



Pillar 3 Report as of June 30, 2020

Content

3 Regulatory Framework

- 3 Introduction
 - 3 Basel 3 and CRR/CRD
 - 4 TLAC and European MREL (SRMR/BRRD)
 - 5 ICAAP, ILAAP and SREP
 - 5 Prudential measures for non-performing exposure
 - 5 Measures in context of COVID-19 pandemic
-

7 Own funds

- 7 Article 437 (1) (a,d-e) CRR – Own Funds composition, prudential filters and deduction items
 - 14 Disclosures under Article 437a (a-d) CRR – Transitional arrangements for mitigating the impact of the introduction of IFRS 9 on own funds
 - 15 Article 437a (a-d) CRR – Own funds and eligible liabilities
 - 16 Article 437 (1) (b-c) CRR – Main features of capital instruments
 - 16 Article 437 (1) (f) CRR – Capital ratios different to CRR
-

17 Capital requirements

- 17 Article 438 (c-f) CRR – Overview of capital requirements
 - 18 Article 438 CRR – Specialized lending and equity exposures in the banking book
 - 19 Article 438 CRR – Other non-credit obligation assets in the banking book
 - 19 Article 440 CRR – Capital buffers
-

25 Credit risk and credit risk mitigation

- 25 General qualitative information on credit risk
 - 25 Article 442 (a) CRR – Definitions of past due and impairment
 - 25 Article 442 (b) CRR – Credit risk adjustments
 - 25 General quantitative information on credit risk
 - 25 Article 442 (g) CRR – Defaulted exposures by regulatory exposure class and industry
 - 29 Article 442 (h) CRR – Defaulted exposures by geographical area, past due, nonperforming and forborne exposures
 - 38 Exposures subject to measures applied in response to the COVID-19 crisis
 - 41 Article 442 (i) CRR – Development of credit risk adjustments and defaulted loans and debt securities
 - 42 General quantitative information on credit risk mitigation
 - 42 Article 453 (f-g) CRR – Overview of credit risk mitigation techniques
-

45 Credit risk and credit risk mitigation in the standardized approach

- 45 Quantitative information on the use of the standardized approach
 - 45 Article 444 (e) CRR – Standardized approach exposure by risk weight before and after credit mitigation
-

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

- 49 Quantitative information on the use of the IRB approach
 - 49 Article 452 (d-g) CRR – Advanced IRB exposure
 - 58 Article 452 (d-g) CRR – Foundation IRB exposure
 - 63 Article 453 (j) CRR – Total IRB exposure covered by credit derivatives
 - 63 Article 438 (d) CRR – Development of Credit Risk RWA
-

65 Counterparty credit risk (CCR)

- 65 Article 439 (f) CRR – CCR exposures by model approach
 - 66 Article 444 (e) CRR – CCR exposures in the standardized approach
 - 68 Article 452 (e) CRR – CCR exposures within the advanced IRBA
 - 73 Article 452 (e) CRR – CCR exposures within the foundation IRBA
 - 76 Article 438 (d) CRR – Development of CCR RWA
 - 76 Article 439 (e) CRR – CCR exposures after credit risk mitigation
 - 78 Article 439 (g-h) CRR – Credit derivatives exposures
-

79 Market risk

- 79 Own funds requirements for market risk under the standardized approach
 - 79 Article 445 CRR – Market Risk Standardized Approach
 - 79 Own funds requirements for market risk under the IMA
 - 79 Article 455 (e) CRR – Regulatory capital requirements for market risk
 - 81 Other quantitative information for market risk under the internal models approach
 - 81 Article 455 (d) CRR – Overview of Value-at-Risk Metrics
 - 82 Article 455 (g) CRR – Comparison of end-of-day VaR measures with one-day changes in portfolio's value
-

83 Operational Risk

- 83 Article 446 CRR – Operational Risk Exposure
-

84 Exposure to securitization positions

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

86 Leverage (Article 451 CRR)

- 86 Leverage Ratio according to CRR/CRD framework
 - 88 Process used to manage the risk of excessive leverage
 - 88 Factors that had an impact on the leverage ratio in the first half 2020
-

90 Unencumbered Assets (Article 443 CRR)

93 List of tables

Regulatory framework

Introduction

This Report provides Pillar 3 disclosures on the consolidated level of Deutsche Bank Group (the 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) 575/2013 on prudential requirements for credit institutions and investment firms" (Capital Requirements Regulation or "CRR") and the "Directive (EU) 2013/36 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms" (Capital Requirements Directive or "CRD") which have been further amended with subsequent Regulations and Directives. Germany implemented the CRD disclosure 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*). The information provided in this Pillar 3 Report is unaudited.

Due to rounding, numbers presented throughout this document may not add up precisely to the totals we provide and percentages may not precisely reflect the absolute figures.

Basel 3 and CRR/CRD

In the European Union, the Basel 3 capital framework is implemented by the amended versions of CRR and CRD. 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 capital requirements, regulatory own funds, leverage and liquidity as well as other relevant regulations. In addition, the CRD was implemented into German law by means of further amendments to the KWG and the German Solvency Regulation (SolV) and accompanying regulations. Jointly, these laws and regulations represent the regulatory framework applicable in Germany.

Regarding the regulatory minimum capital requirements the CRR/CRD lays the foundation for the calculation of risk weighted assets (RWA) for credit risk, including counterparty credit risk, credit valuation adjustments, market risk and operational risk.

In January 2019, Regulations (EU) 2017/2401 and 2017/2402 introduced changes to the methodology for determining RWAs for new securitizations originated on or after January 1, 2019. All securitization transactions originated before this date remained subject to the rules introduced by CRR/CRD as applicable until December 31, 2018 and are subject to the new framework since January 1, 2020.

In May 2019, Regulation (EU) 2019/876 and Directive (EU) 2019/878 introduced amendments to the CRR/CRD with various changes to the credit risk RWA framework becoming applicable in June 2021. These relate for example to the applicable risk weights for banking book investments in collective investment undertakings or the replacement of the mark-to-market method to determine the exposure value for derivatives that are not in scope of the internal model method by a new standardized approach to determine counterparty credit risk (SA-CCR).

As a reaction to the COVID-19 outbreak, certain legislative changes to the prudential framework have been made and are applicable for the second quarter reporting. Regulation (EU) 2020/866 increases the diversification benefit applicable to aggregate additional value adjustments from 50 % to 66 % until year end 2020. Regulation (EU) 2020/873 introduces various changes to the determination of risk weighted assets and the leverage exposure. For example the risk weights applicable to certain small or medium-sized enterprise (SME) are reduced by applying scaling factors depending on the exposure value. With respect to the leverage exposure, for example cash receivables and cash payables are offset where the related regular-way sales and purchases are both settled on a delivery-versus-payment basis. A further core element of the CRR/CRD framework is the development and maintenance of a high quality capital base which should primarily consist of Common Equity Tier 1 (CET 1). The 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 are fully effective from 2019 onwards. For all of our CET 1 measures we apply for the first time for June 30, 2020, the transitional arrangements in relation to IFRS 9 as provided in the current CRR/CRD.

We present in this report certain figures based on the CRR definition of own fund instruments on a "fully loaded" basis. We calculate such "fully loaded" figures excluding the transitional arrangements for own fund instruments as provided in the currently applicable CRR/CRD. Note that for CET 1 instruments we do not make use of transitional provisions such that the

fully loaded definition only impacts AT1 capital and T2 capital and figures based thereon, including Tier 1, Total Capital and Leverage Ratio.

Transitional arrangements are applicable for Additional Tier 1 (AT1) and Tier 2 (T2) instruments. Capital instruments issued on or prior to December 31, 2011, that no longer qualify as AT1 or T2 capital under the fully loaded CRR/CRD as currently applicable are subject to grandfathering rules during the transitional period and are being phased out from 2013 to 2022 with their recognition capped at 30 % in 2019, 20 % in 2020 and 10 % in 2021 (in relation to the portfolio eligible for grandfathering which was still in issue on December 31, 2012). The current CRR as applicable since June 27, 2019, provides further grandfathering rules for AT1 and T2 instruments issued prior to June 27, 2019. Thereunder, AT1 and T2 instruments issued through special purpose entities are grandfathered until December 31, 2021, and AT1 and T2 instruments that do not meet certain new requirements that apply since June 27, 2019 continue to qualify until June 26, 2025. Instruments issued under UK law which do not fulfill all CRR requirements after the UK has left the European Union are also excluded from our fully loaded definition. Our CET 1 and RWA figures show no difference between CRR/CRD as currently applicable and fully loaded CRR/CRD based on our definition of “fully loaded”.

For the comparative numbers as per year end 2019 we still applied our earlier concept of fully loaded, defined as excluding the transitional arrangements for own funds instruments introduced by the CRR/CRD applicable until June 26, 2019, but reflecting the transitional arrangements introduced by the amendments to the CRR/CRD applicable from June 27, 2019, and further amendments thereafter.

The CRR/CRD 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. With effect from June 2021 the leverage exposure measure will be modified, e.g. the exposure measure for derivatives is determined based on a new standardized approach for counterparty credit risk and a minimum leverage ratio requirement of 3 % is introduced. From January 1, 2023 an additional leverage ratio buffer requirement of 50 % of the applicable G-SIB buffer rate will apply. It is currently expected that this additional requirement will equal 0.75 %.

The CRR/CRD framework further defines 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 Commission Delegated Regulation 2015/61. The binding minimum liquidity coverage ratio is set to 100 % since 2018.

The Net Stable Funding Ratio (NSFR) requires banks to maintain a stable funding profile in relation to their on- and off-balance sheet exposures. The CRR/CRD requires banks to calculate and disclose certain items requiring and providing stable funding. With effect from June 2021 a minimum Net Stable Funding Ratio of 100 % will be introduced.

There are continuous improvements and additional regulatory guidance provided with regard to the interpretations of the CRR/CRD rules and related binding Technical Standards are still in preparation or 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 measures may not be comparable to previous expectations. Also, our CRR/CRD 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.

TLAC and European MREL (SRMR/BRRD)

Global Systemically Important Institutions (G-SIIs) in Europe need to have at least 16 % plus the combined buffer requirement of their Risk Weighted Assets (RWA) or 3 % of their Leverage Ratio Exposure (LRE) as Total Loss Absorbing Capacity (TLAC). The requirement will increase to 18 % plus the combined buffer requirement of RWA or 3.75 % of LRE starting 2022.

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

MREL is determined on a case-by-case basis by the resolution authority in line with guidance provided by Commission Delegated Regulation (EU) 2016/1450. The Single Resolution Board (“SRB”) as Deutsche Bank's resolution authority has issued further MREL policies clarifying how the SRB will exercise its discretion under the above European laws in setting MREL and in determining eligible liabilities. MREL is expressed as a percentage of Total Liabilities and Own Funds (“TLOF”).

Instruments which qualify for TLAC and MREL are own funds (Common Equity Tier 1, Additional Tier 1 and Tier 2) as well as certain eligible liabilities (mainly plain-vanilla unsecured bonds). Instruments qualifying for TLAC need to be fully subordinated to general creditor claims (e.g. senior non-preferred bonds) while this is not required for MREL (e.g. senior preferred bonds). Nevertheless, current and future MREL regulation allows the SRB to also set an additional “subordination” requirement within MREL (but separate from TLAC) against which only subordinated liabilities and own funds can be counted.

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. Our Internal Liquidity Adequacy Assessment Process (“ILAAP”) aims to ensure that sufficient levels of liquidity are maintained on an ongoing basis by identifying the key liquidity and funding risks to which the Group is exposed, by monitoring and measuring these risks, and by maintaining tools and resources to manage and mitigate these risks.

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

Prudential measures for non-performing exposure

In April 2019 the EU published final regulations for a prudential backstop reserve for non-performing loans, which will result in a deduction from CET 1 capital when a minimum loss coverage requirement is not met. We expect first impacts on our CET 1 ratio in 2021, as these rules apply to newly originated assets after application date and foresee a two year grace period before the defined backstop requirements apply.

In addition, in March 2018 ECB published its “Addendum to the ECB Guidance to banks on non-performing loans: supervisory expectations for prudential provisioning of non-performing exposures” and in August 2019 its “Communication on supervisory coverage expectations for NPEs”. These guidances are applicable to all newly defaulted loans after April 1, 2018 and, similar to the EU rules, it requires banks to take measures in case a minimum impairment coverage requirement is not met. Within the annual SREP discussions ECB may impose Pillar 2 measures on banks in case ECB is not confident with measure taken by the individual bank. In line with the ECB guidance we do not expect an impact earlier than in the third quarter of 2020.

In its 2019 SREP letter, ECB asks us to apply ECB’s non-performing backstop requirements to the stock of Non-Performing Loans starting year end 2020. Similar to the Addendum to the ECB Guidance to banks on non-performing loans this measure will be evaluated as part of the annual SREP process.

Measures in context of COVID-19 pandemic

Application of EBA guidance regarding Default, Forbearance and IFRS 9 in light of COVID-19 measures

EBA’s “Statement on the application of the prudential framework regarding Default, Forbearance and IFRS 9 in light of COVID-19 measures” published on March 25, 2020 states that “institutions are expected to use a degree of judgement and distinguish between borrowers whose credit standing would not be significantly affected by the current situation in the long term, and those who would be unlikely to restore their creditworthiness.” We performed portfolio reviews and applied this regulatory guidance to a number of clients mainly in the Investment Bank and Corporate Bank.

EBA is further of the view that “the public and private moratoria, as a response to COVID-19 epidemic, do not have to be automatically classified as forbearance if the moratoria is not borrower specific, based on the applicable national law or on an industry or sector-wide private initiative agreed and applied broadly by relevant credit institutions”. The Group has introduced this guidance into our internal risk management processes.

For further details with regards to Deutsche Bank’s determination of Expected Credit Losses following IFRS 9 accounting rules please refer to Deutsche Bank’s Annual Report as of December 31, 2019 and to Deutsche Bank’s Interim Report as of June 30, 2020.

Legislative and non-legislative moratoria and public guarantee schemes in light of COVID-19 pandemic

After the breakout of the COVID-19 pandemic, a number of governments issued programs offering legislative moratoria and guarantee schemes. Non-legislative moratoria programs have been developed to support our clients as well as individual measures have been agreed with our clients.

On April 2, 2020 and June 25, 2020 EBA published its Guidelines on legislative and non-legislative moratoria on loan repayments applied in light of the COVID-19 crisis. These guidelines provide clarity on the treatment of legislative and non-legislative moratoria applied before September 30, 2020 and supplement the EBA Guidelines on the application of the definition of default as regards the treatment of distressed restructuring. Definitions and guidance provided in these guidelines have been considered for accounting and reporting purposes.

Own funds

Article 437 (1) (a,d-e) CRR - Own Funds composition, prudential filters and deduction items

Development of Own Funds

Our Total Regulatory capital as of June 30, 2020 amounted to €57.8 billion compared to €56.5 billion at the end of December 31, 2019. Our Tier 1 capital as of June 30, 2020 amounted to €50.7 billion, consisting of a Common Equity Tier 1 (CET 1) capital of €43.9 billion and Additional Tier 1 (AT1) capital of €6.8 billion. The Tier 1 capital was €0.2 billion higher than at the end of December 31, 2019, driven by a decrease in CET 1 capital of €0.3 billion and an increase in AT1 capital of €0.5 billion.

The CET 1 capital decrease of €0.3 billion was the result of payment of our yearly AT1 coupon of €0.3 billion in the second quarter of 2020 which was not accrued in CET 1 capital as a consequence of the negative net income in financial year 2019 following Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4). Additionally COVID-19 pandemic impact and market volatility reduced our CET 1 capital by €0.2 billion due to higher prudential filters. This was offset by an increase in CET 1 capital of €0.2 billion in the second quarter as we make use of the IFRS 9 transitional provision effective June 30, 2020 as per Article 473a of the CRR.

The €0.5 billion increase in AT1 capital was mainly the result of an issued AT1 capital instruments with a notional amount of \$ 1.250 billion (€1.153 billion) during the first quarter of 2020 partially offset by call and redemption of one legacy hybrid Tier 1 instrument, recognizable as AT1 capital during the transition period, with a notional amount of €0.7 billion in the second quarter of 2020.

Our fully loaded Total Regulatory capital as of June 30, 2020 was €56.4 billion, compared to €56.5 billion at the end of December 31, 2019. Our fully loaded Tier 1 capital as of June 30, 2020 was €49.6 billion, compared to €48.7 billion at the end of December 31, 2019. Our fully loaded AT1 capital amounted to €5.7 billion as per end of June 30, 2020 which increased compared to €4.6 billion as of to December 31, 2019 due to the above mentioned issuance. Our CET 1 capital amounted to €43.9 billion as of June 30, 2020, compared to €44.1 billion as of December 31, 2019.

Own Funds template (incl. RWA and capital ratios)

in € m.	Jun 30, 2020		Dec 31, 2019		References ¹	
	CRR/CRD fully-loaded ¹²	CRR/CRD	CRR/CRD fully loaded ¹²	CRR/CRD		
Common Equity Tier 1 (CET 1) capital: instruments and reserves						
1	Capital instruments, related share premium accounts and other reserves	45,709	45,709	45,780	45,780	A
	of which: Instrument type 1 (ordinary shares) ²	45,709	45,709	45,780	45,780	A
	of which: Instrument type 2	0	0	0	0	
	of which: Instrument type 3	0	0	0	0	
2	Retained earnings	9,227	9,227	14,814	14,814	B
3	Accumulated other comprehensive income (loss), net of tax	249	249	537	537	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)	838	838	837	837	
5a	Independently reviewed interim profits net of any foreseeable charge or dividend ³	1	1	(5,390)	(5,390)	B
6	Common Equity Tier 1 (CET 1) capital before regulatory adjustments	56,024	56,024	56,579	56,579	
Common Equity Tier 1 (CET 1) capital: regulatory adjustments						
7	Additional value adjustments (negative amount) ⁴	(1,836)	(1,836)	(1,738)	(1,738)	
8	Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	(6,348)	(6,348)	(6,515)	(6,515)	D
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)	(1,079)	(1,079)	(1,126)	(1,126)	E
11	Fair value reserves related to gains or losses on cash flow hedges	(2)	(2)	(21)	(21)	
12	Negative amounts resulting from the calculation of expected loss amounts	(81)	(81)	(259)	(259)	
13	Any increase in equity that results from securitized assets (negative amount)	(1)	(1)	(2)	(2)	
14	Gains or losses on liabilities designated at fair value resulting from changes in own credit standing ⁵	(272)	(272)	(127)	(127)	
15	Defined benefit pension fund assets (net of related tax liabilities) (negative amount)	(810)	(810)	(892)	(892)	F
16	Direct, indirect and synthetic holdings by an institution of own CET 1 instruments (negative amount) ⁶	0	0	(15)	(15)	
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 of which:	0	0	0	0	
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)	(419)	(419)	(319)	(319)	E
22	Amount exceeding the 15 % threshold (negative amount)	0	0	0	0	
	of which:					
23	Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0	0	0	
25	Deferred tax assets arising from temporary differences	0	0	0	0	E
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	N/M	
26b	Amount to be deducted from or added to CET 1 capital with regard to additional filters and deductions required pre CRR	0	0	0	0	
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	0	0	0	0	
27a	Other regulatory adjustments ⁸	(1,311)	(1,311)	(1,417)	(1,417)	

in €m.	Jun 30, 2020		Dec 31, 2019		References ¹
	CRR/CRD fully-loaded ¹²	CRR/CRD	CRR/CRD fully loaded ¹²	CRR/CRD	
28 Total regulatory adjustments to Common Equity Tier 1 (CET 1) capital	(12,161)	(12,161)	(12,430)	(12,430)	
29 Common Equity Tier 1 (CET 1) capital	43,863	43,863	44,148	44,148	
Additional Tier 1 (AT1) capital: instruments					
30 Capital instruments and the related share premium accounts of which:	5,828	5,828	4,676	4,676	G
31 Classified as equity under applicable accounting standards	5,828	5,828	4,676	4,676	G
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	1,100	N/M	1,813	H
34 Qualifying Tier 1 capital included in consolidated AT1 capital issued by subsidiaries and held by third parties	0	0	0	0	
35 of which: instruments issued by subsidiaries subject to phase out	N/M	0	N/M	0	
36 Additional Tier 1 (AT1) capital before regulatory adjustments	5,828	6,928	4,676	6,489	
Additional Tier 1 (AT1) capital: regulatory adjustments					
37 Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	(80)	(80)	(91)	(91)	G
38 Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	0	0	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	N/M	
of which:					
Goodwill and other intangible assets (net of related tax liabilities)	N/M	N/M	N/M	N/M	D
Negative amounts resulting from the calculation of expected loss amounts	N/M	N/M	N/M	N/M	
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)	(91)	(91)	
44 Additional Tier 1 (AT1) capital	5,748	6,848	4,584	6,397	
45 Tier 1 capital (T1 = CET 1 + AT1)	49,612	50,712	48,733	50,546	
Tier 2 (T2) capital: instruments and provisions					
46 Capital instruments and the related share premium accounts ⁹	6,853	7,161	7,906	6,092	I
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	I
48 Qualifying own funds instruments included in consolidated T2 capital issued by subsidiaries and held by third parties	14	14	15	15	I
49 of which: 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	6,867	7,175	7,920	6,107	
Tier 2 (T2) capital: regulatory adjustments					
52 Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans (negative amount)	(80)	(80)	(150)	(150)	I
53 Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	0	0	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	

in €m.	Jun 30, 2020		Dec 31, 2019		References ¹
	CRR/CRD fully-loaded ²	CRR/CRD	CRR/CRD fully loaded ²	CRR/CRD	
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 of which:					
56a Negative amounts resulting from the calculation of expected loss amounts	N/M	N/M	N/M	N/M	
57 Total regulatory adjustments to Tier 2 (T2) capital	(80)	(80)	(150)	(150)	
58 Tier 2 (T2) capital	6,787	7,095	7,770	5,957	
59 Total capital (TC = T1 + T2)	56,398	57,807	56,503	56,503	
60 Total risk-weighted assets	330,879	330,879	324,015	324,015	
of which:					
Credit Risk (including Settlement Risk)	224,866	224,866	221,302	221,302	
Credit Valuation Adjustment (CVA)	5,235	5,235	4,683	4,683	
Market Risk	29,468	29,468	25,368	25,368	
Operational Risk	71,310	71,310	72,662	72,662	
Capital ratios and buffers					
61 Common Equity Tier 1 capital ratio (as a percentage of risk-weighted assets)	13.3	13.3	13.6	13.6	
62 Tier 1 capital ratio (as a percentage of risk-weighted assets)	15.0	15.3	15.0	15.6	
63 Total capital ratio (as a percentage of risk-weighted assets)	17.0	17.5	17.4	17.4	
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) ¹⁰	10.4	10.4	11.8	11.8	
of which:					
65 Capital conservation buffer requirement	2.5	2.5	2.5	2.5	
66 Countercyclical buffer requirement	0.02	0.02	0.08	0.08	
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	2.0	2.0	2.0	
68 Common Equity Tier 1 capital available to meet buffers (as a percentage of risk-weighted assets) ¹¹	13.3	13.3	13.5	13.6	
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	2,561	2,561	3,049	3,049	
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)	814	814	794	794	
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)	4,559	4,559	4,588	4,588	
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	206	206	216	216	
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	1,071	1,071	1,059	1,059	
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	2,505	N/M	3,758	
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	675	N/M	1,013	
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 2019 where this is reflected in the column "References" in the section "EU L11 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories"). Where applicable, more detailed information is provided in the respective reference footnote section.

² Based on EBA list as referred to in Article 26 (3) CRR.

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

⁴ The € 1.8 billion 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 €0.2 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 fair value gains and losses on derivative liabilities of the institution that result from changes in the own credit risk of the institution 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 Includes €0.4 billion capital deduction effective from April 2019 and €0.3 billion effective from October 2016 based on regular ECB review and €0.9 billion capital deduction based on ECB guidance on irrevocable payment commitments related to the Single Resolution Fund and the Deposit Guarantee Scheme effective from January 2018 onwards. Additionally effective 30 June 2020, we make use of the IFRS 9 transitional provision as per Article 473a of the CRR resulting in a CET 1 increase of €0.2 billion.
- ⁹ Amortization is taken into account.
- ¹⁰ Includes Pillar 2 Requirement.
- ¹¹ Calculated as the CET 1 capital less any CET 1 items used to meet Tier 1 and Total capital requirements.
- ¹² For our understanding of the term "fully-loaded" please refer to our definition as provided in section "Basel 3 and CRR/CRD" on page 3 of this report.
- ^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 € 71 million (Dec 2019: €(5,390) million). This item is excluded from the position retained earnings in the Own funds template (incl. RWA and capital ratios) and shown separately along with accrual for dividend and AT1 coupons of €(69) million (Dec 2019: €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 Regulatory applicable amount is goodwill and other intangible assets of €6,703 million (Dec 2019: €6,831 million) plus goodwill from equity method investments of €66 million (Dec 2019: €74 million) as per regulatory balance sheet reduced by deferred tax liabilities on other intangibles of €421 million (Dec 2019: €390 million).
- ^E Differences to balance sheet position mainly driven by adjustments as set out in Article 38 (2) to (5) CRR (e.g. regulatory offsetting requirements).
- ^F Regulatory applicable amount is defined benefit pension fund assets of €955 million (Dec 2019: €1,025 million) reduced by deferred tax liabilities on defined benefit pension fund assets of €145 million (Dec 2019: €133 million).
- ^G Additional equity components reflects regulatory eligible AT1 capital instruments.
- ^H Difference to regulatory balance sheet driven by regulatory adjustments as set out in Articles 51 to 61 CRR (e.g. current cap on AT1 instruments subject to phase-out arrangements).
- ^I Difference to regulatory balance sheet driven by regulatory adjustments as set out in Articles 62 to 71 CRR (e.g. maturity deduction, noncontrolling interests).

Reconciliation of shareholders' equity to Own Funds

in € m.	Jun 30, 2020	Dec 31, 2019
Total shareholders' equity per accounting balance sheet	55,343	55,857
Deconsolidation/Consolidation of entities	(88)	(116)
of which:		
Additional paid-in capital	(10)	(12)
Retained earnings	(176)	(220)
Accumulated other comprehensive income (loss), net of tax	98	116
Total shareholders' equity per regulatory balance sheet	55,255	55,741
Minority Interests (amount allowed in consolidated CET 1)	838	837
Accrual for dividend and AT1 coupons ¹	(69)	0
Reversal of deconsolidation/consolidation of the position Accumulated other comprehensive income (loss), net of tax, during transitional period	0	0
Common Equity Tier 1 (CET 1) capital before regulatory adjustments	56,024	56,579
Prudential filters	(2,112)	(1,888)
of which:		
Additional value adjustments	(1,836)	(1,738)
Any increase in equity that results from securitized assets	(1)	(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	(275)	(148)
Regulatory adjustments relating to unrealized gains and losses pursuant to Art. 467 and 468 CRR	0	0
Regulatory adjustments	(10,049)	(10,543)
of which:		
Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	(6,348)	(6,515)
Deferred tax assets that rely on future profitability	(1,498)	(1,445)
Negative amounts resulting from the calculation of expected loss amounts	(81)	(259)
Defined benefit pension fund assets (net of related tax liabilities) (negative amount)	(810)	(892)
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 ²	(1,311)	(1,433)
Common Equity Tier 1 capital	43,863	44,148
Additional Tier 1 capital	6,848	6,397
Additional Tier 1 Notes (AT1 Notes)	5,748	4,584
Per balance sheet	5,826	4,665
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	(77)	(80)
Hybrid capital securities	1,100	1,813
Per balance sheet	1,348	2,013
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	(248)	(200)
Other regulatory adjustments	0	0
Deductions from Additional Tier 1 capital	0	0
Tier 1 capital	50,712	50,546
Tier 2 capital	7,095	5,957
Subordinated debt	6,811	5,679
Per balance sheet	6,384	7,267
Deconsolidation/Consolidation of entities	0	0
Regulatory adjustments to balance sheet position	427	(1,588)
of which:		
Amortization according to Art. 64 CRR	(255)	(957)
Other	682	(631)
Other regulatory adjustments	284	278
Deductions from Tier 2 capital	0	0
Total capital	57,807	56,503

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

² Includes € 0.4 billion capital deduction effective from April 2019 and € 0.3 billion effective from October 2016 based on regular ECB review, € 0.9 billion capital deduction based on ECB guidance on irrevocable payment commitments related to the Single Resolution Fund and the Deposit Guarantee Scheme effective from January 2018 onwards. Effective 30 June 2020, we make use of the IFRS 9 transitional provision as per Article 473a of the CRR resulting in a CET 1 increase of € 0.2 billion.

Development of Own Funds

in € m.	six months ended Jun 30, 2020	six months ended Dec 31, 2019
Common Equity Tier 1 (CET 1) capital - opening amount	44,148	46,523
Common shares, net effect	0	0
of which:		
New shares issued (+)	0	0
Shares retired (-)	0	0
Additional paid-in capital	(19)	188
Retained earnings	(127)	(2,984)
of which:		
Actuarial gains (losses) rel. to defined benefit plans, net of tax and Currency Translation Adjustment (CTA)	107	(602)
Net income attributable to Deutsche Bank Shareholders	71	(2,378)
Common shares in treasury, net effect/(+) sales (-) purchase	(52)	8
Movements in accumulated other comprehensive income	(288)	(124)
of which:		
Foreign currency translation, net of tax	(460)	132
Unrealized gains and losses	214	(228)
Other	(42)	(29)
Accrual for dividend and Additional Tier 1 (AT1) coupons ¹	(69)	0
of which:		
Gross dividends (deduction)	(2)	0
Shares issued in lieu of dividends (add back)	0	0
Gross AT1 coupons (deduction)	(67)	0
Additional value adjustments	(98)	(45)
Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	166	661
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	47	(46)
Negative amounts resulting from the calculation of expected loss amounts	178	(50)
Removal of gains/losses resulting from changes in own credit standing in liabilities designated at fair value (net of tax)	(145)	104
Defined benefit pension fund assets (net of related tax liabilities) (negative amount)	81	181
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)	(100)	(319)
Other, including regulatory adjustments	141	50
Common Equity Tier 1 (CET 1) capital - closing amount	43,863	44,148
Additional Tier 1 (AT1) capital - opening amount	6,397	7,614
New Additional Tier 1 eligible capital issues	1,136	0
Matured and called instruments	(713)	(1,216)
Transitional arrangements	0	0
of which:		
Amount excluded from Additional Tier 1 capital due to cap	0	0
Goodwill and other intangible assets (net of related tax liabilities)	0	0
Negative amounts resulting from the calculation of expected loss amounts	0	0
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0
Other, including regulatory adjustments	29	(1)
Additional Tier 1 (AT1) capital - closing amount	6,848	6,397
Tier 1 capital (T1 = CET 1 + AT1)	50,712	50,546
Tier 2 (T2) capital - opening amount	5,957	6,018
New Tier 2 eligible capital issues	1,212	0
Matured and called instruments	(100)	(0)
Amortization adjustments	(169)	(116)
Transitional arrangements	0	0
of which:		
Inclusion of amount excluded from Additional Tier 1 capital due to cap	0	0
Amount to be deducted from or added to Additional Tier 2 capital with regard to additional filters and deductions required pre-CRR	0	0
Negative amounts resulting from the calculation of expected loss amounts	0	0
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0
Other, including regulatory adjustments	195	55
Tier 2 (T2) capital - closing amount	7,095	5,957
Total regulatory capital (TC = T1 + T2)	57,807	56,503

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

Disclosures under Article 473a CRR - Transitional arrangements for mitigating the impact of the introduction of IFRS 9 on own funds

For all of our CET 1 measures we apply for the first time for June 30, 2020, the transitional arrangements in relation to IFRS 9 as provided in the current CRR/CRD, Article 473a CRR. The CRR allowed for a phase-in of the corresponding CET 1 reduction due to the increase of IFRS 9 credit loss allowance over a five year period until year end 2022. The transitional provisions were structured such that there is a static component relating to increases of credit loss allowance observed as of January 2018 and a dynamic component relating to credit loss allowance increases observed between January 2018 and the current reporting date.

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

In addition, the CRR amendment simplifies the implementation of the transitional provisions as the requirement to recalculate the exposure at default (EaD) for each individual credit risk standardised approach (CRSA) exposure taking into account the amounts added back to CET 1 no longer applies. Instead, an additional credit risk RWA amount equal to 100 % times the credit loss allowance for the CRSA portfolio that has not reduced CET 1 due to the application of the transitional provisions is determined. The same amount is included in the leverage exposure. We do make use of this simplification in our application of transitional provisions.

In the following table CET 1, Tier 1 and Total Capital as well as risk weighted assets and leverage exposure are shown based on currently applicable CRR in comparison to not applying Article 473a CRR.

IFRS 9-Fully Loaded: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs

	Jun 30, 2020
	a
Available capital (in € m.)	
1 Common Equity Tier 1 (CET 1) capital	43,863
2 Common Equity Tier 1 (CET 1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	43,659
3 Tier 1 capital	50,712
4 Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	50,508
5 Total capital	57,807
6 Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	57,603
Risk-weighted assets (in € m.)	
7 Total risk-weighted assets	330,879
8 Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	330,822
Capital ratios	
9 Common Equity Tier 1 (as a percentage of risk exposure amount)	13.3
10 Common Equity Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	13.2
11 Tier 1 (as a percentage of risk exposure amount)	15.3
12 Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	15.3
13 Total capital (as a percentage of risk exposure amount)	17.5
14 Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	17.4
Leverage ratio	
15 Leverage ratio total exposure measure ¹	1,192,408
16 Leverage ratio	4.3
17 Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4.2

¹ Leverage ratio total exposure measure if IFRS 9 or analogous ECL transitional arrangements had not been applied would have been lower by € 0.2 billion.

The capital add back of in total € 204 million for the second quarter of 2020 includes € 54 million from the static component solely stemming from the CRSA portfolio due to the increase in credit loss allowances for the CRSA portfolio at transition from IAS 39 to IFRS 9 at the end of 2017 and beginning of 2018. There was no contribution from the IRBA portfolios, given the regulatory expected loss exceeded IFRS 9 Credit Loss Allowances for the relevant reporting dates.

There is no contribution from the dynamic component from both CRSA and IBRA portfolios which compares credit loss allowance levels between January, 1 2018 and January, 1 2020. This is due to a reduction in credit loss allowance levels in aforementioned period for the CRSA portfolio and the regulatory expected loss exceeding the credit loss allowance levels for the IRBA portfolio.

There is a contribution of € 150 million from the dynamic component which compares the credit loss allowance levels since January 1, 2020 and the reporting date, whereby the IRBA portfolio contributing amounts to € 148 million and CRSA portfolio contribute € 2 million. This is due to the credit loss allowances levels for the IRBA portfolio being in excess of the regulatory expected loss in scope for Stage 1 and 2 assets and a slight increase in credit loss allowances levels for the CRSA portfolio since January 1, 2020.

Article 437a (a-d) CRR - Own funds and eligible liabilities

Our available minimum own funds and eligible liabilities (MREL) as of June 30, 2020, amounted to € 111.4 billion, consisting of a total loss absorbing capacity (TLAC) of € 107.8 billion and further eligible liabilities from senior preferred plain vanilla liabilities instruments of € 3.6 billion.

Own funds and eligible liabilities disclosure ordered by insolvency hierarchy

in € m.

(unless stated otherwise)

	Jun 30, 2020	Dec 31, 2019
Regulatory capital elements of TLAC/MREL		
Common Equity Tier 1 capital (CET 1)	43,863	44,148
Additional Tier 1 (AT1) capital instruments eligible under TLAC/MREL	6,849	6,397
Tier 2 (T2) capital instruments eligible under TLAC/MREL		
Tier 2 (T2) capital instruments before TLAC/MREL adjustments	7,095	5,957
Tier 2 (T2) capital instruments adjustments for TLAC/MREL	255	16
Tier 2 (T2) capital instruments eligible under TLAC/MREL	7,350	5,973
Total regulatory capital elements of TLAC/MREL	58,062	56,519
Other elements of TLAC/MREL		
Senior non-preferred plain vanilla		
o/w residual maturity >= 1 year and <2 years (Art 437a(a))	13,373	18,001
o/w residual maturity >= 2 years (Art 437a(a))	36,338	37,802
Total Senior non-preferred plain vanilla	49,711	55,803
Holdings of eligible liabilities instruments of other G-SIIs (TLAC only)	0	0
Total Loss Absorbing Capacity (TLAC)	107,773	112,322
Add back of holdings of eligible liabilities instruments of other G-SIIs (TLAC only)	0	0
Available Own Funds and subordinated Eligible Liabilities (subordinated MREL)	107,773	112,322
Senior preferred plain vanilla		
o/w residual maturity >= 1 year and <2 years (Art 437a(a))	1,818	20
o/w residual maturity >= 2 years (Art 437a(a))	1,768	2,836
Total Senior preferred plain vanilla	3,586	2,856
Available Minimum Own Funds and Eligible Liabilities (MREL)	111,359	115,178
Risk Weighted Assets (RWA)	330,879	324,015
Leverage Ratio Exposure (LRE)	1,192,408	1,168,040
Total amount of liabilities excluded from eligible liabilities items (Art 437a(d))	474,951	455,119
Total liabilities and own funds after prudential netting (TLOF)	1,070,843	995,513
TLAC ratio		
TLAC ratio (as percentage of RWA)	32.57	34.67
TLAC requirement (as percentage of RWA)	20.52	20.58
TLAC ratio (as percentage of Leverage Exposure)	9.04	9.62
TLAC requirement (as percentage of Leverage Exposure)	6.00	6.00
TLAC surplus over RWA requirement	39,881	45,633
TLAC surplus over LRE requirement	36,228	42,239
MREL subordination		
MREL subordination ratio (as percentage of TLOF)	10.06	11.28
MREL subordination requirement (as percentage of TLOF)	6.11	6.11
Surplus over MREL subordination requirement	42,344	51,496
MREL ratio		
MREL ratio (as percentage of TLOF)	10.40	11.57
MREL requirement (as percentage of TLOF)	8.58	8.58
MREL surplus over requirement	19,480	29,763

As of June 30, 2020 TLOF were € 1,070.8 billion and available MREL were € 111.4 billion, corresponding to a ratio of 10.40 %. This means that Deutsche Bank has a comfortable MREL surplus of € 19.5 billion above its MREL requirement of € 91.9 billion (i.e. 8.58 % of TLOF). € 107.8 billion of our available MREL were subordinated, corresponding to a MREL subordination ratio of 10.06 %, representing a surplus of € 42.3 billion over our subordination requirement of € 65.4 billion (i.e. 6.11 % of TLOF).

As of June 30, 2020 TLAC was €107.8 billion and the corresponding TLAC ratios were 32.57 % (RWA based) and 9.04 % (Leverage exposure based). This means that Deutsche Bank has a comfortable TLAC surplus of €36.2 billion over its total loss absorbing capacity minimum requirement of €71.5 billion (6.00 % Leverage exposure based).

Main features of eligible liabilities instruments

As of June 30, 2020, 49 % of DB's senior non-preferred MREL/TLAC eligible instruments in terms of volume with remaining tenor of > 1 year were public benchmarks with volume-weighted average original tenor of 3.0 years. 79 % out of these senior non-preferred benchmarks had a fixed coupon rate with a volume-weighted average coupon of 2.6 % and remaining maturity of 3.1 years. The main funding currencies were Euro and US Dollar which provide more than 87 % of our senior non-preferred public benchmarks.

A description of the main features of our senior non-preferred plain vanilla, TLAC and subordinated MREL eligible liabilities instruments issued by Deutsche Bank is published on Deutsche Bank's website ([db.com/ir/en/capital-instruments.htm](https://www.db.com/ir/en/capital-instruments.htm)).

The following table provides a simplified overview of the ranking of liabilities in an insolvency proceeding under German law. The ranking is presented from the more junior liabilities to the more senior liabilities. Deutsche Bank AG's eligible liabilities for TLAC and MREL which meet all of the conditions in CRR Article 72b (2) or are grandfathered pursuant to CRR Article 494b (3) rank at position 11 in the below order. Senior preferred eligible liabilities which are eligible for MREL only rank in position 12. There are no liabilities included in Deutsche Bank's eligible liabilities instruments as per CRR Article 72b (3) and (4).

Ranking of liabilities in an insolvency proceeding under German law

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

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

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, 2020		Mar 31, 2020		
		a1	b1	a2	b2	
in €m.		RWA	Minimum capital requirements	RWA	Minimum capital requirements	
	1	Credit risk (excluding CCR)	174,331	13,946	181,289	14,503
		of which:				
Art 438(c)(d)	2	The standardized approach (SA)	15,153	1,212	15,694	1,256
Art 438(c)(d)	3	The foundation IRB (FIRB) approach	3,941	315	3,955	316
Art 438(c)(d)	4	The advanced IRB (AIRB) approach	148,150	11,852	153,935	12,315
Art 438(d)	5	Equity IRB under the simple risk-weighted approach or the IMA	7,088	567	7,704	616
Art 107	6	Counterparty credit risk (CCR)				
Art 438(c)(d)			27,943	2,235	32,835	2,627
		of which:				
Art 438(c)(d)	7	Mark to market	3,140	251	4,533	363
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)	1,667	133	1,883	151
	10	Internal model method (IMM)	17,736	1,419	21,492	1,719
Art 438(c)(d)	11	Risk exposure amount for contributions to the default fund of a CCP	166	13	249	20
Art 438(c)(d)	12	Credit Valuation Adjustment (CVA)	5,235	419	4,678	374
Art 438(e)	13	Settlement risk	222	18	139	11
Art 449(o)(i)	14	Securitization exposures in the banking book (after the cap)	14,173	1,134	15,467	1,237
		of which:				
	15	IRB approach	9,626	770	9,693 ¹	775 ¹
		of which:				
	16	IRB supervisory formula approach (SFA)	0	0	0 ¹	0 ¹
	17	Internal assessment approach (IAA)	0	0	0 ¹	0 ¹
	18	Standardized approach	4,547	364	5,774 ¹	462 ¹
	19	Market risk	29,468	2,357	25,264	2,021
		of which:				
	20	Standardized approach	2,945	236	3,046	244
	21	IMA	26,523	2,122	22,218	1,777
Art 438(e)	22	Large exposures	0	0	0	0
Art 438(f)	23	Operational risk	71,310	5,705	72,202	5,776
		of which:				
	24	Basic indicator approach	0	0	0	0
	25	Standardized approach	0	0	0	0
	26	Advanced measurement approach	71,310	5,705	72,202	5,776
Art 437(2), 48,60	27	Amounts below the thresholds for deduction (subject to 250 % risk weight)	13,432	1,075	13,331	1,066
Art 500	28	Floor adjustment	0	0	0	0
	29	Total	330,879	26,470	340,527	27,242

¹ Number has been re-stated for March 31, 2020.

Our RWA were € 330.9 billion as of June 30, 2020, compared to € 340.5 billion as of March 31, 2020. The decrease of € 9.6 billion was primarily driven by RWA for credit risk (excluding CCR) and counterparty credit risk (CCR) partly offset by increased market risk RWA. The decrease of € 7.0 billion for credit risk RWA (excluding CCR) was primarily driven by further de-risking activities, reduction in exposures and the benefits received from the “quick fix” amendment of the CRR (Regulation (EU) 2020/873). Counterparty credit risk (CCR) decreased by € 4.9 billion due to mark-to-market movements in derivatives and parameter improvements across all products. Furthermore RWA for securitizations contributed to the overall decrease by € 1.3 billion and was mainly driven by certain disinvestments in our Capital Release Unit. The operational risk RWA reduction of € 0.9 billion was mostly driven by a lighter internal loss profile feeding into our capital model. This was partially offset by the forward looking risk component, in particular slightly weaker key risk indicator scores. These overall decreases were partly offset by increased market risk RWA of € 4.2 billion driven by the value-at-risk component due to the higher levels of market volatility experienced in March 2020 rolling into the 60 day average used in the calculation.

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 63, for counterparty credit risk in section “Article 438 (d) CRR -

Development of CCR RWA" on page 76 and for market risk in section "Article 455 (e) CRR - Regulatory capital requirements for market risk" on page 79.

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. As part of our advanced IRBA we are using supervisory defined risk weights according to the simple risk weight approach for our equity positions. For all of these positions no credit risk mitigation techniques have been applied.

EU CR10 – IRB (specialized lending and equities)

in € m. (unless stated otherwise)								Jun 30, 2020
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	151	56	50 %	193	96	0	
	Equal to or more than 2.5 years	975	158	70 %	1,086	760	4	
Category 2	Less than 2.5 years	74	82	70 %	136	95	1	
	Equal to or more than 2.5 years	74	9	90 %	79	71	1	
Category 3	Less than 2.5 years	1	0	115 %	1	1	0	
	Equal to or more than 2.5 years	25	0	115 %	25	29	1	
Category 4	Less than 2.5 years	0	0	250 %	0	0	0	
	Equal to or more than 2.5 years	13	1	250 %	14	34	1	
Category 5	Less than 2.5 years	4	0	–	4	0	2	
	Equal to or more than 2.5 years	32	0	–	32	0	16	
Total	Less than 2.5 years	230	138	–	333	192	3	
	Equal to or more than 2.5 years	1,118	168	–	1,235	894	23	
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		1,047	0	190 %	1,047	1,989	159	
Exchange-traded equity exposures		140	0	290 %	140	407	33	
All other equity exposures		1,240	29	370 %	1,268	4,693	375	
Total		2,427	29	–	2,455	7,088	567	

in € m. (unless stated otherwise)								Dec 31, 2019
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	124	51	50 %	182	91	0	
	Equal to or more than 2.5 years	827	78	70 %	924	647	3	
Category 2	Less than 2.5 years	58	42	70 %	74	52	0	
	Equal to or more than 2.5 years	79	9	90 %	85	76	1	
Category 3	Less than 2.5 years	1	0	115 %	1	1	0	
	Equal to or more than 2.5 years	22	2	115 %	25	28	1	
Category 4	Less than 2.5 years	0	0	250 %	0	0	0	
	Equal to or more than 2.5 years	12	0	250 %	12	31	1	
Category 5	Less than 2.5 years	13	0	–	20	0	10	
	Equal to or more than 2.5 years	16	0	–	18	0	9	
Total	Less than 2.5 years	196	93	–	277	144	10	
	Equal to or more than 2.5 years	955	90	–	1,064	782	15	
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		975	0	190 %	975	1,852	148	
Exchange-traded equity exposures		16	0	290 %	16	47	4	
All other equity exposures		1,387	28	370 %	1,412	5,225	418	
Total		2,378	28	–	2,403	7,124	570	

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

in € m.	Risk Weight	Jun 30, 2020		Dec 31, 2019	
		EAD	RWA	EAD	RWA
Risk Position					
Other non-credit obligation assets - cash	0 %	2,401	0	2,778	0
Other non-credit obligation assets - other	100 %	6,115	6,115	6,079	6,079
Total	–	8,516	6,115	8,857	6,079

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 are fully effective beginning 2020. The capital conservation buffer requirement implemented in Section 10c German Banking Act, based on Article 129 CRD is 2.50 % CET 1 capital of RWA in 2020. 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, 2020, the countercyclical capital buffer rate was at 0.02 %.

Deutsche Bank continues to be designated as a global systemically important institution (G-SII) by BaFin in agreement with the Deutsche Bundesbank, resulting in a G-SII buffer requirement of 2.00 % CET 1 capital of RWA in 2020, which will be reduced to 1.50 % effective from January 1, 2021. 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. Hence, for Deutsche Bank, the O-SII buffer amounts to 2.00 % in 2020. Unless certain exceptions apply, only the higher of the systemic risk buffer (as of June 30, 2020 not applicable), G-SII buffer and O-SII buffer must be applied.

On December 9, 2019, Deutsche Bank was informed by the ECB of its decision regarding prudential minimum capital requirements for 2020, following the results of the 2019 Supervisory Review and Evaluation Process (SREP). On March 12, 2020 the ECB announced various supervisory measures in reaction to the COVID-19 pandemic. Related to that, Deutsche Bank was informed by the ECB of its decision to implement early the upcoming Article 104a of the Directive (EU) 2013/36 (CRD V) with effect from March 12, 2020. The decision requires Deutsche Bank to fulfill its 2.50 % Pillar 2 requirement (SREP add-on) with at least 56.25 % CET 1, 18.75 % Additional Tier 1 and 25 % Tier 2 capital. Accordingly, Deutsche Bank needs to maintain a CET 1 ratio, which as of June 30, 2020 is at least 10.42 % on a consolidated basis. This CET 1 capital requirement comprises the Pillar 1 minimum capital requirement of 4.50 %, the Pillar 2 requirement (SREP add-on) of 1.41 %, the capital conservation buffer of 2.50 %, the countercyclical buffer (currently 0.02 %) and the G-SII / O-SII buffer of 2.00 %.

Further information about minimum capital requirements, additional capital buffers as well as Pillar 2 requirement and guidance (SREP) applicable to us can be found in our Annual Report 2019.

Article 440 (a) CRR - Geographical distribution of credit exposures

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

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

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

Jun 30, 2020

in € m.	General credit exposures		Relevant credit exposures – Market risk			Total exposure value
	Exposure value for SA	Exposure value for IRB	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for Internal models	Securitisation exposures Exposure value for non-trading book	
Argentina	1	220	0	0	0	221
Australia	132	3,219	422	0	2,233	6,007
Austria	2	1,686	0	0	0	1,688
Belgium	94	1,802	0	0	0	1,896
Bermuda	140	1,092	0	0	312	1,544
Brazil	26	848	0	0	0	874
British Virgin Islands	29	9,373	0	0	0	9,402
Bulgaria	0	24	0	0	0	24
Canada	130	1,730	0	0	560	2,420
Cayman Islands	219	5,129	20	0	1,749	7,117
Chile	0	424	0	0	0	425
China	16	5,352	0	0	0	5,368
Czech Republic	1	186	0	0	0	187
Denmark	41	1,049	0	0	0	1,090
France	154	8,369	2	0	475	9,000
Germany	8,295	255,811	4	0	4,220	268,329
Hong Kong	41	4,704	0	0	0	4,745
India	2,127	7,025	0	0	89	9,241
Indonesia	66	1,326	0	0	0	1,391
Ireland	276	7,003	26	0	3,174	10,479
Italy (incl. San Marino)	1,149	24,775	7	0	166	26,097
Ivory Coast	0	621	0	0	0	621
Japan	126	4,117	0	0	130	4,373
Jersey	90	1,496	0	0	370	1,956
Lithuania	0	0	0	0	0	0
Luxembourg	2,497	12,591	0	0	3,674	18,761
Mexico	7	1,629	0	0	0	1,637
Netherlands	649	14,973	67	0	745	16,434
Norway	11	1,657	0	0	0	1,668
Pakistan	2	203	0	0	0	204
Poland	24	2,828	0	0	0	2,852
Russian Federation	4	889	0	0	0	893
Saudi Arabia	91	2,974	0	0	0	3,066
Singapore	152	7,857	0	0	17	8,027
Slovakia	0	88	0	0	0	88
South Korea	7	3,720	0	0	0	3,727
Spain	315	20,123	26	0	147	20,611
Sweden	0	1,514	0	0	0	1,514
Switzerland	45	10,877	0	0	0	10,923
Taiwan	5	1,093	0	0	0	1,098
Thailand	1	1,186	0	0	0	1,187
Turkey	38	608	0	0	0	646
United Arab Emirates	32	2,217	0	0	0	2,249
United Kingdom	421	17,380	27	0	1,756	19,584
United States of America (incl. Puerto Rico)	1,170	97,928	2,307	0	47,173	148,578
Vietnam	3	650	0	0	0	653
Other	444	11,805	494	8,857	3,281	24,881
Total	19,076	562,170	3,401	8,857	70,274	663,778

Jun 30, 2020

in € m.	Own funds requirements						
	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)
Argentina	28	0	0	28	348.19	0.00	0.00
Australia	91	31	69	192	2,396.49	0.01	0.00
Austria	45	0	0	45	565.38	0.00	0.00
Belgium	49	0	0	49	607.67	0.00	0.00
Bermuda	50	0	5	55	682.58	0.00	0.00
Brazil	36	0	0	36	455.34	0.00	0.00
British Virgin Islands	83	0	0	83	1,043.12	0.01	0.00
Bulgaria	1	0	0	1	8.14	0.00	0.50
Canada	53	0	8	61	763.13	0.00	0.00
Cayman Islands	200	4	34	238	2,972.36	0.01	0.00
Chile	22	0	0	22	279.02	0.00	0.00
China	250	0	1	250	3,130.16	0.02	0.00
Czech Republic	6	0	0	6	76.57	0.00	1.00
Denmark	42	0	0	42	530.91	0.00	0.00
France	231	0	6	237	2,963.33	0.01	0.00
Germany	5,947	0	71	6,018	75,228.28	0.36	0.00
Hong Kong	110	0	0	110	1,380.61	0.01	1.00
India	311	0	6	318	3,969.52	0.02	0.00
Indonesia	50	0	0	50	630.57	0.00	0.00
Ireland	191	1	127	319	3,981.34	0.02	0.00
Italy (incl. San Marino)	1,141	0	8	1,150	14,371.72	0.07	0.00
Ivory Coast	31	0	0	31	385.70	0.00	0.00
Japan	97	0	3	100	1,249.81	0.01	0.00
Jersey	79	0	9	88	1,098.81	0.01	0.00
Lithuania	0	0	0	0	0.00	0.00	0.00
Luxembourg	554	0	57	611	7,631.39	0.04	0.25
Mexico	43	0	1	43	541.00	0.00	0.00
Netherlands	512	2	19	533	6,663.31	0.03	0.00
Norway	34	0	0	34	428.18	0.00	1.00
Pakistan	30	0	0	30	375.83	0.00	0.00
Poland	48	0	0	48	595.81	0.00	0.00
Russian Federation	46	0	0	46	570.36	0.00	0.00
Saudi Arabia	32	0	0	32	397.59	0.00	0.00
Singapore	137	0	17	154	1,928.39	0.01	0.00
Slovakia	3	0	0	3	31.39	0.00	1.50
South Korea	56	0	0	56	698.55	0.00	0.00
Spain	614	2	8	624	7,801.45	0.04	0.00
Sweden	60	0	0	60	748.28	0.00	0.00
Switzerland	187	0	0	188	2,344.96	0.01	0.00
Taiwan	26	0	0	26	325.97	0.00	0.00
Thailand	30	0	0	30	371.81	0.00	0.00
Turkey	41	0	0	41	510.96	0.00	0.00
United Arab Emirates	60	0	0	60	748.01	0.00	0.00
United Kingdom	436	2	30	468	5,855.87	0.03	0.00
United States of America (incl. Puerto Rico)	2,268	89	599	2,956	36,948.78	0.18	0.00
Vietnam	39	0	0	39	484.46	0.00	0.00
Other	370	512	56	938	11,729.32	0.06	0.00
Total	14,770	644	1,134	16,548	206,850.44	1.00	0.02

Dec 31, 2019

in € m.	General credit exposures		Relevant credit exposures – Market risk			Total exposure value
	Exposure value for SA	Exposure value for IRB	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for Internal models	Securitisation exposures Exposure value for non-trading book	
Angola	0	0	0	0	0	0
Argentina	30	278	0	0	0	308
Australia	229	2,871	646	0	2,098	5,844
Austria	3	1,640	0	0	0	1,642
Belgium	105	1,863	0	0	9	1,977
Bermuda	33	793	0	0	315	1,140
Brazil	12	932	0	0	0	944
British Virgin Islands	22	8,620	0	0	0	8,642
Canada	161	1,834	0	0	578	2,572
Cayman Islands	267	4,619	48	0	1,762	6,696
China	16	5,761	0	0	0	5,777
Czech Republic	28	227	0	0	0	255
Denmark	37	978	0	0	0	1,015
Finland	0	909	11	0	0	920
France	197	8,257	4	0	466	8,924
Germany	7,144	253,313	78	0	6,198	266,732
Hong Kong	11	5,723	0	0	0	5,734
Iceland	0	67	0	0	0	67
India	2,308	7,232	19	0	110	9,668
Indonesia	142	1,636	0	0	0	1,778
Ireland	432	7,293	143	0	2,964	10,832
Israel	7	496	0	0	0	503
Italy (incl. San Marino)	1,266	25,266	27	0	76	26,635
Japan	149	2,699	0	0	130	2,978
Jersey	52	1,735	1	0	390	2,178
Lebanon	0	0	0	0	0	0
Lithuania	3	6	0	0	0	9
Luxembourg	3,231	12,091	0	0	4,484	19,806
Malaysia	10	921	0	0	0	931
Mauritius	231	225	0	0	0	456
Mexico	9	1,326	0	0	0	1,336
Netherlands	822	14,118	126	0	636	15,702
Norway	30	1,761	0	0	0	1,791
Pakistan	2	202	0	0	0	204
Philippines	0	0	0	0	0	0
Poland	20	2,971	0	0	0	2,991
Portugal	0	0	0	0	0	0
Russian Federation	5	862	0	0	0	867
Saudi Arabia	73	3,171	0	0	0	3,244
Singapore	35	7,218	111	0	0	7,364
Slovakia	0	80	0	0	0	80
South Africa	0	0	0	0	0	0
South Korea	2	4,844	0	0	0	4,846
Spain	405	21,197	34	0	121	21,756
Sweden	14	1,658	3	0	0	1,674
Switzerland	15	11,423	0	0	0	11,438
Taiwan	3	1,104	0	0	0	1,108
Thailand	1	1,508	0	0	0	1,508
Turkey	28	721	0	0	0	749
United Arab Emirates	40	2,042	0	0	0	2,081
United Kingdom	236	16,713	68	0	1,897	18,915
United States of America (incl. Puerto Rico)	1,739	102,777	1,913	0	51,753	158,182
Vietnam	3	437	0	0	0	440
Other	319	9,897	476	13,337	3,923	27,953
Total	19,925	566,223	3,709	13,337	77,908	681,102

Dec 31, 2019

in € m.	Own funds requirements				Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)
	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total			
Angola	0	0	0	0	0.00	0.00	0.00
Argentina	37	0	0	37	458.33	0.00	0.00
Australia	98	35	29	161	2,016.57	0.01	0.00
Austria	47	0	0	47	587.43	0.00	0.00
Belgium	48	0	0	48	602.94	0.00	0.00
Bermuda	36	0	4	40	500.37	0.00	0.00
Brazil	32	0	0	32	397.40	0.00	0.00
British Virgin Islands	47	0	0	47	588.84	0.00	0.00
Canada	76	0	6	82	1,022.64	0.00	0.00
Cayman Islands	274	2	49	324	4,053.29	0.02	0.00
China	265	0	1	266	3,321.82	0.02	0.00
Czech Republic	9	0	0	9	110.46	0.00	1.50
Denmark	37	0	0	37	464.92	0.00	1.00
Finland	21	0	0	21	259.01	0.00	0.00
France	247	0	13	260	3,244.42	0.02	0.25
Germany	6,647	6	39	6,691	83,640.57	0.39	0.00
Hong Kong	111	0	0	112	1,396.67	0.01	2.50
Iceland	2	0	0	2	27.40	0.00	1.75
India	316	1	6	324	4,044.51	0.02	0.00
Indonesia	73	0	0	73	914.38	0.00	0.00
Ireland	185	16	61	262	3,279.80	0.02	1.00
Israel	24	0	0	24	300.15	0.00	0.00
Italy (incl. San Marino)	1,087	1	9	1,096	13,704.64	0.06	0.00
Japan	89	0	2	90	1,130.42	0.01	0.00
Jersey	105	1	11	116	1,450.84	0.01	0.00
Lebanon	0	0	0	0	0.00	0.00	0.00
Lithuania	0	0	0	0	3.78	0.00	1.00
Luxembourg	466	0	51	517	6,456.67	0.03	0.00
Malaysia	25	0	0	25	311.98	0.00	0.00
Mauritius	25	0	0	25	314.41	0.00	0.00
Mexico	33	0	0	33	410.11	0.00	0.00
Netherlands	518	1	7	527	6,588.44	0.03	0.00
Norway	36	0	0	36	444.26	0.00	2.50
Pakistan	26	0	0	26	329.60	0.00	0.00
Philippines	0	0	0	0	0.00	0.00	0.00
Poland	52	0	0	52	653.37	0.00	0.00
Portugal	0	0	0	0	0.00	0.00	0.00
Russian Federation	41	0	0	41	510.86	0.00	0.00
Saudi Arabia	34	0	0	34	419.40	0.00	0.00
Singapore	116	9	0	125	1,563.97	0.01	0.00
Slovakia	1	0	0	1	14.88	0.00	1.50
South Africa	0	0	0	0	0.00	0.00	0.00
South Korea	65	0	1	65	816.19	0.00	0.00
Spain	685	3	3	691	8,632.68	0.04	0.00
Sweden	61	0	0	61	760.09	0.00	2.50
Switzerland	192	0	0	192	2,403.52	0.01	0.00
Taiwan	27	0	0	27	342.38	0.00	0.00
Thailand	27	0	0	27	336.06	0.00	0.00
Turkey	44	0	0	44	553.15	0.00	0.00
United Arab Emirates	30	0	0	30	380.13	0.00	0.00
United Kingdom	401	3	85	489	6,116.56	0.03	1.00
United States of America (incl. Puerto Rico)	2,354	47	482	2,883	36,040.49	0.17	0.00
Vietnam	31	0	0	31	386.89	0.00	0.00
Other	281	412	72	764	9,555.61	0.04	0.00
Total	15,568	538	929	17,035	212,938.92	1.00	0.08

Article 440 (b) CRR - Institution specific countercyclical capital buffer

The following table shows an overview of our institution specific countercyclical exposure and buffer requirements.

Institution-specific countercyclical capital buffer

	June 30, 2020	Dec 31, 2019
Total risk exposure amount (in € m.)	330,879	324,015
Institution specific countercyclical buffer rate	0.02 %	0.08 %
Institution specific countercyclical buffer requirement (in € m.)	61	265

Credit risk and credit risk mitigation

General qualitative information on credit risk

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

Exposures 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 and the amount is reflected in the 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).

Article 442 (b) CRR - Credit risk adjustments

The determination of impairment losses and allowance is based on the 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 accounting policies and risk management practices, please refer to Note 1, “Significant accounting policies and critical accounting estimates” to the consolidated financial statements and chapter “Credit risk management” in our Annual Report 2019 on page 235 and 66.

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. The Group does not record any credit risk adjustment which qualifies 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, 2020						
								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, 2020 ¹	Net values (a+b-c-d)							
1	Central governments and central banks	268	105,792	26	0	0	106,034							
2	Institutions	4	21,334	14	0	0	21,324							
3	Corporates	9,007	403,562	2,574	0	429	409,995							
	Of which:													
5	SMEs	464	24,260	285	0	4	24,439							
4	Specialized Lending	1,823	46,549	312	0	38	48,060							
5a	Other	6,721	332,753	1,978	0	388	337,496							
6	Retail	4,148	227,650	2,302	0	551	229,496							
	Of which:													
8	Secured by real estate property SMEs	113	8,946	56	0	0	9,002							
9	Secured by real estate property Non-SMEs	1,726	165,498	596	0	248	166,628							
10	Qualifying Revolving	80	15,632	65	0	0	15,647							
12	Other SMEs	269	5,844	231	0	71	5,883							
13	Other Non-SMEs	1,960	31,731	1,355	0	231	32,336							
14	Equity	1	2,429	0	0	0	2,431							
14a	Other non-credit obligation asset	35	9,177	1	0	0	9,211							
15	Total IRB approach	13,462	769,946	4,917	0	980	778,491							
16	Central governments or central banks	0	112,160	5	0	0	112,155							
17	Regional governments or local authorities	0	6,692	2	0	0	6,689							
18	Public sector entities	0	3,798	1	0	0	3,797							
19	Multilateral Development Banks	0	1,457	0	0	0	1,456							
20	International Organizations	0	795	0	0	0	795							
21	Institutions	54	1,328	14	0	0	1,369							
22	Corporates	595	15,059	54	0	52	15,600							
24	Retail	361	3,482	252	0	35	3,592							
26	Secured by mortgages on immovable property	225	4,035	19	0	0	4,241							
28	Exposures in default ²	1,427	0	377	0	87	1,050							
29	Items associated with particularly high risk	192	143	132	0	0	203							
30	Covered bonds	0	0	0	0	0	0							
31	Claims on institutions and corporates with a short- term credit assessment	0	36	0	0	0	36							
32	Collective investments undertakings (CIU)	0	0	0	0	0	0							
33	Equity exposures	0	49	0	0	0	49							
34	Other items	0	1	0	0	0	1							
35	Total standardized approach	1,427	149,036	479	0	88	149,984							
36	Total	14,889	918,981	5,396	0	1,068	928,474							
	Of which:													
37	Loans	12,512	423,520	4,809	0	1,068	431,222							
38	Debt Securities	645	62,578	49	0	0	63,173							
39	Off-balance sheet exposures	1,595	233,894	403	0	0	235,085							

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

² In light of EBA guidance (Q&A 2017_3481) we present the defaulted exposure within the standardized approach as a total in row 28 but also show a breakdown of defaulted exposure and assign it to their respective exposure classes. In order to avoid double counting of exposures, the total exposure of the standardized approach as presented in row 35 does not take into account figures disclosed under row 28.

							Dec 31, 2019						
							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, 2019 ¹	Net values (a+b-c-d)						
1	Central governments and central banks	44	118,351	16	0	0	118,380						
2	Institutions	20	22,246	15	0	1	22,251						
3	Corporates	6,485	403,612	1,797	0	215	408,300						
	Of which:												
5	SMEs	425	22,697	240	0	30	22,881						
4	Specialized Lending	1,122	43,457	169	0	16	44,410						
5a	Other	4,938	337,458	1,387	0	170	341,009						
6	Retail	3,737	221,210	2,134	0	197	222,813						
	Of which:												
8	Secured by real estate property SMEs	103	9,054	54	0	(1)	9,103						
9	Secured by real estate property Non-SMEs	1,730	159,494	580	0	28	160,644						
10	Qualifying Revolving	62	15,984	76	0	7	15,971						
12	Other SMEs	244	5,665	204	0	40	5,705						
13	Other Non-SMEs	1,598	31,012	1,220	0	122	31,390						
14	Equity	1	2,162	0	0	0	2,163						
14a	Other non-credit obligation asset	41	9,388	1	0	0	9,429						
15	Total IRB approach	10,328	776,969	3,961	0	415	783,336						
16	Central governments or central banks	0	71,840	2	0	0	71,838						
17	Regional governments or local authorities	0	8,049	2	0	1	8,047						
18	Public sector entities	0	6,953	0	0	0	6,953						
19	Multilateral Development Banks	0	3,738	0	0	0	3,738						
20	International Organizations	0	2,149	0	0	0	2,149						
21	Institutions	0	2,657	9	0	0	2,648						
22	Corporates	646	14,116	60	0	(8)	14,702						
24	Retail	341	3,696	261	0	3	3,776						
26	Secured by mortgages on immovable property	214	4,397	15	0	1	4,596						
28	Exposures in default ²	1,392	0	403	0	0	989						
29	Items associated with particularly high risk	191	259	133	0	1	317						
30	Covered bonds	0	0	0	0	0	0						
31	Claims on institutions and corporates with a short- term credit assessment	0	0	0	0	0	0						
32	Collective investments undertakings (CIU)	0	0	0	0	0	0						
33	Equity exposures	0	49	0	0	0	49						
34	Other items	0	3	0	0	0	3						
35	Total standardized approach	1,392	117,907	483	0	(2)	118,816						
36	Total	11,721	894,876	4,444	0	413	902,152						
	Of which:												
37	Loans	9,949	416,216	4,051	0	378	422,115						
38	Debt Securities	252	69,868	17	0	1	70,104						
39	Off-balance sheet exposures	1,455	241,329	365	0	29	242,419						

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

² In light of EBA guidance (Q&A 2017_3481) we present the defaulted exposure within the standardized approach as a total in row 28 but also show a breakdown of defaulted exposure and assign it to their respective exposure classes. In order to avoid double counting of exposures, the total exposure of the standardized approach as presented in row 35 does not take into account figures disclosed under row 28.

EU CR1-B – Credit quality of exposures by industry

		Jun 30, 2020						
		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, 2020 ¹	Net values (a+b-c-d)
1	Agriculture, forestry and fishing	33	1,212	12	0	1	2	1,233
2	Mining and quarrying	315	9,293	60	0	5	41	9,548
3	Manufacturing	1,593	98,564	760	0	103	182	99,397
4	Electricity, gas, steam and air conditioning supply	153	11,996	52	0	2	4	12,097
5	Water supply, sewerage, waste management and remediation activities	99	1,356	14	0	1	2	1,441
6	Construction	666	9,734	270	0	38	19	10,131
7	Wholesale and retail trade, repair of motor vehicles and motorcycles	1,204	37,577	571	0	96	130	38,211
8	Transport and storage	553	11,773	118	0	59	35	12,208
9	Accommodation and food service activities	116	4,438	50	0	(3)	18	4,505
10	Information and communication	374	19,754	139	0	1	61	19,989
10a	Financial and insurance activities	2,938	321,221	643	0	25	237	323,517
11	Real estate activities	1,029	53,915	197	0	182	43	54,747
12	Professional, scientific and technical activities	493	16,314	147	0	26	22	16,659
13	Administrative and support service activities	311	11,408	136	0	11	49	11,583
14	Public administration and defense, compulsory social security	269	58,858	34	0	0	16	59,093
15	Education	3	678	2	0	5	1	678
16	Human health services and social work activities	48	6,087	26	0	15	12	6,109
17	Arts, entertainment and recreation	19	2,102	29	0	0	17	2,092
18	Other service activities	254	9,310	57	0	5	21	9,508
18a	Activities of households as employers, undifferentiated goods- and services-producing activities of households for own use	4,419	231,756	2,080	0	498	340	234,095
18b	Activities of extraterritorial organizations and bodies	1	1,635	1	0	0	0	1,635
19	Total	14,889	918,981	5,396	0	1,068	1,251	928,474

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

		Dec 31, 2019						
		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, 2019 ¹	Net values (a+b-c-d)
1	Agriculture, forestry and fishing	44	1,533	13	0	3	2	1,564
2	Mining and quarrying	181	9,087	31	0	0	5	9,237
3	Manufacturing	1,786	95,598	668	0	167	89	96,716
4	Electricity, gas, steam and air conditioning supply	110	12,473	18	0	3	1	12,565
5	Water supply, sewerage, waste management and remediation activities	82	1,318	11	0	3	3	1,388
6	Construction	655	8,579	259	0	46	11	8,975
7	Wholesale and retail trade, repair of motor vehicles and motorcycles	754	39,414	448	0	174	23	39,720
8	Transport and storage	326	11,343	84	0	154	2	11,586
9	Accommodation and food service activities	104	4,487	25	0	3	2	4,566
10	Information and communication	153	23,948	78	0	12	16	24,022
10a	Financial and insurance activities	1,829	289,264	388	0	26	51	290,705
11	Real estate activities	685	52,777	163	0	147	5	53,299
12	Professional, scientific and technical activities	502	15,727	128	0	32	17	16,101
13	Administrative and support service activities	292	13,413	73	0	16	21	13,632
14	Public administration and defense, compulsory social security	46	57,108	17	0	0	3	57,137
15	Education	3	710	2	0	5	1	711
16	Human health services and social work activities	50	6,504	28	0	1	5	6,525
17	Arts, entertainment and recreation	10	2,219	10	0	2	(1)	2,219
18	Other service activities	161	19,675	38	0	7	(14)	19,797
18a	Activities of households as employers, undifferentiated goods- and services-producing activities of households for own use	3,948	225,061	1,961	0	755	171	227,048
18b	Activities of extraterritorial organizations and bodies	1	4,640	1	0	0	0	4,640
19	Total	11,721	894,876	4,444	0	1,555	413	902,152

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

Article 442 (h) CRR - Defaulted exposures by geographical area, past due, nonperforming 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 areas 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. 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, 2020						
		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, 2020 ¹	Net values (a+b-c-d)
1	Europe	10,090	598,557	4,415	0	921	793	604,233
	Of which:							
2	Germany	4,494	401,116	2,260	0	467	445	403,351
3	United Kingdom	554	23,153	99	0	41	40	23,609
4	France	22	15,498	29	0	0	5	15,491
5	Luxembourg	175	20,707	51	0	24	25	20,831
6	Italy	1,485	32,118	1,087	0	61	104	32,516
7	Netherlands	520	23,590	240	0	11	24	23,870
8	Spain	1,038	24,167	389	0	262	55	24,816
9	Ireland	1,028	5,298	81	0	3	53	6,245
10	Switzerland	490	18,908	36	0	1	8	19,363
11	Poland	77	5,084	41	0	1	2	5,120
12	Belgium	9	6,998	3	0	0	0	7,004
13	Other Europe	197	21,919	99	0	50	31	22,017
14	North America	2,612	225,907	527	0	88	302	227,991
	Of which:							
15	U.S.	2,299	209,882	465	0	88	259	211,717
16	Cayman Islands	132	2,923	10	0	0	6	3,045
17	Canada	11	3,627	6	0	0	0	3,633
18	Other North America	169	9,474	47	0	0	37	9,596
19	Asia/Pacific	1,550	82,042	381	0	22	131	83,212
	Of which:							
20	Japan	109	13,097	2	0	(11)	(4)	13,204
21	Australia	166	4,719	10	0	0	1	4,875
22	India	367	14,359	148	0	7	32	14,578
23	China	8	8,277	6	0	0	2	8,280
24	Singapore	67	10,093	53	0	0	42	10,107
25	Hong Kong	581	6,168	101	0	0	55	6,649
26	Other Asia/Pacific	252	25,328	60	0	26	4	25,520
27	Other geographical areas	637	12,475	73	0	37	25	13,039
28	Total	14,889	918,981	5,396	0	1,068	1,251	928,474

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

		Dec 31, 2019						
		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, 2019 ¹	Net values (a+b-c-d)
1	Europe	9,387	555,420	3,867	0	1,367	365	560,940
	Of which:							
2	Germany	3,965	359,402	1,989	0	468	221	361,379
3	United Kingdom	379	23,259	62	0	45	(4)	23,576
4	France	23	18,471	23	0	0	4	18,470
5	Luxembourg	192	18,563	28	0	24	6	18,727
6	Italy	1,472	32,015	1,041	0	311	63	32,447
7	Netherlands	610	22,051	231	0	25	24	22,430
8	Spain	1,029	23,591	335	0	417	46	24,285
9	Ireland	982	4,940	25	0	(9)	5	5,897
10	Switzerland	395	20,758	29	0	1	2	21,125
11	Poland	74	5,320	40	0	0	1	5,354
12	Belgium	6	5,781	3	0	0	0	5,784
13	Other Europe	260	21,269	63	0	83	(2)	21,466
14	North America	1,160	237,320	260	0	78	18	238,220
	Of which:							
15	U.S.	563	221,281	235	0	72	15	221,609
16	Cayman Islands	149	2,975	4	0	0	0	3,121
17	Canada	14	4,352	6	0	5	1	4,360
18	Other North America	434	8,711	16	0	0	2	9,129
19	Asia/Pacific	903	84,225	263	0	54	48	84,865
	Of which:							
20	Japan	96	11,390	(3)	0	(3)	(1)	11,489
21	Australia	50	4,515	9	0	0	0	4,556
22	India	341	15,551	128	0	11	18	15,763
23	China	9	9,346	4	0	0	(10)	9,351
24	Singapore	31	9,725	11	0	0	1	9,744
25	Hong Kong	139	7,532	46	0	0	32	7,625
26	Other Asia/Pacific	237	26,169	67	0	45	6	26,338
27	Other geographical areas	271	17,910	54	0	57	(18)	18,127
28	Total	11,721	894,876	4,444	0	1,555	413	902,152

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

in € m.	Jun 30, 2020			Dec 31, 2019			
	1	2	3	1	2	3	
	Loans	Debt Securities	Total exposures	Loans	Debt Securities	Total exposures	
a	≤ 30 days	3,118	14	3,132	2,810	0	2,810
b	> 30 days ≤ 60 days	608	8	616	475	24	499
c	> 60 days ≤ 90 days	891	0	891	281	0	281
d	> 90 days ≤ 180 days	1,141	43	1,183	989	0	989
e	> 180 days ≤ 1 year	887	0	887	697	0	697
f	> 1 year	2,687	13	2,700	2,009	0	2,009

Table EU CR1-E provides details 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 of our Annual Report 2019 on page 133.

EU CR1-E – Non-performing and forborne exposures

in € m.	Jun 30, 2020			Dec 31, 2019		
	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	65,507	644,609	250,164	72,503	747,434	259,148
b	0	1,774	0	24	524	0
c	0	8,580	311	0	1,729	232
d	451	12,371	1,615	160	9,916	1,473
e	451	12,257	1,611	160	9,757	1,469
f	421	12,014	1,605	123	9,607	1,469
g	259	4,463	194	48	3,069	151
h	30	1,451	232	16	1,050	185
i	0	134	2	0	47	2
j	19	3,524	174	1	3,022	175
k	0	1,072	24	0	916	13
l	64	4,865	83	0	3,661	130
m	0	2,959	42	0	2,126	93

The following tables (NPL1, 3, 4 and 9) are from the EBA guidelines on disclosures of non-performing and forborne exposures (EBA/GL/2018/10) published on December 17, 2018. These are also meant to address "Key disclosure recommendations" related to non-performing loans ("NPLs") as provided by ECB guidance on NPLs (Appendix 7) issued in March 2017. Table NPL1 shows credit quality of forborne exposures broken down on type of counterparties. The exposure is further split between "Performing", "Non-performing", "Defaulted" and "Impaired" exposures with the provisions, collateral and guarantees against them. Table NPL4 shows performing and non-performing exposures and their related provisions. In addition, the exposure is split between IFRS 9 stages and type of counterparties. Table NPL3 shows credit quality of performing and non-performing exposures by buckets of past due days. Overdue refers to the unpaid contractual agreed payments of principal or interest by the borrower. In general, exposure refers to an asset or an off-balance sheet item which gives rise to credit risk and amounts shown are based on IFRS accounting according to the regulatory scope of consolidation. Table NPL9 provides information on the instruments that were cancelled in exchange for the collateral obtained by taking possession and on the value of the collateral obtained by taking possession. The split provides details on the accumulated "Value at initial recognition" and "Accumulated negative changes" of the collateral obtained.

NPL1 – Credit quality of forborne exposures

in € m.	Jun 30, 2020							
	Gross carrying amount of forborne exposures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
	Performing forborne	Non-performing forborne	Non-performing forborne, of which defaulted	Non-performing forborne, of which impaired	on performing forborne exposures	on non-performing forborne exposures	Total	of which, non-performing exposures with forbearance measures
Loans and advances	8,580	4,463	4,376	4,367	134	1,072	2,959	2,138
Central banks	0	0	0	0	0	0	0	0
General governments	0	212	212	212	0	9	194	194
Credit institutions	0	0	0	0	0	0	0	0
Other financial corporations	1,280	84	83	82	14	56	61	22
Non-financial corporations	5,798	2,954	2,921	2,913	89	736	1,838	1,355
Households	1,503	1,214	1,160	1,160	31	271	866	567
Debt securities	0	259	259	259	0	0	0	0
Loan commitments given	311	194	191	191	2	24	29	3
Total	8,892	4,916	4,826	4,816	136	1,096	2,988	2,141

in € m.	Gross carrying amount of forbore exposures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forbore exposures	
	Performing forbore	Non-performing forbore	Non-performing forbore, of which defaulted	Non-performing forbore, of which impaired	on performing forbore exposures	on non-performing forbore exposures	Total	of which, non-performing exposures with forbearance measures
Loans and advances	1,729	3,069	2,979	2,979	47	916	2,126	1,196
Central banks	0	0	0	0	0	0	0	0
General governments	0	5	5	5	0	2	0	0
Credit institutions	0	0	0	0	0	0	0	0
Other financial corporations	54	39	37	37	0	10	78	25
Non-financial corporations	876	1,918	1,894	1,894	14	621	1,219	624
Households	799	1,107	1,043	1,043	33	282	829	547
Debt securities	0	48	48	38	0	0	0	0
Loan commitments given	232	151	149	149	2	13	93	11
Total	1,960	3,268	3,176	3,166	49	928	2,219	1,207

NPL9 – Collateral obtained by taking possession and execution processes

in € m.	Jun 30, 2020		Dec 31, 2019	
	a	b	a	b
	Collateral obtained by taking possession		Collateral obtained by taking possession	
	Value at initial recognition	Accumulated negative changes	Value at initial recognition	Accumulated negative changes
1 Property, plant and equipment (PP&E)	0	0	0	0
2 Other than PP&E	34	0	54	0
3 Residential immovable property	29	0	46	0
4 Commercial immovable property	6	0	8	0
5 Movable property (auto, shipping, etc.)	0	0	0	0
6 Equity and debt instruments	0	0	0	0
7 Other	0	0	0	0
8 Total	34	0	54	0

NPL3 - Credit quality of performing and non-performing exposures by past due days

Jun 30, 2020

in € m.	Performing exposures							Non-performing exposure					
	Total	Not past due or past due <= 30 days	Past due >30d and <=90d	Total	Unlikely to pay that are not past due or past due <= 90d	Past due >90d and <=180d	Past due >180d and <=1yr	Past due >1yr and <=2yrs	Past due >2 and <=5 yrs	Past due >5 and <=7yrs	Past due >7 years	of which defaulted	of which impaired
Loans and advances													
Central banks	3,687	3,687	0	0	0	0	0	0	0	0	0	0	0
General governments	16,657	16,657	0	267	264	2	0	0	0	0	1	255	255
Credit institutions	50,374	50,374	0	3	3	0	0	0	0	0	0	3	3
Other financial corporations	174,077	174,014	64	1,366	1,269	31	30	20	10	2	3	1,365	1,224
Non-financial corporations	189,881	189,592	289	6,351	4,463	538	285	261	362	144	297	6,306	6,205
Households	197,562	196,141	1,421	4,384	2,272	437	450	434	448	112	232	4,328	4,328
Total Loans and advances	632,239	630,465	1,774	12,371	8,271	1,007	765	715	821	258	533	12,257	12,014
Debt securities													
Central banks	1,298	1,298	0	0	0	0	0	0	0	0	0	0	0
General governments	44,437	44,437	0	0	0	0	0	0	0	0	0	0	0
Credit institutions	8,309	8,309	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	6,221	6,221	0	58	58	0	0	0	0	0	0	58	56
Non-financial corporations	4,791	4,791	0	393	393	0	0	0	0	0	0	393	365
Total Debt securities	65,056	65,056	0	451	451	0	0	0	0	0	0	451	421
Off-balance sheet exposures													
Central banks	50	0	0	0	0	0	0	0	0	0	0	0	0
General governments	2,791	0	0	0	0	0	0	0	0	0	0	0	0
Credit institutions	4,764	0	0	27	0	0	0	0	0	0	0	27	27
Other financial corporations	38,870	0	0	21	0	0	0	0	0	0	0	21	21
Non-financial corporations	170,098	0	0	1,518	0	0	0	0	0	0	0	1,514	1,508
Households	31,975	0	0	50	0	0	0	0	0	0	0	50	50
Total Off-balance sheet exposures	248,549	0	0	1,615	0	0	0	0	0	0	0	1,611	1,605
Total	945,844	695,521	1,774	14,437	8,722	1,007	765	715	821	258	533	14,319	14,040

Dec 31, 2019

in € m.	Performing exposures				Non-performing exposure								
	Total	Not past due or past due <= 30 days	Past due >30d and <=90d	Total	Unlikely to pay that are not past due or past due <= 90d	Past due >90d and <=180d	Past due >180d and <=1yr	Past due >1yr and <=2yrs	Past due >2 and <=5 yrs	Past due >5 and <=7yrs	Past due >7 years	of which defaulted	of which impaired
Loans and advances													
Central banks	139,184	139,184	0	0	0	0	0	0	0	0	0	0	0
General governments	13,026	13,026	0	46	42	2	0	0	0	0	1	44	44
Credit institutions	53,220	53,220	0	4	4	0	0	0	0	0	0	4	4
Other financial corporations	162,357	162,352	5	1,253	1,238	3	0	6	2	1	2	1,239	1,125
Non-financial corporations	173,121	172,991	130	4,686	2,994	546	227	165	321	166	266	4,609	4,581
Households	196,610	196,221	389	3,928	1,999	369	418	348	450	113	231	3,862	3,853
Total Loans and advances	737,518	736,994	524	9,916	6,278	920	645	520	773	281	499	9,757	9,607
Debt securities													
Central banks	1,284	1,284	0	0	0	0	0	0	0	0	0	0	0
General governments	44,809	44,809	0	0	0	0	0	0	0	0	0	0	0
Credit institutions	14,137	14,137	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	6,595	6,595	0	75	75	0	0	0	0	0	0	75	75
Non-financial corporations	5,518	5,494	24	85	85	0	0	0	0	0	0	85	48
Total Debt securities	72,343	72,319	24	160	160	0	0	0	0	0	0	160	123
Off-balance sheet exposures													
Central banks	145	0	0	0	0	0	0	0	0	0	0	0	0
General governments	2,878	0	0	0	0	0	0	0	0	0	0	0	0
Credit institutions	4,898	0	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	41,419	0	0	1	0	0	0	0	0	0	0	1	1
Non-financial corporations	177,974	0	0	1,434	0	0	0	0	0	0	0	1,430	1,430
Households	30,361	0	0	38	0	0	0	0	0	0	0	38	38
Total Off-balance sheet exposures	257,675	0	0	1,473	0	0	0	0	0	0	0	1,469	1,469
Total	1,067,536	809,313	548	11,549	6,438	920	645	520	773	281	499	11,387	11,199

NPL4 - Performing and non-performing exposures and related provisions

Jun 30, 2020

in € m.	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collaterals and financial guarantees received on	
	Performing exposures			Non-performing exposures			Performing exposures - accumulated impairment and provisions			Non-performing exposures - accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				performing exposures	non-performing exposures
	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3			
Loans and advances															
Central banks	3,687	3,474	213	0	0	0	0	0	0	0	0	0	0	3,482	0
General governments	16,657	15,289	1,368	267	8	255	10	4	6	13	0	13	0	2,164	233
Credit institutions	50,374	46,218	4,156	3	0	3	21	19	3	0	0	0	0	11,742	0
Other financial corporations	174,077	163,224	10,853	1,366	3	1,363	131	87	44	228	0	197	4	85,576	113
Non-financial corporations	189,881	174,041	15,840	6,351	34	6,306	572	267	309	1,948	1	1,944	108	91,333	2,326
of which: SMEs	26,807	24,075	2,642	971	8	956	91	30	61	557	0	555	10	17,603	285
Households	197,562	181,223	16,339	4,384	56	4,328	717	295	423	1,334	3	1,331	14	150,195	2,195
Total Loans and advances	632,239	583,470	48,769	12,371	101	12,255	1,451	671	784	3,524	3	3,485	126	344,493	4,865
Debt securities															
Central banks	1,298	1,247	51	0	0	0	0	0	0	0	0	0	0	0	0
General governments	44,437	44,106	331	0	0	0	9	8	0	0	0	0	0	0	0
Credit institutions	8,309	8,211	97	0	0	0	1	1	0	0	0	0	0	0	0
Other financial corporations	6,221	6,212	10	58	0	58	4	2	2	17	0	17	0	213	0
Non-financial corporations	4,791	3,945	846	393	0	393	16	2	14	2	0	2	0	68	64
Total Debt securities	65,056	63,721	1,335	451	0	451	30	14	16	19	0	19	0	281	64
Off-balance sheet exposures															
Central banks	50	34	16	0	0	0	0	0	0	0	0	0	0	27	0
General governments	2,791	1,483	1,309	0	0	0	2	1	1	0	0	0	0	131	0
Credit institutions	4,764	3,462	1,302	27	0	27	2	1	1	0	0	0	0	144	0
Other financial corporations	38,870	37,005	1,866	21	0	21	30	14	5	5	0	5	0	4,615	1
Non-financial corporations	170,098	162,523	7,108	1,518	9	1,508	170	103	67	161	0	161	0	17,279	81
Households	31,975	30,551	1,424	50	0	50	28	6	12	9	0	14	0	3,923	1
Total Off-balance sheet exposures	248,549	235,057	13,024	1,615	9	1,605	232	125	86	174	0	180	0	26,119	83
Total	945,844	882,248	63,129	14,437	110	14,311	1,713	810	886	3,717	3	3,683	126	370,893	5,013

Dec 31, 2019

in € m.	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collaterals and financial guarantees received on	
	Performing exposures			Non-performing exposures			Performing exposures - accumulated impairment and provisions			Non-performing exposures - accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				performing exposures	non-performing exposures
	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3	Total	of which: stage 1	of which: stage 2	Total	of which: stage 2	of which: stage 3			
Loans and advances															
Central banks	139,184	138,957	227	0	0	0	4	2	2	0	0	0	0	38	0
General governments	13,026	12,288	738	46	2	44	7	3	4	5	0	5	0	1,713	34
Credit institutions	53,220	52,269	951	4	0	4	20	14	6	0	0	0	0	100	0
Other financial corporations	162,357	160,568	1,789	1,253	128	1,125	56	49	7	143	18	125	4	3,072	49
Non-financial corporations	173,121	164,753	8,368	4,686	104	4,581	346	199	147	1,583	5	1,578	182	34,554	1,538
of which: SMEs	24,782	23,002	1,780	956	8	948	61	27	34	512	0	0	0	4,461	331
Households	196,610	183,867	12,743	3,928	75	3,853	617	290	326	1,313	3	1,310	16	78,665	2,039
Total Loans and advances	737,518	712,702	24,817	9,916	309	9,607	1,050	557	493	3,044	26	3,018	201	118,143	3,661
Debt securities															
Central banks	1,284	1,263	20	0	0	0	0	0	0	0	0	0	0	0	0
General governments	44,809	44,714	96	0	0	0	4	4	0	0	0	0	0	0	0
Credit institutions	14,137	14,135	2	0	0	0	1	1	0	0	0	0	0	0	0
Other financial corporations	6,595	6,593	2	75	0	75	5	5	0	0	0	0	0	0	0
Non-financial corporations	5,518	5,108	410	85	37	48	5	4	0	1	0	1	0	0	0
Total Debt securities	72,343	71,813	530	160	37	123	16	16	0	1	0	1	0	0	0
Off-balance sheet exposures															
Central banks	145	145	0	0	0	0	0	0	0	0	0	0	0	18	0
General governments	2,878	2,800	78	0	0	0	1	1	0	0	0	0	0	67	0
Credit institutions	4,898	4,672	226	0	0	0	4	1	3	0	0	0	0	182	0
Other financial corporations	41,419	41,124	295	1	0	1	15	14	1	10	0	10	0	1,042	0
Non-financial corporations	177,974	173,374	4,600	1,434	4	1,430	150	107	43	151	0	151	0	10,844	128
Households	30,361	29,471	890	38	0	38	16	8	8	13	0	13	0	38	2
Total Off-balance sheet exposures	257,675	251,587	6,088	1,473	4	1,469	185	130	55	175	0	175	0	12,191	130
Total	1,067,536	1,036,102	31,435	11,549	350	11,199	1,251	703	548	3,220	26	3,194	201	130,334	3,791

Exposures subject to measures applied in response to the COVID-19 crisis

COVID-19 template 1 provides details on loans and advances subject to EBA-compliant moratoria (legislative and non-legislative). The template provides a breakdown of the gross carrying amount and the related loss allowances by the status of the exposure (performing and non-performing). In addition, exposures for which a grace period of capital and interest was granted and exposures with forbearance measures are reported. For performing exposures, 'instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)'; and for non-performing exposures, those that are 'unlikely to pay that are not past-due or past-due less than or equal to 90 days' are reported. Public guarantee received in the context of the COVID-19 crisis; the inflows to non-performing exposures and the economic loss resulting from the application of these measures round off the table.

COVID-19 template 1: Information on loans and advances subject to legislative and non-legislative moratoria¹

															Jun 30, 2020		
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															c		
															b		
Gross carrying amount							Accumulated impairment, accumulated negative changes in fair value due to credit risk										
Performing							Non-performing			Performing				Non-performing			
Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)							Of which: Exposures with forbearance measures			Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)				Of which: Exposures with forbearance measures			
Of which: Exposures with forbearance measures							Of which: Unlikely to pay that are not past-due or past-due <= 90 days			Of which: Exposures with forbearance measures				Of which: Unlikely to pay that are not past-due or past-due <= 90 days			
Total							Total			Total				Total			
in € m.																	
1	Loans and advances subject to moratorium	3,813	0	513	45	0	14	3,858	(27)	0	(17)	(11)	0	(3)	(37)	0	
2	of which: Households	1,102	0	190	32	0	12	1,133	(12)	0	(9)	(7)	0	(3)	(19)	0	
3	of which: Collateralized by residential immovable property	801	0	127	25	0	7	826	(3)	0	(3)	(4)	0	(1)	(8)	0	
4	of which: Non-financial corporations	2,648	0	315	13	0	2	2,661	(15)	0	(8)	(3)	0	(1)	(19)	0	
5	of which: Small and Medium-sized Enterprises	1,101	0	251	7	0	0	1,109	(8)	0	(6)	(2)	0	(0)	(10)	0	
6	of which: Collateralized by commercial immovable property	38	0	15	0	0	0	38	(0)	0	(0)	(0)	0	0	(0)	0	

¹ Template 1 includes only loans and advances subject to not expired legislative and non-legislative moratoria.

For further details to the type of eligible moratoria, the different sectors and industries in which the eligible moratoria are applied, and any economic losses realized and how these losses are calculated please refer to chapter "Measures in context of COVID-19 pandemic" on page 33 of Deutsche Bank's Interim Report as of June 30, 2020.

COVID-19 template 2 provides details on EBA-compliant moratoria (legislative and non-legislative) for loans and advances that meet the requirements described in paragraph 10 of the EBA Guidelines on moratoria. The template provides information on the number of obligors and gross carrying amount of loans and advances subject to different statuses of EBA-compliant moratoria (requested/granted). In addition, the template contains a breakdown by the residual maturity of EBA-compliant moratoria and information on the gross carrying amount of legislative moratoria as per the definition of the EBA Guidelines on moratoria.

COVID-19 template 2: Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria

		Jun 30, 2020								
		a	b	c	d	e	f	g	h	i
		Number of obligors (in 1,000s)	Gross carrying amount							
			Residual maturity of moratoria							
in € m. (unless stated otherwise)			Total	Of which: legislative moratoria	Of which: expired	<= 3 months	> 3 and <= 6 months	> 6 and <= 9 months	> 9 and <= 12 months	> 1 yr
1	Loans and advances for which moratorium was offered	105	9,702	–	–	–	–	–	–	–
2	Loans and advances subject to moratorium (granted)	103	8,754	7,860	4,896	3,142	685	6	25	0
3	of which: Households	–	5,499	4,660	4,366	789	324	6	14	0
4	of which: Collateralized by residential immovable property	–	4,056	3,496	3,230	608	203	0	14	–
5	of which: Non-financial corporations	–	3,172	3,117	511	2,350	300	0	11	–
6	of which: Small and Medium-sized Enterprises	–	1,374	1,365	265	855	253	0	0	–
7	of which: Collateralized by commercial immovable property	–	158	157	120	37	1	–	–	–

For further details to the length of moratoria applied and the revision in the length (e.g. extension) of the moratoria on loan repayments please refer to chapter "Measures in context of COVID-19 pandemic" on page 33 of Deutsche Bank's Interim Report as of June 30, 2020.

COVID-19 template 3 provides details on newly originated loans and advances as referred to in paragraph 15 of EBA GL 2020 07 that are subject to public guarantee schemes that Member States introduced in response to the COVID-19 crisis. In the case of refinancing of previous debt with a new loan or of repackaging of several debts into a new loan, the new loan recognised in the financial statements is reported in this template provided that it is covered by a public guarantee scheme related to the COVID-19 crisis. The template provides a breakdown of the gross carrying amount, the forbearance measures and the amount of public guarantees related to loans and advances and the inflows to non-performing exposure.

COVID-19 template 3: Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis

		Jun 30, 2020			
		a	b	c	d
		Gross carrying amount		Maximum amount of the guarantee that can be considered	Gross carrying amount
in € m.		Total	of which: forborne	Public guarantees received	Inflows to non-performing exposures
1	Newly originated loans and advances subject to public guarantee schemes	1,171	3	990	0
2	of which: Households	18	–	–	0
3	of which: Collateralized by residential immovable property	0	–	–	0
4	of which: Non-financial corporations	1,148	3	970	0
5	of which: Small and Medium-sized Enterprises	667	–	–	0
6	of which: Collateralized by commercial immovable property	0	–	–	0

For further details to the size, length and the sectoral coverage of the public guarantees as well as the performing, forbearance and non-performing status of these newly originated loans please refer to chapter “Measures in context of COVID-19 pandemic” on page 33 of Deutsche Bank’s Interim Report as of June 30, 2020.

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 2020 compared to the second half of 2019. Amounts are based on IFRS accounting values according to the regulatory scope of consolidation.

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

in €m.	Jun 30, 2020		Dec 31, 2019		
	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	3,019	0	3,025	0
2	Increases due to amounts set aside for estimated loan losses during the period	1,162	0	1,334	0
3	Decreases due to amounts reversed for estimated loan losses during the period	(428)	0	(886)	0
4	Decreases due to amounts taken against accumulated credit risk adjustments	(280)	0	(435)	0
5	Transfers between credit risk adjustments	54	0	(40)	0
6	Impact of exchange rate differences	(12)	0	10	0
7	Business combinations, including acquisitions and disposals of subsidiaries	0	0	0	0
8	Other adjustments	(11)	0	12	0
9	Closing balance	3,504	0	3,019	0
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	(23)	0	(89)	0
11	Specific credit risk adjustments recorded directly to the statement of profit or loss	0	0	0	0

Accumulated specific credit risk adjustments held against defaulted or impaired loans and debt securities increased by € 484 million or 16 % due to new defaults in Investment Bank and Corporate Bank.

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 2020 compared to the second half of 2019. 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

in €m.	Jun 30, 2020	Dec 31, 2019	
	a	a	
	Gross carrying value defaulted exposures	Gross carrying value defaulted exposures	
1	Opening balance	10,202	10,300
2	Loans and debt securities that have defaulted or impaired since the last reporting period	4,346	2,243
3	Returned to non-defaulted status	(1,070)	(1,947)
4	Amounts written off	(280)	(435)
5	Other changes	(42)	40
6	Closing balance	13,157	10,202

¹ Positions Other Changes and Closing Balance were restated for June 30, 2019 by addition of € 471 million, due to an improvement in identification of credit risk framework

Defaulted or impaired loans and debt securities subject to the credit risk framework increased by €2,955 million or 29 % driven by new defaults mainly in Private Bank and Investment Bank.

For IFRS-based asset quality information please refer to the section "Asset quality" on page 40 of our Interim Report as of June 30, 2020.

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 primarily observed of the secured exposures. Moreover, no overcollateralization is considered.

EU CR3 – CRM techniques – Overview

		Jun 30, 2020				
		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	132,935	298,287	247,618	31,094	0
2	Total Debt securities	62,796	377	346	0	0
3	Total exposures	195,731	298,665	247,964	31,094	0
4	of which: defaulted	4,485	5,168	4,157	616	0
...						
		Dec 31, 2019				
		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	125,669	296,445	246,836	29,371	947
2	Total Debt securities	69,648	456	446	0	0
3	Total exposures	195,318	296,901	247,283	29,371	947
4	of which: defaulted	3,517	3,666	3,186	239	0

Total exposure as June 30, 2020 increased in comparison to year-end 2019, mainly in loans at amortized cost. This was mainly attributable to increased drawdowns towards the end of the first quarter as a repercussion of the increased financing demand from clients due to COVID-19 pandemic. The increases were partially offset by a decrease in debt securities driven by sale of selected held-to-collect assets, to realize gains from the current market conditions.

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. In the IRB approach, the line item "Central governments and central banks" includes exposures to regional governments or local authorities, public sector entities, multilateral development banks and international organizations. The exposure class "Other items" within the standardized approach includes all exposures not covered in the other categories.

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 in default.

CRM techniques by exposure class

	Jun 30, 2020				
	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	102,464	3,570	37	2,795	0
Institutions	19,608	1,716	1,206	308	0
Corporates	241,995	160,552	97,869	33,549	0
of which:					
SMEs	10,815	13,337	7,904	2,868	0
Specialized lending	8,407	38,113	33,498	904	0
Other	222,772	109,103	56,467	29,776	0
Retail	68,598	160,900	144,763	2,595	0
of which:					
Secured by real estate property SMEs	1,028	7,974	6,620	175	0
Secured by real estate property non-SMEs	19,605	147,023	135,683	565	0
Qualifying revolving	15,598	49	27	0	0
Other retail SMEs	3,297	2,586	385	1,497	0
Other retail non-SMEs	29,070	3,268	2,049	358	0
Equity	2,431	0	0	0	0
Other non-credit obligation asset	9,211	0	0	0	0
Total advanced IRBA	444,307	326,737	243,875	39,247	0
Foundation IRBA					
Central governments and central banks	0	0	0	0	0
Institutions	0	0	0	0	0
Corporates	5,872	1,576	1,021	555	0
of which:					
SMEs	176	111	105	6	0
Specialized lending	624	916	916	0	0
Other	5,071	549	0	549	0
Total foundation IRBA	5,872	1,576	1,021	555	0
Standardized approach					
Central governments or central banks	112,154	1	1	0	0
Regional governments or local authorities	6,663	26	21	0	0
Public sector entities	3,797	0	0	0	0
Multilateral development banks	1,456	0	0	0	0
International organizations	795	0	0	0	0
Institutions	1,369	0	0	0	0
Corporates	9,685	5,915	3,908	95	0
Retail	2,955	635	579	37	0
Secured by mortgages on immovable property	45	4,196	3,826	17	0
Exposures in default ¹	629	406	366	7	0
Items associated with particularly high risk	11	192	259	5	0
Covered bonds	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	36	0	0	0	0
Collective investments undertakings (CIU)	0	0	0	0	0
Equity exposures	49	0	0	0	0
Other items	1	0	0	0	0
Total standardized approach	139,016	10,966	8,593	155	0
Total	589,195	339,280	253,489	39,957	0

¹ In line with EBA guidance (Q&A 2017_3481) we present the total of defaulted exposure, but also include assignments into their respective exposure classes. In order to avoid double counting of exposures, the Total standardized approach figures don't take into account figures disclosed under row Exposure in default.

	Dec 31, 2019				
	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	115,492	2,887	165	2,216	0
Institutions	20,673	1,578	1,011	303	34
Corporates	244,354	156,665	97,539	31,963	0
of which:					
SMEs	11,620	11,165	6,507	2,255	0
Specialized lending	7,211	35,939	31,690	1,075	0
Other	225,522	109,560	59,343	28,633	0
Retail	64,993	157,820	142,562	2,253	0
of which:					
Secured by real estate property SMEs	899	8,205	6,829	170	0
Secured by real estate property non-SMEs	16,216	144,428	133,356	579	0
Qualifying revolving	15,922	49	25	1	0
Other retail SMEs	3,573	2,132	420	1,224	0
Other retail non-SMEs	28,384	3,006	1,932	279	0
Equity	2,163	0	0	0	0
Other non-credit obligation asset	9,429	0	0	0	0
Total advanced IRBA	457,103	318,950	241,278	36,734	34
Foundation IRBA					
Central governments and central banks	0	0	0	0	0
Institutions	0	0	0	0	0
Corporates	5,826	1,456	901	555	0
of which:					
SMEs	89	7	0	7	0
Specialized lending	388	872	872	0	0
Other	5,350	577	29	548	0
Total foundation IRBA	5,827	1,456	901	555	0
Standardized approach					
Central governments or central banks	71,837	1	1	0	0
Regional governments or local authorities	8,022	25	11	1	0
Public sector entities	6,953	0	0	0	0
Multilateral development banks	3,738	0	0	0	0
International organizations	2,149	0	0	0	0
Institutions	2,647	1	0	0	0
Corporates	9,717	4,985	4,462	141	0
Retail	3,310	465	403	48	0
Secured by mortgages on immovable property	69	4,527	4,114	30	0
Exposures in default ¹	619	370	357	7	0
Items associated with particularly high risk	23	293	272	5	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	49	0	0	0	0
Other items	3	0	0	0	0
Total standardized approach	108,518	10,298	9,263	225	0
Total	571,448	330,704	251,442	37,514	34

¹ In line with EBA guidance (Q&A 2017_3481) we present the total of defaulted exposure, but also include assignments into their respective exposure classes. In order to avoid double counting of exposures, the Total standardized approach figures don't take into account figures disclosed under row Exposure in default.

Total exposure as of June 30, 2020 increased in comparison to year-end 2019. The overall increase in central government and central bank across IRBA and Standardized approach is driven by funds received from the third tranche of TLTRO refinancing program of the ECB. The other movements in retail, multilateral development banks and international organizations are driven by loans at amortized cost and debt securities, due to the reasons explained in the above table EU CR3.

Credit risk and credit risk mitigation in the standardized approach

Quantitative information on the use of the standardized approach

Article 444 (e) CRR - Standardized approach exposure by risk weight before and after credit mitigation

The table below shows our credit risk exposure before and post credit conversion factors and credit risk mitigation obtained in the form of eligible financial collateral, guarantees and credit derivatives 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

in € m. (unless stated otherwise)	Jun 30, 2020											
	a		b		c		d		e		f	
	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	112,168	33	112,195	2	0	0%						
2 Regional government or local authorities	5,642	1,424	5,643	86	24	0.41%						
3 Public sector entities	3,646	35	3,650	17	29	0.79%						
4 Multilateral development banks	1,458	0	1,458	0	0	0%						
5 International organizations	795	0	795	0	0	0%						
6 Institutions	1,389	306	1,394	61	208	14.29%						
7 Corporates	10,557	2,893	8,388	529	8,672	97.25%						
8 Retail	2,278	1,497	1,996	55	1,532	74.70%						
9 Secured by mortgages on immovable property	3,507	0	3,399	0	1,274	37.49%						
10 Exposures in default	910	34	896	14	1,242	136.49%						
11 Items associated with particularly high risk	205	3	115	1	175	150.00%						
12 Covered bonds	0	0	0	0	0	N/M						
13 Claims on institutions and corporates with a short-term credit assessment	37	0	37	0	37	100.00%						
14 Collective investments undertakings (CIU)	0	0	0	0	0	N/M						
15 Equity exposures	49	6	49	6	55	100.00%						
16 Other items	58	1,849	58	1,849	1,906	99.96%						
17 Total	142,698	8,079	140,073	2,620	15,153	10.62%						

		Dec 31, 2019						
		a	b	c	d	e		f
in €m. (unless stated otherwise)		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	71,742	206	71,789	89	60	0.08%	
2	Regional government or local authorities	6,759	1,358	6,762	77	5	0.08%	
3	Public sector entities	6,936	19	6,935	7	49	0.70%	
4	Multilateral development banks	3,743	0	3,747	0	0	0%	
5	International organizations	2,152	0	2,151	0	0	0%	
6	Institutions	1,073	246	1,073	15	89	8.13%	
7	Corporates	11,911	2,932	9,287	646	9,716	97.81%	
8	Retail	2,921	1,375	2,485	24	1,864	74.31%	
9	Secured by mortgages on immovable property	3,561	70	3,553	34	1,330	37.07%	
10	Exposures in default	1,199	14	921	3	1,270	137.37%	
11	Items associated with particularly high risk	437	14	122	1	185	150.00%	
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	49	0	49	0	49	100.00%	
16	Other items	3	1,659	3	1,659	1,660	99.84%	
17	Total	112,484	7,892	108,878	2,557	16,277	14.61%	

Our RWA for credit risk (excluding CCR) in the standardized approach were at € 15.2 billion as of June 30, 2020, compared to € 16.3 billion as of December 31, 2019. The decrease of € 1.1 billion was primarily driven by the corporate portfolios across different business lines.

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 after the shift to the exposure class of the protection seller.

EU CR5 – Standardized approach

							Jun 30, 2020
in €m.							Risk Weight
Exposure classes		0%	2%	4%	10%	20%	35%
1	Central governments or central banks	112,196	0	0	0	0	0
2	Regional governments or local authorities	5,620	0	0	0	108	0
3	Public sector entities	3,522	0	0	0	146	0
4	Multilateral development banks	1,458	0	0	0	0	0
5	International organizations	795	0	0	0	0	0
6	Institutions	1,009	50	0	0	213	0
7	Corporates	114	0	0	0	140	0
8	Retail	0	0	0	0	0	0
9	Secured by mortgages on immovable property	0	0	0	0	0	2,780
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	1	0
17	Total	124,714	50	0	0	607	2,780

							Jun 30, 2020
in €m.							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	0	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	36	0	0	146	0	0
7	Corporates	28	0	0	8,610	24	0
8	Retail	0	0	2,051	0	0	0
9	Secured by mortgages on immovable property	619	0	0	0	0	0
10	Exposures in default	0	0	0	77	833	0
11	Items associated with particularly high risk	0	0	0	0	116	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	37	0	0
14	Collective investments undertakings (CIU)	0	0	0	0	0	0
15	Equity exposures	0	0	0	55	0	0
16	Other items	0	0	0	1,905	0	0
17	Total	684	0	2,051	10,833	973	0

							Jun 30, 2020
in €m.							Risk Weight
Exposure classes		370%	1250%	Others	Deducted	Total	Of which: unrated
1	Central governments or central banks	0	0	0	0	112,197	112,197
2	Regional governments or local authorities	0	0	0	0	5,730	5,661
3	Public sector entities	0	0	0	0	3,668	3,653
4	Multilateral development banks	0	0	0	0	1,458	1,458
5	International organizations	0	0	0	0	795	795
6	Institutions	0	0	0	0	1,455	1,421
7	Corporates	0	1	0	0	8,917	8,758
8	Retail	0	0	0	0	2,051	2,156
9	Secured by mortgages on immovable property	0	0	0	0	3,399	3,386
10	Exposures in default	0	0	0	0	910	910
11	Items associated with particularly high risk	0	0	0	0	116	116
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	37	37
14	Collective investments undertakings (CIU)	0	0	0	0	0	0
15	Equity exposures	0	0	0	0	55	55
16	Other items	0	0	0	0	1,906	1,766
17	Total	0	1	0	0	142,693	142,369

in € m.	Dec 31, 2019					
	Risk Weight					
Exposure classes	0%	2%	4%	10%	20%	35%
1 Central governments or central banks	71,818	0	0	0	0	0
2 Regional governments or local authorities	6,822	0	0	0	16	0
3 Public sector entities	6,699	0	0	0	243	0
4 Multilateral development banks	3,747	0	0	0	0	0
5 International organizations	2,151	0	0	0	0	0
6 Institutions	739	0	0	0	313	0
7 Corporates	0	0	0	0	246	0
8 Retail	0	0	0	0	0	0
9 Secured by mortgages on immovable property	0	0	0	0	0	3,091
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	3	0
17 Total	91,976	0	0	0	820	3,091

in € m.	Dec 31, 2019					
	Risk Weight					
Exposure classes	50%	70%	75%	100%	150%	250%
1 Central governments or central banks	0	0	0	60	0	0
2 Regional governments or local authorities	0	0	0	2	0	0
3 Public sector entities	0	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	21	0	0	16	0	0
7 Corporates	30	0	0	9,589	69	0
8 Retail	0	0	2,509	0	0	0
9 Secured by mortgages on immovable property	496	0	0	0	0	0
10 Exposures in default	0	0	0	233	691	0
11 Items associated with particularly high risk	0	0	0	0	123	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	49	0	0
16 Other items	0	0	0	1,659	0	0
17 Total	547	0	2,509	11,609	883	0

in € m.	Dec 31, 2019					
	Risk Weight					Of which: unrated
Exposure classes	370%	1250%	Others	Deducted	Total	
1 Central governments or central banks	0	0	0	0	71,878	69,159
2 Regional governments or local authorities	0	0	0	0	6,839	4,195
3 Public sector entities	0	0	0	0	6,942	6,742
4 Multilateral development banks	0	0	0	0	3,747	3,411
5 International organizations	0	0	0	0	2,151	1,879
6 Institutions	0	0	0	0	1,088	1,079
7 Corporates	0	0	0	0	9,934	9,618
8 Retail	0	0	0	0	2,509	2,509
9 Secured by mortgages on immovable property	0	0	0	0	3,587	3,571
10 Exposures in default	0	0	0	0	924	924
11 Items associated with particularly high risk	0	0	0	0	123	123
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	49	49
16 Other items	0	0	0	0	1,662	1,662
17 Total	0	0	0	0	111,435	104,923

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 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, 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 former Postbank, is considered in the average RW. It implies that for a guaranteed exposure a loss only occurs if the primary obligor and the guarantor fail to meet their obligations at the same time. The tables provide the defaulted exposure separately, where 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, 2020
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 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	95,078	111	45.95	104,637	0.00	0.1	50.12	1.1	1,095	1.05	1	–
0.15 to <0.25	3,998	8	99.89	4,373	0.23	<0.1	50.00	2.3	2,330	53.27	5	–
0.25 to <0.50	10	6	100.00	9	0.39	<0.1	49.89	2.7	7	74.60	0	–
0.50 to <0.75	465	19	35.10	300	0.64	<0.1	49.45	1.4	221	73.73	1	–
0.75 to <2.50	306	57	43.73	172	1.25	<0.1	44.03	1.0	155	90.50	1	–
2.50 to <10.00	2,106	285	39.15	432	4.23	<0.1	46.18	2.7	386	89.47	7	–
10.00 to <100.00	368	324	35.19	45	13.00	<0.1	49.83	2.5	113	248.82	3	–
100.00 (Default)	266	0	35.00	20	100.00	<0.1	56.63	3.6	3	17.09	12	–
Sub-total	102,596	811	39.84	109,988	0.06	0.2	50.09	1.2	4,310	3.92	31	21
Dilution risk	12	0	0	12	25.38	0	1.00	1.0	1	5.49	0	0
Sub-total incl. dilution risk	102,609	811	39.84	110,001	0.06	0.2	50.08	1.2	4,311	3.92	31	21
Institutions												
0.00 to <0.15	12,513	3,416	40.90	17,778	0.05	0.5	46.81	1.3	1,759	9.89	3	–
0.15 to <0.25	630	260	32.33	758	0.23	0.1	41.48	1.6	368	48.49	1	–
0.25 to <0.50	96	219	43.11	197	0.39	0.1	32.23	1.0	70	35.60	0	–
0.50 to <0.75	882	217	49.17	949	0.65	0.1	25.90	1.1	434	45.80	2	–
0.75 to <2.50	863	184	59.96	960	1.24	0.1	29.89	2.6	577	60.12	4	–
2.50 to <10.00	1,334	210	54.85	1,323	3.02	<0.1	23.97	2.6	721	54.50	8	–
10.00 to <100.00	16	139	59.68	90	14.06	<0.1	13.05	1.0	52	58.16	2	–
100.00 (Default)	19	0	20.00	19	100.00	<0.1	3.93	4.1	4	22.50	0	–
Sub-total	16,353	4,646	42.86	22,073	0.46	0.8	43.32	1.4	3,986	18.06	20	11
Dilution risk	123	1	14.92	116	24.68	0	1.23	1.0	7	5.81	0	0
Sub-total incl. dilution risk	16,476	4,648	42.85	22,189	0.59	0.8	43.10	1.4	3,992	17.99	20	11
Corporates												
0.00 to <0.15	63,203	113,973	29.64	98,555	0.08	21.9	31.21	2.1	17,060	17.31	24	–
0.15 to <0.25	18,591	15,416	29.84	23,432	0.23	5.7	30.33	2.3	7,072	30.18	16	–
0.25 to <0.50	20,343	14,334	28.54	24,051	0.39	5.8	28.11	2.4	9,101	37.84	27	–
0.50 to <0.75	17,123	11,271	32.85	19,853	0.65	4.9	23.99	2.5	8,057	40.58	31	–
0.75 to <2.50	31,936	16,936	31.32	32,889	1.46	6.6	21.86	2.8	16,073	48.87	102	–
2.50 to <10.00	31,568	17,954	32.64	33,912	5.37	3.8	16.21	2.4	18,675	55.07	283	–
10.00 to <100.00	6,426	3,680	32.34	6,686	16.79	0.9	15.41	2.2	4,823	72.13	170	–
100.00 (Default)	11,896	1,905	28.09	11,915	100.00	1.9	42.01	2.2	2,462	20.66	4,732	–
Sub-total	201,087	195,469	30.22	251,294	6.25	51.5	27.10	2.3	83,323	33.16	5,385	5,306
Dilution risk	2,579	297	32.85	2,683	19.07	50.7	2.72	1.0	270	10.05	7	0
Sub-total incl. dilution risk	203,666	195,765	30.22	253,977	6.38	102.2	26.85	2.3	83,592	32.91	5,392	5,306

Jun 30, 2020

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
of which:												
SMEs												
0.00 to <0.15	5,015	3,898	35.64	6,335	0.10	7.2	29.54	3.3	993	15.67	2	–
0.15 to <0.25	1,467	964	38.81	1,712	0.26	2.5	35.53	3.3	510	29.79	2	–
0.25 to <0.50	2,096	1,144	40.46	2,313	0.42	2.6	33.46	2.5	793	34.31	3	–
0.50 to <0.75	1,548	704	36.23	1,584	0.71	2.1	40.56	2.7	828	52.25	5	–
0.75 to <2.50	2,502	1,149	34.84	2,371	1.51	2.9	34.89	2.6	1,368	57.68	13	–
2.50 to <10.00	2,003	673	36.64	1,891	4.39	1.4	29.48	3.2	1,354	71.63	27	–
10.00 to <100.00	339	86	34.55	281	22.53	0.3	43.74	2.9	478	170.13	30	–
100.00 (Default)	419	53	38.90	395	100.00	0.3	46.53	2.1	100	25.36	178	–
Sub-total	15,389	8,671	36.66	16,881	3.61	19.5	33.10	3.0	6,424	38.05	259	261
Dilution risk	10	0	0	10	32.25	0	0.84	1.0	0	4.56	0	0
Sub-total incl. dilution risk	15,399	8,671	36.66	16,892	3.62	19.5	33.08	3.0	6,425	38.03	259	261
Specialized Lending												
0.00 to <0.15	4,133	44	26.79	4,040	0.12	0.1	5.12	3.7	228	5.64	0	–
0.15 to <0.25	2,983	445	33.93	3,125	0.23	0.1	6.11	3.9	277	8.87	0	–
0.25 to <0.50	3,454	108	77.77	3,457	0.39	0.1	10.93	3.7	668	19.31	1	–
0.50 to <0.75	3,434	158	89.06	3,534	0.66	0.1	10.68	3.0	835	23.64	3	–
0.75 to <2.50	7,790	380	47.54	7,723	1.48	0.3	10.99	3.2	1,939	25.11	11	–
2.50 to <10.00	15,444	2,237	27.88	15,645	5.93	0.4	6.30	1.8	3,328	21.27	57	–
10.00 to <100.00	3,827	443	22.02	3,879	15.94	0.1	7.77	1.8	1,484	38.25	48	–
100.00 (Default)	2,358	69	41.19	2,338	100.00	0.2	45.04	2.2	352	15.07	1,030	–
Sub-total	43,422	3,884	33.93	43,741	9.25	1.3	9.93	2.7	9,111	20.83	1,151	1,043
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	43,422	3,884	33.93	43,741	9.25	1.3	9.93	2.7	9,111	20.83	1,151	1,043
Other												
0.00 to <0.15	54,054	110,030	29.43	88,180	0.08	14.6	32.53	2.0	15,840	17.96	21	–
0.15 to <0.25	14,141	14,007	29.09	18,595	0.23	3.1	33.92	1.9	6,285	33.80	14	–
0.25 to <0.50	14,794	13,082	27.09	18,281	0.39	3.1	30.69	2.1	7,640	41.79	22	–
0.50 to <0.75	12,141	10,409	31.77	14,735	0.64	2.7	25.40	2.4	6,393	43.39	24	–
0.75 to <2.50	21,644	15,407	30.66	22,795	1.45	3.4	24.18	2.6	12,766	56.01	78	–
2.50 to <10.00	14,121	15,044	33.17	16,376	4.95	2.0	24.14	2.9	13,993	85.45	198	–
10.00 to <100.00	2,260	3,151	33.73	2,526	17.45	0.4	23.99	2.6	2,861	113.27	93	–
100.00 (Default)	9,120	1,783	27.27	9,183	100.00	1.4	41.05	2.2	2,009	21.88	3,524	–
Sub-total	142,276	182,914	29.83	190,672	5.79	30.8	30.51	2.2	67,787	35.55	3,975	4,003
Dilution risk	2,569	297	32.85	2,672	19.02	50.7	2.73	1.0	269	10.07	7	0
Sub-total incl. dilution risk	144,845	183,211	29.84	193,344	5.97	81.4	30.13	2.2	68,056	35.20	3,982	4,003

Jun 30, 2020

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
Retail												
0.00 to <0.15	31,236	15,165	67.63	42,981	0.11	3,058.4	25.33	14.9	1,993	4.64	12	–
0.15 to <0.25	28,690	4,168	67.77	31,703	0.24	801.4	19.35	21.5	2,699	8.51	15	–
0.25 to <0.50	38,232	4,027	68.19	41,236	0.40	777.1	19.26	22.6	5,236	12.70	32	–
0.50 to <0.75	37,348	3,676	68.89	40,043	0.69	759.4	20.64	22.0	8,006	19.99	57	–
0.75 to <2.50	37,585	4,109	69.21	40,334	1.50	1,345.1	26.01	16.8	14,821	36.75	161	–
2.50 to <10.00	18,155	1,887	77.07	19,212	4.64	802.6	30.84	15.8	11,924	62.06	277	–
10.00 to <100.00	4,016	199	68.53	3,960	20.94	173.4	30.82	16.2	4,150	104.80	258	–
100.00 (Default)	4,380	50	59.87	4,396	100.00	157.6	43.29	8.9	1,082	24.62	1,836	–
Sub-total	199,642	33,281	68.58	223,864	3.25	7,874.9	23.57	18.9	49,911	22.30	2,647	2,856
Dilution risk	762	4,330	6.09	1,025	0.09	0	75.00	1.0	228	22.19	1	0
Sub-total incl. dilution risk	200,404	37,611	61.39	224,889	3.24	7,874.9	23.81	18.8	50,139	22.29	2,648	2,856
of which:												
Secured by real estate property SMEs												
0.00 to <0.15	1,400	164	58.69	1,494	0.12	7.3	12.06	14.4	43	2.86	0	–
0.15 to <0.25	1,604	116	57.70	1,663	0.23	7.7	11.85	15.5	76	4.57	0	–
0.25 to <0.50	1,721	124	58.01	1,784	0.39	8.2	12.58	15.3	128	7.16	1	–
0.50 to <0.75	1,363	73	53.52	1,391	0.65	6.7	12.41	15.5	137	9.85	1	–
0.75 to <2.50	1,578	73	58.28	1,593	1.37	7.7	12.57	16.2	260	16.31	3	–
2.50 to <10.00	657	25	54.94	641	4.52	3.4	12.63	14.8	214	33.39	4	–
10.00 to <100.00	122	3	74.17	118	18.87	0.7	12.33	13.9	65	55.14	3	–
100.00 (Default)	114	0	48.46	113	100.00	0.4	32.33	11.5	41	36.02	36	–
Sub-total	8,558	578	57.57	8,799	2.37	42.1	12.58	15.3	964	10.95	48	57
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	8,558	578	57.57	8,799	2.37	42.1	12.58	15.3	964	10.95	48	57
Secured by real estate property non-SMEs												
0.00 to <0.15	27,581	907	71.11	28,224	0.12	270.5	13.92	21.0	1,141	4.04	5	–
0.15 to <0.25	25,112	1,147	76.75	25,989	0.24	199.1	15.80	24.1	1,986	7.64	10	–
0.25 to <0.50	33,889	1,650	75.99	35,134	0.40	256.1	16.48	24.6	4,047	11.52	23	–
0.50 to <0.75	32,561	1,930	77.56	34,044	0.69	232.7	17.39	24.1	6,138	18.03	41	–
0.75 to <2.50	25,792	2,284	83.09	27,662	1.48	190.6	16.44	21.4	7,620	27.55	65	–
2.50 to <10.00	9,395	1,120	92.68	10,407	4.68	81.0	14.91	23.7	5,156	49.54	74	–
10.00 to <100.00	2,195	83	92.92	2,254	21.27	17.1	16.59	23.9	2,145	95.16	78	–
100.00 (Default)	1,595	16	94.73	1,606	100.00	14.5	17.98	21.1	606	37.76	289	–
Sub-total	158,121	9,138	79.94	165,320	2.09	1,261.7	16.03	23.2	28,839	17.44	585	678
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	158,121	9,138	79.94	165,320	2.09	1,261.7	16.03	23.2	28,839	17.44	585	678

Jun 30, 2020

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
Qualifying Revolving												
0.00 to <0.15	51	11,435	71.05	8,175	0.08	2,526.4	60.00	0.0	312	3.81	4	–
0.15 to <0.25	65	1,539	70.52	1,150	0.24	432.1	58.57	0.0	104	9.00	2	–
0.25 to <0.50	109	923	67.15	729	0.39	313.0	56.62	0.0	94	12.91	2	–
0.50 to <0.75	139	609	64.01	529	0.69	266.3	56.87	0.0	107	20.20	2	–
0.75 to <2.50	240	493	63.44	553	1.53	307.0	55.48	0.0	196	35.48	5	–
2.50 to <10.00	168	170	63.54	276	4.79	173.2	56.66	0.0	220	79.81	8	–
10.00 to <100.00	46	19	65.50	58	20.23	35.9	56.02	0.0	98	167.72	6	–
100.00 (Default)	67	1	62.38	68	100.00	36.9	60.53	0.0	5	7.80	41	–
Sub-total	886	15,188	70.14	11,539	1.02	4,090.9	59.19	0.0	1,136	9.84	70	69
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	886	15,188	70.14	11,539	1.02	4,090.9	59.19	0.0	1,136	9.84	70	69
Other retail SMEs												
0.00 to <0.15	338	815	48.11	1,208	0.11	40.3	42.60	2.6	120	9.91	1	–
0.15 to <0.25	370	559	46.98	780	0.23	32.5	41.15	2.9	124	15.90	1	–
0.25 to <0.50	431	526	45.29	896	0.39	37.9	45.63	2.7	223	24.86	2	–
0.50 to <0.75	455	449	41.93	796	0.65	24.1	50.62	2.7	289	36.27	3	–
0.75 to <2.50	877	631	39.77	1,079	1.36	24.1	52.55	2.5	552	51.17	9	–
2.50 to <10.00	675	342	43.25	485	4.54	15.3	53.63	2.2	336	69.27	14	–
10.00 to <100.00	234	57	42.70	99	22.23	5.8	57.15	1.7	125	125.51	17	–
100.00 (Default)	262	12	39.65	260	100.00	3.6	56.25	2.0	70	26.80	146	–
Sub-total	3,642	3,391	44.51	5,604	5.90	183.5	47.78	2.6	1,838	32.80	191	230
Dilution risk	378	3,084	6.71	585	0.12	0	75.00	1.0	146	25.02	1	0
Sub-total incl. dilution risk	4,019	6,474	26.50	6,189	5.35	183.5	50.36	2.4	1,985	32.07	191	230
Other retail non-SMEs												
0.00 to <0.15	1,867	1,844	54.13	3,880	0.10	415.2	35.07	5.9	378	9.73	2	–
0.15 to <0.25	1,540	807	65.60	2,121	0.24	205.6	39.51	14.1	410	19.32	2	–
0.25 to <0.50	2,081	804	69.95	2,691	0.40	237.0	41.02	14.2	744	27.65	5	–
0.50 to <0.75	2,830	615	68.01	3,283	0.69	293.8	44.76	11.1	1,336	40.68	10	–
0.75 to <2.50	9,098	629	54.11	9,446	1.62	903.3	51.55	6.2	6,193	65.56	79	–
2.50 to <10.00	7,260	230	63.74	7,403	4.61	574.6	52.35	6.4	5,997	81.01	178	–
10.00 to <100.00	1,419	37	54.86	1,429	20.54	124.3	51.95	5.9	1,717	120.11	154	–
100.00 (Default)	2,342	21	44.15	2,348	100.00	109.8	59.19	1.5	360	15.34	1,325	–
Sub-total	28,435	4,987	60.65	32,602	9.75	2,863.6	48.00	7.5	17,134	52.56	1,754	1,822
Dilution risk	384	1,246	4.56	441	0.06	0	75.00	1.0	81	18.44	0	0
Sub-total incl. dilution risk	28,819	6,233	49.44	33,042	9.62	2,863.6	48.36	7.4	17,216	52.10	1,754	1,822
All exposure classes												
Dilution risk	3,476	4,628	7.81	3,836	14.11	50.7	21.99	1.0	505	13.15	8	0
Total incl. dilution risk	523,155	238,835	35.41	611,056	3.88	7,978.1	30.50	8.1	142,035	23.24	8,091	8,194

Dec 31, 2019

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) ¹	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Central governments and central banks												
0.00 to <0.15	106,632	191	37.59	114,836	0.01	0.1	49.94	1.1	1,514	1.32	3	–
0.15 to <0.25	4,361	0	81.47	4,405	0.23	<0.1	50.00	1.9	2,108	47.87	5	–
0.25 to <0.50	157	69	27.34	166	0.39	<0.1	49.62	1.4	95	57.23	0	–
0.50 to <0.75	630	19	99.85	441	0.64	<0.1	49.63	1.2	302	68.43	1	–
0.75 to <2.50	193	86	36.46	69	1.57	<0.1	33.15	3.7	68	98.00	0	–
2.50 to <10.00	2,536	717	62.62	852	5.71	<0.1	46.99	3.5	666	78.17	9	–
10.00 to <100.00	177	0	100.00	2	13.00	<0.1	50.00	3.3	5	260.54	0	–
100.00 (Default)	44	0	0	9	100.00	<0.1	48.98	3.5	2	25.34	4	–
Sub-total	114,730	1,082	38.20	120,780	0.06	0.2	49.91	1.1	4,761	3.94	23	14
Dilution risk	11	0	0	11	20.69	0	1.95	1.0	1	7.84	0	0
Sub-total incl. dilution risk	114,741	1,082	38.20	120,791	0.07	0.2	49.91	1.1	4,762	3.94	23	14
Institutions												
0.00 to <0.15	13,066	3,224	35.31	18,468	0.05	0.5	47.02	1.5	1,821	9.86	3	–
0.15 to <0.25	701	264	37.10	789	0.23	0.1	38.56	1.3	352	44.66	1	–
0.25 to <0.50	325	194	40.66	406	0.39	0.1	44.72	1.1	244	60.16	1	–
0.50 to <0.75	1,011	266	67.97	1,244	0.64	<0.1	22.54	2.3	591	47.53	2	–
0.75 to <2.50	560	192	42.77	634	1.41	0.1	34.23	1.2	352	55.53	1	–
2.50 to <10.00	1,166	301	81.53	1,226	3.42	<0.1	13.94	2.7	565	46.04	6	–
10.00 to <100.00	55	76	23.95	64	13.14	<0.1	8.19	0.9	24	37.83	1	–
100.00 (Default)	63	0	25.22	63	100.00	<0.1	3.28	2.0	21	33.13	0	–
Sub-total	16,947	4,519	36.64	22,894	0.62	0.8	43.00	1.6	3,971	17.35	16	7
Dilution risk	167	1	20.00	131	24.24	0	1.18	1.0	8	6.02	0	0
Sub-total incl. dilution risk	17,114	4,520	36.64	23,025	0.76	0.8	42.76	1.6	3,979	17.28	16	7
Corporates												
0.00 to <0.15	64,081	117,782	29.91	100,620	0.08	19.6	31.88	2.0	17,926	17.82	27	–
0.15 to <0.25	19,769	22,108	32.33	27,426	0.22	6.3	31.10	2.3	8,888	32.41	19	–
0.25 to <0.50	18,183	16,392	34.10	23,766	0.39	5.8	25.99	2.3	8,331	35.05	24	–
0.50 to <0.75	16,501	13,028	30.36	19,532	0.65	4.9	22.33	2.6	7,467	38.23	28	–
0.75 to <2.50	31,298	18,413	31.19	33,599	1.46	6.4	21.16	2.7	15,930	47.41	100	–
2.50 to <10.00	27,679	25,483	30.51	31,778	4.87	3.5	15.98	2.6	17,327	54.52	237	–
10.00 to <100.00	7,363	3,829	31.00	7,951	17.78	0.8	10.30	1.9	3,890	48.93	139	–
100.00 (Default)	10,084	1,470	31.13	10,276	100.00	1.8	44.65	2.0	2,275	22.13	4,186	–
Sub-total	194,958	218,506	30.71	254,947	5.53	49.0	26.96	2.3	82,033	32.18	4,759	4,569
Dilution risk	2,915	268	33.74	3,187	22.43	0	2.29	1.0	283	8.88	9	0
Sub-total incl. dilution risk	197,873	218,774	30.72	258,135	5.73	49.0	26.66	2.3	82,316	31.89	4,768	4,569

Dec 31, 2019

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) ¹	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
of which:												
SMEs												
0.00 to <0.15	4,815	3,810	32.59	6,213	0.10	6.7	29.05	3.2	1,085	17.47	2	–
0.15 to <0.25	2,005	958	41.62	2,292	0.24	2.7	36.73	2.9	748	32.63	2	–
0.25 to <0.50	2,116	1,104	34.73	2,397	0.42	2.8	29.84	2.5	837	34.92	3	–
0.50 to <0.75	1,471	815	37.07	1,682	0.71	2.2	40.56	2.7	1,007	59.85	5	–
0.75 to <2.50	2,734	1,048	30.91	2,844	1.47	2.9	30.81	2.7	1,915	67.33	15	–
2.50 to <10.00	1,620	708	29.43	1,515	4.58	1.3	30.63	3.2	1,253	82.68	22	–
10.00 to <100.00	222	60	24.89	179	20.76	0.2	41.01	3.1	315	176.30	16	–
100.00 (Default)	405	42	29.29	385	100.00	0.3	48.71	2.0	101	26.15	182	–
Sub-total	15,389	8,547	33.84	17,507	3.24	19.1	33.22	2.9	7,261	41.47	246	239
Dilution risk	5	0	0	7	44.08	0	0.55	1.0	0	2.89	0	0
Sub-total incl. dilution risk	15,394	8,547	33.84	17,515	3.25	19.1	33.21	2.9	7,261	41.45	246	239
Specialized Lending												
0.00 to <0.15	2,434	37	23.33	2,335	0.10	0.1	4.34	3.1	85	3.63	0	–
0.15 to <0.25	3,037	342	57.29	3,217	0.20	0.2	8.40	2.9	309	9.61	1	–
0.25 to <0.50	3,052	54	68.22	3,019	0.39	0.1	9.39	3.4	492	16.29	1	–
0.50 to <0.75	3,568	216	66.72	3,593	0.65	0.1	8.14	3.5	596	16.59	2	–
0.75 to <2.50	8,219	841	45.78	8,351	1.48	0.3	9.40	2.8	1,839	22.03	11	–
2.50 to <10.00	12,439	2,062	28.00	12,613	5.31	0.3	5.78	2.2	2,566	20.35	38	–
10.00 to <100.00	5,473	796	20.51	5,595	16.60	0.1	5.09	1.8	1,418	25.34	47	–
100.00 (Default)	2,037	23	21.71	2,015	100.00	0.1	49.92	2.0	302	14.99	949	–
Sub-total	40,259	4,371	34.71	40,738	9.28	1.3	9.21	2.6	7,607	18.67	1,048	934
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	40,259	4,371	34.71	40,738	9.28	1.3	9.21	2.6	7,607	18.67	1,048	934
Other												
0.00 to <0.15	56,832	113,935	29.81	92,072	0.08	12.8	32.77	1.9	16,756	18.20	25	–
0.15 to <0.25	14,728	20,808	31.47	21,916	0.23	3.4	33.85	2.1	7,831	35.73	16	–
0.25 to <0.50	13,015	15,234	34.00	18,350	0.39	2.9	28.21	2.1	7,002	38.16	20	–
0.50 to <0.75	11,462	11,998	29.23	14,257	0.64	2.6	23.75	2.4	5,865	41.13	22	–
0.75 to <2.50	20,345	16,524	30.42	22,404	1.45	3.3	23.56	2.7	12,176	54.35	74	–
2.50 to <10.00	13,620	22,712	30.75	17,650	4.58	1.9	22.02	2.9	13,508	76.53	178	–
10.00 to <100.00	1,668	2,973	34.39	2,177	20.58	0.4	21.16	2.2	2,157	99.09	76	–
100.00 (Default)	7,641	1,405	31.34	7,875	100.00	1.4	43.10	2.0	1,872	23.77	3,055	–
Sub-total	139,310	205,588	30.49	196,702	4.95	28.7	30.08	2.2	67,166	34.15	3,465	3,396
Dilution risk	2,910	268	33.74	3,180	22.38	0	2.30	1.0	283	8.89	9	0
Sub-total incl. dilution risk	142,220	205,856	30.50	199,882	5.23	28.7	29.64	2.2	67,448	33.74	3,474	3,396

Dec 31, 2019

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) ¹	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Retail												
0.00 to <0.15	25,947	16,086	63.04	35,842	0.10	2,726.5	15.68	13.3	1,470	4.10	9	–
0.15 to <0.25	33,237	6,261	73.52	37,508	0.22	1,248.0	16.59	22.4	2,985	7.96	17	–
0.25 to <0.50	37,333	4,479	61.01	40,118	0.40	842.5	17.72	23.2	5,001	12.47	30	–
0.50 to <0.75	36,541	3,483	67.69	38,985	0.69	834.8	19.19	21.9	7,654	19.63	55	–
0.75 to <2.50	36,821	3,639	67.70	39,294	0.01	1,452.5	25.00	16.8	14,238	36.24	156	–
2.50 to <10.00	18,155	1,735	77.86	19,247	4.65	868.4	29.77	17.1	11,681	60.69	272	–
10.00 to <100.00	3,744	176	70.22	3,741	20.68	182.8	30.07	16.5	3,833	102.47	238	–
100.00 (Default)	4,237	48	54.72	4,237	100.00	151.9	45.18	8.8	1,145	27.01	1,802	–
Sub-total	196,014	35,907	66.67	218,972	2.95	8,307.4	20.56	19.1	48,007	21.92	2,579	2,593
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	196,014	35,907	66.67	218,972	2.95	8,307.4	20.56	19.1	48,007	21.92	2,579	2,593
of which:												
Secured by real estate property SMEs												
0.00 to <0.15	1,376	153	59.20	1,465	0.12	7.0	11.72	14.5	41	2.77	0	–
0.15 to <0.25	1,587	102	58.25	1,641	0.23	7.6	11.60	15.1	75	4.54	0	–
0.25 to <0.50	1,741	95	56.03	1,784	0.39	8.3	11.99	15.4	121	6.78	1	–
0.50 to <0.75	1,400	74	54.15	1,432	0.65	6.9	12.03	15.5	138	9.62	1	–
0.75 to <2.50	1,625	73	54.48	1,638	1.36	8.2	12.15	15.6	261	15.91	3	–
2.50 to <10.00	663	24	49.09	662	4.50	3.4	11.76	14.6	200	30.17	3	–
10.00 to <100.00	120	2	43.93	117	19.49	0.8	11.94	13.7	63	54.06	3	–
100.00 (Default)	102	0	50.57	102	100.00	0.3	36.20	11.3	32	31.48	36	–
Sub-total	8,617	523	56.54	8,841	2.24	42.5	12.17	15.1	929	10.51	48	54
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	8,617	523	56.54	8,841	2.24	42.5	12.17	15.1	929	10.51	48	54
Secured by real estate property non-SMEs												
0.00 to <0.15	22,185	606	64.41	22,571	0.11	228.2	12.80	19.3	796	3.53	4	–
0.15 to <0.25	29,321	1,324	83.60	30,422	0.22	242.7	15.10	25.7	2,185	7.18	11	–
0.25 to <0.50	32,763	1,492	78.81	33,929	0.40	253.0	15.49	25.3	3,822	11.26	22	–
0.50 to <0.75	31,459	1,603	80.80	32,735	0.69	229.8	16.18	24.2	5,784	17.67	39	–
0.75 to <2.50	24,923	1,970	83.04	26,522	(0.73)	191.2	15.23	21.4	7,095	26.75	61	–
2.50 to <10.00	9,477	1,103	93.67	10,486	4.68	83.6	14.03	23.6	5,032	47.99	72	–
10.00 to <100.00	2,034	86	92.77	2,090	20.89	16.1	15.68	23.9	1,953	93.43	71	–
100.00 (Default)	1,549	13	88.07	1,553	100.00	14.1	18.86	21.0	627	40.35	293	–
Sub-total	153,710	8,197	82.09	160,308	1.71	1,258.7	15.08	23.5	27,294	17.03	571	580
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	153,710	8,197	82.09	160,308	1.71	1,258.7	15.08	23.5	27,294	17.03	571	580

Dec 31, 2019

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) ¹	RWA	Average RW (in %)	Expected Loss	Value adjustments and Provisions
Qualifying Revolving												
0.00 to <0.15	43	10,152	88.42	7,203	0.07	2,235.6	11.65	0.0	203	2.82	3	–
0.15 to <0.25	93	2,918	91.44	2,199	0.20	800.3	6.58	0.0	153	6.97	3	–
0.25 to <0.50	129	951	78.56	768	0.39	376.4	15.72	0.0	85	11.05	2	–
0.50 to <0.75	168	626	72.75	569	0.69	335.9	19.35	0.0	99	17.35	2	–
0.75 to <2.50	276	510	70.59	597	1.53	405.1	22.81	0.0	186	31.20	5	–
2.50 to <10.00	188	177	71.97	299	4.78	232.4	23.95	0.0	220	73.50	8	–
10.00 to <100.00	51	17	71.77	62	20.86	49.1	26.96	0.0	92	149.53	7	–
100.00 (Default)	61	2	62.13	62	100.00	34.4	32.53	0.0	44	71.20	38	–
Sub-total	1,009	15,352	86.73	11,759	0.98	4,469.1	12.36	0.0	1,083	9.21	68	76
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	1,009	15,352	86.73	11,759	0.98	4,469.1	12.36	0.0	1,083	9.21	68	76
Other retail SMEs												
0.00 to <0.15	415	2,321	19.04	1,133	0.11	32.4	42.48	3.9	106	9.38	1	–
0.15 to <0.25	427	1,099	25.86	820	0.23	38.0	41.91	3.5	125	15.26	1	–
0.25 to <0.50	537	1,187	21.15	899	0.39	38.7	45.28	3.4	209	23.27	2	–
0.50 to <0.75	566	590	27.11	866	0.65	25.0	50.98	2.8	301	34.76	3	–
0.75 to <2.50	969	591	31.15	1,231	1.36	24.5	55.11	2.8	631	51.27	9	–
2.50 to <10.00	669	262	32.71	555	4.55	14.7	56.38	2.6	367	66.21	14	–
10.00 to <100.00	186	39	32.04	108	21.59	4.5	58.20	2.5	111	102.48	13	–
100.00 (Default)	239	14	32.45	230	100.00	3.6	57.89	1.9	66	28.58	132	–
Sub-total	4,009	6,103	23.52	5,841	5.27	181.6	48.97	3.2	1,916	32.81	174	204
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	4,009	6,103	23.52	5,841	5.27	181.6	48.97	3.2	1,916	32.81	174	204
Other retail non-SMEs												
0.00 to <0.15	1,927	2,854	30.35	3,469	0.09	414.6	35.76	4.7	324	9.33	1	–
0.15 to <0.25	1,809	818	69.14	2,425	0.23	230.8	39.08	13.4	447	18.41	2	–
0.25 to <0.50	2,163	754	70.17	2,739	0.40	236.5	40.55	14.9	764	27.90	5	–
0.50 to <0.75	2,947	590	68.43	3,384	0.69	298.9	43.20	10.8	1,333	39.39	10	–
0.75 to <2.50	9,028	495	47.49	9,306	1.62	906.8	51.25	6.7	6,065	65.18	78	–
2.50 to <10.00	7,159	169	50.28	7,246	4.61	574.3	52.40	9.9	5,862	80.90	174	–
10.00 to <100.00	1,352	32	53.26	1,364	20.39	120.6	51.57	7.2	1,614	118.33	144	–
100.00 (Default)	2,285	20	49.01	2,291	100.00	103.7	47.87	1.3	376	16.42	1,303	–
Sub-total	28,669	5,731	47.36	32,224	9.61	2,886.2	47.82	8.5	16,785	52.09	1,718	1,680
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	28,669	5,731	47.36	32,224	9.61	2,886.2	47.82	8.5	16,785	52.09	1,718	1,680
All exposure classes												
Dilution risk	3,093	269	33.70	3,329	22.50	0.3	2.25	1.0	292	8.76	9	0
Total incl. dilution risk	525,741	260,282	36.10	620,923	3.46	8,356.1	29.64	8.0	139,064	22.40	7,385	7,184

¹ Average maturity of retail exposure classes as per December 31, 2019 was restated.

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 65 to 78.

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, 2020

	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	34	0	<0.1	45.00	5.8	0	0	0	–
0.15 to <0.25	0	0	0	10	0.23	<0.1	12.33	1.0	1	13.75	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	44	0.05	<0.1	37.68	4.7	1	3.08	0	0
Dilution risk	10	3	0	10	0.03	0	75.00	1.0	1	13.39	0	0
Sub-total incl. dilution risk	10	3	0	54	0.05	<0.1	44.51	4.0	3	4.97	0	0
Institutions												
0.00 to <0.15	0	0	0	2	0.03	<0.1	86.92	1.0	1	30.20	0	–
0.15 to <0.25	0	0	0	0	0.23	<0.1	13.57	1.0	0	15.91	0	–
0.25 to <0.50	0	0	0	0	0.38	<0.1	42.69	1.0	0	61.52	0	–
0.50 to <0.75	0	0	0	0	0	<0.1	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	20.00	<0.1	45.00	0.0	1	252.53	0	–
100.00 (Default)	0	0	0	0	0	0	0	0	0	0	0	–
Sub-total	0	0	0	2	3.28	<0.1	77.48	0.8	2	67.15	0	0
Dilution risk	2	11	0	2	0.04	0	75.00	1.0	0	16.52	0	0
Sub-total incl. dilution risk	3	11	0	5	1.69	<0.1	76.26	0.9	2	42.30	0	0
Corporates												
0.00 to <0.15	658	95	75.00	2,188	0.10	1.5	28.43	1.7	481	21.99	1	–
0.15 to <0.25	537	536	19.29	964	0.23	2.0	31.17	2.0	348	36.08	1	–
0.25 to <0.50	1,506	233	71.04	2,296	0.38	3.4	38.51	3.1	1,306	56.88	6	–
0.50 to <0.75	110	29	21.20	423	0.67	2.0	31.28	1.5	248	58.69	1	–
0.75 to <2.50	362	114	73.52	591	1.28	1.5	39.95	2.2	525	88.83	4	–
2.50 to <10.00	52	1	75.00	121	4.47	0.2	28.65	2.2	126	104.16	3	–
10.00 to <100.00	37	8	35.67	53	16.28	0.1	39.95	2.6	113	212.55	4	–
100.00 (Default)	113	3	75.00	125	100.00	0.2	44.93	2.0	0	0.03	55	–
Sub-total	3,374	1,019	42.78	6,760	2.41	10.9	33.83	2.3	3,147	46.55	74	72
Dilution risk	2,983	4,926	0.02	2,984	0.20	9.7	75.00	1.0	790	26.46	4	0
Sub-total incl. dilution risk	6,357	5,945	7.35	9,744	1.73	20.6	46.44	1.9	3,936	40.39	78	72

Jun 30, 2020												
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
of which:												
SMEs												
0.00 to <0.15	0	0	0	10	0.05	<0.1	39.77	1.0	1	15.25	0	–
0.15 to <0.25	7	3	75.00	13	0.23	0.1	44.85	3.4	5	39.59	0	–
0.25 to <0.50	10	3	35.03	16	0.38	0.1	42.01	1.9	8	51.83	0	–
0.50 to <0.75	2	2	75.00	8	0.69	0.1	43.59	2.5	6	70.55	0	–
0.75 to <2.50	3	0	0	5	1.37	0.1	38.56	1.0	3	66.15	0	–
2.50 to <10.00	7	0	75.00	12	4.60	<0.1	35.58	2.2	12	105.71	0	–
10.00 to <100.00	7	1	75.00	7	20.00	<0.1	45.00	2.0	15	197.80	1	–
100.00 (Default)	3	0	0	3	100.00	<0.1	45.00	1.4	0	0	2	–
Sub-total	41	9	63.33	74	7.58	0.3	41.59	2.1	51	68.80	2	4
Dilution risk	30	64	0	30	0.48	8.7	75.00	1.0	12	41.59	0	0
Sub-total incl. dilution risk	70	73	7.96	104	5.55	9.0	51.14	1.8	63	61.02	3	4
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	1,126	213	71.51	1,279	0.38	0.5	45.00	4.2	856	66.98	4	–
0.50 to <0.75	0	0	0	0	0	0	0	0	0	0	0	–
0.75 to <2.50	148	91	73.16	215	1.23	0.1	45.00	2.6	166	77.38	1	–
2.50 to <10.00	25	0	75.00	26	3.78	<0.1	45.00	4.8	29	115.00	1	–
10.00 to <100.00	13	1	75.00	14	20.00	<0.1	45.00	5.0	34	250.00	1	–
100.00 (Default)	36	0	0	36	100.00	<0.1	45.00	4.6	0	0	18	–
Sub-total	1,348	306	72.01	1,568	3.00	0.6	45.00	4.0	1,086	69.25	25	14
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	1,348	306	72.01	1,568	3.00	0.6	45.00	4.0	1,086	69.25	25	14
Other												
0.00 to <0.15	657	95	75.00	2,178	0.10	1.5	28.38	1.7	480	22.02	1	–
0.15 to <0.25	530	533	18.94	951	0.23	1.9	30.98	2.0	343	36.04	1	–
0.25 to <0.50	369	17	70.83	1,002	0.38	2.9	30.18	1.8	441	44.06	1	–
0.50 to <0.75	108	27	16.88	415	0.67	1.9	31.03	1.4	242	58.45	1	–
0.75 to <2.50	211	22	75.00	371	1.30	1.4	37.04	2.0	355	95.77	3	–
2.50 to <10.00	19	1	75.00	84	4.67	0.1	22.69	1.4	84	100.63	2	–
10.00 to <100.00	17	7	25.07	32	13.84	0.1	36.64	1.7	64	200.09	2	–
100.00 (Default)	74	3	75.00	86	100.00	0.2	44.89	1.0	0	0.04	36	–
Sub-total	1,985	704	29.80	5,118	2.15	10.0	30.30	1.8	2,010	39.27	46	53
Dilution risk	2,954	4,862	0.02	2,954	0.20	1.0	75.00	1.0	777	26.31	4	0
Sub-total incl. dilution risk	4,939	5,566	3.78	8,072	1.44	10.9	46.66	1.5	2,787	34.52	50	53
All exposure classes												
Dilution risk	2,995	4,940	0.02	2,996	0.20	9.7	75.00	1.0	791	26.41	4	0
Total incl. dilution risk	6,370	5,959	7.33	9,803	1.72	20.6	46.44	1.9	3,941	40.20	78	72

Dec 31, 2019												
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	0	0	0	0	0.14	<0.1	12.33	2.5	0	0.04	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	1	0	0	0.00	<0.1	12.33	2.5	0	0.04	0	0
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	0	1	0	0	0.00	<0.1	12.33	2.5	0	0.04	0	0
Institutions												
0.00 to <0.15	0	3	0	0	0.07	<0.1	12.34	2.5	0	11.31	0	–
0.15 to <0.25	0	0	0	0	0.23	<0.1	42.69	2.5	0	47.59	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	0.69	<0.1	42.69	2.5	0	80.49	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	3	0	0	0.07	<0.1	12.36	2.5	0	11.34	0	0
Dilution risk	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total incl. dilution risk	0	3	0	0	0.07	<0.1	12.36	2.5	0	11.34	0	0
Corporates												
0.00 to <0.15	1,469	1,432	0	1,947	0.09	6.7	15.51	2.5	262	13.44	0	–
0.15 to <0.25	1,645	1,278	74.41	1,698	0.20	2.0	37.70	2.5	671	39.54	1	–
0.25 to <0.50	1,223	1,395	75.00	1,128	0.38	2.5	29.14	2.5	521	46.16	1	–
0.50 to <0.75	519	496	75.00	453	0.67	1.5	27.84	2.5	256	56.60	1	–
0.75 to <2.50	418	372	75.00	309	1.46	0.6	23.70	2.5	202	65.34	1	–
2.50 to <10.00	111	88	75.00	92	4.37	0.1	18.91	2.5	68	73.81	1	–
10.00 to <100.00	32	31	74.64	35	15.59	0.1	35.83	2.5	65	185.19	2	–
100.00 (Default)	106	15	75.00	107	100.00	0.1	42.90	2.5	0	0	46	–
Sub-total	5,524	5,107	74.64	5,769	15.59	13.5	35.83	2.5	2,045	35.44	53	55
Dilution risk	4,072	8,509	6.52	4,345	0.16	56.7	75.00	1.0	999	22.99	5	0
Sub-total incl. dilution risk	9,596	13,616	32.07	10,115	8.96	70.3	52.66	1.9	3,044	30.09	58	55

Dec 31, 2019												
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
of which:												
SMEs												
0.00 to <0.15	0	0	0	0	0.11	<0.1	12.33	2.5	0	6.48	0	–
0.15 to <0.25	24	22	75.00	25	0.21	<0.1	42.99	2.5	9	34.24	0	–
0.25 to <0.50	14	18	75.00	13	0.38	<0.1	40.63	2.5	6	44.73	0	–
0.50 to <0.75	19	5	0	19	0.69	<0.1	40.84	2.5	13	70.88	0	–
0.75 to <2.50	5	12	0	5	1.29	<0.1	29.59	2.5	3	62.02	0	–
2.50 to <10.00	14	3	75.00	12	3.79	<0.1	43.44	2.5	11	89.37	0	–
10.00 to <100.00	2	5	75.00	4	19.86	<0.1	38.49	2.5	5	142.59	0	–
100.00 (Default)	40	0	0	40	100.00	<0.1	45.00	2.5	0	0	18	–
Sub-total	119	66	75.00	118	35.56	0.2	42.43	2.5	47	39.87	19	14
Dilution risk	363	3,044	7.21	579	0.10	45.3	75.00	1.0	98	16.98	0	0
Sub-total incl. dilution risk	483	3,110	8.65	697	6.11	45.4	69.48	1.3	145	20.86	19	14
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	1,469	1,431	0	1,947	0.09	6.7	15.51	2.5	262	13.44	0	–
0.15 to <0.25	1,621	1,256	74.39	1,674	0.20	1.9	37.62	2.5	663	39.61	1	–
0.25 to <0.50	1,209	1,377	75.00	1,116	0.38	2.4	29.01	2.5	515	46.18	1	–
0.50 to <0.75	500	491	75.00	434	0.67	1.4	27.28	2.5	243	55.98	1	–
0.75 to <2.50	413	360	75.00	304	1.47	0.6	23.60	2.5	199	65.39	1	–
2.50 to <10.00	96	85	75.00	79	4.46	0.1	15.06	2.5	57	71.37	1	–
10.00 to <100.00	30	26	74.18	31	15.08	0.1	35.51	2.5	59	190.30	2	–
100.00 (Default)	66	15	75.00	66	100.00	0.1	41.62	2.5	0	0	28	–
Sub-total	5,405	5,041	75.00	5,651	0.67	13.4	27.28	2.5	1,998	35.35	34	40
Dilution risk	3,709	5,465	4.81	3,767	0.17	11.5	75.00	1.0	901	23.91	5	0
Sub-total incl. dilution risk	9,113	10,506	38.49	9,418	0.47	24.8	46.36	1.9	2,898	30.78	39	40
All exposure classes												
Dilution risk	4,072	8,509	6.52	4,345	0.16	56.7	75.00	1.0	999	22.99	5	0
Total incl. dilution risk	9,597	13,620	10.84	10,115	1.39	70.3	47.50	1.8	3,044	30.09	58	55

Article 453 (j) 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

in € m.	Jun 30, 2020		Dec 31, 2019	
	a	b	a	b
	pre-credit derivatives RWA	Actual RWA	pre-credit derivatives RWA	Actual RWA
7 Exposures under AIRB				
8 Central governments and central banks	15,618	15,801	16,233	16,233
9 Institutions	3,920	4,004	3,918	3,979
9a Corporates	84,685	83,489	83,504	82,316
of which:				
10 SMEs	6,424	6,425	7,261	7,261
11 Specialized lending	9,112	9,111	7,607	7,607
12 Other	69,149	67,953	68,636	67,448
12a Retail	50,139	50,139	48,007	48,007
of which:				
13 Secured by real estate property SMEs	964	964	929	929
14 Secured by real estate property non-SMEs	28,839	28,839	27,294	27,294
15 Qualifying revolving	1,136	1,136	1,083	1,083
16 Other retail SMEs	1,985	1,985	1,916	1,916
17 Other retail non-SMEs	17,216	17,216	16,785	16,785
18 Equity	9,122	9,122	9,109	9,109
19 Other non-credit obligation asset	6,115	6,115	6,079	6,079
19a Sub-total AIRB	169,599	168,670	166,850	165,723
1 Exposures under FIRB				
2 Central governments and central banks	3	3	0	0
3 Institutions	4	2	0	0
3a Corporates	4,011	3,936	3,970	3,970
of which:				
4 SMEs	63	63	145	145
5 Specialized lending	1,086	1,086	926	926
6 Other	2,861	2,787	2,898	2,898
6a Sub-total FIRB	4,017	3,941	3,970	3,970
20 Total	173,616	172,611	170,820	169,693

Our RWA in the IRB approach were at € 172.6 billion as of June 30, 2020, compared to € 169.7 billion as of December 31, 2020. The overall increase of € 2.9 billion is mainly driven by the retail and corporates portfolio predominantly on the back of unfavorable parameter developments.

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 current and previous reporting period. It also shows the corresponding movements in capital requirements, derived from RWA with an 8 % capital ratio.

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

in €m.	Three months ended Jun 30, 2020		Three months ended Mar 31, 2020	
	a	b	a	b
	RWA	Capital requirements	RWA	Capital requirements
1 Credit risk RWA opening balance	157,890	12,631	149,113	11,929
2 Book size	(3,798)	(304)	3,373	270
3 Book quality	1,164	93	929	74
4 Model updates	(310)	(25)	162	13
5 Methodology and policy	(1,321)	(106)	4,503	360
6 Acquisitions and disposals	(498)	(40)	(162)	(13)
7 Foreign exchange movements	(1,037)	(83)	(28)	(2)
8 Other	0	0	0	0
9 Credit risk RWA closing balance	152,090	12,167	157,890	12,631

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” 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 decrease in RWA for credit risk exposures under the IRB approach by 3.7 % or €5.8 billion since March 31, 2020 is primarily driven by the decreases in the “book size” and “methodology and policy” categories offset by an increase in “book quality”. “Book size” reflects the decreased client demand versus prior quarter where we observed exposures increased on the back of the COVID-19 pandemic. The decrease in “methodology and policy” is mainly driven by positive impacts due to the application of the “quick fix” amendment of the CRR (Regulation (EU) 2020/873). The category “book quality” reflects the increase stemming from parameter developments, in particular rating changes.

Counterparty credit risk (CCR)

Article 439 (f) CRR - CCR 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 EU CCR2 and EU CCR8, 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 future 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 2019 on page 128.

EU CCR1 – Analysis of CCR exposure by approach

		Jun 30, 2020						
		a	b	c	d	e	f	g
in € m. (unless stated otherwise)		Notional	Replacement cost/ Current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWA
1	Mark-to-market	–	3,974	1,678	–	–	8,567	3,078
2	Original exposure	N/M	–	–	–	–	N/M	N/M
3	Standardized approach	–	N/M	–	–	N/M	N/M	N/M
4	IMM (for derivatives and SFTs)	–	–	–	60,043	1.3	72,051	17,663
of which:		–	–	–				
5	Securities Financing Transactions	–	–	–	27,507	1.3	33,008	2,715
6	Derivatives & Long Settlement Transactions	–	–	–	32,536	1.3	39,043	14,949
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)	–	–	–	–	–	10,737	1,635
10	VaR for SFTs	–	–	–	–	–	0	0
11	Total	–	–	–	–	–	–	22,377

		Dec 31, 2019						
		a	b	c	d	e	f	g
in € m. (unless stated otherwise)		Notional	Replacement cost/ Current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWA
1	Mark-to-market	–	4,302	6,024	–	–	10,331	4,506
2	Original exposure	N/M	–	–	–	–	N/M	N/M
3	Standardized approach	–	N/M	–	–	N/M	N/M	N/M
4	IMM (for derivatives and SFTs)	–	–	–	60,588	1.2	72,705	16,708
of which:		–	–	–				
5	Securities Financing Transactions	–	–	–	31,786	1.2	38,143	3,026
6	Derivatives & Long Settlement Transactions	–	–	–	28,801	1.2	34,562	13,682
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)	–	–	–	–	–	10,143	1,822
10	VaR for SFTs	–	–	–	–	–	0	0
11	Total	–	–	–	–	–	–	23,036

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 movement in the advanced method, driving the reported CVA RWA of € 4.7 billion (91 %), whilst the standardized method covers only € 489 million (9 %) of the total CVA RWA. The stressed VaR component is the main driver of advanced CVA RWA, which results from the stressed period volatilities considered. The increase in exposure was primarily driven by methodology changes.

EU CCR2 – CVA capital charge

in € m.	Jun 30, 2020		Dec 31, 2019	
	a	b	a	b
	Exposure value	RWA	Exposure value	RWA
1 Total portfolios subject to the Advanced Method	55,650	4,746	58,059	4,337
2 (i) VaR component (including the 3x multiplier)	–	1,606	–	969
3 (ii) Stressed VaR component (including the 3x multiplier)	–	3,140	–	3,368
4 All portfolios subject to the Standardized Method	1,170	489	904	345
EU4 Based on Original Exposure Method	0	0	0	0
5 Total subject to the CVA capital charge	56,821	5,235	58,963	4,683

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, 2020 and December 31, 2019, we only report exposures to qualifying central counterparties (QCCP) as defined in Article 4 (88) CRR.

EU CCR8 – Exposures to CCPs

in € m.	Jun 30, 2020		Dec 31, 2019	
	a	b	a	b
	EAD post CRM	RWA	EAD post CRM	RWA
1 Exposures to QCCPs (total)	–	331	–	573
2 Exposures for trades at QCCPs (excluding initial margin and default fund contributions)	3,969	79	5,473	109
of which:				
3 (i) OTC derivatives	2,343	47	2,276	46
4 (ii) Exchange-traded derivatives	1,019	20	729	15
5 (iii) Securities financing transactions	607	12	2,468	49
6 (iv) Netting sets where cross-product netting has been approved	0	0	0	0
7 Segregated initial margin	3,445	–	4,746	–
8 Non-segregated initial margin	4,312	86	3,404	68
9 Pre-funded default fund contributions	780	166	915	395
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
of which:				
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, 2020						
		Risk Weight						
Exposure classes		0%	2%	4%	10%	20%	50%	70%
1	Central governments or central banks	4,163	0	0	0	0	0	0
2	Regional governments or local authorities	854	0	0	0	0	0	0
3	Public sector entities	224	0	0	0	0	0	0
4	Multilateral development banks	754	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0	0
6	Institutions	0	7,856	0	0	90	8	0
7	Corporates	0	0	0	0	147	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	423	0	0	0	0	0
11	Total	5,995	8,279	0	0	237	8	0

in € m.		Jun 30, 2020					Of which: unrated
		Risk Weight					
Exposure classes		75%	100%	150%	Others	Total	
1	Central governments or central banks	0	0	0	0	4,163	4,163
2	Regional governments or local authorities	0	0	0	0	854	854
3	Public sector entities	0	0	0	0	224	224
4	Multilateral development banks	0	0	0	0	754	754
5	International organizations	0	0	0	0	0	0
6	Institutions	0	11	0	0	7,964	7,952
7	Corporates	0	1,111	0	0	1,258	1,257
8	Retail	3	0	0	0	3	3
8a	Secured by mortgages on immovable property	0	0	0	0	0	0
8b	Exposures in default	0	0	0	0	0	0
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	423	423
11	Total	3	1,122	0	0	15,644	15,631

in € m.		Dec 31, 2019						
		Risk Weight						
Exposure classes		0%	2%	4%	10%	20%	50%	70%
1	Central governments or central banks	3,617	0	0	0	0	0	0
2	Regional governments or local authorities	188	0	0	0	0	0	0
3	Public sector entities	241	0	0	0	3	0	0
4	Multilateral development banks	562	0	0	0	0	0	0
5	International organizations	0	0	0	0	0	0	0
6	Institutions	0	8,703	0	0	63	4	0
7	Corporates	0	0	0	0	178	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	172	0	0	0	0	0
11	Total	4,608	8,876	0	0	244	4	0

		Dec 31, 2019					
in € m.		Risk Weight					
Exposure classes		75%	100%	150%	Others	Total	Of which: unrated
1	Central governments or central banks	0	0	0	0	3,617	3,617
2	Regional governments or local authorities	0	0	0	0	188	188
3	Public sector entities	0	0	0	0	244	244
4	Multilateral development banks	0	0	0	0	562	562
5	International organizations	0	0	0	0	0	0
6	Institutions	0	14	0	0	8,784	8,775
7	Corporates	0	750	5	0	934	928
8	Retail	3	0	0	0	3	3
8a	Secured by mortgages on immovable property	0	0	0	0	0	0
8b	Exposures in default	0	0	0	0	0	0
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	2	0	0	174	174
11	Total	3	766	5	0	14,506	14,490

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, 2020

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	4,397	0.02	0.1	43.12	1.9	363	8.25
0.15 to <0.25	446	0.23	<0.1	41.49	1.8	156	34.93
0.25 to <0.50	14	0.39	<0.1	30.00	5.0	9	63.31
0.50 to <0.75	8	0.64	<0.1	30.00	4.9	6	75.70
0.75 to <2.50	127	1.28	<0.1	44.02	4.4	160	125.65
2.50 to <10.00	758	2.92	<0.1	50.00	2.9	520	68.55
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	5,750	0.45	0.1	43.87	2.1	1,213	21.09
Institutions							
0.00 to <0.15	17,283	0.05	0.4	37.37	1.2	2,297	13.29
0.15 to <0.25	418	0.23	0.1	35.14	1.8	261	62.37
0.25 to <0.50	201	0.39	<0.1	48.18	1.9	131	65.42
0.50 to <0.75	481	0.64	<0.1	56.38	1.4	475	98.85
0.75 to <2.50	395	1.26	<0.1	43.03	1.4	406	102.73
2.50 to <10.00	271	3.34	<0.1	54.99	2.2	290	107.08
10.00 to <100.00	19	13.38	<0.1	50.13	2.7	48	257.69
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	19,067	0.16	0.6	38.30	1.2	3,908	20.49
Corporates							
0.00 to <0.15	46,050	0.05	8.0	(9,275.89)	1.4	6,410	13.92
0.15 to <0.25	2,225	0.23	0.8	(7,578.72)	3.5	979	44.01
0.25 to <0.50	2,222	0.39	0.9	(9,063.07)	2.6	1,559	70.15
0.50 to <0.75	2,842	0.64	0.9	(9,099.02)	2.9	1,806	63.53
0.75 to <2.50	3,618	1.37	1.1	(6,162.74)	2.3	2,669	73.76
2.50 to <10.00	2,735	5.35	0.5	(7,082.23)	2.8	1,833	67.04
10.00 to <100.00	221	17.69	0.1	(8,254.17)	1.5	566	255.81
100.00 (Default)	94	100.00	<0.1	(7,462.09)	1.7	52	55.83
Sub-total	60,006	0.64	12.2	(7,335.75)	1.7	15,873	26.45
of which:							
SMEs							
0.00 to <0.15	928	0.06	0.3	43.47	4.0	253	27.24
0.15 to <0.25	98	0.23	0.1	30.27	3.4	21	21.96
0.25 to <0.50	74	0.40	0.1	52.59	2.8	46	61.42
0.50 to <0.75	137	0.65	0.1	47.83	0.6	67	48.97
0.75 to <2.50	197	1.65	0.1	30.66	2.0	97	49.58
2.50 to <10.00	61	5.54	0.1	50.40	3.0	72	117.18
10.00 to <100.00	7	17.60	<0.1	35.06	2.1	9	120.34
100.00 (Default)	1	100.00	<0.1	65.33	2.8	1	85.37
Sub-total	1,503	0.74	0.8	42.05	3.2	566	37.65
Specialized Lending							
0.00 to <0.15	115	0.09	<0.1	50.80	3.6	45	38.69
0.15 to <0.25	56	0.23	<0.1	47.01	3.9	38	67.30
0.25 to <0.50	80	0.39	<0.1	39.50	4.0	56	70.49
0.50 to <0.75	60	0.64	<0.1	45.63	4.0	59	98.96
0.75 to <2.50	121	1.32	<0.1	32.03	4.4	109	89.72
2.50 to <10.00	424	3.40	<0.1	22.89	4.7	372	87.81
10.00 to <100.00	12	18.62	<0.1	48.41	2.8	30	238.79
100.00 (Default)	11	100.00	<0.1	9.87	4.7	1	12.50
Sub-total	879	3.39	0.2	32.61	4.3	710	80.75
Other							
0.00 to <0.15	45,007	0.05	7.7	35.10	1.4	6,112	13.58
0.15 to <0.25	2,071	0.23	0.7	32.26	3.5	920	44.42
0.25 to <0.50	2,068	0.39	0.8	44.89	2.5	1,457	70.45
0.50 to <0.75	2,645	0.64	0.8	31.01	2.9	1,679	63.49
0.75 to <2.50	3,300	1.35	0.9	30.51	2.3	2,462	74.61
2.50 to <10.00	2,249	5.71	0.4	18.20	2.5	1,389	61.76
10.00 to <100.00	202	17.64	<0.1	47.70	1.4	528	261.75
100.00 (Default)	82	100.00	<0.1	18.09	1.3	50	61.01
Sub-total	57,624	0.59	11.3	34.26	1.7	14,597	25.33

Jun 30, 2020

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 %)
Retail							
0.00 to <0.15	5	0.07	0.2	(4,812.04)	2.8	0	9.42
0.15 to <0.25	5	0.23	<0.1	(6,814.59)	3.1	1	26.00
0.25 to <0.50	5	0.39	<0.1	(7,399.12)	7.7	2	41.34
0.50 to <0.75	6	0.64	0.1	(7,306.50)	5.5	3	55.67
0.75 to <2.50	17	1.30	0.1	(7,305.21)	2.4	13	78.23
2.50 to <10.00	9	4.35	0.1	(7,854.49)	1.6	10	112.90
10.00 to <100.00	2	34.43	<0.1	(8,083.75)	1.1	2	150.60
100.00 (Default)	0	100.00	<0.1	49.06	2.6	0	125.83
Sub-total	49	2.67	0.5	(7,286.23)	3.3	33	67.93
of which:							
Secured by real estate property SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Secured by real estate property non-SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Qualifying Revolving							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Other retail SMEs							
0.00 to <0.15	0	0.08	<0.1	49.10	1.0	0	7.92
0.15 to <0.25	1	0.23	<0.1	72.29	1.5	0	26.49
0.25 to <0.50	1	0.39	<0.1	80.08	1.3	1	40.25
0.50 to <0.75	1	0.64	<0.1	76.73	1.4	1	51.00
0.75 to <2.50	6	1.32	0.1	76.31	2.0	4	68.56
2.50 to <10.00	3	3.90	<0.1	79.94	1.2	3	91.81
10.00 to <100.00	1	51.25	<0.1	82.50	1.1	1	98.14
100.00 (Default)	0	100.00	<0.1	49.06	2.6	0	125.83
Sub-total	13	4.84	0.2	77.27	1.6	9	67.99
Other retail non-SMEs							
0.00 to <0.15	5	0.07	0.2	49.35	2.9	0	9.45
0.15 to <0.25	4	0.23	<0.1	54.93	3.5	1	25.91
0.25 to <0.50	4	0.39	<0.1	63.13	10.2	2	41.75
0.50 to <0.75	5	0.64	<0.1	65.15	6.5	3	56.79
0.75 to <2.50	11	1.29	0.1	71.19	2.7	9	83.39
2.50 to <10.00	6	4.59	<0.1	80.54	1.8	7	124.34
10.00 to <100.00	1	21.37	<0.1	82.47	1.2	2	191.35
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	36	1.85	0.4	66.45	4.0	24	67.90
Total (all exposure classes)	84,872	0.52	13.5	35.96	1.6	21,027	24.77

Dec 31, 2019

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	7,100	0.02	0.1	45.49	0.9	317	4.47
0.15 to <0.25	617	0.23	<0.1	49.99	1.1	244	39.59
0.25 to <0.50	41	0.39	<0.1	45.00	4.4	36	86.70
0.50 to <0.75	77	0.64	<0.1	47.84	4.2	85	110.26
0.75 to <2.50	35	1.76	<0.1	30.00	5.0	35	100.45
2.50 to <10.00	888	2.92	<0.1	22.00	3.4	758	85.33
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	8,758	0.34	0.1	43.38	1.3	1,475	16.84
Institutions							
0.00 to <0.15	18,196	0.05	0.4	38.03	1.3	2,902	15.95
0.15 to <0.25	183	0.23	0.1	47.42	2.3	119	64.82
0.25 to <0.50	520	0.39	<0.1	53.89	1.6	370	71.21
0.50 to <0.75	413	0.64	<0.1	56.68	1.1	381	92.12
0.75 to <2.50	294	1.51	<0.1	55.80	1.2	360	122.34
2.50 to <10.00	93	3.92	<0.1	51.93	2.4	190	204.09
10.00 to <100.00	16	13.86	<0.1	51.20	3.0	45	273.43
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	19,716	0.13	0.6	39.27	1.3	4,366	22.15
Corporates							
0.00 to <0.15	47,231	0.04	8.8	35.69	1.3	6,050	12.81
0.15 to <0.25	1,923	0.19	0.7	30.38	2.7	856	44.55
0.25 to <0.50	1,809	0.13	0.8	34.14	1.4	1,626	89.86
0.50 to <0.75	1,991	0.50	0.8	39.07	2.5	1,804	90.62
0.75 to <2.50	3,343	1.26	1.1	43.79	2.7	3,490	104.40
2.50 to <10.00	1,847	4.35	0.5	26.54	3.7	1,774	96.07
10.00 to <100.00	597	15.69	0.1	12.67	1.0	421	70.52
100.00 (Default)	38	100.00	<0.1	20.84	1.5	30	78.62
Sub-total	58,778	0.49	12.8	35.51	1.6	16,051	27.31
of which:							
SMEs							
0.00 to <0.15	992	0.06	0.3	42.35	3.3	297	29.94
0.15 to <0.25	60	0.23	0.1	47.97	2.5	29	47.25
0.25 to <0.50	68	0.39	0.1	52.94	2.4	48	70.35
0.50 to <0.75	104	0.64	0.1	51.35	0.8	65	62.84
0.75 to <2.50	157	1.55	0.1	24.82	2.6	75	47.94
2.50 to <10.00	95	4.61	0.1	35.66	2.1	90	95.01
10.00 to <100.00	1	23.55	<0.1	42.63	4.3	3	198.39
100.00 (Default)	3	100.00	<0.1	34.90	1.6	5	166.74
Sub-total	1,479	0.79	0.7	41.39	2.9	611	41.29
Specialized Lending							
0.00 to <0.15	92	0.08	<0.1	52.29	4.4	42	45.17
0.15 to <0.25	27	0.23	<0.1	48.15	3.8	18	66.54
0.25 to <0.50	48	0.39	<0.1	37.15	4.1	33	68.29
0.50 to <0.75	33	0.64	<0.1	48.76	4.5	37	113.67
0.75 to <2.50	140	1.36	0.1	40.45	4.0	157	112.16
2.50 to <10.00	367	4.85	<0.1	19.47	4.9	293	79.74
10.00 to <100.00	23	13.56	<0.1	15.78	1.6	18	78.40
100.00 (Default)	4	100.00	<0.1	38.46	3.0	1	22.60
Sub-total	733	3.70	0.2	31.09	4.4	598	81.51
Other							
0.00 to <0.15	46,147	0.04	8.5	35.51	1.2	5,711	12.38
0.15 to <0.25	1,835	0.19	0.6	29.70	2.7	810	44.13
0.25 to <0.50	1,694	0.13	0.7	33.70	1.4	1,546	91.25
0.50 to <0.75	1,855	0.50	0.7	38.39	2.6	1,702	91.77
0.75 to <2.50	3,046	1.25	1.0	44.91	2.6	3,258	106.96
2.50 to <10.00	1,385	4.20	0.4	27.80	3.4	1,391	100.48
10.00 to <100.00	573	15.75	<0.1	12.47	0.9	400	69.90
100.00 (Default)	31	100.00	<0.1	17.38	1.3	24	77.18
Sub-total	56,566	0.45	11.9	35.42	1.5	14,843	26.24

Dec 31, 2019

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 %)
Retail							
0.00 to <0.15	6	0.06	0.2	49.46	1.5	1	8.74
0.15 to <0.25	3	0.23	<0.1	55.57	4.7	1	24.50
0.25 to <0.50	6	0.39	<0.1	68.88	5.8	2	39.42
0.50 to <0.75	9	0.64	0.1	71.17	1.7	5	58.21
0.75 to <2.50	17	1.40	0.1	71.02	2.6	13	78.76
2.50 to <10.00	11	4.92	0.1	75.26	1.4	12	107.29
10.00 to <100.00	3	26.52	<0.1	75.90	1.1	4	135.03
100.00 (Default)	1	100.00	<0.1	20.66	1.8	1	195.97
Sub-total	55	4.13	0.5	67.99	2.5	39	70.51
of which:							
Secured by real estate property SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Secured by real estate property non-SMEs							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Qualifying Revolving							
0.00 to <0.15	0	0	0	0	0	0	0
0.15 to <0.25	0	0	0	0	0	0	0
0.25 to <0.50	0	0	0	0	0	0	0
0.50 to <0.75	0	0	0	0	0	0	0
0.75 to <2.50	0	0	0	0	0	0	0
2.50 to <10.00	0	0	0	0	0	0	0
10.00 to <100.00	0	0	0	0	0	0	0
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
Other retail SMEs							
0.00 to <0.15	0	0.11	<0.1	49.20	2.2	0	10.15
0.15 to <0.25	1	0.23	<0.1	68.84	1.2	0	25.59
0.25 to <0.50	3	0.39	<0.1	75.62	1.2	1	37.99
0.50 to <0.75	2	0.64	<0.1	74.21	1.2	1	49.33
0.75 to <2.50	6	1.49	0.1	72.02	1.6	4	67.84
2.50 to <10.00	4	4.23	<0.1	75.68	1.1	3	87.99
10.00 to <100.00	1	37.72	<0.1	75.90	1.2	1	114.82
100.00 (Default)	1	100.00	<0.1	20.66	1.8	1	195.97
Sub-total	18	8.16	0.2	71.61	1.3	13	71.07
Other retail non-SMEs							
0.00 to <0.15	6	0.06	0.1	49.47	1.4	1	8.70
0.15 to <0.25	2	0.23	<0.1	51.20	5.9	1	24.15
0.25 to <0.50	3	0.39	<0.1	62.00	10.6	1	40.88
0.50 to <0.75	6	0.64	<0.1	70.16	1.9	4	61.16
0.75 to <2.50	11	1.36	0.1	70.49	3.1	9	84.48
2.50 to <10.00	7	5.30	<0.1	75.03	1.6	8	117.91
10.00 to <100.00	1	16.56	<0.1	75.90	1.0	2	153.01
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	37	2.22	0.3	66.27	3.0	26	70.24
Total (all exposure classes)	87,307	0.41	14.1	37.97	1.5	21,931	25.12

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

in € m.							Jun 30, 2020
(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	32	0.13	0.1	45.00	3.9	11	35.04
0.15 to <0.25	80	0.23	0.1	45.00	4.6	40	49.70
0.25 to <0.50	43	0.38	0.1	45.00	4.5	28	64.55
0.50 to <0.75	8	0.69	0.1	45.00	3.3	6	78.85
0.75 to <2.50	114	2.01	0.1	45.00	4.4	88	77.06
2.50 to <10.00	1	5.04	<0.1	45.00	2.7	2	138.07
10.00 to <100.00	0	12.76	<0.1	45.00	4.4	0	183.83
100.00 (Default)	6	100.00	<0.1	45.00	3.8	0	0
Sub-total	285	3.19	0.4	45.00	4.4	175	61.45
of which:							
SMEs							
0.00 to <0.15	1	0.14	<0.1	4,500.00	2.6	0	30.78
0.15 to <0.25	3	0.23	<0.1	4,500.00	3.4	1	38.59
0.25 to <0.50	2	0.38	<0.1	4,500.00	1.9	1	56.97
0.50 to <0.75	2	0.69	<0.1	4,500.00	2.6	2	66.29
0.75 to <2.50	3	1.27	<0.1	4,500.00	2.3	2	77.98
2.50 to <10.00	1	5.95	<0.1	4,500.00	1.2	1	132.71
10.00 to <100.00	0	12.76	<0.1	4,500.00	5.0	0	176.18
100.00 (Default)	0	0	0	0	0	0	0
Sub-total	13	1.06	0.1	4,500.00	2.6	8	61.88
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	107	2.06	0.1	4,500.00	4.5	81	75.87
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)	3	100.00	<0.1	4,500.00	5.0	0	0
Sub-total	110	5.13	0.1	4,500.00	4.5	81	73.49
Other							
0.00 to <0.15	30	0.13	0.1	45.00	3.9	11	35.24
0.15 to <0.25	77	0.23	0.1	45.00	4.7	39	50.17
0.25 to <0.50	42	0.38	<0.1	45.00	4.6	27	64.85
0.50 to <0.75	5	0.69	<0.1	45.00	3.6	4	84.83
0.75 to <2.50	4	1.39	<0.1	45.00	2.7	4	108.48
2.50 to <10.00	1	3.78	<0.1	45.00	4.7	1	145.46
10.00 to <100.00	0	12.76	<0.1	45.00	1.5	0	223.09
100.00 (Default)	3	100.00	<0.1	45.00	2.3	0	0
Sub-total	162	2.03	0.2	45.00	4.4	86	53.19
Total	285	3.19	0.4	45.00	4.4	175	61.45

in € m.							Dec 31, 2019
(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	5	0.07	<0.1	45.00	2.5	1	26.73
0.15 to <0.25	84	0.22	0.2	45.00	2.5	40	47.68
0.25 to <0.50	39	0.38	0.1	45.00	2.5	25	64.31
0.50 to <0.75	7	0.69	0.1	45.00	2.5	5	77.15
0.75 to <2.50	3	1.49	<0.1	45.00	2.5	3	102.43
2.50 to <10.00	0	3.78	<0.1	45.00	2.5	1	142.14
10.00 to <100.00	0	19.69	<0.1	45.00	2.5	1	251.26
100.00 (Default)	3	100.00	<0.1	45.00	2.5	0	0
Sub-total¹	231	2.31	0.4	45.00	2.5	142	61.36
of which:							
SMEs							
0.00 to <0.15	0	0.04	<0.1	45.00	2.5	0	23.17
0.15 to <0.25	5	0.22	<0.1	45.00	2.5	2	37.60
0.25 to <0.50	2	0.38	<0.1	45.00	2.5	1	51.10
0.50 to <0.75	3	0.69	<0.1	45.00	2.5	2	65.72
0.75 to <2.50	1	1.65	<0.1	45.00	2.5	1	87.47
2.50 to <10.00	0	3.78	<0.1	45.00	2.5	0	121.10
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	0.53	0.1	45.00	2.5	5	52.22
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-total¹	90	0	0.1	0	0	65	72.73
Other							
0.00 to <0.15	5	0.07	<0.1	45.00	2.5	1	26.87
0.15 to <0.25	80	0.22	0.1	45.00	2.5	38	48.26
0.25 to <0.50	37	0.38	0.1	45.00	2.5	24	64.85
0.50 to <0.75	4	0.69	<0.1	45.00	2.5	3	84.83
0.75 to <2.50	2	1.41	<0.1	45.00	2.5	2	109.23
2.50 to <10.00	0	3.78	<0.1	45.00	2.5	1	145.46
10.00 to <100.00	0	19.69	<0.1	45.00	2.5	1	251.26
100.00 (Default)	3	100.00	<0.1	45.00	2.5	0	0
Sub-total	132	2.45	0.2	45.00	2.5	71	54.27
Total	231	2.31	0.4	45.00	2.5	142	61.36

¹ This row includes exposures, which are risk weighted in accordance with Article 153 (5) CRR. Therefore PD-estimations are not available for these transactions.

Article 438 (d) CRR - Development of CCR RWA

The following table provides an analysis of key drivers for RWA movements observed for counterparty credit risk (CCR) exposures calculated under the internal model method (IMM) in the current and previous reporting period. It also shows the corresponding movements in capital requirements, derived from RWA with an 8 % capital ratio.

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

in € m.	Three months ended Jun 30, 2020		Three months ended Mar 31, 2020	
	a	b	a	b
	RWA	Capital requirements	RWA	Capital requirements
1 Counterparty credit risk RWA under the IMM opening balance	21,492	1,719	16,838	1,347
2 Book size	(1,703)	(136)	4,009	321
3 Book quality	(656)	(52)	(183)	(15)
4 Model updates	(1,024)	(82)	0	0
5 Methodology and policy	(171)	(14)	840	67
6 Acquisitions and disposals	0	0	0	0
7 Foreign exchange movements	(202)	(16)	(12)	(1)
8 Other	0	0	0	0
9 Counterparty credit risk RWA under the IMM closing balance	17,736	1,419	21,492	1,719

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 RWA for counterparty credit risk exposures under the IMM decreased by 17.5 % or € 3.8 billion since March 31, 2020 across all categories. The decrease in category “Book size” reflects decreased client demand after the market volatility in the previous quarter. The change in the concentration risk capital buffer and updates to our internal model are reflected in the decrease in category “Model updates”. Further, the decrease in category “Book quality” is stemming from favorable parameter developments.

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

in € m.	Jun 30, 2020				
	a	b	c	d	e
	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1 Derivatives	395,874	306,166	89,709	75,001	14,707
2 Securities Financing Transactions	437,631	389,936	47,695	4,968	42,727
3 Cross-product netting	0	0	0	0	0
4 Total	833,505	696,101	137,404	79,969	57,435

		Dec 31, 2019				
		a	b	c	d	e
in € m.		Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1	Derivatives	358,234	284,797	73,437	66,025	7,412
2	Securities Financing Transactions	447,791	393,639	54,152	7,544	46,609
3	Cross-product netting	0	0	0	0	0
4	Total	806,025	678,436	127,589	73,568	54,021

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, 2020						
		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	1,122	90,079	2	71,593	172,589	194,217	
	Bonds	1,591	23,717	0	20,971	170,287	159,182	
	Equity securities	11	3,425	0	0	82,923	82,951	
	Other collateral	3,364	664	3,442	0	4,713	1,281	
	Total	6,088	117,885	3,445	92,564	430,511	437,631	

		Dec 31, 2019						
		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	1,934	72,920	2	54,829	160,266	199,756	
	Bonds	1,526	21,220	944	18,408	191,422	166,114	
	Equity securities	50	2,463	0	0	79,711	75,590	
	Other collateral	3,589	1,221	3,799	322	4,984	2,250	
	Total	7,098	97,824	4,746	73,559	436,383	443,710	

For further details on derivative exposure please also refer to our Annual Report 2019 table “Maximum exposure to credit risk” on page 111 and table “Credit exposure from derivatives” on page 130.

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, 2020			Dec 31, 2019		
		a	b	c	a	b	c
		Credit derivative hedges			Credit derivative hedges		
		Protection bought	Protection sold	Other credit derivatives	Protection bought	Protection sold	Other credit derivatives
Notionals							
	Single-name credit default swaps	6,333	490	149,558	8,633	276	202,279
	Index credit default swaps	0	0	741,031	0	0	459,269
	Total return swaps	0	80	10,627	0	35	10,989
	Credit options	0	0	30,817	0	0	54,451
	Total notionals	6,333	571	932,033	8,633	311	726,989
Fair values							
	Positive fair value (asset)	213	106	9,286	149	112	10,628
	Negative fair value (liability)	567	84	9,526	622	108	11,474

The increase of credit derivatives exposures in the first half of 2020 to € 939 billion from € 736 billion was primarily driven by index credit default swaps.

Market risk

Own funds requirements for market risk under the standardized approach

Article 445 CRR - Market Risk Standardized Approach

As of June 30, 2020, the securitization positions, for which the specific interest rate risk is calculated using the market risk standardized approach, generated capital requirements of € 198.0 million corresponding to risk weighted-assets of € 2.5 billion. As of December 31, 2019 these positions generated capital requirements of € 148 million corresponding to risk weighted-assets of € 1.9 billion.

For nth-to-default credit default swaps the capital requirement was € 1.5 million corresponding to risk weighted-assets of € 19.0 million compared with € 1.2 million and € 14.7 million as of December 31, 2019.

The capital requirement for Collective Investment Undertakings under the market risk standardized approach was € 19 million corresponding to risk weighted-assets of € 237 million as of June 30, 2020, compared with € 22 million and € 269 million, respectively, as of December 31, 2019.

The capital requirement for longevity risk under the market risk standardized approach was € 4 million corresponding to risk-weighted assets of € 52 million as of June 30, 2020, compared with € 13 million and € 163 million, respectively, as of December 31, 2019.

EU MR1 – Market risk under the standardized approach

in €m.	Jun 30, 2020		Dec 31, 2019	
	a	b	a	b
	RWA	Capital requirements	RWA	Capital requirements
Outright products				
1 Interest rate risk (general and specific) ¹	64	5	60	5
2 Equity risk (general and specific) ²	134	11	172	14
3 Foreign exchange risk ³	221	18	247	20
4 Commodity risk	0	0	0	0
4a Longevity risk	52	4	163	13
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) ⁴	2,474	198	1,851	148
9 Total	2,945	236	2,493	200

¹ Interest Rate risk RWA of €64 million is from collective investment undertakings

² Equity risk RWA of €134 million is from collective investment undertakings

³ Foreign Exchange risk RWA includes € 39 million from collective investment undertakings, €181 million related to placeholders for foreign exchange exposures

⁴ Securitization RWA of €2,474 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)

in €m.	Jun 30, 2020		Dec 31, 2019	
	a	b	a	b
	RWA	Capital requirements	RWA	Capital requirements
1 VaR (higher of values a and b)	6,987	559	4,273	342
a) Previous day's VaR (Article 365(1) (VaRt-1))	–	140	–	75
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)	–	559	–	342
2 SVaR (higher of values a and b)	13,960	1,117	13,734	1,099
a) Latest SVaR (Article 365(2) (sVaRt-1))	–	299	–	265
b) Average of the SVaR (Article 365(2) during the preceding sixty business days (sVaRavg) x multiplication factor (ms) (Article 366)	–	1,117	–	1,099
3 Incremental risk charge -IRC (higher of values a and b)	5,575	446	4,868	389
a) Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)	–	404	–	341
b) Average of the IRC number over the preceding 12 weeks	–	446	–	389
4 Comprehensive Risk Measure – CRM (higher of values a, b and c)	–	–	–	–
a) Most recent risk number for the correlation trading portfolio (article 377 of the CRR)	–	–	–	–
b) Average of the risk number for the correlation trading portfolio over the preceding 12-weeks	–	–	–	–
c) 8 % of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338(4) of the CRR)	–	–	–	–
5 Other	0	0	0	0
6 Total	26,523	2,122	22,875	1,830

As of June 30, 2020 the IMA (Internal Models Approach) components for market risk totaled € 26.5 billion, which was an increase of €3.6 billion since December 31, 2019 driven by the value-at-risk component due to higher levels of market volatility as a result of the COVID-19 pandemic.

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 current and previous reporting period. It also shows the corresponding movements in capital requirements, derived from RWA with an 8 % capital ratio.

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

in €m.	Three months ended Jun 30, 2020						
	a	b	c	d	e	f	g
	VaR	SVaR	IRC	Compre- hensive risk measure	Other	Total RWA	Total capital requirements
1 Market Risk RWA opening balance ¹	4,207	12,938	5,064	–	0	22,209	1,777
1a Regulatory adjustment ²	(2,580)	(9,564)	(684)	–	0	(12,828)	(1,026)
1b RWA at the previous quarter-end (end of the day) ³	1,627	3,374	4,380	–	0	9,381	750
2 Movement in risk levels	(853)	324	673	–	0	144	12
3 Model updates/changes	(472)	43	0	–	0	(429)	(34)
4 Methodology and policy	0	0	0	–	0	0	0
5 Acquisitions and disposals	0	0	0	–	0	0	0
6 Foreign exchange movements	0	0	0	–	0	0	0
6a Market data changes and recalibrations	1,449	0	0	–	0	1,449	116
7 Other	0	0	0	–	0	0	0
8a RWA at the end of the reporting period (end of the day) ³	1,751	3,741	5,053	–	0	10,544	844
8b Regulatory adjustment ²	5,237	10,219	523	–	0	15,979	1,278
8 Market Risk RWA closing balance ¹	6,987	13,960	5,575	–	0	26,523	2,122

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.

		Three months ended Mar 31, 2020						
		a	b	c	d	e	f	g
in €m.		VaR	SVaR	IRC	Compre- hensive risk measure	Other	Total RWA	Total capital requirements
1	Market Risk RWA opening balance ¹	4,273	13,734	4,868	–	0	22,875	1,830
1a	Regulatory adjustment ²	(3,337)	(10,417)	(608)	–	0	(14,362)	(1,149)
1b	RWA at the previous quarter-end (end of the day) ³	936	3,317	4,260	–	0	8,513	681
2	Movement in risk levels	107	51	120	–	0	278	22
3	Model updates/changes	2	5	0	–	0	7	1
4	Methodology and policy	0	0	0	–	0	0	0
5	Acquisitions and disposals	0	0	0	–	0	0	0
6	Foreign exchange movements	0	0	0	–	0	0	0
6a	Market data changes and recalibrations	582	0	0	–	0	582	47
7	Other	0	0	0	–	0	0	0
8a	RWA at the end of the reporting period (end of the day) ³	1,627	3,374	4,380	–	0	9,380	750
8b	Regulatory adjustment ²	2,580	9,564	685	–	0	12,829	1,026
8	Market Risk RWA closing balance ¹	4,207	12,938	5,064	–	0	22,209	1,777

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 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, 2020 the IMA (Internal Models Approach) components for market risk totaled € 26.5 billion, which was an increase of € 4.3 billion since March 31, 2020 mainly driven by the value-at-risk component due to higher levels of volatility in the market data as a result of the COVID-19 pandemic.

We are currently in transition of our internally developed VaR model for managing market risk to move to a calculation using a historical simulation approach predominantly based on full revaluation. The historical simulation approach generally reacts more sensitively to extreme tail events such as COVID-19 and thus is expected to result in higher 1day VaR levels. However, we do not expect this to have a material impact on our Market Risk RWA.

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 portfolios¹

in € m.		Jun 30, 2020	Dec 31, 2019
		a	a
VaR (10 day 99 %)			
1	Maximum value	167.9	110.5
2	Average value	105.8	86.4
3	Minimum value	50.9	63.6
4	Period end	126.5	69.0
SVaR (10 day 99 %)			
5	Maximum value	271.8	311.5
6	Average value	229.0	260.0
7	Minimum value	184.9	216.1
8	Period end	247.1	249.2
IRC (99.9 %)			
9	Maximum value	553.9	694.4
10	Average value	447.9	481.2
11	Minimum value	367.6	340.8
12	Period end	446.0	340.8
Comprehensive risk capital charge (99.9 %)			
13	Maximum value	–	–
14	Average value	–	–
15	Minimum value	–	–
16	Period end	–	–

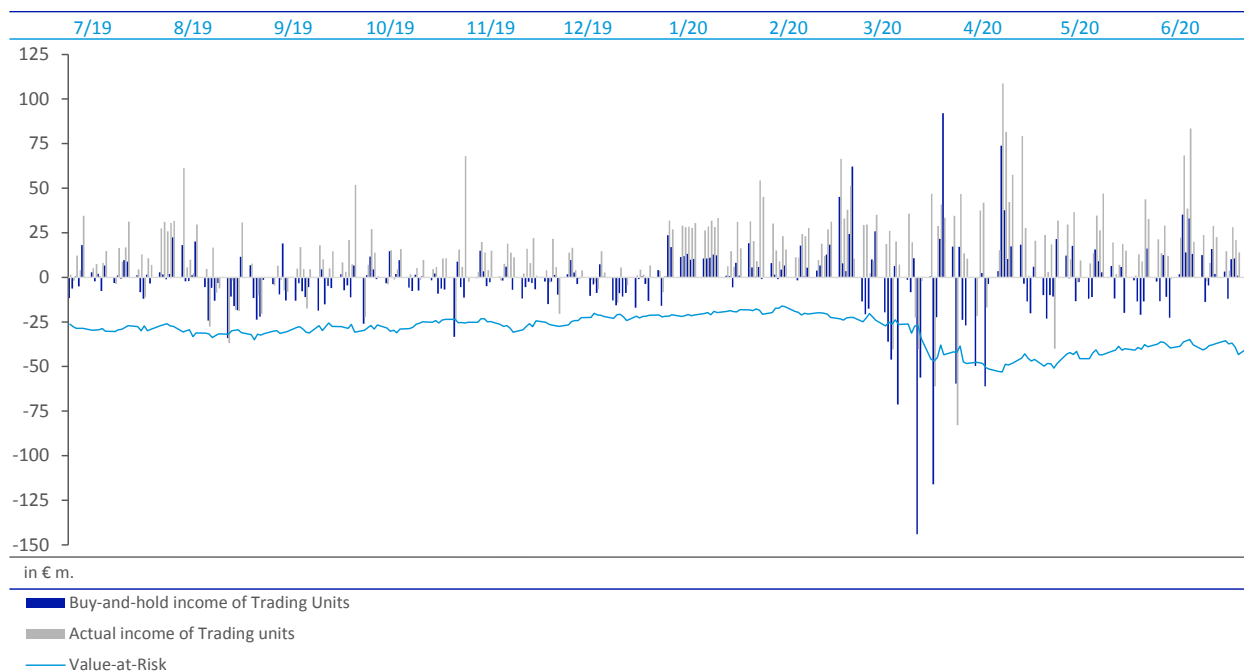
¹ Amounts show the maximum, average and minimum for the preceding six month period.

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 2020 there have been nine global outliers compared with two outliers in 2019, where our loss on a buy-and-hold basis exceeded the value-at-risk of our Trading Books. The outliers were driven by increased volatility due to the COVID-19 pandemic. There were also five outliers on an Actual Backtesting basis in the first six months of 2020 compared with two in 2019, which compares the VaR to Total Income less Fees & Commissions, and Debt Valuation adjustments.

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. The chart shows that our trading units achieved a positive buy and hold income for 59 % of the trading days for the first half of 2020 (versus 44 % in 2019).

EU MR4 – Comparison of VAR estimates with gains/losses



Operational risk

Article 446 CRR - Operational Risk Exposure

In the first six months of 2020 our total operational risk losses were marginally higher compared to the first half year 2019. 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 87 % of the total operational risk losses up to June 30, 2020. For a description of our current legal and regulatory proceedings, please see section “Provisions” of the Interim Report as of June 30, 2020 on page 82 and in the Annual Report 2019 in Note 27 “Provisions” on page 320. Our non-legal operational risk losses increased by approximately 45 % compared to the first half year 2019.

Our operational risk management fosters a forward-looking approach to monitor 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 Advanced Measurement Model. For a description of our modelling approach, please see section “Drivers for Operational Risk Capital Development” of our Annual Report 2019 on page 89.

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 broken down by risk-weight bands.

Banking book securitization positions retained or purchased by risk weight band

in € m.	Jun 30, 2020			Dec 31, 2019		
	Exposure amount	Capital requirements IRBA ¹	Capital requirements standardized approach	Exposure amount	Capital requirements IRBA ¹	Capital requirements standardized approach
≤ 10 %	2,440	5	11	50,984	311	1
> 10 ≤ 20 %	63,226	601	195	22,187	173	96
> 20 ≤ 50 %	3,145	45	31	2,770	39	32
> 50 ≤ 100 %	750	3	54	1,339	33	56
> 100 ≤ 350 %	522	32	33	471	27	36
> 350 ≤ 650 %	60	14	4	46	15	0
> 650 < 1,250 %	101	70	7	7	4	0
≥ 1,250% ≤ 1,325 %	30	0	29	103	96	10
Total securitization positions retained or purchased	70,274	770	364	77,908	698	231

¹ After considering value adjustments according to Article 266 (1,2) CRR, including capital requirements for maturity mismatch of synthetic securitizations.

Overall the securitizations exposure in the banking book decreased by 11 % or €7.6 billion to €70.3 billion. The related capital requirements for these securitization positions, however, increased by 22 % to € 1.1 billion. This increase primarily resulted from the application of the new securitization framework for capital requirements, where a new risk weight floor of 15 % (formerly 7 %) has been introduced for all securitization positions. This increased the RWA and also resulted in movements into higher risk weight buckets, which we observed primarily for the risk weight bucket “≤ 10 %”, where exposure moved mainly into the risk weight bucket “> 10 ≤ 20 %”. In a much smaller scale there were also movements to lower risk buckets, especially into the risk weight bucket “> 650 < 1,250 %” from the “≥ 1,250 ≤ 1,325 %” bucket.

As of June 30, 2020, only 72 % of EAD and 68 % of RWA are treated under the SEC-IRBA. This means that about 12 percentage points less EAD is treated under IRBA approaches in June 2020, which reflects the stricter criterion for applying SEC-IRBA in the new framework (≥ 95 % of EAD in the pool has to be IRBA). As of December 31, 2019, overall 84 % of the securitization exposures in the banking book were treated according to the advanced approaches within the Supervisory Formula Approach (“SFA”) and Securitization Internal Ratings Based Approach (SEC-IRBA).

Trading book securitization exposure

The following table presents the retained or purchased trading book securitizations and re-securitizations broken down by risk-weight bands.

For trading book securitization positions the capital requirement for specific market risk is calculated based on the market risk standardized approach (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 page 162 in our annual Pillar 3 Report 2019.

Trading book securitization positions retained or purchased by risk weight band subject to the market risk standardized approach (MRSA)

in € m.	Jun 30, 2020				Dec 31, 2019			
	Exposure amount		Capital requirements, MRSA		Exposure amount		Capital requirements, MRSA	
	Securiti- zation	Re- Securitization	Securiti- zation	Re- Securitization	Securiti- zation	Re- Securitization	Securiti- zation	Re- Securitization
≤ 10 %	121	0	0	0	948	0	4	0
> 10 ≤ 20 %	1,954	0	26	0	1,463	0	18	0
> 20 ≤ 50 %	246	0	8	0	206	1	7	0
> 50 ≤ 100 %	269	0	14	0	542	0	32	0
> 100 ≤ 350 %	368	0	46	0	243	0	35	0
> 350 ≤ 650 %	167	1	43	0	43	1	14	1
> 650 < 1,250 %	31	0	14	0	1	0	1	0
1,250 %	245	0	46	0	255	0	35	0
Total securitization positions retained or purchased	3,401	1	197	0	3,701	2	146	1

Compared to December 31, 2019, the exposure of trading book securitization positions decreased by € 301 million or 8 % to € 3.4 billion mainly due to a reduction in the securitized trading. However, the capital requirements for securitization positions increased by € 51 million, primarily driven by shifts into higher risk buckets due to the introduction of the new framework and the ending of the grandfathering period. Further contributions resulted from an increase in securitized lending in the “> 10 ≤ 20 %” and “> 350 ≤ 650 %” risk weight buckets and new securitized trading in the “1,250 %” risk weight bucket. There was a partially offsetting effect as for 11 % of the securitization positions the own funds requirement cap of Article 335 CRR was applied. This resulted in a capital requirement saving of € 227 million, mainly again realized in the “1,250 %” risk weight bucket.

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).

Leverage Ratio according to CRR/CRD framework

The non-risk based leverage ratio 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.

A minimum leverage ratio requirement of 3 % was introduced that will be effective in June 2021. From January 1, 2023 an additional leverage ratio buffer requirement of 50 % of the applicable G-SIB buffer rate will apply. It is currently expected that this additional requirement will equal 0.75 %.

We calculate our leverage ratio exposure 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 and amended by Regulation (EU) 2020/873 published in the Official Journal of the European Union on June 24, 2020.

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 purchased credit derivative protection 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 exposures 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 on-balance sheet exposures (excluding derivatives and SFTs) component reflects the accounting values of the assets (excluding derivatives, SFTs and regular-way purchases and sales awaiting settlement) as well as regulatory adjustments for asset amounts deducted in determining Tier 1 capital. The exposure value of regular-way purchases and sales awaiting settlement is determined as offset between those cash receivables and cash payables where the related regular-way sales and purchases are both settlement on a delivery-versus payment basis.

The following tables show the leverage ratio exposure and the leverage ratio. The Leverage ratio common disclosure table provides the leverage ratio on a fully-loaded and phase-in basis with the fully-loaded and phase-in Tier 1 Capital, respectively, in the numerator. For further details on Tier 1 capital please also refer to the “Regulatory capital composition, prudential filters and deduction items” section in chapter “Own funds” on page 7 in this report.

Summary reconciliation of accounting assets and leverage ratio exposures

in € bn. (unless stated otherwise)	Jun 30, 2020	Dec 31, 2019
Total assets as per published financial statements	1,407	1,298
Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	0	(1)
(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	(230)	(188)
Adjustment for securities financing transactions (SFTs)	8	6
Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	97	103
(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	(90)	(50)
Leverage ratio total exposure measure	1,192	1,168

N/M – Not meaningful

Leverage ratio common disclosure

in € bn. (unless stated otherwise)	Jun 30, 2020	Dec 31, 2019
On-balance sheet exposures (excluding derivatives and SFTs)		
On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	919	869
(Asset amounts deducted in determining Tier 1 capital)	(10)	(10)
Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	909	859
Derivative exposures		
Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	38	32
Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	108	114
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)	(45)	(35)
(Exempted CCP leg of client-cleared trade exposures)	(8)	(6)
Adjusted effective notional amount of written credit derivatives	440	326
(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(431)	(318)
Total derivatives exposures	102	113
SFT exposures		
Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	157	169
(Netted amounts of cash payables and cash receivables of gross SFT assets)	(77)	(82)
Counterparty credit risk exposure for SFT assets	4	5
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	0	1
(Exempted CCP leg of client-cleared SFT exposure)	0	0
Total securities financing transaction exposures	85	93
Other off-balance sheet exposures		
Off-balance sheet exposures at gross notional amount	269	281
(Adjustments for conversion to credit equivalent amounts)	(173)	(178)
Other off-balance sheet exposures	97	103
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)	49.6	48.7
Leverage ratio total exposure measure	1,192	1,168
Leverage ratio (fully loaded, in %)	4.2	4.2
Tier 1 capital (phase-in)	50.7	50.5
Leverage ratio total exposure measure	1,192	1,168
Leverage ratio (phase-in, in %)	4.3	4.3

N/M – Not meaningful

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

in € bn.

(unless stated otherwise)

	Jun 30, 2020	Dec 31, 2019
Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures)	919	869
of which:		
Trading book exposures	180	155
Banking book exposures	739	714
of which:		
Covered bonds	1	1
Exposures treated as sovereigns	226	205
Exposures to regional governments, MDB, international organizations and PSE not treated as sovereigns	1	1
Institutions	15	16
Secured by mortgages of immovable properties	210	200
Retail exposures	33	36
Corporate	183	175
Exposures in default	9	7
Other exposures (e.g. equity, securitizations, and other non-credit obligation assets)	61	71

Process used to manage the risk of excessive leverage

As described in the section “Risk management principles” and “Risk governance” on pages 55-58 of our Annual Report 2019, the Group Risk Committee (GRC) is mandated to oversee, control and monitor integrated planning our risk profile and capital capacity. The Group Asset and Liability Committee (ALCO) actively manages leverage exposure capacity within the Risk Appetite Framework via a limit setting process

- to allocate group leverage exposure capacity to businesses,
- 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 65 of our Annual Report 2019.

Factors that had an impact on the leverage ratio in the first half of 2020

As of June 30, 2020, our fully loaded Leverage ratio was 4.2 %, unchanged to 4.2 % as of December 31, 2019. This takes into account a fully loaded Tier 1 capital of € 49.6 billion over an applicable exposure measure of € 1,192 billion as of June 30, 2020 (€ 48.7 billion and € 1,168 billion as of December 31, 2019, respectively).

Our leverage ratio according to transitional provisions was 4.3 % as of June 30, 2020 (unchanged to 4.3 % as of December 31, 2019), calculated as Tier 1 capital according to transitional rules of € 50.7 billion over an applicable exposure measure of € 1,192 billion (€ 50.5 billion and € 1,168 billion as of December 31, 2019, respectively).

In the first half of 2020, our Leverage exposure increased by € 24 billion to € 1,192 billion. This primarily reflected the development of our balance sheet (for additional information please refer to section “Movements in assets and liabilities” in our Interim Report as of June 30, 2020): cash and central bank/interbank balances which increased by € 29 billion, loans grew by € 7 billion and non-derivative trading assets increased by € 7 billion. This was partly offset by pending settlements which - despite being higher on a gross basis from seasonally low year-end levels - decreased by € 5 billion due to application of the “quick fix” amendment of the CRR (Regulation (EU) 2020/873), allowing the netting of cash receivables and cash payables where the related regular-way sales and purchases are both settled on a delivery-versus-payment basis. SFT related items (securities purchased under resale agreements, securities borrowed and receivables from prime brokerage) decreased by € 9 billion. Remaining asset items increased by € 13 billion, largely related to cash margin receivables. Furthermore, there was a decrease of the Leverage exposure related to derivatives by € 12 billion (€ 2 billion excluding deductions of receivables assets for cash variation margin provided in derivatives transactions) mainly driven by lower add-ons for potential future

exposure. Off-balance sheet exposures decreased by € 6 billion corresponding to lower notional amounts for irrevocable lending commitments.

The increase in Leverage exposure in the first half of 2020 included a negative foreign exchange impact of €9 billion, mainly due to the strengthening of the Euro against the Pound Sterling and the U.S. dollar. The effects from foreign exchange rate movements are embedded in the movement of the Leverage exposure items discussed in this section.

For main drivers of the Tier 1 capital development please refer to section "Own funds" on page 7 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 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 2019 in Note 20 "Transfer of financial assets, assets pledged and received as collateral" on page 306, and restricted assets held to satisfy obligations to insurance companies' policy holders are included within Note 37 "Information on subsidiaries" on page 359 of the Annual Report 2019.

The below 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. Following the European Commission's disclosure guidance for asset encumbrance we have introduced the asset quality indicator concept "high-quality liquid assets" (HQLA) as defined under the Delegated Act on Liquidity Coverage Ratio for the first time on June 30, 2019.

For June 2020, € 225.3 billion of the Group's on-balance sheet assets were encumbered. These assets primarily relate to firm financing of trading inventory and other securities, funding (i.e. Pfandbriefe and covered bonds) secured against loan collateral and cash collateral for derivative margin requirements.

For June 2020, the Group had received securities as collateral with a fair value of € 246.3 billion, of which € 205.1 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.

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

EU AE1 – Encumbered and unencumbered assets

		Jun 30, 2020							
		010	030	040	050	060	080	090	100
		Encumbered assets				Unencumbered assets			
		Carrying amount		Fair value		Carrying amount		Fair value	
			of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
in €bn.									
030	Equity instruments	7.8	4.9	–	–	9.5	2.1	–	–
040	Debt securities	60.3	50.4	60.3	50.4	104.9	69.4	104.9	69.4
	of which:								
050	Covered bonds	0.7	0.5	0.7	0.5	3.7	3.3	3.7	3.3
060	Asset-backed securities	2.0	0.6	2.0	0.6	5.1	1.0	5.1	1.0
070	Issued by general governments	48.2	46.6	48.2	46.6	64.2	60.5	64.2	60.5
080	Issued by financial corporations	7.9	2.4	7.9	2.4	27.0	5.5	27.0	5.5
090	Issued by non-financial corporations	3.0	1.1	3.0	1.1	12.2	0.7	12.2	0.7
120	Other assets	152.9	11.9	–	–	1,100.7	129.1	–	–
	of which:								
122	Loans other than loans on demand	79.0	0	–	–	380.1	0	–	–
123	Securities purchased under resale agreements and securities borrowed	0	0	–	–	81.2	0	–	–
124	Cash margin receivables / prime brokerage receivables	59.4	0	–	–	6.3	0	–	–
010	Total	225.3	69.3	–	–	1,221.9	198.8	–	–

		Dec 31, 2019							
		010	030	040	050	060	080	090	100
		Encumbered assets				Unencumbered assets			
		Carrying amount		Fair value		Carrying amount		Fair value	
			of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
in €bn.									
030	Equity instruments	29.1	16.7	–	–	14.1	4.9	–	–
040	Debt securities	57.6	44.3	57.6	44.3	107.5	70.2	107.5	70.2
	of which:								
050	Covered bonds	0.5	0.3	0.5	0.3	3.6	3.3	3.6	3.3
060	Asset-backed securities	1.2	0	1.2	0	3.0	0.4	3.0	0.4
070	Issued by general governments	43.1	40.7	43.1	40.7	65.7	60.7	65.7	60.7
080	Issued by financial corporations	10.5	2.0	10.5	2.0	26.8	5.1	26.8	5.1
090	Issued by non-financial corporations	3.6	1.1	3.6	1.1	12.2	0.6	12.2	0.6
120	Other assets	134.0	11.4	–	–	1,126.4	143.2	–	–
	of which:								
121	Loans other than loans on demand	74.9	0	–	–	373.3	0	–	–
122	Securities purchased under resale agreements and securities borrowed	0	0	–	–	84.8	0	–	–
123	Cash margin receivables / prime brokerage receivables	46.6	0	–	–	9.9	0	–	–
124									
010	Total	228.4	73.2	–	–	1,201.1	218.6	–	–

EU AE2 – Collateral received

		Jun 30, 2020			
		010	030	040	060
		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
			of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA
in €bn.					
140	Loans on demand	0	0	0	0
150	Equity instruments	29.6	16.3	2.8	2.1
160	Debt securities	177.9	161.1	34.8	23.7
	of which:				
170	Covered bonds	2.8	2.8	0.5	0.5
180	Asset-backed securities	2.0	0.7	4.3	0.2
190	Issued by general governments	154.4	153.9	24.6	22.4
200	Issued by financial corporations	17.2	6.1	7.7	0.9
210	Issued by non-financial corporations	5.5	1.1	2.1	0.2
220	Loans and advances other than loans on demand	0	0	3.6	0
230	Other collateral received	0	0	0	0
130	Total collateral received	205.1	174.7	41.2	25.5
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	–	–	3.0	1.0
250	Total Assets, collateral received and own debt securities issued	432.7	244.0	–	–

		Dec 31, 2019			
		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	
		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA	
in €bn.					
140	Loans on demand	0	0	0	0
150	Equity instruments	51.0	33.0	4.7	2.4
160	Debt securities	181.3	159.4	34.1	24.4
of which:					
170	Covered bonds	1.3	1.3	0.5	0.5
180	Asset-backed securities	1.5	0	4.2	0.2
190	Issued by general governments	158.1	154.6	27.5	23.1
200	Issued by financial corporations	15.7	4.5	5.9	0.9
210	Issued by non-financial corporations	7.5	1.2	2.2	0.2
220	Loans and advances other than loans on demand	0	0	3.7	0
230	Other collateral received	0	0	0	0
130	Total collateral received	236.2	200.6	46.0	27.6
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	–	–	2.3	0.3
250	Total Assets, collateral received and own debt securities issued	464.6	273.9	–	–

The below 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.

EU AE3 – Sources of encumbrance

		Jun 30, 2020		Dec 31, 2019	
		010	030	010	030
		Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered		Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered	
		Matching liabilities, contingent liabilities or securities lent		Matching liabilities, contingent liabilities or securities lent	
in €bn.					
010	Carrying amount of selected financial liabilities	294.0	319.1	235.1	249.8
011	of which:				
012	Derivatives	73.7	75.2	59.1	60.6
013	Repurchase agreements	151.0	154.4	112.3	115.0
014	Collateralized central bank deposits and covered bonds issued	47.4	60.7	48.2	58.3

List of tables

Own Funds template (incl. RWA and capital ratios)	8
Reconciliation of shareholders' equity to Own Funds	12
Development of Own Funds	13
IFRS 9-Fully Loaded: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs	14
Own funds and eligible liabilities disclosure ordered by insolvency hierarchy	15
Ranking of liabilities in an insolvency proceeding under German law	16
EU OV1 – Overview of RWA	17
EU CR10 – IRB (specialized lending and equities)	18
Credit risk exposures of other non-credit obligation assets	19
Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer	20
Institution-specific countercyclical capital buffer	24
EU CR1-A – Credit quality of exposures by exposure class and instrument	26
EU CR1-B – Credit quality of exposures by industry	28
EU CR1-C – Credit quality of exposures by geography	30
EU CR1-D – Ageing of past-due exposures	31
EU CR1-E – Non-performing and forborne exposures	32
NPL1 – Credit quality of forborne exposures	32
NPL9 – Collateral obtained by taking possession and execution processes	33
NPL3 - Credit quality of performing and non-performing exposures by past due days	34
NPL4 - Performing and non-performing exposures and related provisions	36
COVID-19 template 1: Information on loans and advances subject to legislative and non-legislative moratoria ¹	38
COVID-19 template 2: Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria	39
COVID-19 template 3: Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis	40
EU CR2-A – Changes in the stock of general and specific credit risk adjustments	41
EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities	41
EU CR3 – CRM techniques – Overview	42
CRM techniques by exposure class	43
EU CR4 – Standardized approach – credit risk exposure and credit risk mitigation (CRM) effects	45
EU CR5 – Standardized approach	47
EU CR6 – AIRB approach – Credit risk exposures by exposure class and PD range	50
EU CR6 – FIRB approach – Credit risk exposures by exposure class and PD range	59
EU CR7 – IRB approach – Effect on the RWAs of credit derivatives used as CRM techniques	63
EU CR8 – RWA flow statement of credit risk exposures under the IRB approach	64
EU CCR1 – Analysis of CCR exposure by approach	65
EU CCR2 – CVA capital charge	66
EU CCR8 – Exposures to CCPs	66
EU CCR3 – Standardized approach – CCR exposures by regulatory portfolio and risk	67
EU CCR4 – AIRB approach – CCR exposures by portfolio and PD scale	69
EU CCR4 – FIRB approach – CCR exposures by portfolio and PD scale	74
EU CCR7 – RWA flow statement of counterparty credit risk exposures under the internal model method	76
EU CCR5-A – Impact of netting and collateral held on exposure values	76
EU CCR5-B – Composition of collateral for exposures to CCR	77
EU CCR6 – Credit derivatives exposures	77
EU MR1 – Market risk under the standardized approach	79
EU MR2-A – Market Risk under the internal models approach (IMA)	80
EU MR2-B – RWA flow statements of market risk exposures under the IMA	80
EU MR3 – IMA values for trading portfolios ¹	82
EU MR4 – Comparison of VAR estimates with gains/losses	83
Banking book securitization positions retained or purchased by risk weight band	84
Trading book securitization positions retained or purchased by risk weight band subject to the market risk standardized approach (MRSA)	85
Summary reconciliation of accounting assets and leverage ratio exposures	87
Leverage ratio common disclosure	87
Breakdown of on-balance sheet exposures (excluding derivatives and SFTs)	88
EU AE1 – Encumbered and unencumbered assets	90
EU AE2 – Collateral received	91
EU AE3 – Sources of encumbrance	92

