892	1,706
f	Impaired[2]	113	9,784	0	36	6,354	0
g	Forborne	6	3,266	105	14	3,327	82
	Accumulated impairment and provisions and negative fair value adjustments due to credit risk[2]						
h	On performing exposures	13	930	177	14	376	159
i	thereof: Forborne	0	63	4	0	25	0
j	On non-performing exposures	0	3,560	145	20	3,601	150
k	thereof: Forborne	0	1,176	3	0	1,191	7
	Collaterals and financial guarantees received						
l	On non- performing exposures	0	3,857	53	0	3,838	482
m	thereof: Forborne exposures	0	2,162	21	0	2,108	43

[1] The gross carrying amount of non-performing forborne exposures as well as respective amounts for accumulated impairments and provisions and negative fair value adjustments due to credit risk and collateral and financial guarantees have been restated for 2017 following a refinement of internal processes.
[2] Due to the introduction of IFRS 9 in 2018, the gross carrying amount of non-performing exposures, thereof impaired as well as respective accumulated impairments and provisions and negative fair value adjustments due to credit risk for June, 30 2018 are not comparable the amounts for Dec 31, 2017. For details please refer to chapter 'General qualitative information on credit risk' in this report.

Article 442 (i) CRR - Development of credit risk adjustments and defaulted loans and debt securities

Table EU CR2-A provides information on the development of the Group's stock of specific credit risk adjustments held against loans and debt securities subject to the credit risk framework that are defaulted or impaired in the first half of 2018 as well as in the second half of 2017. Amounts are based on IFRS accounting values according to the regulatory scope of consolidation. Please note: the numbers in the 2017 and 2018 rollforward tables cannot be reconciled as the underlying accounting regime has changed from IAS 39 in 2017 to IFRS9 in 2018. Please refer to our IFRS9 Transition Report available on our webpage.

EU CR2-A – Changes in the stock of general and specific credit risk adjustments

	in € m.	Jun 30, 2018		Dec 31, 2017	
		a	b	a	b
		Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment	Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment
1	Opening balance	**3,599**	**0**	3,647	0
2	Increases due to amounts set aside for estimated loan losses during the period	913	0	677	0
3	Decreases due to amounts reversed for estimated loan losses during the period	(669)	0	(254)	0
4	Decreases due to amounts taken against accumulated credit risk adjustments	(346)	0	(407)	0
5	Transfers between credit risk adjustments	11	0	0	0
6	Impact of exchange rate differences	11	0	(11)	0
7	Business combinations, including acquisitions and disposals of subsidiaries	0	0	0	0
8	Other adjustments	(17)	0	(32)	0
9	Closing balance	**3,503**	**0**	3,621	0
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	(110)	0	(73)	0
11	Specific credit risk adjustments recorded directly to the statement of profit or loss	0	0	(12)	0

Accumulated specific credit risk adjustments held against defaulted or impaired loans and debt securities were almost stable within the reporting period.

Table EU CR2-B provides information on the development of the Group's defaulted or impaired loans and debt securities subject to the credit risk framework for the first half of 2018 compared to the second half of 2017. Amounts are based on IFRS accounting values according to the regulatory scope of consolidation.

EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities

		Jun 30, 2018	Dec 31, 2017
		a	a
	in € m.	Gross carrying value defaulted exposures	Gross carrying value defaulted exposures
1	Opening balance	10,097	11,071
2	Loans and debt securities that have defaulted or impaired since the last reporting period	2,379	1,915
3	Returned to non-defaulted status	(1,920)	(2,356)
4	Amounts written off	(489)	(407)
5	Other changes	38	(126)
6	Closing balance	10,106	10,097

Defaulted or impaired loans and debt securities subject to the credit risk framework were almost stable within the reporting period.

For IFRS-based asset quality information please refer to the section "Asset quality" on page 50 in our Interim report as of June 30, 2018.

General quantitative information on credit risk mitigation

Article 453 (f-g) CRR - Overview of credit risk mitigation techniques

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 (CRM) 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 CRM 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 multisecured exposures to their different CRM mechanisms is made by order of priority, starting with the CRM mechanism expected to be called first in the event of a loss, and within the limits of the carrying amount of the secured exposures. Moreover, no overcollateralization is considered.

EU CR3 – CRM techniques – Overview

						Jun 30, 2018
		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	112,549	273,335	227,784	18,093	932
2	Total Debt securities	56,805	417	0	417	0
3	Total exposures	169,354	273,752	227,784	18,510	932
4	thereof defaulted	2,286	4,317	3,497	411	0

						Dec 31, 2017
		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	111,374	268,771	224,938	18,610	815
2	Total Debt securities	70,259	14	0	0	0
3	Total exposures	181,633	268,784	224,938	18,610	815
4	thereof defaulted	2,406	4,070	3,160	474	0

The table CRM techniques by exposure class below shows a breakdown of unsecured and secured credit risk exposures and credit risk exposures secured by various credit risk mitigants broken down by exposure class. 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 (CRM) 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 CRM 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 breakdown into the exposure classes follows those as defined for the IRBA (i.e combining the advanced and foundation IRB) as well as the standardized approach. The line item "central governments or central banks" includes exposures to regional governments or local authorities, public sector entities, multilateral developments banks and international organizations. The exposure class "Other Items" within the standardized approach includes all exposures not covered in the other categories.

The table CRM techniques by exposure class shows a breakdown of unsecured and secured credit risk exposures and credit risk exposures secured by various credit risk mitigants broken down by exposure class whereas table EU CR3 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.

CRM techniques by exposure class

					Jun 30, 2018
	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
Advanced IRBA					
Central governments and central banks	115,649	3,079	75	2,488	0
Institutions	22,390	4,345	3,353	522	47
Corporates	237,080	128,863	80,184	19,627	5,446
thereof:					
SMEs	8,806	9,318	5,138	1,667	0
Specialized lending	6,287	26,662	22,759	746	0
Other	221,987	92,883	52,287	17,215	5,446
Retail	57,900	161,745	142,130	1,814	0
thereof:					
Secured by real estate property SMEs	907	8,964	7,303	186	0
Secured by real estate property non-SMEs	12,380	145,277	130,229	298	0
Qualifying revolving	16,624	56	29	1	0
Other retail SMEs	3,865	2,124	582	1,036	0
Other retail non-SMEs	24,124	5,324	3,987	294	0
Equity	1,666	0	0	0	0
Other non-credit obligation asset	6,468	0	0	0	0
Total advanced IRBA	441,154	298,031	225,742	24,451	5,494
Foundation IRBA					
Central governments and central banks	12	0	0	0	0
Institutions	1	0	0	0	0
Corporates	4,441	2,052	1,150	677	0
thereof:					
SMEs	55	4	0	3	0
Specialized lending	263	1,133	1,089	0	0
Other	4,124	915	60	673	0
Total foundation IRBA	4,454	2,052	1,150	676	0
Standardized Approach					
Central governments or central banks	124,372	3	2	0	0
Regional governments or local authorities	10,464	31	10	0	0
Public sector entities	6,195	0	0	0	0
Multilateral development banks	3,931	0	0	0	0
International organizations	1,672	0	0	0	0
Institutions	1,490	179	170	7	0
Corporates	14,130	4,947	4,330	226	0
Retail	3,714	812	627	97	0
Secured by mortgages on immovable property	59	4,024	3,719	66	0
Exposures in default	627	310	279	11	0
Items associated with particularly high risk	49	152	133	4	0
Covered bonds	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0
Collective investments undertakings (CIU)	0	0	0	0	0
Equity exposures	195	0	0	0	0
Other items	2	0	0	0	0
Total standardized approach	166,900	10,459	9,270	412	0
Total	612,509	310,542	236,161	25,539	5,494

					Dec 31, 2017
	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
Advanced IRBA					
Central governments and central banks	114,626	1,915	45	1,465	0
Institutions	22,605	4,149	2,187	1,029	21
Corporates	229,938	126,079	77,317	20,679	5,519
thereof:					
SMEs	8,354	8,290	4,759	1,444	0
Specialized lending	4,384	26,547	22,808	814	0
Other	217,200	91,242	49,750	18,420	5,519
Retail	56,372	161,355	142,201	1,772	0
thereof:					
Secured by real estate property SMEs	951	8,910	7,255	179	0
Secured by real estate property non-SMEs	11,786	144,930	130,174	305	0
Qualifying revolving	16,886	55	27	1	0
Other retail SMEs	3,682	2,057	545	1,043	0
Other retail non-SMEs	23,066	5,402	4,199	245	0
Equity	1,476	0	0	0	0
Other non-credit obligation asset	7,817	65	65	0	0
Total advanced IRBA	432,833	293,563	221,815	24,945	5,540
Foundation IRBA					
Central governments and central banks	1	0	0	0	0
Institutions	62	1	0	1	0
Corporates	4,631	1,983	955	599	0
thereof:					
SMEs	40	9	0	7	0
Specialized lending	251	1,163	896	0	0
Other	4,340	811	59	592	0
Total foundation IRBA	4,694	1,983	955	599	0
Standardized Approach					
Central governments or central banks	152,964	208	205	1	0
Regional governments or local authorities	12,176	32	9	0	0
Public sector entities	6,505	0	0	0	0
Multilateral development banks	5,234	0	0	0	0
International organizations	2,125	0	0	0	0
Institutions	1,326	470	462	7	0
Corporates	9,405	5,040	4,248	272	9
Retail	3,372	1,445	1,232	119	0
Secured by mortgages on immovable property	139	3,809	3,529	76	0
Exposures in default	546	469	374	18	0
Items associated with particularly high risk	43	211	164	38	0
Covered bonds	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0
Collective investments undertakings (CIU)	0	0	0	0	0
Equity exposures	140	0	0	0	0
Other items	124	0	0	0	0
Total standardized approach	194,098	11,682	10,224	532	9
Total[1]	631,625	307,229	232,994	26,076	5,550

[1] The table reflects the fully loaded exposure view and therefore does not include the exposure shift from the advanced IRB to the standard approach of grandfathered equity investments.

Credit risk exposure in the standardized approach

Article 444 (e) CRR - Credit risk exposure and credit risk mitigation in the standardized approach

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

EU CR4 – Standardized approach – Credit Risk Exposure and Credit Risk Mitigation (CRM) effects

							Jun 30, 2018
		a	b	c	d	e	f
	in € m.	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and average RW	
	Exposure classes	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	Average RW
1	Central governments or central banks	128,321	918	128,455	3	0	0.00%
2	Regional government or local authorities	10,196	395	10,213	82	19	0.18%
3	Public sector entities	6,379	19	6,378	8	87	1.36%
4	Multilateral development banks	4,140	0	4,141	0	0	0.00%
5	International organizations	1,673	0	1,672	0	0	0.00%
6	Institutions	1,566	37	1,566	26	174	10.93%
7	Corporates	13,095	4,164	10,273	1,009	11,235	99.58%
8	Retail	3,668	1,558	3,473	63	2,627	74.29%
9	Secured by mortgages on immovable property	3,430	68	3,429	31	1,296	37.46%
10	Exposures in default	929	20	925	7	1,276	136.91%
11	Items associated with particularly high risk	206	5	202	1	305	150.25%
12	Covered bonds	0	0	0	0	0	N/M
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	N/M
14	Collective investments undertakings (CIU)	0	0	0	0	0	N/M
15	Equity exposures	195	0	195	0	195	100.00%
16	Other items	29	1,878	29	1,878	1,906	99.95%
17	Total	173,828	9,061	170,952	3,109	19,118	10.98%

							Dec 31, 2017
		a	b	c	d	e	f
	in € m.	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and average RW	
	Exposure classes	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	Average RW
1	Central governments or central banks	152,649	931	152,727	2	27	0.02%
2	Regional government or local authorities	11,599	410	11,615	96	20	0.17%
3	Public sector entities	6,487	28	6,487	14	98	1.51%
4	Multilateral development banks	5,235	0	5,235	0	0	0.00%
5	International organizations	2,128	0	2,128	0	0	0.00%
6	Institutions	1,704	25	1,709	5	124	7.23%
7	Corporates	12,843	5,495	10,694	1,390	11,283	93.37%
8	Retail	2,138	1,542	3,822	57	2,875	74.12%
9	Secured by mortgages on immovable property	3,419	63	3,245	30	1,395	42.60%
10	Exposures in default	718	30	1,015	5	1,181	115.78%
11	Items associated with particularly high risk	244	9	248	2	353	141.20%
12	Covered bonds	0	0	0	0	0	N/M
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	N/M
14	Collective investments undertakings (CIU)	0	0	0	0	0	N/M
15	Equity exposures	140	0	140	0	148	105.71%
16	Other items	124	992	124	992	1,017	91.13%
17	Total[1]	199,428	9,524	199,190	2,593	18,521	9.18%

[1] The table reflects the fully loaded RWA amounts and does not include the (0.9) billion € RWA transitional adjustment due to the grandfathering of equity investments and the respective shift of exposure from the advanced IRB to the standard approach.

In the following table the exposure at default values (EaD) per regulatory exposure class are assigned to their standardized risk weights. Deducted or unrated items are split out separately. The exposures are shown prior to the shift to the exposure class of the protection seller.

EU CR5 – Standardized approach

	in € m.	Jun 30, 2018 Risk Weight					
	Exposure classes	0%	2%	4%	10%	20%	35%
1	Central governments or central banks	128,458	0	0	0	0	0
2	Regional governments or local authorities	10,209	0	0	0	85	0
3	Public sector entities	6,010	0	0	0	338	0
4	Multilateral development banks	4,141	0	0	0	0	0
5	International organizations	1,672	0	0	0	0	0
6	Institutions	1,060	0	0	0	418	0
7	Corporates	0	0	0	0	30	0
8	Retail	0	0	0	0	0	0
9	Secured by mortgages on immovable property	0	0	0	0	0	2,788
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)	0	0	0	0	0	0
15	Equity exposures	0	0	0	0	0	0
16	Other items	0	0	0	0	2	0
17	Total	151,549	0	0	0	872	2,788

	in € m.	Jun 30, 2018 Risk Weight					
	Exposure classes	50%	70%	75%	100%	150%	250%
1	Central governments or central banks	0	0	0	0	0	0
2	Regional governments or local authorities	0	0	0	2	0	0
3	Public sector entities	39	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	51	0	0	64	0	0
7	Corporates	46	0	0	11,048	98	0
8	Retail	0	0	3,536	0	0	0
9	Secured by mortgages on immovable property	673	0	0	0	0	0
10	Exposures in default	0	0	0	244	687	0
11	Items associated with particularly high risk	0	0	0	0	203	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)	0	0	0	0	0	0
15	Equity exposures	0	0	0	195	0	0
16	Other items	0	0	0	1,905	0	0
17	Total	807	0	3,536	13,459	989	0

	in € m.	Jun 30, 2018 Risk Weight					
	Exposure classes	370%	1250%	Others	Deducted	Total	Of which: unrated
1	Central governments or central banks	0	0	0	0	128,458	121,547
2	Regional governments or local authorities	0	0	0	0	10,295	3,584
3	Public sector entities	0	0	0	0	6,386	5,566
4	Multilateral development banks	0	0	0	0	4,141	3,565
5	International organizations	0	0	0	0	1,672	1,146
6	Institutions	0	0	0	0	1,593	1,554
7	Corporates	0	0	0	0	11,223	11,161
8	Retail	0	0	0	0	3,537	3,537
9	Secured by mortgages on immovable property	0	0	0	0	3,460	3,460
10	Exposures in default	0	0	0	0	932	932
11	Items associated with particularly high risk	0	0	0	0	203	203
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)	0	0	0	0	0	0
15	Equity exposures	0	0	0	0	195	195
16	Other items	0	0	0	0	1,907	1,885
17	Total	0	0	0	0	174,002	158,335

		Dec 31, 2017					
	in € m.						Risk Weight
	Exposure classes	0%	2%	4%	10%	20%	35%
1	Central governments or central banks	152,616	0	0	0	107	0
2	Regional governments or local authorities	11,616	0	0	0	94	0
3	Public sector entities	6,149	0	0	0	317	0
4	Multilateral development banks	5,235	0	0	0	0	0
5	International organizations	2,128	0	0	0	0	0
6	Institutions	1,174	5	0	0	489	0
7	Corporates	451	0	0	0	90	0
8	Retail	6	0	0	0	1	0
9	Secured by mortgages on immovable property	0	0	0	0	0	2,718
10	Exposures in default	0	0	0	0	0	0
11	Items associated with particularly high risk	8	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)	0	0	0	0	0	0
15	Equity exposures	0	0	0	0	0	0
16	Other items	0	0	0	0	124	0
17	Total[1]	179,383	5	0	0	1,223	2,718

		Dec 31, 2017					
	in € m.						Risk Weight
	Exposure classes	50%	70%	75%	100%	150%	250%
1	Central governments or central banks	0	0	0	5	1	0
2	Regional governments or local authorities	0	0	0	1	0	0
3	Public sector entities	0	0	0	34	0	0
4	Multilateral development banks	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0
6	Institutions	40	0	0	6	0	0
7	Corporates	66	0	0	11,420	56	0
8	Retail	0	0	3,873	0	0	0
9	Secured by mortgages on immovable property	557	0	0	0	0	0
10	Exposures in default	0	0	0	155	865	0
11	Items associated with particularly high risk	0	0	0	0	242	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)	0	0	0	0	0	0
15	Equity exposures	0	0	0	132	0	0
16	Other items	0	0	0	992	0	0
17	Total[1]	662	0	3,873	12,746	1,164	0

		Dec 31, 2017					
	in € m.	Risk Weight					
	Exposure classes	370%	1250%	Others	Deducted	Total	Of which: unrated
1	Central governments or central banks	0	0	0	0	152,729	143,290
2	Regional governments or local authorities	0	0	0	0	11,711	4,928
3	Public sector entities	0	0	0	0	6,500	5,465
4	Multilateral development banks	0	0	0	0	5,235	4,632
5	International organizations	0	0	0	0	2,128	1,520
6	Institutions	0	0	0	0	1,714	1,670
7	Corporates	0	0	0	0	12,084	11,299
8	Retail	0	0	0	0	3,880	3,880
9	Secured by mortgages on immovable property	0	0	0	0	3,275	3,275
10	Exposures in default	0	0	0	0	1,020	1,020
11	Items associated with particularly high risk	0	0	0	0	250	250
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)	0	0	0	0	0	0
15	Equity exposures	0	0	9	0	140	140
16	Other items	0	0	0	0	1,116	1,116
17	Total[1]	0	0	9	0	201,783	182,486

[1] The table reflects the fully loaded RWA amounts and does not include the (0.9) billion € RWA transitional adjustment due to the grandfathering of equity investments and the respective shift of exposure from the advanced IRB to the standard approach.

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

Quantitative information on the use of the IRB approach

Article 452 (d-g) CRR - Advanced IRB exposure

The following series of tables details the Group's advanced IRB exposure distributed on our internal rating scale, separately for all relevant regulatory exposure classes. They exclude the counterparty credit risk position from derivatives and securities financing transactions which are presented separately in the section "Counterparty credit risk" later in this report.

The tables show the EAD gross 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 their original counterparty and not to the exposure class of the protection seller.

In addition they provide the EAD net after CRM and CCF, where exposures covered by guarantees or credit derivatives is assigned to the protection seller. As a consequence the EAD net can be higher than the original balance sheet exposure.

The EAD net is presented in conjunction with exposures-weighted average PD, LGD, maturity as well as the RWA and the average risk weight (RW). The effect of double default, as far as applicable to exposures outside of 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 we apply a LGD conception 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, expected loss and provisions.

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

												Jun 30, 2018
in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	112,425	256	56.41	119,829	0.01	0.2	49.91	3.8	1,801	1.50	2	–
0.15 to <0.25	911	7	99.33	851	0.23	<0.1	47.31	1.4	325	38.23	1	–
0.25 to <0.50	3,038	117	99.70	3,026	0.39	<0.1	50.00	1.6	1,846	61.02	6	–
0.50 to <0.75	126	1	100.00	113	0.64	<0.1	50.00	1.0	81	71.23	0	–
0.75 to <2.50	320	142	36.52	149	1.28	<0.1	41.59	2.4	147	98.38	1	–
2.50 to <10.00	1,186	231	99.83	243	4.97	<0.1	45.66	1.2	380	156.35	6	–
10.00 to <100.00	528	82	100.00	54	13.00	<0.1	16.87	1.4	49	91.44	2	–
100.00 (Default)	98	20	100.00	18	100.00	<0.1	53.31	3.5	13	74.52	8	–
Sub-total	118,633	856	57.92	124,283	0.05	0.2	49.86	3.8	4,642	3.74	27	17
Dilution risk	41	2	100.00	43	15.85	<0.1	3.82	1.0	8	18.77	0	0
Sub-total incl. dilution risk	118,673	858	57.95	124,326	0.05	0.2	49.85	3.8	4,650	3.74	27	17
Institutions												
0.00 to <0.15	14,951	3,410	37.64	20,996	0.06	0.5	46.45	1.6	2,145	10.22	3	–
0.15 to <0.25	219	197	37.62	304	0.23	0.1	50.82	1.2	100	33.05	0	–
0.25 to <0.50	2,162	766	47.54	2,506	0.39	0.1	19.65	1.5	947	37.79	3	–
0.50 to <0.75	1,740	326	64.02	1,944	0.64	<0.1	18.81	2.7	752	38.69	3	–
0.75 to <2.50	1,386	277	58.64	1,452	1.54	0.1	16.60	1.4	473	32.58	2	–
2.50 to <10.00	498	179	37.88	507	3.98	<0.1	9.68	1.6	158	31.23	2	–
10.00 to <100.00	163	79	50.39	189	18.46	<0.1	4.26	1.3	42	22.41	2	–
100.00 (Default)	278	6	27.49	280	100.00	<0.1	8.69	2.5	28	10.05	22	–
Sub-total	21,396	5,241	39.05	28,176	1.39	0.9	39.35	1.6	4,647	16.49	38	53
Dilution risk	142	0	0	92	15.85	<0.1	3.81	1.0	17	18.73	1	0
Sub-total incl. dilution risk	21,539	5,241	39.04	28,268	1.44	0.9	39.24	1.6	4,664	16.50	38	53
Corporates												
0.00 to <0.15	60,829	121,789	28.65	97,828	0.08	19.5	31.32	2.0	17,999	18.40	29	–
0.15 to <0.25	15,340	24,487	29.87	22,773	0.22	6.0	33.04	2.3	7,633	33.52	17	–
0.25 to <0.50	15,184	15,337	31.08	19,576	0.39	5.7	28.81	2.3	7,666	39.16	22	–
0.50 to <0.75	12,407	12,242	36.06	15,231	0.65	4.9	28.48	2.5	7,243	47.55	27	–
0.75 to <2.50	23,619	23,489	31.52	28,618	1.45	6.6	23.15	2.9	15,963	55.78	94	–
2.50 to <10.00	21,040	26,852	32.75	25,974	4.91	3.8	18.49	2.8	16,935	65.20	231	–
10.00 to <100.00	8,000	3,717	35.20	8,787	17.99	0.9	9.08	1.8	4,113	46.81	157	–
100.00 (Default)	8,000	2,095	25.08	8,111	100.00	1.4	26.52	2.6	2,070	25.51	1,959	–
Sub-total	164,420	230,007	30.14	226,898	5.15	48.7	27.55	2.3	79,622	35.09	2,536	3,575
Dilution risk	2,999	331	29.37	3,234	15.85	0.3	3.89	1.0	619	19.14	20	0
Sub-total incl. dilution risk	167,419	230,338	30.14	230,132	5.30	49.0	27.22	2.3	80,241	34.87	2,556	3,575

in € m. (unless stated otherwise)												Jun 30, 2018
	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
thereof:												
SMEs												
0.00 to <0.15	3,182	3,306	30.97	4,218	0.09	6.3	32.46	2.9	757	17.95	1	–
0.15 to <0.25	1,472	993	41.41	1,820	0.23	2.4	34.70	3.2	575	31.57	1	–
0.25 to <0.50	1,501	962	32.32	1,726	0.39	2.4	34.80	3.0	708	41.03	2	–
0.50 to <0.75	1,269	699	32.68	1,439	0.64	2.1	39.16	3.0	821	57.04	4	–
0.75 to <2.50	1,955	825	28.89	2,034	1.42	2.7	36.09	2.8	1,364	67.07	10	–
2.50 to <10.00	1,750	635	30.03	1,674	5.09	1.4	28.04	2.5	1,233	73.64	23	–
10.00 to <100.00	329	74	24.52	283	21.55	0.3	35.45	2.7	413	145.96	22	–
100.00 (Default)	527	81	26.86	511	100.00	0.3	41.90	2.4	184	36.02	201	–
Sub-total	11,986	7,574	32.32	13,706	5.18	17.9	34.17	2.9	6,055	44.18	264	261
Dilution risk	33	0	0	41	15.85	<0.1	4.32	1.0	9	21.24	0	0
Sub-total incl. dilution risk	12,019	7,574	32.32	13,747	5.21	18.0	34.08	2.9	6,063	44.11	264	261
Specialized Lending												
0.00 to <0.15	1,226	56	71.20	1,203	0.09	0.1	11.85	4.1	135	11.19	0	–
0.15 to <0.25	1,741	70	24.25	1,746	0.22	0.1	7.81	2.9	158	9.02	0	–
0.25 to <0.50	1,999	729	30.14	2,089	0.39	0.1	17.23	3.4	618	29.57	1	–
0.50 to <0.75	2,086	1,230	89.01	2,318	0.66	0.1	12.52	3.0	527	22.73	2	–
0.75 to <2.50	5,155	546	74.77	5,310	1.41	0.2	11.72	2.6	1,625	30.60	9	–
2.50 to <10.00	8,578	748	32.32	8,526	5.17	0.3	7.97	2.2	2,505	29.38	37	–
10.00 to <100.00	6,314	1,427	25.32	6,638	17.66	0.2	5.88	1.8	2,070	31.18	74	–
100.00 (Default)	2,586	86	25.50	2,530	100.00	0.1	15.06	2.3	660	26.08	297	–
Sub-total	29,685	4,892	48.49	30,359	13.98	1.2	9.89	2.4	8,296	27.33	421	1,110
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	29,685	4,892	48.49	30,359	13.98	1.2	9.89	2.4	8,296	27.33	421	1,110
Other												
0.00 to <0.15	56,422	118,427	28.56	92,407	0.08	13.2	31.52	1.9	17,108	18.51	28	–
0.15 to <0.25	12,127	23,424	29.39	19,207	0.23	3.6	35.18	2.1	6,900	35.93	16	–
0.25 to <0.50	11,684	13,646	31.04	15,760	0.39	3.2	29.68	2.1	6,340	40.23	18	–
0.50 to <0.75	9,052	10,313	29.59	11,474	0.64	2.7	30.35	2.3	5,895	51.38	22	–
0.75 to <2.50	16,509	22,118	30.51	21,274	1.46	3.6	24.76	3.0	12,974	60.98	75	–
2.50 to <10.00	10,711	25,470	32.83	15,775	4.74	2.0	23.17	3.2	13,198	83.66	171	–
10.00 to <100.00	1,357	2,216	42.54	1,865	18.67	0.4	16.45	2.0	1,630	87.39	61	–
100.00 (Default)	4,887	1,928	24.99	5,071	100.00	1.0	30.68	2.8	1,226	24.17	1,461	–
Sub-total	122,749	217,541	29.64	182,833	3.68	29.7	29.99	2.3	65,270	35.70	1,851	2,203
Dilution risk	2,967	331	29.37	3,193	15.85	0.3	3.88	1.0	610	19.11	20	0
Sub-total incl. dilution risk	125,716	217,872	29.64	186,026	3.89	30.0	29.54	2.2	65,881	35.41	1,871	2,203
Retail												
0.00 to <0.15	26,952	16,300	55.50	36,679	0.09	2,769.3	15.77	10.6	1,450	3.95	9	–
0.15 to <0.25	31,506	6,271	67.56	35,911	0.22	1,328.5	15.79	6.9	2,657	7.40	15	–

in € m. (unless stated otherwise)												Jun 30, 2018
	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
0.25 to <0.50	35,405	4,084	62.87	38,165	0.38	883.1	16.83	8.1	4,364	11.43	26	–
0.50 to <0.75	35,170	3,492	65.71	37,555	0.67	922.1	18.31	7.6	6,742	17.95	48	–
0.75 to <2.50	35,599	3,823	69.92	38,226	1.44	1,452.1	23.09	8.8	12,596	32.95	134	–
2.50 to <10.00	18,335	1,983	79.50	19,678	4.49	851.2	26.84	6.7	11,024	56.02	241	–
10.00 to <100.00	4,111	195	68.76	4,125	20.18	193.0	28.07	6.4	4,030	97.69	241	–
100.00 (Default)	4,205	63	57.77	4,229	100.02	161.9	45.05	4.8	720	17.04	1,795	–
Sub-total	191,284	36,210	62.37	214,569	3.26	8,561.2	19.54	8.1	43,584	20.31	2,509	2,690
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	191,284	36,210	62.37	214,569	3.26	8,561.2	19.54	8.1	43,584	20.31	2,509	2,690
thereof:												
Secured by real estate property SMEs												
0.00 to <0.15	1,149	135	59.57	1,229	0.12	6.8	11.51	14.4	36	2.91	0	–
0.15 to <0.25	1,577	120	59.33	1,644	0.23	7.8	10.93	15.1	74	4.49	0	–
0.25 to <0.50	1,864	107	56.00	1,914	0.39	8.9	11.37	15.8	130	6.82	1	–
0.50 to <0.75	1,559	88	52.13	1,591	0.64	7.7	11.37	15.4	153	9.65	1	–
0.75 to <2.50	1,986	103	54.37	2,019	1.35	9.9	11.49	15.8	320	15.84	3	–
2.50 to <10.00	906	26	49.65	903	4.41	4.5	11.46	14.9	277	30.67	4	–
10.00 to <100.00	180	3	43.85	175	20.75	1.1	12.44	14.2	105	60.16	4	–
100.00 (Default)	100	0	49.33	99	100.00	0.4	26.13	10.7	16	15.83	26	–
Sub-total	9,321	583	56.29	9,573	2.36	47.1	11.52	15.3	1,111	11.60	40	48
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	9,321	583	56.29	9,573	2.36	47.1	11.52	15.3	1,111	11.60	40	48
Secured by real estate property non-SMEs												
0.00 to <0.15	23,505	598	65.79	23,884	0.10	262.4	13.93	14.9	828	3.47	3	–
0.15 to <0.25	27,629	1,210	84.04	28,625	0.22	250.4	14.36	7.3	1,872	6.54	9	–
0.25 to <0.50	30,649	1,395	80.28	31,743	0.38	256.2	14.39	8.2	3,187	10.04	18	–
0.50 to <0.75	29,921	1,568	82.00	31,175	0.67	235.7	15.24	7.9	4,913	15.76	32	–
0.75 to <2.50	24,112	2,101	86.36	25,877	1.42	203.6	14.19	10.3	6,233	24.09	52	–
2.50 to <10.00	10,132	1,285	94.99	11,332	4.53	95.1	13.50	8.3	5,098	44.99	71	–
10.00 to <100.00	2,338	83	92.69	2,397	20.19	19.3	15.48	8.5	2,157	89.97	76	–
100.00 (Default)	1,662	18	83.14	1,676	100.04	15.0	21.40	6.2	223	13.28	358	–
Sub-total	149,947	8,258	84.08	156,708	2.21	1,337.6	14.48	9.3	24,511	15.64	619	625
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	149,947	8,258	84.08	156,708	2.21	1,337.6	14.48	9.3	24,511	15.64	619	625
Qualifying Revolving												
0.00 to <0.15	46	10,311	70.57	7,319	0.07	2,252.3	10.94	0	213	2.91	4	–
0.15 to <0.25	100	3,267	72.28	2,460	0.19	876.8	5.81	0	168	6.82	3	–
0.25 to <0.50	143	1,035	67.90	846	0.38	414.6	14.52	0	92	10.85	2	–

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
												Jun 30, 2018
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
0.50 to <0.75	176	673	64.81	612	0.67	433.3	17.76	0	110	18.02	3	–
0.75 to <2.50	287	553	63.97	640	1.48	466.8	21.52	0	195	30.44	5	–
2.50 to <10.00	196	195	64.77	322	4.67	252.7	21.84	0	222	68.79	9	–
10.00 to <100.00	54	19	65.58	67	19.69	52.5	23.03	0	97	145.31	7	–
100.00 (Default)	63	2	62.74	64	100.03	30.7	59.90	0	43	67.71	38	–
Sub-total	1,064	16,054	70.20	12,330	0.96	4,779.8	11.65	0	1,139	9.24	70	82
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	1,064	16,054	70.20	12,330	0.96	4,779.8	11.65	0	1,139	9.24	70	82
Other retail SMEs												
0.00 to <0.15	423	2,455	16.70	1,072	0.11	33.4	43.48	3.8	102	9.51	1	–
0.15 to <0.25	412	870	30.68	824	0.23	35.3	43.00	4.1	131	15.95	1	–
0.25 to <0.50	569	795	24.84	936	0.39	34.2	47.94	3.7	235	25.08	2	–
0.50 to <0.75	622	587	25.94	885	0.64	25.6	53.36	3.2	322	36.42	3	–
0.75 to <2.50	982	554	32.01	1,170	1.35	24.9	54.05	3.4	590	50.43	9	–
2.50 to <10.00	736	276	34.55	669	4.47	14.6	55.47	3.3	442	66.12	17	–
10.00 to <100.00	200	48	31.98	136	24.87	4.4	57.20	3.0	130	96.04	20	–
100.00 (Default)	260	14	38.64	259	100.00	3.4	63.37	2.9	73	28.07	164	–
Sub-total	4,204	5,599	23.74	5,950	5.90	175.8	50.19	3.5	2,026	34.04	215	225
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	4,204	5,599	23.74	5,950	5.90	175.8	50.19	3.5	2,026	34.04	215	225
Other retail non-SMEs												
0.00 to <0.15	1,829	2,801	32.61	3,175	0.09	399.2	33.03	3.4	271	8.53	1	–
0.15 to <0.25	1,789	805	64.83	2,358	0.22	238.3	37.41	4.2	412	17.49	2	–
0.25 to <0.50	2,180	752	65.00	2,726	0.39	250.9	39.08	5.1	719	26.39	4	–
0.50 to <0.75	2,892	576	64.38	3,293	0.66	296.7	41.43	4.4	1,243	37.73	9	–
0.75 to <2.50	8,232	512	49.81	8,521	1.53	846.1	48.73	3.8	5,260	61.73	64	–
2.50 to <10.00	6,366	201	49.35	6,452	4.42	532.7	49.72	3.4	4,985	77.27	141	–
10.00 to <100.00	1,339	40	53.49	1,351	19.65	127.0	49.76	2.3	1,541	114.05	133	–
100.00 (Default)	2,120	29	48.97	2,131	100.00	120.8	61.86	3.7	366	17.19	1,210	–
Sub-total	26,748	5,716	47.01	30,006	9.50	2,811.7	45.69	3.8	14,797	49.31	1,564	1,710
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	26,748	5,716	47.01	30,006	9.50	2,811.7	45.69	3.8	14,797	49.31	1,564	1,710
All exposure classes												
Dilution risk	3,183	333	29.76	3,368	15.85	0.3	3.89	1.0	644	19.12	21	0
Total incl. dilution risk	498,915	272,647	35.17	597,295[1]	3.30	5,710.7	29.66	4.6	133,138	22.29	5,130	6,334

[1] As of June 30, 2018 the EAD net assigned to Turkey is broadly unchanged from the December 31, 2017 levels (see page 86 of the annual Pillar 3 Report 2017) and remains below 0.4 % of total Deutsche Bank Group EAD net. The average LGD on this exposure also remained broadly stable at just under 25 %. A substantial proportion of our EAD net to Turkey relates to credit exposures to Turkish subsidiaries of multinational banks or corporations. In line with Group strategy, this exposure is broadly stable compared to year-end 2017 levels.

												Dec 31, 2017
in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)[1]	EAD net, post CRM and post-CCF	Average PD (in %)[1]	Number of obligors (in 1,000s)	Average LGD (in %)[1]	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	107,181	279	45.34	115,140	0	0.2	49.51	1.1	1,718	1.49	2	–
0.15 to <0.25	755	13	69.68	698	0.23	<0.1	47.42	1.3	262	37.48	1	–
0.25 to <0.50	2,610	104	99.91	2,760	0.39	<0.1	50.00	1.6	1,660	60.16	5	–
0.50 to <0.75	239	0	100.00	225	0.64	<0.1	49.80	1.4	183	81.02	1	–
0.75 to <2.50	521	121	39.07	330	1.37	<0.1	57.90	1.7	298	90.27	3	–
2.50 to <10.00	770	233	99.99	268	5.36	<0.1	48.70	1.9	374	139.47	5	–
10.00 to <100.00	480	19	100.00	29	13.00	<0.1	49.82	2.2	78	269.54	2	–
100.00 (Default)	103	21	100.00	12	100.00	<0.1	48.71	3.6	4	29.49	7	–
Sub-total	112,659	790	47.81	119,463	0.05	0.3	52.70	1.1	4,577	3.83	26	17
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	112,659	790	47.81	119,463	0.05	0.3	52.70	1.1	4,577	3.83	26	17
Institutions												
0.00 to <0.15	13,594	3,701	39.82	19,933	0.06	0.5	46.01	2.0	2,210	11.09	3	–
0.15 to <0.25	644	230	37.51	751	0.23	0.1	32.21	1.7	216	28.75	1	–
0.25 to <0.50	3,996	831	54.13	4,047	0.39	0.1	21.17	2.3	1,489	36.80	5	–
0.50 to <0.75	403	241	36.73	519	0.64	<0.1	44.67	1.5	394	75.84	2	–
0.75 to <2.50	1,211	231	52.39	1,234	1.53	0.1	14.78	1.5	371	30.02	2	–
2.50 to <10.00	290	541	88.22	708	4.56	<0.1	32.12	3.6	1,043	147.21	11	–
10.00 to <100.00	64	121	28.96	92	14.69	<0.1	4.99	1.2	23	24.76	1	–
100.00 (Default)	110	30	33.30	120	100.00	<0.1	2.60	3.5	33	27.79	0	–
Sub-total	20,313	5,926	41.92	27,405	0.79	0.9	39.84	2.0	5,778	21.08	25	12
Dilution risk	69	0	37.00	47	15.85	<0.1	3.84	1.0	9	18.89	0	0
Sub-total incl. dilution risk	20,382	5,926	41.92	27,452	0.82	0.9	39.78	2.0	5,787	21.08	25	12
Corporates												
0.00 to <0.15	57,232	122,822	29.64	93,466	0.08	19.0	30.72	2.2	17,060	18.25	27	–
0.15 to <0.25	15,545	23,725	29.89	22,109	0.23	6.0	33.25	2.3	7,551	34.15	17	–
0.25 to <0.50	14,406	16,363	30.91	18,423	0.39	5.8	29.01	2.5	7,693	41.76	21	–
0.50 to <0.75	10,874	10,790	31.34	13,608	0.65	4.8	27.67	2.4	6,186	45.46	23	–
0.75 to <2.50	20,994	19,628	31.60	24,616	1.40	6.8	23.11	2.6	13,170	53.50	78	–
2.50 to <10.00	22,591	22,927	33.15	26,116	4.90	4.0	18.12	2.7	16,444	62.97	226	–
10.00 to <100.00	8,617	3,557	33.12	8,905	17.87	1.1	7.85	1.8	3,796	42.63	147	–
100.00 (Default)	6,891	1,515	36.13	6,743	100.00	1.3	27.45	2.3	1,946	28.87	1,707	–
Sub-total	157,150	221,327	30.49	213,985	4.79	48.7	27.17	2.3	73,847	34.51	2,246	2,456
Dilution risk	2,682	176	28.49	2,854	15.85	0.3	3.86	1.0	542	18.98	17	0
Sub-total incl. dilution risk	159,831	221,503	30.49	216,839	4.93	49.0	26.87	2.3	74,389	34.31	2,263	2,456

Dec 31, 2017

in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)[1]	EAD net, post CRM and post-CCF	Average PD (in %)[1]	Number of obligors (in 1,000s)	Average LGD (in %)[1]	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
thereof:												
SMEs												
0.00 to <0.15	2,514	2,855	30.04	3,416	0.09	5.7	31.19	2.7	511	14.97	1	–
0.15 to <0.25	1,307	1,030	38.31	1,665	0.23	2.3	36.07	3.3	552	33.13	1	–
0.25 to <0.50	1,267	1,045	31.79	1,571	0.39	2.4	35.60	3.1	649	41.34	2	–
0.50 to <0.75	1,161	636	35.18	1,291	0.65	2.1	37.74	3.0	722	55.90	3	–
0.75 to <2.50	1,921	877	32.12	2,062	1.40	2.8	33.85	2.9	1,295	62.83	10	–
2.50 to <10.00	1,739	647	29.80	1,666	4.79	1.5	27.74	2.5	1,182	70.97	20	–
10.00 to <100.00	325	73	33.17	274	20.63	0.4	37.20	2.7	432	157.72	21	–
100.00 (Default)	465	86	31.60	455	100.00	0.3	48.44	2.4	171	37.68	207	–
Sub-total	10,699	7,249	32.19	12,400	5.17	17.4	33.83	2.8	5,515	44.48	266	258
Dilution risk	26	0	0	27	15.85	<0.1	3.81	1.0	5	18.73	0	0
Sub-total incl. dilution risk	10,725	7,249	32.19	12,427	5.19	17.4	33.76	2.8	5,520	44.42	266	258
Specialized Lending												
0.00 to <0.15	1,404	24	36.93	1,347	0.10	0.1	8.67	3.1	118	8.76	0	–
0.15 to <0.25	1,528	127	35.15	1,531	0.22	0.1	8.65	3.0	174	11.34	0	–
0.25 to <0.50	2,099	39	93.54	1,931	0.39	0.1	15.14	3.7	529	27.40	1	–
0.50 to <0.75	1,916	108	43.65	1,963	0.67	0.1	10.95	2.9	444	22.62	1	–
0.75 to <2.50	5,152	449	72.42	5,195	1.39	0.2	10.96	2.3	1,474	28.38	8	–
2.50 to <10.00	8,417	922	28.85	8,369	5.25	0.3	8.56	2.4	2,669	31.89	40	–
10.00 to <100.00	6,526	989	25.01	6,716	17.48	0.2	5.07	1.7	1,800	26.80	64	–
100.00 (Default)	2,454	98	25.47	2,437	100.00	0.1	16.99	2.2	715	29.35	365	–
Sub-total	29,497	2,756	36.12	29,488	14.06	1.2	9.49	2.4	7,923	26.87	481	470
Dilution risk	2	0	0	2	15.85	<0.1	4.03	1.0	0	19.83	0	0
Sub-total incl. dilution risk	29,499	2,756	36.12	29,490	14.06	1.2	9.49	2.4	7,923	26.87	481	470
Other												
0.00 to <0.15	53,314	119,943	29.63	88,703	0.08	13.2	31.04	2.2	16,431	18.52	26	–
0.15 to <0.25	12,710	22,568	29.52	18,913	0.23	3.7	34.99	2.2	6,826	36.09	15	–
0.25 to <0.50	11,039	15,279	30.73	14,921	0.39	3.4	30.12	2.2	6,514	43.66	18	–
0.50 to <0.75	7,798	10,047	31.03	10,354	0.64	2.6	29.58	2.3	5,021	48.49	18	–
0.75 to <2.50	13,921	18,302	30.57	17,360	1.41	3.8	25.46	2.6	10,401	59.91	60	–
2.50 to <10.00	12,434	21,358	33.43	16,080	4.73	2.2	22.10	2.9	12,593	78.31	165	–
10.00 to <100.00	1,766	2,495	36.59	1,916	18.86	0.5	13.38	1.9	1,564	81.66	62	–
100.00 (Default)	3,972	1,331	37.78	3,851	100.00	0.8	31.60	2.3	1,060	27.52	1,134	–
Sub-total	116,954	211,322	30.38	172,098	3.17	30.2	29.73	2.3	60,410	35.10	1,499	1,728
Dilution risk	2,653	176	28.49	2,824	15.85	0.3	3.86	1.0	536	18.98	17	0
Sub-total incl. dilution risk	119,607	211,498	30.38	174,922	3.37	30.5	29.31	2.3	60,946	34.84	1,516	1,728

												Dec 31, 2017
in € m. (unless stated otherwise)	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)[1]	EAD net, post CRM and post-CCF	Average PD (in %)[1]	Number of obligors (in 1,000s)	Average LGD (in %)[1]	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Retail												
0.00 to <0.15	23,798	12,869	81.04	33,374	0.09	1,375.9	14.46	9.9	1,227	3.68	8	–
0.15 to <0.25	30,256	6,124	79.66	34,593	0.21	651.8	14.92	6.6	2,430	7.02	14	–
0.25 to <0.50	34,535	3,776	69.18	37,183	0.38	648.7	15.95	8.1	4,035	10.85	24	–
0.50 to <0.75	35,369	3,228	69.48	37,632	0.67	737.2	17.70	8.0	6,510	17.30	46	–
0.75 to <2.50	37,744	3,863	68.96	40,409	1.43	1,291.4	22.14	9.4	12,704	31.44	133	–
2.50 to <10.00	18,630	2,073	78.01	20,159	4.51	630.8	23.78	7.7	10,304	51.12	223	–
10.00 to <100.00	4,619	216	65.49	4,645	20.50	166.9	26.59	7.2	4,246	91.40	260	–
100.00 (Default)	3,899	65	58.34	3,766	100.00	154.9	37.74	4.7	724	19.23	1,409	–
Sub-total	188,851	32,213	76.28	211,761	3.17	5,657.4	18.40	8.2	42,181	19.92	2,118	1,759
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	188,851	32,213	76.28	211,761	3.17	5,657.4	18.40	8.2	42,181	19.92	2,118	1,759
thereof:												
Secured by real estate property SMEs												
0.00 to <0.15	826	116	58.10	893	0.12	5.0	11.22	14.4	26	2.86	0	–
0.15 to <0.25	1,333	112	59.86	1,398	0.23	7.0	10.78	14.9	62	4.44	0	–
0.25 to <0.50	1,841	116	57.55	1,900	0.39	9.0	10.53	15.8	120	6.30	1	–
0.50 to <0.75	1,680	91	55.21	1,715	0.64	8.3	10.62	15.7	154	8.96	1	–
0.75 to <2.50	2,184	100	52.65	2,216	1.34	11.1	10.63	15.8	323	14.59	3	–
2.50 to <10.00	1,102	37	51.49	1,102	4.31	5.5	10.39	15.4	307	27.86	5	–
10.00 to <100.00	220	6	52.16	216	19.94	1.3	11.61	14.9	121	56.18	5	–
100.00 (Default)	109	1	21.83	97	100.00	0.4	24.92	10.3	16	16.72	24	–
Sub-total	9,296	579	56.42	9,538	2.52	47.5	10.83	15.4	1,129	11.83	39	24
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	9,296	579	56.42	9,538	2.52	47.5	10.83	15.4	1,129	11.83	39	24
Secured by real estate property non-SMEs												
0.00 to <0.15	21,069	450	72.96	21,393	0.10	245.7	12.10	14.2	674	3.15	3	–
0.15 to <0.25	26,841	1,049	87.31	27,751	0.22	254.9	13.53	7.0	1,707	6.15	8	–
0.25 to <0.50	29,990	1,166	82.91	30,942	0.38	256.7	13.48	8.2	2,916	9.42	16	–
0.50 to <0.75	29,827	1,353	83.45	30,931	0.67	235.2	14.29	8.3	4,582	14.81	30	–
0.75 to <2.50	26,064	2,020	86.10	27,764	1.42	216.2	13.15	11.0	6,222	22.41	52	–
2.50 to <10.00	11,132	1,315	93.79	12,342	4.51	101.1	12.40	9.5	5,106	41.37	70	–
10.00 to <100.00	2,662	88	90.43	2,720	21.03	21.5	14.37	9.6	2,239	82.33	87	–
100.00 (Default)	1,699	20	83.12	1,691	100.00	15.2	19.63	6.0	255	15.08	330	–
Sub-total	149,283	7,459	85.90	155,533	2.33	1,346.6	13.40	9.4	23,702	15.24	595	378
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	149,283	7,459	85.90	155,533	2.33	1,346.6	13.40	9.4	23,702	15.24	595	378

in € m. (unless stated otherwise)												Dec 31, 2017
	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)[1]	EAD net, post CRM and post-CCF	Average PD (in %)[1]	Number of obligors (in 1,000s)	Average LGD (in %)[1]	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Qualifying Revolving												
0.00 to <0.15	37	10,102	89.18	7,157	0.08	881.2	10.63	0	219	3.05	4	–
0.15 to <0.25	98	3,461	92.32	2,595	0.19	181.5	6.13	0	178	6.87	3	–
0.25 to <0.50	143	1,135	80.16	917	0.38	164.0	14.77	0	99	10.77	2	–
0.50 to <0.75	179	726	74.47	654	0.67	191.0	17.91	0	111	16.95	2	–
0.75 to <2.50	301	599	71.13	684	1.48	298.7	21.59	0	206	30.11	6	–
2.50 to <10.00	210	214	74.75	351	4.67	132.6	21.07	0	238	67.85	9	–
10.00 to <100.00	59	20	77.56	72	19.75	26.1	24.33	0	103	143.81	8	–
100.00 (Default)	57	2	61.45	58	100.00	28.2	59.12	0	39	66.41	34	–
Sub-total	1,084	16,260	87.48	12,489	0.94	1,903.2	11.58	0	1,193	9.55	68	66
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	1,084	16,260	87.48	12,489	0.94	1,903.2	11.58	0	1,193	9.55	68	66
Other retail SMEs												
0.00 to <0.15	282	566	43.48	690	0.11	27.8	42.49	4.6	67	9.65	0	–
0.15 to <0.25	361	749	35.28	711	0.23	33.9	41.69	4.2	110	15.45	1	–
0.25 to <0.50	522	660	33.72	877	0.39	33.6	46.24	3.8	214	24.33	2	–
0.50 to <0.75	570	500	33.21	835	0.64	24.7	52.46	3.3	300	35.99	3	–
0.75 to <2.50	939	567	33.93	1,206	1.38	25.6	54.61	3.2	624	51.73	9	–
2.50 to <10.00	733	309	33.56	794	4.49	15.9	56.63	2.8	542	68.34	20	–
10.00 to <100.00	243	60	32.15	172	21.36	4.9	55.51	3.0	171	99.49	21	–
100.00 (Default)	209	13	42.47	133	100.00	2.9	60.47	3.1	52	39.46	80	–
Sub-total	3,858	3,423	35.84	5,417	4.30	169.3	50.15	3.6	2,080	38.39	135	128
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	3,858	3,423	35.84	5,417	4.30	169.3	50.15	3.6	2,080	38.39	135	128
Other retail non-SMEs												
0.00 to <0.15	1,583	1,635	49.84	3,240	0.08	391.2	33.35	2.7	242	7.48	1	–
0.15 to <0.25	1,624	753	63.56	2,138	0.22	255.3	37.39	4.1	372	17.42	2	–
0.25 to <0.50	2,038	699	64.55	2,547	0.39	271.5	40.04	4.9	687	26.99	4	–
0.50 to <0.75	3,113	559	62.77	3,498	0.66	359.5	43.05	4.5	1,363	38.98	10	–
0.75 to <2.50	8,255	577	42.06	8,539	1.48	849.6	49.82	4.2	5,329	62.41	63	–
2.50 to <10.00	5,452	197	47.27	5,571	4.55	430.2	47.13	3.6	4,110	73.79	118	–
10.00 to <100.00	1,437	42	53.25	1,466	19.54	125.6	48.19	2.6	1,611	109.91	140	–
100.00 (Default)	1,826	29	49.65	1,786	100.00	116.6	53.20	3.5	362	20.26	942	–
Sub-total	25,329	4,491	55.13	28,784	8.66	2,799.6	44.96	3.9	14,078	48.91	1,280	1,163
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	25,329	4,491	55.13	28,784	8.66	2,799.6	44.96	3.9	14,078	48.91	1,280	1,163

in € m. (unless stated otherwise)												Dec 31, 2017
	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)[1]	EAD net, post CRM and post-CCF	Average PD (in %)[1]	Number of obligors (in 1,000s)	Average LGD (in %)[1]	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
All exposure classes												
Dilution risk	2,751	176	28.49	2,901	15.85	0.3	3.86	1.0	550	18.97	18	0
Total incl. dilution risk	481,723	260,432	36.51	575,515	3.07	5,752.0	29.58	4.2	126,933	22.06	4,432	4,243

[1] Please note that some of the '%'-figures show rounding differences compared to the 2017 Pillar 3 report.

The credit risk exposures in our advanced IRB portfolio were at € 133.1 billion as of June 30, 2018, compared to € 126.9 billion as of December 31, 2017. The increase of € 6.2 billion is mainly driven by our portfolio in the exposure class corporates and retail showing the increase in business volumes in our CIB and PCB segments.

Article 452 (d-g) CRR - Foundation IRB exposure

The following series of tables details the Group's foundation IRB exposure distributed on our internal rating scale, separately for all relevant regulatory exposure classes. They 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 from page 48 to 63.

The tables show the EAD gross as well as the off-balance sheet exposure. All undrawn commitment exposure values shown below are assigned to the exposure class of their original counterparty and not to the exposure class of the protection seller.

In addition they provide the EAD net after CRM, where exposures covered by guarantees or credit derivatives is assigned to the protection seller. As a consequence the EAD net can be higher than the original balance sheet exposure.

The EAD net is presented in conjunction with exposures-weighted average PD, maturity as well as the RWA and the average risk weight (RW). In addition it provides the average LGD and average maturity, which is regulatory pre-defined in the foundation IRB. Further details in the tables are number of obligors, expected loss and provisions.

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

in € m. (unless stated otherwise)												Jun 30, 2018
	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	12	10	0	12	0	<0.1	12.33	2.5	0	0	0	–
0.15 to <0.25	0	0	0	0	0	0	0	0	0	0	0	–
0.25 to <0.50	0	0	0	0	0.39	<0.1	12.33	2.5	0	26.89	0	–
0.50 to <0.75	0	0	0	0	0	0	0	0	0	0	0	–
0.75 to <2.50	0	0	0	0	0	0	0	0	0	0	0	–
2.50 to <10.00	0	0	0	0	0	0	0	0	0	0	0	–
10.00 to <100.00	0	0	0	0	0	0	0	0	0	0	0	–
100.00 (Default)	0	0	0	0	0	0	0	0	0	0	0	–
Sub-total	12	10	0	12	0	<0.1	12.33	2.5	0	0.02	0	0
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	12	10	0	12	0	<0.1	12.33	2.5	0	0.02	0	0
Institutions												
0.00 to <0.15	1	3	0	1	0.07	<0.1	13.97	2.5	0	15.64	0	–
0.15 to <0.25	0	1	0	0	0.21	<0.1	42.69	2.5	0	45.55	0	–
0.25 to <0.50	0	0	0	0	0.38	<0.1	42.69	2.5	0	61.52	0	–
0.50 to <0.75	0	0	0	0	0	0	0	0	0	0	0	–
0.75 to <2.50	0	0	0	0	0	0	0	0	0	0	0	–
2.50 to <10.00	0	0	0	0	0	0	0	0	0	0	0	–
10.00 to <100.00	1	1	0	1	20.00	<0.1	45.00	2.5	3	253.92	0	–
100.00 (Default)	0	0	0	0	0	0	0	0	0	0	0	–
Sub-total	2	5	0	2	12.15	<0.1	33.01	2.5	3	160.31	0	0
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	2	5	0	2	12.15	<0.1	33.01	2.5	3	160.31	0	0
Corporates												
0.00 to <0.15	1,155	965	0	1,657	0.07	8.2	17.04	2.5	212	12.78	0	–
0.15 to <0.25	1,387	1,164	74.69	1,439	0.20	2.1	39.61	2.5	599	41.60	1	–
0.25 to <0.50	1,013	1,089	75.00	919	0.38	2.3	32.25	2.5	449	48.91	1	–
0.50 to <0.75	460	558	74.77	321	0.68	1.4	29.55	2.5	184	57.35	1	–
0.75 to <2.50	315	410	75.00	247	1.44	0.6	23.81	2.5	159	64.44	1	–
2.50 to <10.00	80	66	75.00	79	5.21	0.1	25.94	2.5	88	110.88	1	–
10.00 to <100.00	75	52	67.52	75	19.96	0.1	40.67	2.5	180	241.47	6	–
100.00 (Default)	74	14	75.00	78	100.00	0.1	42.01	2.5	0	0	33	–
Sub-total	4,560	4,318	74.76	4,815	2.29	14.9	28.79	2.5	1,871	38.86	44	57
Dilution risk	3,212	7,382	6.04	3,433	0.26	50.7	59.69	1.0	551	16.04	5	0
Sub-total incl. dilution risk	7,772	11,700	46.16	8,248	1.45	65.6	41.65	1.9	2,422	29.36	49	57
thereof:												

in € m. (unless stated otherwise)												Jun 30, 2018
	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
SMEs												
0.00 to <0.15	0	0	0	0	0	0	0	0	0	0	0	–
0.15 to <0.25	18	20	0	16	0.23	<0.1	43.21	2.5	7	41.08	0	–
0.25 to <0.50	18	16	75.00	17	0.38	<0.1	26.71	2.5	5	29.38	0	–
0.50 to <0.75	3	4	0	3	0.69	<0.1	29.76	2.5	1	41.44	0	–
0.75 to <2.50	1	0	0	0	1.68	<0.1	29.21	2.5	0	48.92	0	–
2.50 to <10.00	0	0	0	0	7.26	<0.1	12.33	2.5	0	33.66	0	–
10.00 to <100.00	0	2	0	0	12.78	<0.1	12.43	2.5	0	40.73	0	–
100.00 (Default)	1	0	75.00	1	100.00	<0.1	45.00	2.5	0	0	1	–
Sub-total	40	42	75.00	38	3.83	0.1	34.56	2.5	13	34.43	1	1
Dilution risk	299	2,492	6.62	462	0.42	38.2	59.69	1.0	63	13.71	1	0
Sub-total incl. dilution risk	339	2,535	11.76	500	0.68	38.3	57.80	1.1	76	15.27	2	1
Specialized Lending												
0.00 to <0.15	0	0	0	0	0	0	0	0	0	0	0	–
0.15 to <0.25	0	0	0	0	0	0	0	0	0	0	0	–
0.25 to <0.50	0	0	0	0	0	0	0	0	0	0	0	–
0.50 to <0.75	0	0	0	0	0	0	0	0	0	0	0	–
0.75 to <2.50	0	0	0	0	0	0	0	0	0	0	0	–
2.50 to <10.00	0	0	0	0	0	0	0	0	0	0	0	–
10.00 to <100.00	0	0	0	0	0	0	0	0	0	0	0	–
100.00 (Default)	0	0	0	0	0	0	0	0	0	0	0	–
Sub-total	0	0	0	0	0	0	0	0	0	0	0	13
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	0	0	0	0	0	0	0	0	0	0	0	13
Other												
0.00 to <0.15	1,155	965	0	1,657	0.07	8.2	17.04	2.5	212	12.78	0	–
0.15 to <0.25	1,370	1,144	74.69	1,423	0.20	2.1	39.57	2.5	592	41.61	1	–
0.25 to <0.50	995	1,073	75.00	902	0.38	2.3	32.36	2.5	444	49.29	1	–
0.50 to <0.75	457	554	74.77	319	0.68	1.4	29.55	2.5	183	57.48	1	–
0.75 to <2.50	315	410	75.00	246	1.44	0.6	23.79	2.5	159	64.47	1	–
2.50 to <10.00	80	66	75.00	79	5.21	0.1	25.94	2.5	88	110.88	1	–
10.00 to <100.00	75	50	67.52	75	19.96	0.1	40.69	2.5	180	241.57	6	–
100.00 (Default)	73	13	75.00	77	100.00	0.1	41.96	2.5	0	0	32	–
Sub-total	4,520	4,276	74.76	4,777	2.28	14.8	28.74	2.5	1,858	38.90	43	43
Dilution risk	2,913	4,889	4.85	2,971	0.23	12.5	59.69	1.0	487	16.40	4	0
Sub-total incl. dilution risk	7,433	9,165	47.96	7,749	1.50	27.3	40.61	1.9	2,346	30.27	47	43
All exposure classes												
Dilution risk	3,212	7,382	6.04	3,433	0.26	50.7	59.69	1.0	551	16.04	5	0
Total incl. dilution risk	7,787	11,715	46.21	8,262	1.45	65.6	41.61	1.9	2,425	29.35	49	57

in € m. (unless stated otherwise)												Dec 31, 2017
	a	b	c	d	e	f	g	h	i	j	k	l
Exposure class/ PD scale	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	0	0	0	0	0	0	0	0	0	0	0	–
0.15 to <0.25	0	0	0	0	0	0	0	0	0	0	0	–
0.25 to <0.50	0	0	0	0	0	0	0	0	0	0	0	–
0.50 to <0.75	0	0	0	0	0	0	0	0	0	0	0	–
0.75 to <2.50	0	0	0	0	0	0	0	0	0	0	0	–
2.50 to <10.00	0	0	0	0	0	0	0	0	0	0	0	–
10.00 to <100.00	0	0	0	0	0	0	0	0	0	0	0	–
100.00 (Default)	0	0	0	0	0	0	0	0	0	0	0	–
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Institutions												
0.00 to <0.15	0	0	0	0	0.11	<0.1	42.69	2.5	0	40.79	0	–
0.15 to <0.25	2	0	0	1	0.20	<0.1	42.69	2.5	1	59.23	0	–
0.25 to <0.50	0	0	0	0	0.38	<0.1	42.69	2.5	0	61.52	0	–
0.50 to <0.75	0	0	0	0	0.68	<0.1	42.68	2.5	0	80.53	0	–
0.75 to <2.50	0	0	0	0	0	0	0	0	0	0	0	–
2.50 to <10.00	0	0	0	0	0	0	0	0	0	0	0	–
10.00 to <100.00	0	0	0	0	20.00	<0.1	45.00	2.5	0	286.59	0	–
100.00 (Default)	0	0	0	0	0	0	0	0	0	0	0	–
Sub-total	2	0	0	1	0.20	<0.1	42.69	2.5	1	58.07	0	0
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	2	0	0	1	0.20	<0.1	42.69	2.5	1	58.07	0	0
Corporates												
0.00 to <0.15	258	74	0	864	0.05	7.8	21.17	2.5	89	10.36	0	–
0.15 to <0.25	1,850	1,034	74.76	1,949	0.19	2.1	33.72	2.5	665	34.10	1	–
0.25 to <0.50	1,027	531	75.00	888	0.38	2.4	31.23	2.5	402	45.32	1	–
0.50 to <0.75	849	320	73.36	677	0.69	1.4	21.32	2.5	274	40.53	1	–
0.75 to <2.50	408	160	75.00	298	1.38	0.6	20.94	2.5	148	49.65	1	–
2.50 to <10.00	54	31	75.00	57	5.48	<0.1	32.81	2.5	69	121.34	1	–
10.00 to <100.00	29	8	69.27	24	19.84	0.1	40.50	2.5	54	226.51	2	–
100.00 (Default)	43	1	76.11	44	100.00	0.1	41.17	2.5	0	0	18	–
Sub-total	4,519	2,159	74.75	4,800	1.43	14.5	28.55	2.5	1,701	35.45	26	32
Dilution risk	3,143	1,811	7.52	3,165	0.09	46.3	59.69	1.0	496	15.67	2	0
Sub-total incl. dilution risk	7,662	3,971	43.26	7,965	0.90	55.6	40.92	1.9	2,197	27.59	27	32
thereof:												

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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	EAD gross	Undrawn commitments	Weighted Credit Conversion Factor (CCF) (in %)	EAD net, post CRM and post-CCF	Average PD (in %)	Number of obligors (in 1,000s)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
SMEs												
0.00 to <0.15	0	0	0	0	0	0	0	0	0	0	0	–
0.15 to <0.25	21	8	0	17	0.23	<0.1	42.87	2.5	8	47.11	0	–
0.25 to <0.50	8	3	75.00	7	0.38	<0.1	21.50	2.5	1	21.26	0	–
0.50 to <0.75	3	5	0	3	0.69	<0.1	25.29	2.5	1	32.59	0	–
0.75 to <2.50	6	1	0	6	1.28	<0.1	41.17	2.5	5	81.99	0	–
2.50 to <10.00	1	0	0	0	3.79	<0.1	19.33	2.5	0	39.32	0	–
10.00 to <100.00	0	1	0	0	19.14	<0.1	39.60	2.5	0	165.56	0	–
100.00 (Default)	0	0	0	0	100.00	<0.1	12.33	2.5	0	0	0	–
Sub-total	40	18	75.00	34	0.70	0.1	36.49	2.5	16	48.00	0	0
Dilution risk	242	301	7.53	264	0.11	34.3	59.69	1.0	36	13.82	0	0
Sub-total incl. dilution risk	282	320	7.69	298	0.18	34.7	57.04	1.2	53	17.72	0	0
Specialized Lending												
0.00 to <0.15	0	0	0	0	0	0	0	0	0	0	0	–
0.15 to <0.25	0	0	0	0	0	0	0	0	0	0	0	–
0.25 to <0.50	0	0	0	0	0	0	0	0	0	0	0	–
0.50 to <0.75	0	0	0	0	0	0	0	0	0	0	0	–
0.75 to <2.50	0	0	0	0	0	0	0	0	0	0	0	–
2.50 to <10.00	0	0	0	0	0	0	0	0	0	0	0	–
10.00 to <100.00	0	0	0	0	0	0	0	0	0	0	0	–
100.00 (Default)	0	0	0	0	0	0	0	0	0	0	0	–
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Other												
0.00 to <0.15	258	74	0	864	0.05	7.8	21.17	2.5	89	10.36	0	–
0.15 to <0.25	1,830	1,026	74.76	1,931	0.19	2.1	33.64	2.5	656	33.99	1	–
0.25 to <0.50	1,019	528	75.00	881	0.38	2.4	31.30	2.5	401	45.51	1	–
0.50 to <0.75	846	315	73.36	674	0.69	1.4	21.30	2.5	273	40.57	1	–
0.75 to <2.50	402	158	75.00	292	1.39	0.6	20.50	2.5	143	48.95	1	–
2.50 to <10.00	52	31	75.00	56	5.50	<0.1	32.90	2.5	69	121.90	1	–
10.00 to <100.00	29	7	69.27	24	19.84	0.1	40.51	2.5	54	227.17	2	–
100.00 (Default)	43	1	76.11	44	100.00	0.1	41.17	2.5	0	0	18	–
Sub-total	4,479	2,141	74.75	4,766	1.43	14.4	28.49	2.5	1,685	35.36	25	32
Dilution risk	2,901	1,510	7.37	2,901	0.09	12.0	59.69	1.0	459	15.84	2	0
Sub-total incl. dilution risk	7,380	3,651	73.69	7,667	0.93	24.1	40.30	1.9	2,145	27.97	27	32
All exposure classes												
Dilution risk	3,143	1,811	7.52	3,165	0.09	46.3	59.69	1.0	496	15.67	2	0
Total incl. dilution risk	7,663	3,971	43.26	7,966	0.90	55.6	40.92	1.9	2,198	27.59	27	32

Article 453 (g) CRR - Total IRB exposure covered by credit derivatives

The table below presents our IRB exposure – split into A-IRB and F-IRB – which is covered by credit derivatives. It shows the RWA by the relevant exposures classes prior to credit risk mitigation as well as after recognition of credit derivatives where the exposure is then assigned to the exposure class of the protection seller. As a consequence the RWA after credit risk mitigation in a specific exposure class can be higher than before its recognition.

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

		Jun 30, 2018		Dec 31, 2017	
		a	b	a	b
	in € m.	pre-credit derivatives RWA	Actual RWA	pre-credit derivatives RWA	Actual RWA
7	Exposures under AIRB				
8	Central governments and central banks	14,853	14,853	14,162	14,162
9	Institutions	4,582	4,664	5,816	5,918
9a	Corporates	81,692	80,241	75,922	74,409
	thereof:				
10	SMEs	6,063	6,063	5,520	5,520
11	Specialized lending	8,296	8,296	7,923	7,923
12	Other	67,332	65,881	62,479	60,966
12a	Retail	43,584	43,584	42,180	42,180
	thereof:				
13	Secured by real estate property SMEs	1,111	1,111	1,129	1,129
14	Secured by real estate property non-SMEs	24,511	24,511	23,702	23,702
15	Qualifying revolving	1,139	1,139	1,193	1,193
16	Other retail SMEs	2,026	2,026	2,080	2,080
17	Other retail non-SMEs	14,797	14,797	14,078	14,078
18	Equity	8,315	8,315	8,151	8,151
19	Other non-credit obligation asset	4,511	4,511	4,109	4,109
19a	Sub-total AIRB	**156,746**	**155,384**	150,980	149,566
1	Exposures under FIRB				
2	Central governments and central banks	0	0	0	0
3	Institutions	3	3	1	1
3a	Corporates	3,487	3,487	3,270	3,270
	thereof:				
4	SMEs	76	76	53	53
5	Specialized lending	1,066	1,066	1,073	1,073
6	Other	2,346	2,346	2,145	2,145
6a	Sub-total FIRB	**3,491**	**3,491**	3,271	3,271
20	Total	**160,237**	**158,875**	154,251	152,837

The credit RWA (excluding counterparty credit risk) according to CRR/CRD 4 fully loaded in the IRB approach were € 158.9 billion as of June 30, 2018, compared to € 152.8 billion as of December 31, 2017. The overall increase of € 6.0 billion is mainly driven by the corporates portfolio where we have seen the previously mentioned business volume increases in our CIB segment.

Article 438 (d) CRR - Development of Credit Risk RWA

The following table provides an analysis of key drivers for RWA movements observed for credit risk, excluding counterparty credit risk, to the extent covered in IRB approaches in the first and second quarter of 2018.

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

		Three months ended Jun 30, 2018		Three months ended Mar 31, 2018	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
1	Credit risk RWA opening balance	**140,015**	**11,201**	134,950	10,796
2	Book size	2,806	224	7,364	589
3	Book quality	(624)	(50)	(185)	(15)
4	Model updates	0	0	(45)	(4)
5	Methodology and Policy	0	0	(976)	(78)
6	Acquisitions and Disposals	0	0	0	0
7	Foreign exchange movements	2,191	175	(1,093)	(87)
8	Other	(3,247)	(260)	0	0
9	Credit risk RWA closing balance	**141,140**	**11,291**	140,015	11,201

Organic changes in our portfolio size and composition are considered in the category “Book size”. The category “Book quality” mainly 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 advanced model roll out. 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 reserved to show significant exposure movements which can be clearly assigned to new businesses or disposal-related activities. Changes that cannot be attributed to the above categories are reflected in the category “Other”.

The increase in RWA for credit risk exposures under the IRB approach by 0.8 % or € 1.2 billion since March 31, 2018 is primarily driven by the increase in the category “Book size” representing business growth in our CIB and PCB segments. In addition the category “Foreign exchange movements” contributed to the overall change. This increase was partly offset by the category “Other” reflecting the improved capturing of pending settlements for syndicated loans and the category “Book quality” driven by parameter recalibrations.

Counterparty credit risk (CCR)

Article 439 (f) CRR - Counterparty credit risk exposures by model approach

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 credit valuation adjustment (CVA) charges and exposures cleared through a central counterparty (CCP) are presented separately in table CCR2 and CCR 8, respectively. Deutsche Bank does not make use of the original exposure method or the standardized approach for derivatives nor the financial collateral simple method for SFTs. Under the mark to market method the positive market values before netting and collateral, the potential future exposure and the exposure at default for derivatives are shown, taking credit risk mitigation techniques into account. Under the internal model method (IMM) only the effective expected positive exposure (EEPE) and the exposure at default are presented. Given the nature of the internal model the simulation process of futures market values across all asset classes also includes the impact from regulatory netting and collateralization. For details regarding the calculation method under IMM including the estimation of the alpha factor please refer to introductory section on Counterparty Credit Risk in our annual Pillar 3 Report 2017.

EU CCR1 – Analysis of CCR exposure by approach

							Jun 30, 2018
	a	b	c	d	e	f	g
in €	Notional	Replacement cost/ Current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWA
1 Mark to market	–	2,651	14,921	–	–	17,568	4,464
2 Original exposure	0	–	–	–	–	0	0
3 Standardized approach	–	0	–	–	0	0	0
4 IMM (for derivatives and SFTs)	–	–	–	107,045	1.2	128,453	21,285
thereof:	–	–	–				
5 Securities Financing Transactions	–	–	–	72,424	1.2	86,909	5,456
6 Derivatives & Long Settlement Transactions	–	–	–	34,621	1.2	41,545	15,828
7 from Contractual Cross Product Netting	–	–	–	0	0	0	0
8 Financial collateral simple method (for SFTs)	–	–	–	–	–	0	0
9 Financial collateral comprehensive method (for SFTs)	–	–	–	–	–	19,656	2,253
10 VaR for SFTs	–	–	–	–	–	0	0
11 Total	–	–	–	–	–	–	28,002

							Dec 31, 2017
	a	b	c	d	e	f	g
in €	Notional	Replacement cost/ Current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWA
1 Mark to market	–	2,809	11,328	–	–	14,132	5,951
2 Original exposure	0	–	–	–	–	0	0
3 Standardized approach	–	0	–	–	0	0	0
4 IMM (for derivatives and SFTs)	–	–	–	121,389	1.2	151,434	23,887
thereof:	–	–	–				
5 Securities Financing Transactions	–	–	–	89,386	1.2	109,085	7,531
6 Derivatives & Long Settlement Transactions	–	–	–	32,003	1.2	42,349	16,356
7 from Contractual Cross Product Netting	–	–	–	0	0	0	0
8 Financial collateral simple method (for SFTs)	–	–	–	–	–	0	0
9 Financial collateral comprehensive method (for SFTs)	–	–	–	–	–	20,637	2,818
10 VaR for SFTs	–	–	–	–	–	0	0
11 Total	–	–	–	–	–	–	32,656

The decrease in the RWA for counterparty credit risk exposures by € 4.7 billion to € 28.0 billion as of June 30, 2018, compared to € 32.7 billion as of December 31, 2017 is mainly driven by reductions resulting from deleveraging activities in non-strategic businesses and termination of trades in our CIB segment.

The table below provides a breakdown of the credit valuation adjustment (CVA) RWA into advanced and standardized approaches. Furthermore 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 € 8.8 billion (99 %), whilst the standardized method covers only € 48 million (1 %) 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.

EU CCR2 – CVA capital charge

		Jun 30, 2018		Dec 31, 2017	
		a	b	a	b
	in € m.	Exposure value	RWA	Exposure value	RWA
1	Total portfolios subject to the Advanced Method	27,035	8,837	26,064	6,399
2	(i) VaR component (including the 3× multiplier)	–	728	–	423
3	(ii) Stressed VaR component (including the 3× multiplier)	–	8,109	–	5,975
4	All portfolios subject to the Standardized Method	164	48	173	52
EU4	Based on Original Exposure Method	0	0	0	0
5	Total subject to the CVA capital charge	**27,198**	**8,885**	26,237	6,451

The table below presents an overview of our exposures and capital requirements to central counterparties arising from transactions, margins and contributions to default funds. As of June 30, 2018 and December 31, 2017 we only report exposures to qualifying central counterparties (QCCP) as defined in Article 4 (88) CRR.

EU CCR8 – Exposures to CCPs

		Jun 30, 2018		Dec 31, 2017	
		a	b	a	b
	in € m.	EAD post CRM	RWA	EAD post CRM	RWA
1	Exposures to QCCPs (total)	–	**800**	–	828
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions)	8,062	161	11,481	230
	thereof:				
3	(i) OTC derivatives	1,884	38	2,872	57
4	(ii) Exchange-traded derivatives	3,510	70	4,085	82
5	(iii) Securities financing transactions	2,669	53	4,524	90
6	(iv) Netting sets where cross-product netting has been approved	0	0	0	0
7	Segregated initial margin	5,266	–	5,261	–
8	Non-segregated initial margin	6,161	123	8,932	179
9	Pre-funded default fund contributions	1,073	516	1,169	419
10	Alternative calculation of own funds requirements for exposures	–	0	–	0
11	Exposures to non-QCCPs (total)	–	**0**	–	0
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions)	0	0	0	0
	thereof:				
13	(i) OTC derivatives	0	0	0	0
14	(ii) Exchange-traded derivatives	0	0	0	0
15	(iii) Securities financing transactions	0	0	0	0
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	0	0	0	0
20	Unfunded default fund contributions	0	0	0	0

Article 444 (e) CRR - CCR exposures in the standardized approach

The following table provides the counterparty credit risk exposures in the standardized approach broken down by risk weights and regulatory exposure classes. “Unrated” includes all exposures for which a credit assessment by a nominated ECAI is not available and they therefore receive the standard risk weight according to their exposure classes as described in the CRR.

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

	in € m.	Jun 30, 2018						
		Risk Weight						
	Exposure classes	0%	2%	4%	10%	20%	50%	70%
1	Central governments or central banks	2,974	0	0	0	0	0	0
2	Regional governments or local authorities	182	0	0	0	124	0	0
3	Public sector entities	303	0	0	0	0	0	0
4	Multilateral development banks	726	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0	0
6	Institutions	0	14,142	0	0	209	0	0
7	Corporates	0	0	0	0	2	0	0
8	Retail	0	0	0	0	0	0	0
8a	Secured by mortgages on immovable property	0	0	0	0	0	0	0
8b	Exposures in default	0	0	0	0	0	0	0
8c	Items associated with particularly high risk	0	0	0	0	0	0	0
8d	Covered bonds	0	0	0	0	0	0	0
9	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0
9a	Collective investments undertakings (CIU)	0	0	0	0	0	0	0
9b	Equity exposures	0	0	0	0	0	0	0
10	Other items	0	0	0	0	0	0	0
11	Total	4,185	14,142	0	0	335	0	0

	in € m.	Jun 30, 2018					
		Risk Weight					
	Exposure classes	75%	100%	150%	Others	Total	Of which: unrated
1	Central governments or central banks	0	0	0	0	2,974	2,974
2	Regional governments or local authorities	0	0	0	0	306	306
3	Public sector entities	0	0	0	0	303	301
4	Multilateral development banks	0	0	0	0	726	726
5	International organizations	0	0	0	0	0	0
6	Institutions	0	0	0	0	14,351	14,280
7	Corporates	0	3,002	0	0	3,005	1,079
8	Retail	4	0	0	0	4	4
8a	Secured by mortgages on immovable property	0	0	0	0	0	0
8b	Exposures in default	0	0	1	0	1	1
8c	Items associated with particularly high risk	0	0	0	0	0	0
8d	Covered bonds	0	0	0	0	0	0
9	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
9a	Collective investments undertakings (CIU)	0	0	0	0	0	0
9b	Equity exposures	0	0	0	0	0	0
10	Other items	0	0	0	0	0	424
11	Total	4	3,002	1	0	21,670	20,094

	in € m.	Dec 31, 2017[1]						
		Risk Weight						
	Exposure classes	0%	2%	4%	10%	20%	50%	70%
1	Central governments or central banks	5,766	0	0	0	0	0	0
2	Regional governments or local authorities	243	0	0	0	79	0	0
3	Public sector entities	322	0	0	0	389	0	0
4	Multilateral development banks	219	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0	0
6	Institutions	0	19,064	0	0	27	0	0
7	Corporates	0	0	0	0	107	1	0
8	Retail	0	0	0	0	0	0	0
8a	Secured by mortgages on immovable property	0	0	0	0	0	0	0
8b	Exposures in default	0	0	0	0	0	0	0
8c	Items associated with particularly high risk	0	0	0	0	0	0	0
8d	Covered bonds	0	0	0	0	0	0	0
9	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0
9a	Collective investments undertakings (CIU)	0	0	0	0	0	0	0
9b	Equity exposures	0	0	0	0	0	0	0
10	Other items	746	0	0	0	0	0	0
11	Total	7,297	19,064	0	0	602	1	0

[1] We provide restated figures for EU CCR3 table as of December 31, 2017 to show EAD instead of the previously published RWA amounts.

Dec 31, 2017[1]

	in € m.	Risk Weight					
	Exposure classes	75%	100%	150%	Others	Total	Of which: unrated
1	Central governments or central banks	0	0	0	0	5,766	5,766
2	Regional governments or local authorities	0	0	0	0	322	322
3	Public sector entities	0	0	0	0	711	711
4	Multilateral development banks	0	0	0	0	219	219
5	International organizations	0	0	0	0	0	0
6	Institutions	0	157	0	0	19,249	19,249
7	Corporates	0	1,124	1	0	1,233	1,206
8	Retail	7	0	0	0	7	7
8a	Secured by mortgages on immovable property	0	0	0	0	0	0
8b	Exposures in default	0	0	1	0	1	1
8c	Items associated with particularly high risk	0	0	0	0	0	0
8d	Covered bonds	0	0	0	0	0	0
9	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
9a	Collective investments undertakings (CIU)	0	0	0	0	0	0
9b	Equity exposures	0	0	0	0	0	0
10	Other items	0	0	0	0	746	746
11	Total	7	1,281	3	0	28,255	28,228

[1] We provide restated figures for EU CCR3 table as of December 31, 2017 to show EAD instead of the previously published RWA amounts.

The counterparty credit risk exposures (EADs) were at € 21.7 billion as of June 30, 2018, compared to € 28.3 billion as of December 31, 2017. The overall decrease of € 6.6 billion is related to deleveraging activities in our CIB segment in accordance with our strategic alignment.

Article 452 (e) CRR - CCR exposures within the advanced IRBA

In the following tables we show our advanced IRBA counterparty credit risk exposures, i.e. derivatives and securities financing transactions, distributed on our internal rating scale for exposure classes central governments and central banks, institutions as well as corporates and retail with their relevant subcategories. CVA charges or exposures cleared through a CCP are excluded.

We show the EAD after CRM and CCF ("EAD net"), where exposures covered by guarantees or credit derivatives are assigned to the protection seller. As a consequence the EAD net can be higher than the original balance sheet exposure.

The EAD net 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 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 we apply a LGD model 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, 2018
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	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	7,065	0.03	0.1	40.93	1.1	492	6.96
0.15 to <0.25	26	0.23	<0.1	25.42	4.7	10	39.50
0.25 to <0.50	369	0.39	<0.1	49.45	1.0	191	51.80
0.50 to <0.75	8	0.64	<0.1	30.00	5.0	6	76.21
0.75 to <2.50	30	1.76	<0.1	30.00	4.9	30	100.21
2.50 to <10.00	863	3.60	<0.1	15.97	0.6	403	46.62
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	24	100.00	<0.1	0.90	5.0	3	12.50
Sub-total	8,386	0.70	0.1	38.52	1.0	1,135	13.53
Institutions							
0.00 to <0.15	35,628	0.05	0.5	40.52	1.3	5,035	14.13
0.15 to <0.25	362	0.23	<0.1	49.51	2.9	268	74.12
0.25 to <0.50	362	0.39	0.1	56.51	1.6	266	73.48
0.50 to <0.75	442	0.64	<0.1	49.94	1.2	408	92.24
0.75 to <2.50	268	1.31	0.1	55.34	1.6	382	142.17
2.50 to <10.00	27	6.07	<0.1	47.26	2.4	41	154.40
10.00 to <100.00	17	20.98	<0.1	57.92	4.5	66	376.00
100.00 (Default)	0	100.00	<0.1	5.00	1.0	0	62.50
Sub-total	37,107	0.09	0.7	41.00	1.4	6,466	17.42
Corporates							
0.00 to <0.15	95,985	0.04	10.8	33.88	0.7	7,233	7.54
0.15 to <0.25	3,194	0.23	0.7	29.73	2.6	1,127	35.29
0.25 to <0.50	4,504	0.39	0.9	26.79	1.3	1,796	39.88
0.50 to <0.75	3,592	0.64	1.0	34.27	1.5	2,352	65.50
0.75 to <2.50	4,141	1.24	1.3	38.94	2.4	3,717	89.75
2.50 to <10.00	2,202	4.78	0.6	28.41	2.6	2,161	98.18
10.00 to <100.00	410	15.55	0.1	22.03	1.0	487	118.86
100.00 (Default)	41	69.82	<0.1	9.09	1.6	22	53.61
Sub-total	114,068	0.29	15.4	33.52	0.9	18,896	16.57
thereof:							
SMEs							
0.00 to <0.15	499	0.07	0.2	52.23	2.2	141	28.17
0.15 to <0.25	69	0.23	0.1	46.82	3.2	37	52.85
0.25 to <0.50	50	0.39	0.1	43.32	2.4	26	52.75
0.50 to <0.75	64	0.64	0.1	50.55	0.8	35	54.86
0.75 to <2.50	25	1.50	0.1	49.69	2.3	24	93.89
2.50 to <10.00	38	5.90	0.1	44.18	2.7	44	115.48
10.00 to <100.00	3	18.20	<0.1	49.97	2.3	6	208.99
100.00 (Default)	1	100.00	<0.1	71.02	2.3	0	11.33
Sub-total	750	0.64	0.7	50.50	2.2	313	41.72
Specialized Lending							
0.00 to <0.15	150	0.07	<0.1	52.78	4.0	61	40.78
0.15 to <0.25	16	0.23	<0.1	39.57	4.9	10	66.11
0.25 to <0.50	47	0.39	<0.1	43.91	4.4	40	84.80
0.50 to <0.75	30	0.64	<0.1	50.16	4.0	34	112.13
0.75 to <2.50	60	1.29	<0.1	48.76	4.0	83	138.51
2.50 to <10.00	425	4.69	0.1	16.83	4.0	269	63.29
10.00 to <100.00	20	18.78	<0.1	48.83	3.9	56	279.31
100.00 (Default)	1	100.00	<0.1	2.00	2.1	0	25.00
Sub-total	750	3.48	0.2	30.95	4.0	554	73.91
Other							
0.00 to <0.15	95,336	0.04	10.6	33.75	0.6	7,031	7.37
0.15 to <0.25	3,109	0.23	0.6	29.30	2.5	1,080	34.74
0.25 to <0.50	4,407	0.39	0.8	26.42	1.2	1,730	39.25
0.50 to <0.75	3,497	0.64	0.9	33.84	1.5	2,283	65.29
0.75 to <2.50	4,056	1.24	1.2	38.73	2.4	3,610	89.00
2.50 to <10.00	1,738	4.77	0.4	30.89	2.3	1,848	106.34
10.00 to <100.00	387	15.37	<0.1	20.45	0.8	425	109.93

							Jun 30, 2018
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
100.00 (Default)	39	68.52	<0.1	8.36	1.6	22	55.05
Sub-total	112,569	0.27	14.5	33.42	0.8	18,029	16.02
Retail							
0.00 to <0.15	14	0.06	0.3	55.78	1.8	1	9.53
0.15 to <0.25	3	0.23	<0.1	55.83	1.2	1	21.85
0.25 to <0.50	7	0.39	0.1	56.21	1.8	3	33.70
0.50 to <0.75	10	0.64	0.1	55.96	1.2	4	43.42
0.75 to <2.50	13	1.27	0.2	54.84	1.3	7	56.97
2.50 to <10.00	15	4.56	0.2	55.60	1.3	12	77.11
10.00 to <100.00	2	34.77	<0.1	55.89	1.3	2	81.25
100.00 (Default)	0	100.00	<0.1	40.55	2.3	0	141.03
Sub-total	65	2.81	0.9	55.61	1.5	30	46.01
thereof:							
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	1	0.12	<0.1	48.66	1.1	0	11.50
0.15 to <0.25	3	0.23	<0.1	56.82	1.2	1	21.24
0.25 to <0.50	3	0.39	<0.1	56.30	1.3	1	28.29
0.50 to <0.75	5	0.64	0.1	54.66	1.3	2	36.55
0.75 to <2.50	6	1.27	0.1	54.56	1.2	3	48.52
2.50 to <10.00	7	4.62	0.1	55.04	1.4	4	64.88
10.00 to <100.00	1	38.02	<0.1	55.10	1.3	1	74.22
100.00 (Default)	0	100.00	<0.1	40.55	2.3	0	141.03
Sub-total	26	3.63	0.4	54.91	1.3	12	44.82
Other retail non-SMEs							
0.00 to <0.15	13	0.05	0.2	56.35	1.8	1	9.37
0.15 to <0.25	1	0.23	<0.1	51.47	1.4	0	24.51
0.25 to <0.50	4	0.39	<0.1	56.14	2.2	2	37.84
0.50 to <0.75	4	0.64	<0.1	57.47	1.1	2	51.44
0.75 to <2.50	7	1.28	0.1	55.10	1.4	4	64.96

							Jun 30, 2018
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
2.50 to <10.00	9	4.51	0.1	56.02	1.3	7	86.45
10.00 to <100.00	1	31.12	<0.1	56.77	1.2	1	89.15
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	38	2.24	0.5	56.10	1.6	18	46.83
Total (all exposure classes)	159,626	0.27	17.1	35.53	1.0	26,526	16.62

							Dec 31, 2017
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	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	8,484	0.02	0.1	44.18	0.9	475	5.60
0.15 to <0.25	68	0.23	<0.1	21.34	5.0	24	35.66
0.25 to <0.50	492	0.39	<0.1	49.66	0.7	239	48.51
0.50 to <0.75	9	0.64	<0.1	30.00	5.0	7	76.21
0.75 to <2.50	26	1.73	<0.1	30.23	4.9	25	99.48
2.50 to <10.00	884	3.57	<0.1	15.85	1.1	428	48.43
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	20	100.00	<0.1	4.40	5.0	13	62.50
Sub-total	9,983	0.56	0.1	41.66	1.0	1,211	12.14
Institutions							
0.00 to <0.15	27,045	0.05	0.5	40.72	1.5	4,881	18.05
0.15 to <0.25	310	0.23	<0.1	44.82	3.7	234	75.74
0.25 to <0.50	1,300	0.39	0.1	42.76	0.9	794	61.08
0.50 to <0.75	1,175	0.64	<0.1	27.24	0.8	548	46.65
0.75 to <2.50	464	1.51	0.1	49.77	1.3	578	124.37
2.50 to <10.00	299	3.13	<0.1	6.51	1.3	72	23.97
10.00 to <100.00	20	30.13	<0.1	49.71	3.8	65	319.58
100.00 (Default)	85	100.00	<0.1	2.00	4.4	21	25.00
Sub-total	30,698	0.44	0.7	40.04	1.5	7,193	23.43
Corporates							
0.00 to <0.15	115,996	0.04	11.6	32.57	0.6	8,626	7.44
0.15 to <0.25	3,453	0.23	0.7	30.89	2.5	1,268	36.73
0.25 to <0.50	4,702	0.39	0.9	37.28	1.2	2,175	46.25
0.50 to <0.75	4,984	0.64	0.9	35.60	1.2	3,021	60.61
0.75 to <2.50	4,076	1.30	1.3	50.27	2.4	4,563	111.96
2.50 to <10.00	2,324	4.71	0.6	28.18	2.6	2,380	102.42
10.00 to <100.00	633	21.70	0.1	12.17	0.6	433	68.41
100.00 (Default)	27	100.00	<0.1	11.90	2.3	25	92.60
Sub-total	136,194	0.31	16.1	33.15	0.8	22,491	16.51
thereof:							
SMEs							
0.00 to <0.15	533	0.06	0.2	52.58	2.5	148	27.80
0.15 to <0.25	199	0.23	0.1	62.12	1.0	86	43.26
0.25 to <0.50	306	0.39	0.1	49.59	0.3	132	43.32
0.50 to <0.75	108	0.64	0.1	50.17	0.9	59	54.24
0.75 to <2.50	50	1.47	0.1	52.50	2.1	51	100.69
2.50 to <10.00	91	4.97	0.1	52.53	1.6	96	104.95
10.00 to <100.00	1	23.85	<0.1	42.00	3.9	2	181.88
100.00 (Default)	0	100.00	<0.1	97.91	2.0	0	0.41
Sub-total	1,290	0.68	0.7	53.14	1.5	574	44.53
Specialized Lending							
0.00 to <0.15	92	0.09	<0.1	56.08	3.4	38	40.70
0.15 to <0.25	38	0.23	<0.1	45.39	4.6	28	72.92
0.25 to <0.50	52	0.39	<0.1	41.19	4.5	42	80.34
0.50 to <0.75	23	0.64	<0.1	34.35	4.3	17	74.09
0.75 to <2.50	96	1.29	0.1	48.15	3.7	127	132.72
2.50 to <10.00	476	4.77	0.1	17.27	4.0	316	66.47
10.00 to <100.00	9	19.16	<0.1	48.83	2.5	24	263.40
100.00 (Default)	0	100.00	<0.1	5.00	1.1	0	62.50
Sub-total	788	3.34	0.2	29.40	3.9	593	75.26
Other							
0.00 to <0.15	115,371	0.04	11.4	32.46	0.6	8,441	7.32
0.15 to <0.25	3,215	0.23	0.6	28.78	2.6	1,154	35.89
0.25 to <0.50	4,344	0.39	0.8	36.36	1.2	2,000	46.05
0.50 to <0.75	4,853	0.64	0.8	35.28	1.2	2,945	60.68
0.75 to <2.50	3,930	1.30	1.1	50.29	2.4	4,385	111.59
2.50 to <10.00	1,756	4.67	0.4	29.87	2.2	1,967	112.04
10.00 to <100.00	623	21.73	<0.1	11.58	0.5	407	65.35
100.00 (Default)	26	100.00	<0.1	10.31	2.3	25	94.45
Sub-total	134,117	0.29	15.3	32.98	0.7	21,324	15.90

in € m. (unless stated otherwise)							Dec 31, 2017
	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
Retail							
0.00 to <0.15	16	0.06	0.2	55.75	1.7	2	10.65
0.15 to <0.25	3	0.23	<0.1	55.27	1.1	1	22.26
0.25 to <0.50	8	0.39	0.1	56.55	1.3	3	32.15
0.50 to <0.75	12	0.64	0.1	55.68	1.2	5	42.47
0.75 to <2.50	16	1.39	0.2	55.04	1.2	10	59.32
2.50 to <10.00	25	4.53	0.2	56.01	1.1	20	78.76
10.00 to <100.00	3	17.05	<0.1	56.17	1.2	3	102.25
100.00 (Default)	0	100.00	<0.1	5.00	5.0	0	62.50
Sub-total	84	2.48	0.8	55.73	1.3	43	51.13
thereof:							
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	2	0.12	<0.1	50.40	1.1	0	12.25
0.15 to <0.25	2	0.23	<0.1	56.40	1.1	0	20.27
0.25 to <0.50	5	0.39	0.1	56.43	1.1	1	28.47
0.50 to <0.75	7	0.64	0.1	55.81	1.1	3	37.14
0.75 to <2.50	8	1.40	0.1	54.19	1.1	4	50.88
2.50 to <10.00	9	4.34	0.1	55.81	1.1	6	65.23
10.00 to <100.00	2	16.33	<0.1	56.32	1.3	2	90.39
100.00 (Default)	0	100.00	<0.1	5.00	5.0	0	62.50
Sub-total	35	2.69	0.4	55.30	1.1	17	47.58
Other retail non-SMEs							
0.00 to <0.15	14	0.06	0.2	56.34	1.7	2	10.47
0.15 to <0.25	1	0.23	<0.1	53.52	1.0	0	25.31
0.25 to <0.50	3	0.39	<0.1	56.72	1.7	1	37.89
0.50 to <0.75	5	0.64	<0.1	55.50	1.4	2	49.86
0.75 to <2.50	8	1.37	0.1	55.86	1.3	5	67.62
2.50 to <10.00	16	4.63	0.1	56.15	1.1	14	86.87
10.00 to <100.00	1	18.10	<0.1	55.94	1.0	2	119.42

							Dec 31, 2017
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	49	2.33	0.4	56.05	1.4	26	53.64
Total (all exposure classes)	176,958	0.34	17.8	34.84	0.9	30,938	17.48

The RWA for our counterparty credit risk portfolio treated in the advanced IRBA were at € 26.5 billion as of June 30, 2018, compared to € 30.9 billion as of December 2017. The overall decrease by € 4.4 billion is mostly related to the deleveraging activities and termination of trades in our CIB segment in accordance with our strategic alignment as outlined before.

Article 452 (e) CRR - CCR exposures within the foundation IRBA

In the following tables we show our foundation IRBA counterparty credit risk exposures, i.e. derivatives and securities financing transactions, distributed on our internal rating scale for exposure classes central governments and central banks, institutions as well as corporates with their relevant subcategories. CVA charges or exposures cleared through a CCP are excluded.

We show the EAD after CRM (“EAD net”), where exposures covered by guarantees or credit derivatives are assigned to the protection seller. As a consequence the EAD net can be higher than the original balance sheet exposure.

The EAD net is presented in conjunction with exposures-weighted average PD, RWAs, the average risk weight (RW) 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

							Jun 30, 2018
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	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	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	2	0.09	<0.1	45.00	2.5	1	29.83
0.15 to <0.25	67	0.21	0.2	45.00	2.5	32	47.37
0.25 to <0.50	32	0.38	0.1	45.00	2.5	20	63.79
0.50 to <0.75	6	0.69	0.1	45.00	2.5	5	81.66
0.75 to <2.50	2	1.32	<0.1	45.00	2.5	2	100.62
2.50 to <10.00	1	5.14	<0.1	45.00	2.5	1	152.61
10.00 to <100.00	2	19.99	<0.1	45.00	2.5	5	252.50
100.00 (Default)	0	100.00	<0.1	45.00	2.5	0	0
Sub-total	112	1.06	0.3	45.00	2.5	65	58.39
thereof:							
SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	4	0.22	<0.1	45.00	2.5	1	39.21
0.25 to <0.50	3	0.38	<0.1	45.00	2.5	1	51.60
0.50 to <0.75	1	0.69	<0.1	45.00	2.5	1	67.90
0.75 to <2.50	1	1.24	<0.1	45.00	2.5	1	89.19
2.50 to <10.00	0	3.82	<0.1	45.00	2.5	0	103.64
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	8	0.48	0.1	45.00	2.5	4	52.47
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	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							
0.00 to <0.15	2	0.09	<0.1	45.00	2.5	1	29.83
0.15 to <0.25	63	0.21	0.1	45.00	2.5	30	47.85
0.25 to <0.50	29	0.38	<0.1	45.00	2.5	19	64.85
0.50 to <0.75	5	0.69	<0.1	45.00	2.5	4	84.83
0.75 to <2.50	1	1.37	<0.1	45.00	2.5	1	108.01
2.50 to <10.00	1	5.39	<0.1	45.00	2.5	1	162.09
10.00 to <100.00	2	19.99	<0.1	45.00	2.5	5	252.50

							Jun 30, 2018
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
100.00 (Default)	0	100.00	<0.1	45.00	2.5	0	0
Sub-total	104	1.11	0.2	45.00	2.5	61	58.86
Total (all exposure classes)	112	1.06	0.3	45.00	2.5	65	58.39

							Dec 31, 2017
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	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	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	2	0.09	<0.1	45.00	2.5	1	30.82
0.15 to <0.25	75	0.21	0.1	45.00	2.5	35	47.13
0.25 to <0.50	41	0.38	0.1	45.00	2.5	26	63.67
0.50 to <0.75	10	0.69	<0.1	45.00	2.5	8	82.49
0.75 to <2.50	2	1.53	<0.1	45.00	2.5	2	92.96
2.50 to <10.00	2	4.93	<0.1	45.00	2.5	2	143.83
10.00 to <100.00	1	20.00	<0.1	45.00	2.5	2	252.53
100.00 (Default)	0	100.00	<0.1	45.00	2.5	0	0
Sub-total	133	0.66	0.3	45.00	2.5	76	57.56
thereof:							
SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	3	0.22	<0.1	45.00	2.5	1	33.87
0.25 to <0.50	3	0.38	<0.1	45.00	2.5	2	50.53
0.50 to <0.75	2	0.69	<0.1	45.00	2.5	1	70.80
0.75 to <2.50	1	1.67	<0.1	45.00	2.5	1	81.49
2.50 to <10.00	0	4.53	<0.1	45.00	2.5	0	99.71
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	10	0.69	0.1	45.00	2.5	5	53.67
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	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							
0.00 to <0.15	2	0.09	<0.1	45.00	2.5	1	30.82
0.15 to <0.25	72	0.21	0.1	45.00	2.5	34	47.75
0.25 to <0.50	38	0.38	<0.1	45.00	2.5	24	64.85
0.50 to <0.75	8	0.69	<0.1	45.00	2.5	7	84.83
0.75 to <2.50	1	1.34	<0.1	45.00	2.5	1	107.99
2.50 to <10.00	1	5.06	<0.1	45.00	2.5	2	158.66
10.00 to <100.00	1	20.00	<0.1	45.00	2.5	2	252.53
100.00 (Default)	0	100.00	<0.1	45.00	2.5	0	0
Sub-total	123	0.66	0.2	45.00	2.5	71	57.87

							Dec 31, 2017
in € m. (unless stated otherwise)	a	b	c	d	e	f	g
Exposure class/ PD scale	EAD net	Average PD (in %)	Number of obligors (in 1,000)	Average LGD (in %)	Average maturity (in years)	RWA	Average RW (in %)
Total (all exposure classes)	133	0.66	0.3	45.00	2.5	76	57.56

Article 438 (d) CRR - Development of Counterparty Credit Risk RWA

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 first and second quarter of 2018.

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

		Three months ended Jun 30, 2018		Three months ended Mar 31, 2018	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
1	Counterparty credit risk RWA under the IMM opening balance	**24,721**	**1,978**	23,887	1,911
2	Book size	(3,470)	(278)	774	62
3	Book quality	(212)	(17)	304	24
4	Model updates	0	0	0	0
5	Methodology and Policy	0	0	0	0
6	Acquisitions and Disposals	0	0	0	0
7	Foreign exchange movements	486	39	(244)	(20)
8	Other	0	0	0	0
9	Counterparty credit risk RWA under the IMM closing balance	**21,525**	**1,722**	24,721	1,978

Organic changes in our portfolio size and composition are considered in the category “Book size”. The category “Book quality” mainly 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 model roll out. RWA movements resulting from externally, regulatory-driven changes, e.g. applying new regulations, are considered in the “Methodology and Policy” section. “Acquisition and Disposals” shows significant exposure movements which can be clearly assigned to new businesses or disposal-related activities. Changes that cannot be attributed to the above categories are reflected in the category “Other”.

The decrease in RWA for counterparty credit risk exposures under the IMM by 12.9 % or € 3.2 billion since March 31, 2018 is predominantly driven by the category “Book size” reflecting termination of trades and deleveraging activities in our CIB segment. The decrease in “Book quality” is driven by parameter recalibrations and offset by foreign exchange movements.

Article 439 (e) CRR - CCR exposures after credit risk mitigation

The following tables present information on our counterparty credit risk (CCR) exposure and the impact of netting and collateral held as well as the composition of collateral used in both derivatives transactions and securities financing transactions (SFT).

Table EU CCR5-A below provides the gross positive fair values before any credit risk mitigation, the impact of legally enforceable master netting agreements as well as further reduction of our CCR exposure due to eligible collateral we have received. Given the nature of the internal model method (IMM) that we use for the measurement of the majority of our derivatives and SFT, the simulation process of future market values across all asset classes includes, if applicable, the impact from regulatory netting and collateralization. Therefore the net credit exposure disclosed below differs from the regulatory exposure value at default (EaD).

EU CCR5-A – Impact of netting and collateral held on exposure values

Jun 30, 2018

	in € m.	a Gross positive fair value or net carrying amount	b Netting benefits	c Netted current credit exposure	d Collateral held	e Net credit exposure
1	Derivatives	375,594	300,609	74,985	68,083	6,902
2	Securities Financing Transactions	531,220	421,296	109,924	7,790	102,134
3	Cross-product netting	0	0	0	0	0
4	Total	906,814	721,905	184,909	75,872	109,037

Dec 31, 2017

	in € m.	a Gross positive fair value or net carrying amount	b Netting benefits	c Netted current credit exposure	d Collateral held	e Net credit exposure
1	Derivatives	490,611	402,084	88,590	81,312	7,278
2	Securities Financing Transactions	589,621	479,088	110,533	7,534	102,999
3	Cross-product netting	0	0	0	0	0
4	Total	1,080,232	881,172	199,123	88,846	110,277

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

EU CCR5-B – Composition of collateral for exposures to CCR

Jun 30, 2018

	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral			
in € m.	Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
Cash	0	99,926	0	64,988	168,505	188,573
Bonds	0	30,410	4,149	15,521	152,441	153,714
Equity securities	0	11,607	1,117	8	186,833	176,753
Other collateral	0	4,650	3,870	54	8,855	12,181
Total	0	146,593	9,137	80,570	516,634	531,220

Dec 31, 2017

	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral			
in € m.	Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
Cash	0	106,092	0	59,511	186,088	229,726
Bonds	0	32,039	4,250	19,035	177,739	173,498
Equity securities	0	14,516	1,011	11	201,108	179,642
Other collateral	0	5,413	0	4,108	10,263	6,754
Total	0	158,060	5,261	82,665	575,198	589,621

For further details on derivative exposure please also refer to our Annual Report 2017 table “Maximum Exposure to Credit Risk” and table “Credit Exposure from Derivatives” on pages 95 and 108 respectively.

Article 439 (g-h) CRR - Credit derivatives exposures

The table below discloses the exposure of the credit derivative transactions split into the part held in the regulatory banking book, which is shown under the heading “credit derivative hedges” and the part held in the regulatory trading book, referred to as “other credit derivatives” as well as a split into product types.

EU CCR6 – Credit derivatives exposures

	Jun 30, 2018			Dec 31, 2017		
	a	b	c	a	b	c
	Credit derivative hedges			Credit derivative hedges		
in € m.	Protection bought	Protection sold	Other credit derivatives	Protection bought	Protection sold	Other credit derivatives
Notionals						
Single-name credit default swaps	10,180	242	306,925	10,085	344	407,841
Index credit default swaps	0	0	686,207	0	0	1,229,299
Total return swaps	0	43	6,195	0	37	5,982
Credit options	0	0	37,776	0	0	28,898
Total notionals	**10,180**	**285**	**1,037,103**	10,085	381	1,672,021
Fair values	**(30)**	**(66)**	**(166)**	(162)	(67)	808
Positive fair value (asset)	136	22	11,736	109	38	28,365
Negative fair value (liability)	166	88	11,902	272	105	27,558

The drop of credit derivatives exposures in the first half of 2018 to € 1.0 trillion from € 1.7 trillion was primarily driven by the compression of index credit default swaps cleared through Intercontinental Exchange (ICE).

Market risk

Own funds requirements for market risk under the standardized approach

Article 445 CRR - Market Risk Standardized Approach

As of June 30, 2018, the securitization positions, for which the specific interest rate risk is calculated using the market risk standardized approach, generated capital requirements of € 326.8 million corresponding to risk weighted-assets of € 4.1 billion. As of December 31, 2017 these positions generated capital requirements of € 379.5 million corresponding to risk weighted-assets of € 4.7 billion.

For nth-to-default credit default swaps the capital requirement was € 1.9 million corresponding to risk weighted-assets of € 23.4 million compared with € 2.8 million and € 35 million as of December 31, 2017.

The capital requirement for Collective Investment Undertakings under the market risk standardized approach was € 12 million corresponding to risk weighted-assets of € 156 million as of June 30, 2018, compared with € 45 million and € 556 million as of December 31, 2017.

The capital requirement for longevity risk under the market risk standardized approach was € 13 million corresponding to risk-weighted assets of € 167 million as of June 30, 2018, compared with € 32 million and € 395 million as of December 31, 2017.

EU MR1 – Market risk under the standardized approach

		Jun 30, 2018		Dec 31, 2017	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
	Outright products				
1	Interest rate risk (general and specific)	0	0	0	0
2	Equity risk (general and specific)[1]	125	10	537	43
3	Foreign exchange risk[2]	139	11	87	7
4	Commodity risk	0	0	0	0
4a	Longevity risk	167	13	395	32
	Options				
5	Simplified approach	0	0	0	0
6	Delta-plus method	0	0	0	0
7	Scenario approach	0	0	0	0
8	Securitization (specific risk)[3]	4,085	327	4,744	380
9	Total	**4,516**	**361**	5,763	461

[1] Equity risk RWA of € 125 million is from collective investment undertakings
[2] Foreign Exchange risk RWA includes € 108 million from Postbank and € 31 million from collective investment undertakings
[3] Securitization RWA of € 4,085 million includes the nth to default component

Own funds requirements for market risk under the IMA

Article 455 (e) CRR - Regulatory capital requirements for market risk

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)

		Jun 30, 2018		Dec 31, 2017	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
1	VaR (higher of values a and b)	4,614	369	4,378	350
a)	Previous day's VaR (Article 365(1) (VaRt-1))	–	97	–	101
b)	Average of the daily VaR (Article 365(1)) on each of the preceding sixty business days (VaRavg) x multiplication factor ((mc) in accordance with Article 366)	–	369	–	350
2	SVaR (higher of values a and b)	13,908	1,113	10,896	872
a)	Latest SVaR (Article 365(2) (sVaRt-1))	–	326	–	253
b)	Average of the SVaR (Article 365(2) during the preceding sixty business days (sVaRavg) x multiplication factor (ms) (Article 366)	–	1,113	–	872
3	Incremental risk charge -IRC (higher of values a and b)	7,335	587	9,871	790
a)	Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)	–	545	–	631
b)	Average of the IRC number over the preceding 12 weeks	–	587	–	790
4	Comprehensive Risk Measure – CRM (higher of values a, b and c)	64	5	56	5
a)	Most recent risk number for the correlation trading portfolio (article 377 of the CRR)	–	3	–	4
b)	Average of the risk number for the correlation trading portfolio over the preceding 12-weeks	–	5	–	5
c)	8 % of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338(4) of the CRR)	–	0	–	1
5	Other	0	0	0	0
6	Total	**25,921**	**2,074**	25,203	2,016

The following table EU MR2-B 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 second and first quarter of 2018.

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

		Three months ended Jun 30, 2018						
		a	b	c	d	e	f	g
	in € m.	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWA	Total capital requirements
1	Market Risk RWA opening balance[1]	4,708	14,248	7,877	66	0	26,898	2,152
1a	Regulatory adjustment[2]	(3,324)	(10,359)	3,180	(11)	0	(10,515)	(841)
1b	RWA at the previous quarter-end (end of the day)[3]	1,383	3,889	11,056	55	0	16,383	1,311
2	Movement in risk levels	(303)	(58)	(3,502)	8	0	(3,855)	(308)
3	Model updates/changes	11	64	0	0	0	75	6
4	Methodology and Policy	44	179	(352)	0	0	(129)	(10)
5	Acquisitions and Disposals	0	0	0	0	0	0	0
6	Foreign exchange movements	0	0	0	0	0	0	0
6a	Market data changes and recalibrations	75	0	0	0	0	75	6
7	Other	0	0	0	0	0	0	0
8a	RWA at the end of the reporting period (end of the day)[3]	1,211	4,074	7,202	63	0	12,550	1,004
8b	Regulatory adjustment[2]	3,403	9,834	132	1	0	13,371	1,070
8	Market Risk RWA closing balance[1]	4,614	13,908	7,335	64	0	25,921	2,074

[1] Represents RWA at previous and current reporting period quarter end.
[2] Indicates the difference between RWA and RWA (end of day) at the beginning and end of period.
[3] For a given component (e.g. VaR) it refers to the RWA that would be computed if the previous or current quarter end snapshot figure of the component determines the quarter end RWA, as opposed to a 60-day average for regulatory purposes.

	in € m.	a VaR	b SVaR	c IRC	d Comprehensive risk measure	e Other	f Total RWA	g Total capital requirements
		Three months ended Mar 31, 2018						
1	Market Risk RWA opening balance[1]	4,380	10,896	9,871	56	0	25,203	2,016
1a	Regulatory adjustment[2]	(3,112)	(7,728)	(1,984)	(1)	0	(12,826)	(1,026)
1b	RWA at the previous quarter-end (end of the day)[3]	1,268	3,168	7,886	55	0	12,377	990
2	Movement in risk levels	213	721	(684)	8	0	258	21
3	Model updates/changes	0	0	0	0	0	0	0
4	Methodology and Policy	0	0	0	0	0	0	0
5	Acquisitions and Disposals	0	0	0	0	0	0	0
6	Foreign exchange movements	0	0	0	0	0	0	0
6a	Market data changes and recalibrations	(98)	0	0	0	0	(98)	(8)
7	Other	0	0	0	0	0	0	0
8a	RWA at the end of the reporting period (end of the day)[3]	1,383	3,889	7,202	63	0	12,537	1,003
8b	Regulatory adjustment[2]	3,324	10,359	674	3	0	14,361	1,149
8	Market Risk RWA closing balance[1]	4,708	14,248	7,877	66	0	26,898	2,152

[1] Represents RWA at previous and current reporting period quarter end.
[2] Indicates the difference between RWA and RWA (end of day) at the beginning and end of period.
[3] For a given component (e.g. VaR) it refers to the RWA that would be computed if the previous or current quarter end snapshot figure of the component determines the quarter end RWA, as opposed to a 60-day average for regulatory purposes.

The market risk RWA movements due to position changes are represented in line “Movement in risk levels”. Changes to our 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 we reflect regulatory driven changes to our market risk RWA models and calculations. Significant new businesses and disposals would be assigned to the line item “Acquisition and Disposals”. The impacts of “Foreign exchange movements” are only calculated for comprehensive risk measure. For the other measures this is captured in “Movements in risk levels”. Changes in market data levels, volatilities, correlations, liquidity and ratings are included under the “Market data changes and recalibrations” category.

As of June 30, 2018 the RWA for market risk was € 30.4 billion. The IMA (Internal Models Approach) components of this totaled € 25.9 billion.

Other quantitative information for market risk under the internal models approach

Article 455 (d) CRR - Overview of Value-at-Risk Metrics

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 ten day values and this has been calculated using a square root of ten conversion from the one day value.

EU MR3 – IMA values for trading portfolios

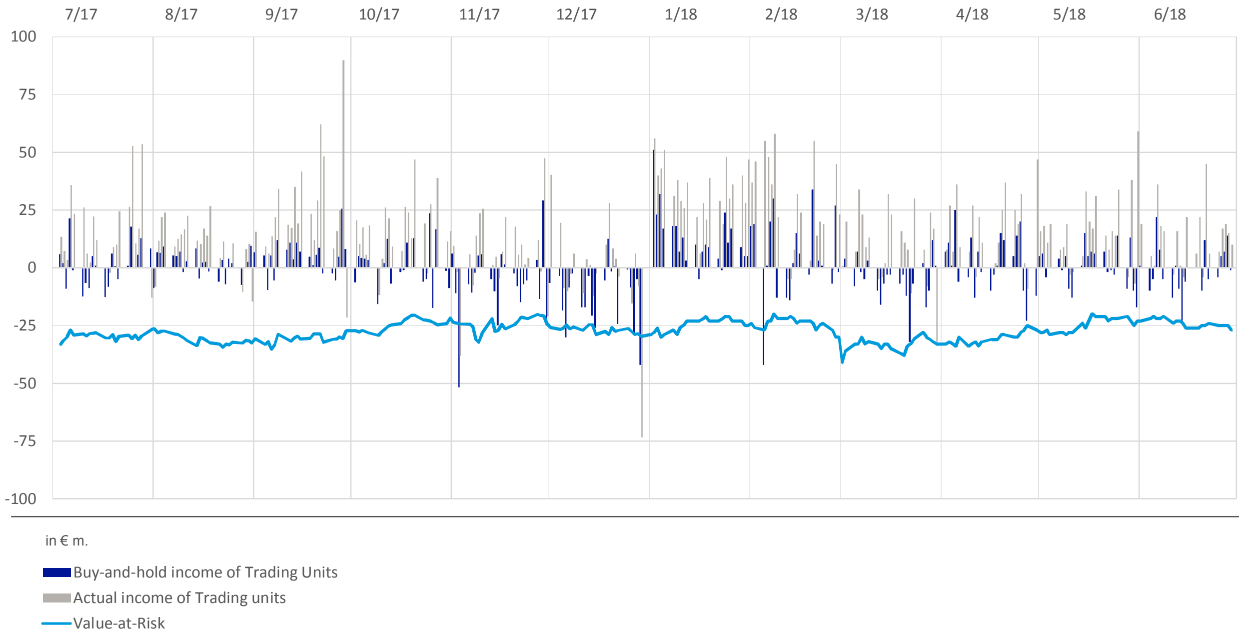
		Jun 30, 2018	Dec 31, 2017
	in € m.	a	a
VaR (10 day 99 %)			
1	Maximum value	129.2	111.9
2	Average value	85.6	88.1
3	Minimum value	62.5	63.7
4	Period end	82.4	92.1
SVaR (10 day 99 %)			
5	Maximum value	358.2	348.3
6	Average value	265.1	233.5
7	Minimum value	193.6	132.7
8	Period end	253.1	270.7
IRC (99.9 %)			
9	Maximum value	746.3	899.3
10	Average value	606.5	750.6
11	Minimum value	485.7	630.9
12	Period end	550.7	630.9
Comprehensive risk capital charge (99.9 %)			
13	Maximum value	5.8	9.0
14	Average value	5.2	5.7
15	Minimum value	2.7	3.0
16	Period end	2.7	4.4

Article 455 (g) CRR - Comparison of end-of-day VaR measures with one-day changes in portfolio's value

During the first six months of 2018 we have observed one global outlier, where our loss on a buy-and-hold basis exceeded the value-at-risk of our Trading Books, compared with three outliers in 2017. It was driven by market moves impacting the Equities business. There have not been any outliers on an Actual Backtesting basis in 2018, which compares the VaR to Total Income less Fees & Commissions, and Debt Valuation adjustments. There were two Actual Backtesting outliers in 2017.

Based on the backtesting results, our analysis of the underlying reasons for outliers and enhancements included in our value-at-risk methodology we continue to believe that our value-at-risk model will remain an appropriate measure for our trading market risk under normal market conditions. The following graph shows the trading units daily buy-and-hold income in comparison to the value-at-risk 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 our trading positions with the buy and hold income. Figures are shown in millions of euro. The chart shows that our trading units achieved a positive buy and hold income for 56 % of the trading days for the first half of 2018 (versus 54 % over 2017), as well as displaying the global outlier experienced in 2018. For insights into the 2017 backtesting results please refer to our Annual Report 2017, section “Results of Regulatory Backtesting of Trading Market Risk” on page 122.

EU MR4 – Comparison of VAR estimates with gains/losses



Operational Risk

Article 446 CRR - Operational Risk Exposure

In the first six months of 2018 our total operational risk losses were marginally higher compared to the first half year 2017. The operational risk losses continued to be driven predominantly by losses and provisions arising from civil litigation and regulatory enforcement actions. Such losses accounted for more than 85 % of the total operational risk losses up to Q2 2018. For a description of our current legal and regulatory proceedings, please see section "Provisions - Current Individual Proceedings" of the Q2 2018 Interim Report. Our non-legal operational risk losses reduced to approximately 60 % of those in the first six months of 2017.

Our operational risk management fosters a forward-looking approach to monitoring potential profits and losses, focusing on regular review of civil litigations and regulatory enforcement matters, trend analysis based upon available losses and key risk indicator data. The regulatory capital requirement is mainly driven by large external and internal operational risk events as well as reasonably possible litigation losses, which are reflected through provisions, contingent liabilities and legal forecasts in our AMA model. For a description of our modelling approach, please see section "Drivers for Operational Risk Capital Development" of our Annual Report 2017 on page 75.

Exposure to securitization positions

Article 449 (o)(i) CRR - Retained or purchased banking and trading book securitizations broken down by risk-weight bands

Banking Book Securitization Exposure

The following table presents the retained or purchased banking book securitizations by their regulatory calculation approach and further broken down by risk-weight bands.

Banking Book Securitization Positions Retained or Purchased by Risk Weight Band

			Jun 30, 2018			Dec 31, 2017
in € m.	Exposure amount	Capital requirements IRBA[1]	Capital requirements standardized approach	Exposure amount	Capital requirements IRBA[1]	Capital requirements standardized approach
≤ 10 %	56,645	336	0	57,833	497	0
> 10 ≤ 20 %	2,489	16	15	2,220	13	14
> 20 ≤ 50 %	1,558	26	19	1,309	23	16
> 50 ≤ 100 %	761	33	15	1,059	35	31
> 100 ≤ 350 %	44	6	1	140	17	1
> 350 ≤ 650 %	4	2	0	7	2	0
> 650 < 1,250 %	42	27	0	91	66	0
≥ 1,250% ≤ 1,325 %	150	91	15	143	83	16
Total securitization positions retained or purchased	**61,693**	**537**	**66**	62,802	736	77

[1] After considering value adjustments according to Article 266 (1,2) CRR. Including capital requirements for maturity mismatch of synthetic securitizations by risk weight band defined as notional weighted average risk weight of the underlying pool.

Supported by an exposure decrease of 1.8 % or € 1.1 billion, the capital requirements for securitization positions in the banking book decreased by 26 % to € 0.6 billion. This was primarily driven by renewing synthetic securitization positions leading to a significant reduction of € 2.3 billion in maturity mismatch RWA versus year end 2017.

The largest portion (95 %) of IRBA eligible banking book securitization exposures were treated according to the Supervisory Formula Approach (“SFA”). For the remaining IRBA eligible banking book exposures (5 %) we used the Ratings Based Approach (“RBA”).

Trading Book Securitization Exposure

The following table presents the retained or purchased trading book securitizations by their regulatory calculation approach and further broken down by risk-weight bands.

For trading book securitization positions not covered under the Comprehensive Risk Measure (“CRM”), the capital requirement for specific market risk is calculated based on the MRSA. The MRSA risk weight calculation for trading book securitization positions is generally based on the same methodologies which apply to banking book securitization positions. More details on the approaches are provided in section “Article 449 (h) CRR - RWA calculation approaches for securitization positions” on the pages 124-126 in our annual Pillar 3 Report 2017.

Trading Book Securitization Positions Retained or Purchased by Risk Weight Band subject to the Market Risk Standardized Approach (MRSA)

	Jun 30, 2018				Dec 31, 2017			
	Exposure amount		Capital requirements, MRSA		Exposure amount		Capital requirements, MRSA	
in € m.	Securiti-zation	Re-Securitization	Securiti-zation	Re-Securitization	Securiti-zation	Re-Securitization	Securiti-zation	Re-Securitization
≤ 10 %	909	0	5	0	501	0	3	0
> 10 ≤ 20 %	2,919	0	30	0	4,413	0	43	0
> 20 ≤ 50 %	372	53	12	2	397	28	13	1
> 50 ≤ 100 %	348	4	25	0	443	24	33	2
> 100 ≤ 350 %	22	0	5	0	56	12	11	2
> 350 ≤ 650 %	120	33	36	17	82	0	17	0
> 650 < 1,250 %	5	0	3	0	0	0	0	0
1,250 %	210	4	184	4	245	8	244	8
Total securitization positions retained or purchased	**4,905**	**95**	**302**	**23**	6,138	71	364	13

Compared to December 2017, the exposure of trading book securitization and re-securitization positions decreased to € 5.0 billion mainly due to the continued downsizing of the portfolio. For 32 % of the positions the own funds requirement cap of Article 335 CRR is applied, which results in a capital requirement saving of € 55 million, 83 % of which is realized in the risk weight buckets > 650 < 1,250 % and 1,250 %.

Leverage (Article 451 CRR)

We manage our balance sheet on a Group level and, where applicable, locally in each region. In the allocation of financial resources we favor business portfolios with the highest positive impact on our profitability and shareholder value. We monitor and analyze balance sheet developments and track certain market-observed balance sheet ratios. Based on this we trigger discussion and management action by the Group Risk Committee (GRC). Following the publication of the CRR/CRD 4 framework, we established a leverage ratio calculation according to that framework.

Leverage Ratio according to revised CRR/CRD 4 framework

The CRR/CRD 4 framework introduced a non-risk based leverage ratio that is intended to act as a supplementary measure to the risk based capital requirements. Its objectives are to constrain the build-up of leverage in the banking sector, helping avoid destabilizing deleveraging processes which can damage the broader financial system and the economy, and to reinforce the risk based requirements with a simple, non-risk based “backstop” measure. While the CRR/CRD 4 framework currently does not provide for a mandatory minimum leverage ratio to be complied with, the legislative proposals as part of the European Trilogue include a 3% minimum requirement but the proposed implementation dates are different. The final Basel rules that have been published in December 2017 also include an additional leverage ratio buffer requirement for banks identified as global systemically important institution (“G-SII”) of 50% of the G-SII buffer. Details of the implementation and the timing of the application of this additional leverage ratio buffer remain subject to finalization of the legislative process.

We calculate our leverage ratio exposure on a fully loaded basis in accordance with Article 429 of the CRR as per Delegated Regulation (EU) 2015/62 of October 10, 2014 published in the Official Journal of the European Union on January 17, 2015 amending Regulation (EU) No 575/2013. In addition, we provide the leverage ratio on a phase-in basis as displayed below in the tables.

Our total leverage ratio exposure includes derivatives, securities financing transactions (SFTs), off-balance sheet exposure and other on-balance sheet exposure (excluding derivatives and SFTs).

The leverage exposure for derivatives is calculated by using the regulatory mark-to-market method for derivatives comprising the current replacement cost plus a regulatory defined add-on for the potential future exposure. Variation margin received in cash from counterparties is deducted from the current replacement cost portion of the leverage ratio exposure measure and variation margin paid to counterparties is deducted from the leverage ratio exposure measure related to receivables recognized as an asset on the balance sheet, provided certain conditions are met. Deductions of receivables for cash variation margin provided in derivatives transactions are shown under derivative exposure in the table “Leverage ratio common disclosure” below. The effective notional amount of written credit derivatives, i.e., the notional reduced by any negative fair value changes that have been incorporated in Tier 1 capital, is included in the leverage ratio exposure measure; the resulting exposure measure is further reduced by the effective notional amount of a purchased credit derivative on the same reference name provided certain conditions are met.

The securities financing transaction (SFT) component includes the gross receivables for SFTs, which are netted with SFT payables if specific conditions are met. In addition to the gross exposure a regulatory add-on for the counterparty credit risk is included.

The off-balance sheet exposure component follows the credit risk conversion factors (CCF) of the standardized approach for credit risk (0 %, 20 %, 50 %, or 100 %), which depend on the risk category subject to a floor of 10 %.

The other on-balance sheet exposure component (excluding derivatives and SFTs) reflects the accounting values of the assets (excluding derivatives and SFTs) as well as regulatory adjustments for asset amounts deducted in determining Tier 1 capital.

The following tables show the leverage ratio exposure and the leverage ratio, both on a fully loaded basis, in accordance with the disclosure tables of the implementing technical standards (ITS) which were adopted by the European Commission via Commission Implementing Regulation (EU) 2016/200 published in the Official Journal of the European Union on February 16, 2016. For additional information, they also contain the phase-in figures.

Summary reconciliation of accounting assets and leverage ratio exposures

in € bn. (unless stated otherwise)	Jun 30, 2018	Dec 31, 2017
Total assets as per published financial statements	**1,421**	1,475
Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	1	5
(Adjustment for fiduciary assets recognized on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio total exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013)	N/M	N/M
Adjustments for derivative financial instruments	(164)	(172)
Adjustment for securities financing transactions (SFTs)	17	41
Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	97	95
(Adjustment for intragroup exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(7) of Regulation (EU) No 575/2013)	N/M	N/M
(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(14) of Regulation (EU) No 575/2013)	N/M	N/M
Other adjustments	(49)	(50)
Leverage ratio total exposure measure (fully loaded)	**1,324**	1,395
Leverage ratio total exposure measure (phase-in)	**1,324**	1,396

N/M – Not meaningful

Leverage ratio common disclosure

in € bn. (unless stated otherwise)	Jun 30, 2018	Dec 31, 2017
On-balance sheet exposures (excluding derivatives and SFTs)		
On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	984	990
(Asset amounts deducted in determining Tier 1 capital)[1]	(14)	(14)
Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	**970**	976
Derivative exposures		
Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	37	37
Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	152	154
Exposure determined under Original Exposure Method	N/M	N/M
Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	0	0
(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(27)	(29)
(Exempted CCP leg of client-cleared trade exposures)	(14)	(13)
Adjusted effective notional amount of written credit derivatives	489	812
(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(477)	(795)
Total derivatives exposures	**160**	166
SFT exposures		
Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	136	183
(Netted amounts of cash payables and cash receivables of gross SFT assets)	(54)	(61)
Counterparty credit risk exposure for SFT assets	15	35
Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429b(4) and 222 of Regulation (EU) No 575/2013	N/M	N/M
Agent transaction exposures	1	1
(Exempted CCP leg of client-cleared SFT exposure)	0	0
Total securities financing transaction exposures	**97**	158
Other off-balance sheet exposures		
Off-balance sheet exposures at gross notional amount	276	265
(Adjustments for conversion to credit equivalent amounts)	(179)	(170)
Other off-balance sheet exposures	**97**	95
Exempted exposures in accordance with Article 429 (7) and (14) of Regulation (EU) No 575/2013 (on and off balance sheet)		
(Intragroup exposures (solo basis) exempted in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	N/M	N/M
(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	N/M	N/M
Capital and total exposure measure		
Tier 1 capital (fully loaded)	52.5	52.9
Leverage ratio total exposure measure (fully loaded)	1,324	1,395
Leverage ratio (fully loaded, in %)	4.0	3.8
Tier 1 capital (phase-in)	55.5	57.6
Leverage ratio total exposure measure (phase-in)	1,324	1,396
Leverage ratio (phase-in, in %)	4.2	4.1

N/M – Not meaningful

[1] Using a fully loaded definition of Tier 1 capital. The amount using a transitional definition of Tier 1 capital is € (14) billion and € (13) billion as of June 30, 2018 and December 31, 2017, respectively.

Breakdown of on-balance sheet exposures (excluding derivatives and SFTs)

in € bn. (unless stated otherwise)	Jun 30, 2018	Dec 31, 2017
Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures)	**984**	990
thereof:		
Trading book exposures	215	231
Banking book exposures	769	759
thereof:		
Covered bonds	2	2
Exposures treated as sovereigns	262	288
Exposures to regional governments, MDB, international organizations and PSE not treated as sovereigns	1	2
Institutions	20	18
Secured by mortgages of immovable properties	187	186
Retail exposures	35	34
Corporate	158	156
Exposures in default	7	7
Other exposures (e.g. equity, securitizations, and other non-credit obligation assets)	96	66

Process used to manage the risk of excessive leverage

As described in the section “Risk Management Principles” and “Risk Governance” on pages 46-50 of our Annual Report 2017, the Group Risk Committee (GRC) is mandated to oversee, control and monitor integrated planning our risk profile and capital capacity. The GRC actively manages leverage exposure capacity via a limit setting process

– to allocate group leverage exposure capacity to businesses,
– to support business achievement of strategic performance plans,
– to provide a firm basis for achieving the target leverage ratio,
– to incentivize businesses to make appropriate decisions on their portfolios, with consideration to asset maturity and encumbrance amongst others, and
– to maintain risk discipline.

In the case of limit excess the respective business is charged. The limit excess charges are calculated in accordance with the Group-wide limit-setting framework for leverage.

For further details please also refer to the “Capital Management” section contained in chapter “Risk and Capital Management” on page 57 of our Annual Report 2017.

Factors that had an impact on the leverage ratio in the first half 2018

As of June 30, 2018, our fully loaded CRR/CRD 4 leverage ratio was 4.0 % compared to 3.8 % as of December 31, 2017, taking into account as of June 30, 2018 a fully loaded Tier 1 capital of € 52.5 billion over an applicable exposure measure of € 1,324 billion (€ 52.9 billion and € 1,395 billion as of December 31, 2017, respectively).

Our CRR/CRD 4 leverage ratio according to transitional provisions was 4.2 % as of June 30, 2018 (4.1 % as of December 31, 2017), calculated as Tier 1 capital according to transitional rules of € 55.5 billion over an applicable exposure measure of € 1,324 billion (€ 57.6 billion and € 1,396 billion as of December 31, 2017, respectively). Starting with January 1, 2018, the exposure measure under transitional rules is equal to the fully loaded exposure measure while it was € 1 billion higher as of December 31, 2017 as the asset amounts deducted in determining Tier 1 capital were lower under transitional rules.

In the first half of 2018, our leverage ratio exposure decreased by € 71 billion to € 1,324 billion. This is primarily driven by the reduction of € 61 billion in SFT exposures reflecting a decrease on the balance sheet in the SFT related items (securities purchased under resale agreements, securities borrowed and receivables from prime brokerage) and lower add-ons for counterparty credit risk due to extended collateral recognition. The € 6 billion reduction in Other Assets reflects the development on our balance sheet, in particular for non-derivative trading assets which decreased by € 25 billion, cash and central bank / interbank balances which decreased by € 16 billion, and pending settlements which increased by € 30 billion from seasonally low year-end level. Derivatives decreased by € 6 billion from lower exposures for written credit protection and lower add-ons for the potential future exposure. Off-balance sheet exposures slightly increased by € 2 billion corresponding to higher notional amounts for irrevocable lending commitments.

The decrease of the leverage ratio exposure in the first half of 2018 includes a positive foreign exchange impact of € 17 billion mainly due to the depreciation of the Euro against the U.S. dollar.

Our leverage ratio calculated as the ratio of total assets under IFRS to total equity under IFRS was 21 as of June 30, 2018 compared to 22 as of December 31, 2017.

For main drivers of the Tier 1 capital development please refer to section "Own Funds" on page 6 in this report.

Unencumbered Assets (Article 443 CRR)

On March 3, 2017 the EBA published the final guidelines on the disclosure of encumbered and unencumbered assets as mandated by Article 443 CRR.

In accordance to the guideline the data uses the median of the last four quarterly data points. Therefore, the sum of sub-components does not necessarily add up.

Encumbered assets primarily comprise those on- and off-balance sheet assets that are pledged as collateral against secured funding, collateral swaps, and other collateralized obligations. Additionally, in line with the EBA technical standards on regulatory asset encumbrance reporting, we consider assets placed with settlement systems, including default funds and initial margins as encumbered, as well as other assets pledged which cannot be freely withdrawn such as mandatory minimum reserves at central banks. We also include derivative margin receivable assets as encumbered under these EBA guidelines.

This section refers to asset encumbrance in the group of institutions consolidated for banking regulatory purposes pursuant to the German Banking Act. There under not included are insurance companies or companies outside the finance sector. Assets pledged by our insurance subsidiaries are included in the Annual Report 2017 in Note 22 “Assets Pledged and Received as Collateral” on page 258 of the Consolidated Financial Statements, and restricted assets held to satisfy obligations to insurance companies’ policy holders are included within Note 39 “Information on Subsidiaries” on page 311.

Encumbered and unencumbered assets

									Jun 30, 2018
		010	030	040	050	060	080	090	100
		Encumbered assets				Unencumbered assets			
		Carrying amount		Fair value		Carrying amount		Fair value	
	in € bn.		thereof central bank eligible		thereof central bank eligible		thereof central bank eligible		thereof central bank eligible
030	Equity instruments	58.4	0	–	–	19.8	0	–	–
040	Debt securities	65.4	42.3	65.4	42.3	82.5	49.7	82.5	49.7
	thereof:								
050	Covered bonds	1.9	1.7	1.9	1.7	0	0	0	0
060	Asset-backed securities	4.2	1.8	4.2	1.8	0	0	0	0
070	Issued by general governments	33.4	28.1	33.4	28.1	55.5	46.1	55.5	46.1
080	Issued by financial corporations	19.8	11.2	19.8	11.2	14.8	0	14.8	0
090	Issued by non-financial corporations	8.7	1.5	8.7	1.5	7.7	3.2	7.6	3.2
120	Other assets	124.4	34.2	–	–	1,106.8	212.9	–	–
121	thereof:								
122	Loans other than loans on demand	71.5	23.2	–	–	350.1	0	–	–
123	Securities purchased under resale agreements and securities borrowed	0	0	–	–	100.4	0	–	–
124	Cash margin receivables / prime brokerage receivables	40.4	0	–	–	16.7	0	–	–
010	Total	247.6	76.1	–	–	1,230.9	260.0	–	–

Collateral received

	in € bn.	010	030	040	060
				Unencumbered	
		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
			thereof central bank eligible		thereof central bank eligible
					Jun 30, 2018
140	Loans on demand	0	0	0	0
150	Equity instruments	118.4	0	16.7	0
160	Debt securities	191.0	111.4	37.9	14.4
	thereof:				
170	Covered bonds	3.7	3.2	0.7	0
180	Asset-backed securities	12.3	5.0	2.4	0
190	Issued by general governments	95.0	75.3	20.6	12.7
200	Issued by financial corporations	53.6	29.1	11.8	0
210	Issued by non-financial corporations	26.4	4.4	4.7	1.9
220	Loans and advances other than loans on demand	0	0	0	0
230	Other collateral received	0.1	0	0.4	0
130	Total collateral received	309.6	111.4	53.8	14.4
240	Own debt securities issued other than own covered bonds or asset-backed securities	0	0	0	0
241	Own covered bonds and asset-backed securities issued and not yet pledged	–	–	8.5	0.2
250	Total Assets, collateral received and own debt securities issued	557.7	187.4	–	–

The above tables set out a breakdown of on- and off-balance sheet items, broken down between encumbered and unencumbered. Any securities borrowed or purchased under resale agreements are shown based on the fair value of collateral received.

For June 2018, € 247.6 billion of the Group's on-balance sheet assets were encumbered. These assets primarily related to firm financing of trading inventory and other securities, to funding (i.e., Pfandbriefe and covered bonds) secured against loan collateral and to cash collateral for derivative margin requirements.

For June 2018, the Group had received securities as collateral with a fair value of € 363.3 billion, of which € 309.6 billion were sold or on pledged. These pledges typically relate to trades to facilitate client activity, including prime brokerage, collateral posted in respect of Exchange Traded Funds and derivative margin requirements.

The above tables of encumbered assets include assets that are not encumbered at an individual entity level, but which may be subject to restrictions in terms of their transferability within the group. Such restrictions may be due to local connected lending requirements or similar regulatory restrictions.

'Own debt securities issued other than covered bonds and asset backed securities' refers to those own bond holdings that are not derecognized from the balance sheet by a non-IFRS institution. This is not applicable for Deutsche Bank Group.

Sources of encumbrance (formerly encumbered assets/collateral received and associated liabilities)

	in € bn.	010	030
		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
			Jun 30, 2018
010	Carrying amount of selected financial liabilities	162.5	177.3
011	thereof:		
012	Derivatives	47.1	49.4
013	Repurchase agreements	50.5	51.8
014	Collaterized central bank deposits and covered bonds issued	45.3	56.8

The above table shows selected amounts for encumbered on- and off-balance sheet assets against the corresponding liabilities that have given rise to the encumbrance. These include assets pledged for derivatives margin, collateral required for repurchase agreements, and assets needed for the Group's covered bond issuance portfolio and the ECB's Targeted Longer Term Refinancing Operation

List of tables