

# Disclosure Report as at 30 June

in accordance with the Capital Requirements Regulation (CRR)

#### Contents

#### 3 Introduction

#### 4 Equity capital, capital requirement and RWA

- 4 Capital structure
- 8 Connection between balance-sheet and regulatory positions
- 10 Capital requirement and RWA

#### 12 A. Credit risk (CR)

- 12 Credit risk mitigation
- 14 Credit risk and credit risk mitigation in the IRBA
- 20 Credit risk and credit risk mitigation in the SACR
- 23 Loan loss provisions for default risks

#### 29 B. Counterparty credit risk (CCR)

- 30 Information on regulatory methods
- 32 Information by regulatory risk-weighting approach
- 36 Further information on counterparty credit risk

#### 37 C. Market risk (MR)

38 Quantitative information on market risks

#### 41 Appendix

- 41 Supplement to equity structure
- 42 List of abbreviations

Risk-oriented overall bank management

### Introduction

#### Commerzbank

Commerzbank is one of Germany's leading banks for private and corporate clients, and an internationally active universal bank with locations in almost 50 countries. It has one of the densest branch networks among German private banks, with approximately 1,000 branches. Commerzbank serves more than 18 million private and small-business customers as well as more than 60,000 corporate clients worldwide.

A detailed description of Commerzbank Group is given in the Annual Report 2017.

#### Objective of the Disclosure Report

In this report Commerzbank Aktiengesellschaft as the ultimate parent company of the regulated banking group is complying with the disclosure requirements of Articles 431 - 455 of regulation (EU) No. 575/2013 - the Capital Requirements Regulation (CRR) - and the guidelines on the disclosure requirements under Part Eight of Regulation (EU) No. 575/2013 - EBA/GL/2016/11 - as at 30 June 2018. The tables defined according to the EBA guidelines and integrated into the report are indicated by the table names provided with the prefix EU.

#### Scope

This Disclosure Report is based on the group of companies consolidated for regulatory purposes. The companies consolidated for regulatory purposes only include those carrying out banking and other financial business. The consolidated group consists of a domestic parent company and its affiliated companies. The aim of

regulatory consolidation is to prevent multiple use of capital that in fact exists only once by subsidiary companies in the financial sector. The companies consolidated under IFRS, by contrast, comprise all the companies controlled by the ultimate parent company.

In the context of the disclosure requirements (Article 431 (3) CRR), besides the Disclosure Report itself, all policies and processes have to be documented as a main component to fulfil the Pillar 3 requirements of the Basel framework. The appropriateness and practicality of the Bank's disclosure practice has to be reviewed on a regular basis. For this purpose, Commerzbank has defined guidelines for the Disclosure Report which regulate the overarching, strategic part of the instructions. The operative targets and responsibilities are additionally defined in separate documents.

With consolidated total assets that are regularly well in excess of €30bn, Commerzbank is one of the biggest financial institutions in Germany. Hence, independent of the criteria in Article 433 CRR, Commerzbank has implemented the reporting requirements during the period from Q2 2015 on and discloses the quarterly and semi-annually required information as appropriate.1

#### Waiver rule pursuant to Article 7 CRR

According to the waiver rule pursuant to Article 7 CRR, the supervision of individual institutions within a banking group domiciled in Germany can, under certain circumstances, be replaced by the consolidated supervision. Within Commerzbank Group, comdirect bank AG continues to make use of the waiver rule. The same applies to Commerzbank AG as the parent institute. For more information, please refer to the Disclosure Repor as at 31 December 2017.

<sup>&</sup>lt;sup>1</sup> See EBA/GL/2014/14, title V (18).

# Equity capital, capital requirement and risk-weighted assets (RWA)

#### Capital structure

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

More details on the composition of Commerzbank's equity capital can be found in the Disclosure Report 2017 as well as in the Notes of the Annual Report 2017. Information on the issued capital instruments of Commerzbank Group according to Article 437 (1) b) and c) CRR are given on the Commerzbank website in the section Debt holder information/Capital instruments.

Further information on our leverage ratio according to Article 451 CRR is given in note (46) (Regulatory capital requirements)

and note (47) (Leverage ratio) of the Interim Report as at 30 June 2018, which is published on our website.

Commerzbank Group does not apply the transitional arrangements set out in article 473a CRR. Information on equity capital, capital ratios and the leverage ratio reflect the full impact of the IFRS 9 introduction.

Information on liquidity risk and the liquidity coverage ratio (LCR) according to the guideline on LCR disclosure – EBA/GL/2017/01 – can be found in the Interim Report as at 30 June 2018 in the sections "Funding and liquidity", "Liquidity risk" and in Note (48) (Liquidity Coverage Ratio) of the appendix.

The composition of the regulatory capital and the capital ratios as at 30 June 2018 are as follows:

<b>Line</b> €m		A: Amount on the day of disclosure
Commo	on Equity Tier 1 capital: instruments and reserves	
1	Capital instruments and the related share premium accounts	18,444
1a	thereof: subscribed capital	1,252
1b	thereof capital reserve	17,192
2	Retained earnings	9,391
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	-271
3a	Funds for general banking risk	C
4	Amount of qualifying items referred to in Art. 484 (3) and the related share premium accounts subject to phase out from CET1	(
5	Minority interests (amount allowed in consolidated CET1)	732
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	383
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	28,679
Commo	on Equity Tier 1 (CET1) capital: regulatory adjustments	
7	Additional value adjustments (negative amount)	-521
8	Intangible assets (net of related tax liability) (negative amount)	-2,843
10	Deferred tax assets subject to future profit ratio excluding those arising from temporary differences (net of related tax liability where the conditions in Art. 38 (3) are met) (negative amount)	-628
11	Fair value reserves related to gains or losses on cash flow hedges	28
12	Negative amounts resulting from the calculation of expected loss amounts	-420
13	Any increase in equity that results from securitised assets (negative amount)	(
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	
15	Defined benefit pension fund assets (negative amount)	-327
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-25
17	Holdings of the CET1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	(
18	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eliqible short positions) (negative amount)	(
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	C
20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	-197
20b	thereof: qualifying holdings outside the financial sector (negative amount)	(
20c	thereof: securitisation positions (negative amount)	-196
20d	thereof: free deliveries (negative amount)	
21	Deferred tax assets subject to future profit ratio and arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Art. 38 (3) are met) (negative amount)	-649
22	Amount exceeding the 15% threshold (negative amount)	(
23	thereof: direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities	(
25	thereof: deferred tax assets subject to future profit ratio and arising from temporary differences	(
25a	Losses for the current financial year (negative amount)	(
25b	Foreseeable tax charges relating to CET1 items (negative amount)	(
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	(
27a	Other CET1 capital elements or deductions	-92
28	Total regulatory adjustments to Common Equity Tier 1 (CET1) capital	-5,86

<b>Line</b> €m		A: Amount on the day of disclosure
29	CET1 capital	22,818
Additio	onal Tier 1 (AT1) capital: instruments	
30	Capital instruments and the related share premium accounts	0
31	thereof: classified as equity under applicable accounting standards	0
32	thereof: classified as liabilities under applicable accounting standards	0
33	Amount of qualifying items referred to in Art. 484 (4) and the related share premium accounts subject to phase out from AT1	903
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in line 5) issued by subsidiaries and held by third parties	0
35	thereof: instruments issued by subsidiaries subject to phase out	0
36	Additional Tier 1 (AT1) capital before regulatory adjustments	903
Additio	onal Tier 1 (AT1) capital; regulatory adjustments	
37	Direct and indirect holdings by an institution of own AT1 instruments (negative amount)	0
38	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
39	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	0
40	Direct and indirect holdings by the institution of the AT1 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
42	Qualifying Tier 2 deductions that exceed the Tier 2 capital of the institution (negative amount)	0
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	0
44	Additional Tier 1 (AT1) capital	903
45	Tier 1 capital (T1 = CET1 + AT1)	23,721
Tier 2	capital: instruments and provisions	•
46	Capital instruments and the related share premium accounts	4,795
47	Amount of qualifying items referred to in Art. 484 (5) and the related share premium accounts subject to phase out from Tier 2	219
48	Qualifying own funds instruments included in consolidated Tier 2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	244
49	thereof: instruments issued by subsidiaries subject to phase out	0
50	Credit risk adjustments	0
51	Tier 2 capital before regulatory adjustments	5,259
Tier 2	capital: regulatory adjustments	
52	Direct and indirect holdings by an institution of own Tier 2 instruments and subordinated loans (negative amount)	-80
53	Holdings of the Tier 2 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
54	Direct and indirect holdings of the Tier 2 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)	0
55	Direct and indirect holdings of the Tier 2 instruments and subordinated loans 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
57	Total regulatory adjustments to Tier 2 capital	-80
58	Tier 2 capital	5,179
59	Total capital (TC = Tier 1 + Tier 2)	28,900
60	Total risk-weighted assets	175,508
Canita	I ratios and buffers	

Equity capital

<b>Line</b> €m		A: Amount on the day of disclosure
61	Common Equity Tier 1 ratio (as a percentage of total risk exposure amount)	13.0
62	Tier 1 ratio (as a percentage of total risk exposure amount)	13.5
63	Total capital ratio (as a percentage of total risk exposure amount)	16.5
64	Institution specific buffer requirement (CET1 requirement in accordance with Art. 92 (1) (a) plus capital conservation and countercyclical buffer² requirements, plus systemic risk buffer, plus systemically important institution (G-SII or O-SII) buffer expressed as a percentage of risk exposure amount)	7.433
65	thereof: capital conservation buffer requirement	1.875
66	thereof: countercyclical buffer requirement	0.058
67	thereof: systemic risk buffer requirement	0
67a	thereof: Global Systemically Important Institution (G-SII) or Other Sytemically Important Institution (O-SII) buffer	1.0
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	8.5
Amour	nts below the thresholds for deduction (before risk weighting)	
72	Direct and indirect holdings by the institution of capital instruments 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)	552
73	Direct and indirect holdings by the institution of the CET1 instruments of relevant financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	283
75	Deferred tax assets subject to future profit ratio, arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Art. 38 (3) are met)	2,347
Applic	able caps on the inclusion of provisions in Tier 2	
76	Credit risk adjustments included in Tier 2 in respect of exposures under the standard approach (before application of cap)	0
77	Cap on inclusion of credit risk adjustments in Tier 2 under the standardised approach	288
78	Credit risk adjustments included in Tier 2 in respect of exposures subject to the internal ratings-based approach (before application of cap)	0
79	Cap on inclusion of credit risk adjustments allowable in Tier 2 related to exposures subject to internal ratings-based approach	690
Capita	l instruments subject to phase-out arrangements	
80	Current cap for CET1 instruments subject to phase-out arrangements	0
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	0
82	Current cap on AT1 instruments subject to phase out arrangements	903
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-136
84	Current cap on Tier 2 instruments subject to phase out arrangements	304
85	Amount excluded from Tier 2 due to cap (excess over cap after redemptions and maturities)	0

# Connection between balance-sheet and regulatory positions

The reconciliation between the Group's equity reported in the balance sheet and the equity reported for regulatory purposes is shown in the table CAP2 below.

Position €m	Equity IFRS (Phase in) <sup>1</sup>	Equity FINREP <sup>2</sup>	Equity COREP <sup>3</sup>
Subscribed capital	1,252	1,252	1,252
Capital reserve	17,192	17,192	17,192
Retained earnings	9,417	9,504	9,504
Silent participations	0	0	0
Actuarial profits/losses current year	-165	-165	-165
Changes due to the revaluation of own credit risk	52	52	52
Revaluation reserve	53	53	53
Valuation of cash flow hedges	-28	-28	-28
Currency translation reserve	-298	-296	-296
Distributable profit/loss from previous year (after suspension of retained earnings	) 0	0	0
Distributable profit/loss from current year	533	508	508
Non-controlling interests	1,130	1,128	1,128
Equity as shown in balance sheet	29,138	29,200	29,200
Effects from debit valuation adjustments			-171
Correction of revaluation reserve			0
Correction to cash flow hedges reserve			28
Correction to phase-in (IAS 19)			0
Correction to non-controlling interests (minority)			-396
Goodwill			-1,507
Intangible assets			-1,337
Surplus in plan assets			-327
Deferred tax assets from loss carryforwards			-628
Shortfall due to expected loss			-420
Prudential valuation			-521
Own shares			-25
First loss positions from securitisations			-196
Advance payment risks			-1
Deduction of offset components of Additional Tier 1 capital (AT1)			0
Deferred tax assets from temporary differences which exceed the 10% threshold			-649
Others and rounding			-235
CET1			22,818
Hybrid capital	1,085	1,085	1,085
Not eligible issues			-12
Capping due to Art. 471 CRR			-136
Others, especially hedge accounting, interests, agio, disagio			-34
Additional Tier 1 before deductions			903
Deduction of offset components of Additional Tier 1 capital (AT1)			0
Additional Tier 1 after deductions			903
Subordinated capital	7,456	7,456	7,456
Decreased offsetting in the last 5 years of residual maturity	,	,	-2,136
Not eligible non-controlling interests			-193
Allowance of capped AT1			136
Others, especially hedge accounting, interests, agio, disagio			-84
Tier 2 before deductions			5,179
Shortfall due to expected loss			0
Tier 2 after deductions			5,179
Own funds	37,679	37,741	28,900
1	37,077	37,771	20,700

<sup>&</sup>lt;sup>1</sup> Equity as shown in balance sheet. <sup>2</sup> Financial reporting, equity as shown in balance sheet, regulatory group of consolidated companies.

<sup>&</sup>lt;sup>3</sup> Common solvency ratio reporting, regulatory capital.

#### Capital requirement and RWA

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

#### Capital requirements by risk type

Of the overall capital requirement 74% relates to credit risk positions (excluding counterparty credit risk). Commerzbank uses the Advanced Internal Ratings Based Approach (advanced IRBA; in the following referred to as IRBA) to determine the regulatory capital required. Article 150 CRR gives the option of partial use. The Standardised Approach to Credit Risk (SACR) may be used for part of the portfolios.

Commerzbank Group and accordingly the group companies included in the disclosure are, as IRBA banks as defined in Article 148 (5) CRR, generally obliged to value investments in accordance with the IRBA rules. For investments entered into prior to 1 January 2008, Commerzbank has opted to apply grandfathering. These investment positions are temporarily excluded from the IRBA and treated in accordance with the SACR rules. They are given a risk weighting of 100%. The CRR also allows items to be permanently exempted from the IRBA. Since 31 December 2009 Commerzbank has applied the option pursuant to section 70 sentence 1 no. 9b of the German Solvency Regulation (SolvV) and Article 150 CRR. All

investment positions which do not fall under the above-mentioned temporary grandfathering option are valued using the permanent partial use according to the SACR.

Of the overall capital requirement 7.3% relates to counterparty credit risk. Based on the EBA requirements, credit value adjustments (CVAs) are also assigned to this credit risk category

Securitised positions in the banking book are also shown as a seperate credit risk category subject to a capital requirement in the table EU OV1 below (1.5% of total capital requirement). Commerzbank treats these according to the IRBA and SACR rules for securitised positions. Capital deduction items of securitisations directly reduce the liable equity and thus are not included in the capital requirements.

Pursuant to Article 92 (3) b) and c) CRR, adequate capital must be set aside for market risk positions. As at 30 Juni 2018, capital requirements here are 4.6% of total requirements. Commerzbank uses an internal market risk model to calculate the regulatory capital requirement. This affects both the equity price and interest rate-related risk positions in the trading book as well as the total of currency positions and commodity positions. The standardised approaches are applied for smaller units in Commerzbank Group in accordance with the partial use option.

To calculate the capital adequacy requirement for operational risks, Commerzbank uses the advanced measurement approach (AMA). This risk category accounts for 12.1% of the total capital requirements.

**EU OV1: Overview of RWAs** 

€m			Risk weighted a	assets (RWAs)	Capital requirements
Article in CRR			30.06.2018	31.03.2018	30.06.2018
	1	Credit risk (excluding CCR)	130,113	125,072	10,409
438 (c) (d)	2	Of which the standardised approach	20,841	20,799	1,667
438 (c) (d)	3	Of which the foundation IRB (FIRB) approach	0	0	0
438 (c) (d)	4	Of which the advanced IRB (AIRB) approach	109,272	104,273	8,742
438 (d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	0	0	0
107, 438 (c) (d)	6	CCR (counterparty credit risk)	12,829	12,727	1,026
438 (c) (d)	7	Of which mark to market	1,872	1,644	150
438 (c) (d)	8	Of which original exposure	0	0	0
	9	Of which the standardised approach	0	0	0
	10	Of which internal model method (IMM)	7,246	7,050	580
438 (c) (d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	173	175	14
438 (c) (d)	12	Of which CVA	3,537	3,858	283
438 (e)	13	Settlement risk	3	2	0
449 (o) (i)	14	Securitisation exposures in the banking book (after the cap)	2,552	2,612	204
	15	Of which IRB approach	1,606	1,652	128
	16	Of which IRB supervisory formula approach (SFA)	628	663	50
	17	Of which internal assessment approach (IAA)	721	769	58
	18	Of which the standardised approach	946	960	76
438 (e)	19	Market risk	8,078	8,123	646
	20	Of which the standardised approach	1,041	1,186	83
	21	Of which IMA	7,037	6,937	563
438 (e)	22	Large exposures	0	0	0
438 (f)	23	Operational risk	21,297	21,090	1,704
	24	Of which basic indicator approach	0	0	0
	25	Of which the standardised approach	0	0	0
	26	Of which advanced measurement approach	21,297	21,090	1,704
437 (2), 48, 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	636	463	51
500	28	Floor adjustment	0	0	0
	29	Total	175,508	170,090	14,041

Risk-weighted assets were €175.5bn as at 30 June 2018, €5.4bn above the previous quarter's level. The increase was mainly due to an increase in risk weighted assets in credit risk driven by an increase in lending activities in the core business – including some short-term transactions in the area of acquisition financing.

The overviews of the trend of risk-weighted assets (RWA) by main drivers EU CR8: RWA flow statements of credit risk expo-

sures under the IRB approach, EU CCR7: RWA flow statements of CCR exposures under the IMM as well as EU MR2-B: RWA flow statements of market risk exposures under the IMA are given in the chapters on the respective risk types.

### A. Credit risk (CR)

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

#### Credit risk mitigation

At Commerzbank, risks are mitigated via a range of measures including collateral and netting. The collateral mainly takes the form of mortgages on owner-occupied and rented residential properties, mortgages on commercial properties, financial collateral as well as guarantees and indemnity letters. The ship finance portfolio is mostly backed by ship mortgages.

The following Table EU CR3 provides an overview of the scope of use of credit risk mitigation techniques by asset class. Most of the positions in column c are secured by mortgage liens.

For details on the application of credit risk mitigation techniques in Commerzbank's IRBA and SACR portfolios please refer to the Disclosure Report as at 31 December 2017.

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

For securities repurchase agreements, lending and comparable transactions involving securities or goods, the exposures are determined in accordance with Article 283 and Article 273 (2) CRR on the basis of an internal model method, too. Guarantees and credit derivatives are taken into account via the substitution approach. The double-default procedure defined under Article 153 (3) CRR is applied.

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

Specific risk management

A. Credit risk (CR)

EU CR3: Credit risk mitigation (CRM) techniques – overview

		a	b	С	d	e
	€m	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Central governments or central banks	26,146	544	2	521	0
2	Institutions	38,185	6,468	1,013	3,934	0
3	Corporates	164,591	39,676	14,049	12,736	201
4	thereof SMEs	6,516	4,846	1,751	437	0
5	thereof specialised lending	15,136	6,286	4,662	211	0
6	thereof other	142,939	28,544	7,636	12,088	201
7	Retail	45,850	83,365	58,536	352	0
8	thereof secured by mortgages / SMEs	62	971	726	22	0
9	thereof secured by mortgages / non-SMEs	2,976	70,761	50,947	16	0
10	thereof qualifying revolving	13,261	0	0	0	0
11	thereof other / SME	10,350	2,672	904	256	0
12	thereof other / non-SMEs	19,201	8,961	5,958	59	0
13	Equity exposures IRB	0	0	0	0	0
14	Other non-credit obligation assets	11,490	0	0	0	0
15	Total IRB approach	286,261	130,053	73,599	17,543	201
16	Central governments or central banks	46,749	0	0	0	0
17	Regional governments or local authorities	18,332	4	1	3	0
18	Public sector entities	4,537	192	3	84	0
19	Multilateral development banks	671	0	0	0	0
20	International organisations	331	0	0	0	0
21	Institutions	3,211	222	215	0	0
22	Corporates	7,012	987	366	187	0
23	thereof SMEs	233	37	11	17	0
24	Retail	8,217	349	183	16	0
25	thereof SMEs	27	11	8	0	0
26	Secured by mortgages on immovable property	0	2,170	2,170	0	0
27	thereof SMEs	0	15	15	0	0
28	Exposures in default	158	52	2	18	0
29	Items associated with particularly high risk	93	0	0	0	0
30	Covered bonds	39	0	0	0	0
31	Claims on institutions and corporates with a short-term credit assessment	16	0	0	0	0
32	Collective investment undertakings	2,472	0	0	0	0
33	Equity exposures	892	0	0	0	0
34	Other exposures	2,745	0	0	0	0
35	Total SACR	95,475	3,976	2,941	308	0
36	Total	381,736	134,029	76,540	17,852	201
37	of which loans	191,130	117,793	71,721	13,160	48
38	of which debt securities	33,493	497	0	493	0
39	of which defaulted positions	1,678	869	720	141	0

# Credit risk and credit risk mitigation in the IRBA

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

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

Tables EU CR6 and EU CR7 show only portfolios which fall within the scope of IRBA and are rated with a rating process that has been approved by the supervisory authority. Positions in the risk exposure class "Other non-loan-related assets" are not listed in table EU CR6. These assets amount to €2.8bn and do not have any creditworthiness risks and thus are not relevant for the management of default risks. Table EU CR6 also does not include

mBank S.A. positions of €1.7bn which are subject to the IRBA slotting approach in accordance with Article 153 (5) CRR and are shown in table EU CR10. Investment positions with a fixed risk weighting according to Article 155 (2) CRR are not relevant in Commerzbank Group as at 30 June 2018 and are therefore not part of table EU CR10.

Securitisation exposures in the IRBA are not included in the following tables; they are presented in detail in the Disclosure Report as at year-end. Counterparty default risks are shown in the section counterparty credit risks in the present report.

The impact of credit derivatives used for credit risk mitigation on the amount of RWA of credit risk in the IRBA portfolio at 30 June 2018 comes to less than 0.5% (see the next table EU CR7).

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

- As required by EBA guideline EBA/GL/2016/11 on disclosure requirements, credit risk and counterparty credit risk are presented separately in the Disclosure Report.
- Some transactions are not included in risk-weighted assets (RWA) for regulatory purposes but are included in the EaD of the Annual Report and Risk Report, respectively.
- The figures shown in this Disclosure Report refer to the regulatory scope of consolidation. By contrast, the figures in the Annual Report refer to the IFRS scope of consolidation.

		a	b	С	d	е	f	g	h	i	j	k	1
	PD scale	Original on- balance-sheet gross exposure €m	Off-balance- sheet exposures pre-CCF €m	Average CCF %	EaD post CRM and post CCF €m	Average PD %	Number of obligors	Average LGD %	Average maturity years <sup>1</sup>	<b>RWAs</b> €m	RWA density bps.	<b>EL</b> €m	Value adjustments and provisions €m
	0.00 to < 0.15	11,990	697	0.46	13,788	0.03	128	24.67	1.9	1,110	8	1	
s or	0.15 to < 0.25	11,164	74	0.73	11,273	0.19	8	20.96	1.1	1,668	15	4	
ent S	0.25 to < 0.50	817	141	0.39	1,058	0.32	24	56.10	2.4	736	70	2	
ernmen banks	0.50 to < 0.75	611	36	0.39	618	0.60	14	71.36	3.6	848	137	3	
governments ntral banks	0.75 to < 2.50	208	59	0.44	87	1.22	22	87.61	2.4	174	200	1	
ral gove	2.50 to 10.00	339	195	0.44	301	3.92	60	89.18	1.1	754	251	10	
tral	10.00 to < 100.00	150	176	0.49	87	17.76	42	64.02	2.2	285	328	9	
Central cel	100.00 (default)	25	14	0.10	0	100.00	1	20.03	1.3	0	0	0	
	Subtotal	25,304	1,392	0.47	27,212	0.22	283	26.47	1.6	5,576	20	31	7.7
	0.00 to < 0.15	12,318	2,440	0.52	15,516	0.06	472	31.85	2.5	2,584	17	3	
	0.15 to < 0.25	3,652	1,071	0.49	3,711	0.20	146	43.17	2.6	2,176	59	3	
S	0.25 to < 0.50	7,228	1,884	0.45	7,283	0.39	271	41.54	1.7	4,428	61	12	
<u></u>	0.50 to < 0.75	5,694	553	0.45	5,678	0.57	136	35.34	1.5	3,319	58	11	
Institutions	0.75 to < 2.50	4,305	1,370	0.44	4,321	1.23	335	41.10	1.1	3,753	87	22	
nsti	2.50 to 10.00	1,800	1,941	0.46	1,606	4.51	288	27.66	0.9	1,243	77	17	
_	10.00 to < 100.00	237	196	0.45	133	25.00	40	27.26	3.5	214	161	6	
	100.00 (default)	90	17	0.26	90	100.00	17	75.65	1.0	1	1	68	
	Subtotal	35,323	9,472	0.47	38,337	0.85	1,691	36.26	2.0	17,718	46	142	143.5
	0.00 to < 0.15	15,309	33,020	0.36	31,241	0.06	24,732	35.85	2.3	7,634	24	10	
	0.15 to < 0.25	14,017	29,258	0.34	24,863	0.20	14,904	34.77	2.4	10,485	42	19	
	0.25 to < 0.50	22,409	30,296	0.36	35,056	0.34	18,186	33.21	2.4	18,127	52	47	
ates 'L	0.50 to < 0.75	9,430	10,188	0.38	12,827	0.60	9,381	32.47	2.2	7,799	61	28	
Corporates TOTAL	0.75 to < 2.50	14,979	12,726	0.36	16,404	1.25	22,914	31.96	2.1	12,793	78	77	
Corl	2.50 to 10.00	4,100	2,274	0.38	4,457	4.18	8,475	31.20	1.7	4,570	103	66	
	10.00 to < 100.00	2,158	847	0.31	2,371	16.51	2,640	21.05	1.7	2,574	109	207	
	100.00 (default)	2,399	289	0.23	2,428	100.00	3,981	46.06	1.4	864	36	1,374	
	Subtotal	84,803	118,897	0.42	129,648	3.16	34,252	38.58	2.5	64,846	50	1,829	1,484.3
	0.00 to < 0.15	815	1,244	0.41	1,307	0.08	336	38.86	2.7	267	20	0	
	0.15 to < 0.25	863	698	0.34	1,057	0.20	478	36.23	2.4	314	30	1	
. S	0.25 to < 0.50	1,568	932	0.36	1,835	0.35	656	34.64	2.4	712	39	2	
ates	0.50 to < 0.75	801	507	0.38	951	0.60	385	35.24	2.3	459	48	2	
of S	0.75 to < 2.50	1,495	699	0.37	1,658	1.26	970	35.05	2.3	1,041	63	8	
Corporates, thereof SMEs	2.50 to 10.00	916	334	0.44	993	4.64	494	38.40	1.8	999	101	18	
∪ <b>=</b>	10.00 to < 100.00	243	38	0.31	216	16.51	116	38.92	1.7	335	155	14	
	100.00 (default)	363	46	0.36	361	100.00	151	65.47	1.4	85	23	230	
	Subtotal	7,063	4,498	0.38	8,378	5.72	3,584	37.53	2.3	4,211	50	275	198.2

<sup>&</sup>lt;sup>1</sup> For retail, this parameter is not included in the RWA calculation, therefore – according to EBA/GL/2016/11 – no details are given here for retail.

EU CR6\_cont.: IRB approach – Credit risk exposures by exposure class and PD range

		a	b	С	d	е	f	g	h	i	j	k	1
	PD scale	Original on- balance-sheet gross exposure €m	Off-balance- sheet exposures pre-CCF €m	Average CCF %	EaD post CRM and post CCF €m	Average PD %	Number of obligors	Average LGD %	Average maturity years <sup>1</sup>	<b>RWAs</b> €m	RWA density bps.	<b>EL</b> €m	Value adjustments and provisions €m
	0.00 to < 0.15	4,657	592	0.36	8,648	0.06	3,813	35.85	3.3	1,845	21	2	
£ 6	0.15 to < 0.25	1,602	232	0.39	2,415	0.20	742	34.77	3.2	910	38	2	
thereof lending	0.25 to < 0.50	2,858	451	0.54	3,795	0.34	643	33.21	3.6	1,841	49	4	
	0.50 to < 0.75	1,503	205	0.45	1,762	0.61	323	32.47	3.5	1,030	58	4	
Corporates, specialised	0.75 to < 2.50	2,779	446	0.47	3,371	1.37	489	31.96	3.1	2,543	75	14	
ora	2.50 to 10.00	952	218	0.40	1,058	4.32	166	31.20	3.3	1,080	102	14	
orp	10.00 to < 100.00	1,526	627	0.46	1,803	47.35	194	21.05	2.6	1,602	89	155	
S	100.00 (default)	1,092	60	0.23	1,106	100.00	323	46.06	1.9	449	41	473	
	Subtotal	16,969	2,831	0.42	23,959	8.70	6,481	33.68	3.2	11,300	47	668	430.0
	0.00 to < 0.15	9,837	31,183	0.43	21,286	0.09	4,186	40.95	2.3	5,522	26	8	
J.	0.15 to < 0.25	11,553	28,328	0.42	21,390	0.20	3,808	41.18	2.5	9,260	43	17	
thereof	0.25 to < 0.50	17,984	28,913	0.43	29,426	0.35	4,853	39.31	2.4	15,574	53	40	
	0.50 to < 0.75	7,127	9,476	0.41	10,115	0.60	2,463	37.10	2.2	6,310	62	23	
Corporates, other	0.75 to < 2.50	10,705	11,580	0.36	11,375	1.25	6,230	38.04	2.1	9,209	81	55	
ora	2.50 to 10.00	2,232	1,723	0.38	2,406	4.18	2,172	34.68	1.7	2,491	104	35	
orp	10.00 to < 100.00	390	182	0.33	352	28.60	574	38.12	2.1	637	181	38	
0	100.00 (default)	944	183	0.26	961	100.00	853	69.63	1.4	330	34	671	
	Subtotal	60,771	111,568	0.42	97,312	1.57	25,104	39.88	2.3	49,334	51	886	856.1
	0.00 to < 0.15	40,355	17,625	0.44	52,508	0.04	9,171,070	15.98		1,663	3	7	
	0.15 to < 0.25	15,165	3,788	0.45	17,644	0.19	1,848,815	15.68		1,535	9	8	
	0.25 to < 0.50	18,890	5,280	0.47	22,562	0.35	2,378,430	15.85		3,137	14	20	
=	0.50 to < 0.75	7,016	2,280	0.46	8,745	0.60	1,100,790	16.57		1,960	22	15	
Retail	0.75 to < 2.50	9,452	2,762	0.46	11,229	1.21	2,969,885	16.62		3,850	34	46	
œ	2.50 to 10.00	3,999	613	0.48	4,337	4.37	1,416,795	16.82		2,394	55	67	
	10.00 to < 100.00	1,502	86	0.44	1,537	20.43	547,690	18.20		1,418	92	103	
	100.00 (default)	1,143	32	0.00	1,126	100.00	419,655	41.33		954	85	597	
	Subtotal	97,521	32,464	0.69	119,688	1.68	3,958,588	26.40		16,910	14	862	769.6
	0.00 to < 0.15	79,972	53,782	0.36	113,054	0.03	2,017,578	15.98	1.9	12,992	11	22	
	0.15 to < 0.25	43,997	34,190	0.34	57,492	0.19	401,010	15.68	1.1	15,864	28	35	
	0.25 to < 0.50	49,345	37,601	0.36	65,959	0.32	514,175	15.85	1.7	26,429	40	80	
=	0.50 to < 0.75	22,751	13,057	0.38	27,867	0.57	235,576	16.57	1.5	13,927	50	57	
<b>Fotal</b>	0.75 to < 2.50	28,944	16,917	0.36	32,041	1.21	618,580	16.62	1.1	20,569	64	146	
	2.50 to 10.00	10,238	5,024	0.38	10,701	3.92	293,336	16.82	0.9	8,961	84	160	
	10.00 to < 100.00	4,047	1,304	0.31	4,128	16.51	114,576	18.20	1.7	4,491	109	325	
	100.00 (default)	3,657	351	0.00	3,644	100.00	87,920	20.03	1.0	1,818	50	2,039	
	Total (all portfolios)	242,952	162,226	0.47	314,886	2.06	3,991,241	32.63	1.4	105,051	33	2,864	2,405.2

<sup>&</sup>lt;sup>1</sup> For retail, this parameter is not included in the RWA calculation, therefore – according to EBA/GL/2016/11 – no details are given here for retail.

		a	b	С	d	е	f	g	h	i	j	k	1
	PD scale	Original on- balance-sheet gross exposure €m	Off-balance- sheet exposures pre-CCF €m	Average CCF %	EaD post CRM and post CCF €m	Average PD %	Number of obligors	Average LGD %	Average maturity years <sup>1</sup>	<b>RWAs</b> €m	RWA density bps.	<b>EL</b> €m	Value adjustments and provisions €m
	0.00 to < 0.15	40,355	17,625	0.44	52,508	0.04	9,171,070	15.98		1,663	3	7	
	0.15 to < 0.25	15,165	3,788	0.45	17,644	0.19	1,848,815	15.68		1,535	9	8	
	0.25 to < 0.50	18,890	5,280	0.47	22,562	0.35	2,378,430	15.85		3,137	14	20	
	0.50 to < 0.75	7,016	2,280	0.46	8,745	0.60	1,100,790	16.57		1,960	22	15	
Retail	0.75 to < 2.50	9,452	2,762	0.46	11,229	1.21	2,969,885	16.62		3,850	34	46	
~	2.50 to 10.00	3,999	613	0.48	4,337	4.37	1,416,795	16.82		2,394	55	67	
	10.00 to < 100.00	1,502	86	0.44	1,537	20.43	547,690	18.20		1,418	92	103	
	100.00 (default)	1,143	32	0.00	1,126	100.00	419,655	41.33		954	85	597	
	Gesamt	97,521	32,464	0.69	119,688	1.68	3,958,588	26.40		16,910	14	862	769.6
_	0.00 to < 0.15	117	6	1.04	120	0.11	375	30.22		7	6	0	
jes	0.15 to < 0.25	145	5	0.83	144	0.21	753	29.67		14	10	0	
mortgages Es	0.25 to < 0.50	238	22	0.90	255	0.36	1,591	29.77		38	15	0	
s s	0.50 to < 0.75	140	12	1.03	150	0.62	954	29.53		32	22	0	
byn SME	0.75 to < 2.50	218	17	1.41	233	1.21	1,532	32.44		86	37	1	
	2.50 to 10.00	64	3	1.19	66	4.37	436	32.01		51	77	1	
secured	10.00 to < 100.00	33	0	1.05	33	21.44	261	31.45		46	138	2	
se	100.00 (default)	39	0	0.00	39	100.00	282	54.31		34	87	20	
:	Subtotal	993	64	1.08	1,040	5.15	6,182	31.48		308	30	25	24.3
\	0.00 to < 0.15	33,659	1,243	0.98	34,870	0.06	272,154	15.98		911	3	3	
mortgages	0.15 to < 0.25	12,265	408	0.98	12,664	0.20	118,879	15.68		834	7	4	
tga	0.25 to < 0.50	14,124	616	0.99	14,727	0.36	102,931	15.85		1,465	10	8	
Nor-	0.50 to < 0.75	4,530	279	0.99	4,807	0.60	30,250	16.57		747	16	5	
by n n-SN	0.75 to < 2.50	4,235	166	0.99	4,398	1.25	28,323	16.62		1,105	25	9	
	2.50 to 10.00	1,328	24	0.98	1,351	4.99	10,805	16.82		770	57	11	
secured no	10.00 to < 100.00	640	2	0.91	641	21.00	5,887	18.20		656	102	24	
se.	100.00 (default)	414	0	0.00	407	100.00	4,291	41.33		472	116	139	
•	Subtotal	71,196	2,738	0.98	73,866	1.07	573,260	16.15		6,958	9	204	196.7
	0.00 to < 0.15	230	10,661	0.65	7,190	0.04	1,437,342	60.41		130	2	2	
ing	0.15 to < 0.25	51	486	0.65	368	0.19	104,836	59.29		24	6	0	
revolving	0.25 to < 0.50	106	502	0.65	431	0.36	122,765	58.95		46	11	1	
rev	0.50 to < 0.75	71	221	0.64	213	0.62	66,102	59.25		35	17	1	
	0.75 to < 2.50	223	425	0.65	498	1.39	164,680	59.20		151	30	4	
Ę	2.50 to 10.00	124	123	0.65	205	4.58	67,955	59.51		145	71	6	
qualifying	10.00 to < 100.00	37	13	0.67	46	22.35	19,464	59.00		70	151	6	
ĭ	100.00 (default)	9	1	0.62	10	100.00	3,017	61.58		2	19	6	
	Subtotal	853	12,433	0.65	8,961	0.48	1,986,161	60.17		603	7	25	23.8

<sup>&</sup>lt;sup>1</sup> For retail, this parameter is not included in the RWA calculation, therefore – according to EBA/GL/2016/11 – no details are given here for retail.

EU CR6\_Retail\_cont.: IRB approach – Retail's Credit risk exposures by exposure class and PD range

		а	b	С	d	е	f	g	h	i	j	k	I
	PD scale	Original on- balance-sheet gross exposure €m	Off-balance- sheet exposures pre-CCF €m	Average CCF %	EaD post CRM and post CCF €m	Average PD %	Number of obligors	Average LGD %	Average maturity years <sup>1</sup>	<b>RWAs</b> €m	RWA density bps.	<b>EL</b> €m	Value adjustments and provisions €m
	0.00 to < 0.15	373	1,431	0.44	992	0.10	11,310	43.58		87	9	0	
	0.15 to < 0.25	563	1,700	0.45	1,305	0.20	21,975	44.08		185	14	1	
ш	0.25 to < 0.50	836	1,570	0.47	1,545	0.37	35,421	43.09		321	21	2	
SM	0.50 to < 0.75	597	647	0.46	881	0.62	23,303	42.09		243	28	2	
er/	0.75 to < 2.50	1,954	1,119	0.46	2,410	1.35	59,126	40.79		891	37	13	
oth	2.50 to 10.00	1,337	305	0.48	1,449	4.76	47,101	37.72		668	46	26	
	10.00 to < 100.00	439	52	0.44	453	20.43	17,820	36.15		288	64	33	
_	100.00 (default)	316	25	0.33	312	100.00	14,817	71.66		150	48	214	
	Subtotal	6,416	6,848	0.46	9,347	5.57	230,857	42.38		2,833	30	291	241.0
_	0.00 to < 0.15	5,975	4,284	0.76	9,336	0.06	287,462	32.06		528	6	2	
ш -	0.15 to < 0.25	2,140	1,190	0.85	3,163	0.20	149,385	35.45		479	15	2	
WS -	0.25 to < 0.50	3,587	2,571	0.78	5,603	0.35	245,020	42.97		1,267	23	8	
ë _	0.50 to < 0.75	1,678	1,121	0.91	2,694	0.61	111,646	40.38		903	34	7	
ů/	0.75 to < 2.50	2,821	1,035	0.83	3,690	1.31	356,873	40.27		1,616	44	19	
her	2.50 to 10.00	1,145	158	0.82	1,266	4.59	163,859	39.42		761	60	23	
ito:	10.00 to < 100.00	353	18	0.71	363	24.07	70,178	43.19		358	99	38	
•	100.00 (default)	365	7	0.33	359	100.00	64,168	65.52		296	82	218	
	Subtotal	18,064	10,382	0.80	26,474	2.27	1,443,102	37.73		6,208	23	316	283.9

<sup>&</sup>lt;sup>1</sup> For retail, this parameter is not included in the RWA calculation, therefore – according to EBA/GL/2016/11 – no details are given here for retail.

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

Equity capital

		a	b
	€m	Pre-credit derivatives RWAs	Actual RWAs
1	Exposures under FIRB	0	0
2	Central governments or central banks	0	0
3	Institutions	0	0
4	Corporates - SMEs	0	0
5	Corporates - specialised lending	0	0
6	Corporates - other	0	0
7	Exposures under AIRB	109,387	109,272
8	Central governments or central banks	5,577	5,577
9	Institutions	17,716	17,718
	Corporates	66,367	66,250
10	thereof SMEs	4,211	4,211
11	thereof specialised lending	12,660	12,704
12	thereof other	49,496	49,334
	Retail	16,910	16,910
13	thereof secured by mortgages / SMEs	308	308
14	thereof secured by mortgages / non-SMEs	6,958	6,958
15	thereof qualifying revolving	603	603
16	thereof other / SME	2,833	2,833
17	thereof other / non-SMEs	6,208	6,208
18	Equity IRB	0	0
19	Other non-credit obligation assets	2,817	2,817
20	Total	109,387	109,272

#### EU CR10: IRB (specialised lending)

		a	b	С	d	е	f					
€m	Specialised lending											
Regulatory categories	Remaining maturity	On-balance- sheet amount	Off-balance- sheet amount	Risk weight	Exposure amount	RWAs	Expected loss					
Category 1	Less than 2.5 years	178	150	50%	232	158	1					
Category 1	Equal to or more than 2.5 years	50	14	70%	50	35	0					
Category 2	Less than 2.5 years	0	0	70%	0	0	0					
Category 2	Equal to or more than 2.5 years	1,242	278	90%	1,245	1,120	10					
Catagory	Less than 2.5 years	8	4	115%	10	11	0					
Category 3	Equal to or more than 2.5 years	57	1	115%	58	67	2					
Catagory	Less than 2.5 years	0	0	250%	0	0	0					
Category 4	Equal to or more than 2.5 years	5	0	250%	5	13	0					
Catagory	Less than 2.5 years	26	0	-	55	0	28					
Category 5	Equal to or more than 2.5 years	38	0	-	58	0	29					
Total	Less than 2.5 years	212	154		297	169	29					
	Equal to or more than 2.5 years	1,393	293		1,417	1,234	41					

Table EU CR8 below shows the changes in the RWA of credit risk exposures in the IRBA portfolio of Commerzbank Group between 31 March 2018 and 30 June 2018. The RWA increase essentially resulted from a further growth in the operative segments (asset size). In contrast, a further improved portfolio quality (asset quality,

collateral effects) and the regular expiry of residual terms (duration effects) led to a decrease in RWA in the period under consideration. The increase in RWA within the category model updates mainly results from the periodical update of LGD parameters.

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

		a	b
	€m	Risk weighted assets (RWAs)	Capital requirements
1	RWAs as at the end of the previous reporting period	104,273	8,342
2	Asset size	6,342	507
3	Asset quality	-920	-74
4	Model updates	838	67
5	Methodology and policy	0	0
6	Acquisitions and disposals	0	0
7	Foreign exchange movements	697	56
8	Collateral effects	-1,085	-87
9	Duration effects	-967	-77
10	Others	94	8
11	RWAs as at the end of the reporting period	109,272	8,742

# Credit risk and credit risk mitigation in the SACR

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

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

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

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

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

Specific risk management

A. Credit risk (CR)

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

Equity capital

		a	b	С	d	е	f
	Exposure classes €m	Expo before CCI		•	sures and CRM	RWAs an dens	
		On-balance- sheet amount	Off-balance- sheet amount	On-balance- sheet amount	Off-balance- sheet amount	RWAs	RWA density
1	Central governments or central banks	46,697	52	50,856	367	395	0.8%
2	Regional government or local authorities	17,531	805	18,181	33	1,244	6.8%
3	Public sector entities	4,385	344	4,587	123	326	6.9%
4	Multilateral development banks	671	0	684	0	0	0.0%
5	International organisations	331	0	331	0	0	0.0%
6	Institutions	3,431	2	3,250	1	628	19.4%
7	Corporates	5,372	2,627	4,881	1,730	5,915	89.5%
8	Retail	4,613	3,953	4,422	187	3,466	75.2%
9	Secured by mortgages on immovable property	2,152	18	2,152	9	777	36.0%
10	Exposures in default	205	6	187	1	253	134.9%
11	Exposures associated with particularly high risk	93	0	93	0	140	150.0%
12	Covered bonds	39	0	39	0	4	10.0%
13	Institutions and corporates with a short-term credit assessment	16	0	16	0	3	20.0%
14	Collective investment undertakings	2,472	0	2,472	0	788	31.9%
15	Equity	892	0	892	0	1,273	142.8%
16	Other items	2,681	64	2,681	64	6,265	228.2%
17	Total	91,581	7,871	95,724	2,515	21,477	21.9%

EU CR5: Standardised approach – Credit risk (post CCF and CRM) by exposure class and risk weight

	Exposure classes									Risk we	eight							Total	Of which
	€m	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted		unrated
1	Central governments or central banks	50,609	0	126	0	0	0	198	0	0	291	0	0	0	0	0	0	51,223	44,940
2	Regional government or local authorities	13,187	0	0	0	4,323	0	649	0	0	55	0	0	0	0	0	0	18,214	16,757
3	Public sector entities	3,100	0	0	0	1,600	0	7	0	0	2	0	0	0	0	0	0	4,710	4,053
4	Multilateral development banks	684	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	684	249
5	International organisations	331	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	331
6	Institutions	266	31	0	0	2,830	0	111	0	0	6	0	0	0	0	7	0	3,251	3,024
7	Corporates	0	0	0	0	290	2	1,148	0	0	4,942	229	0	0	0	0	0	6,611	5,616
8	Retail	0	0	0	0	0	0	0	0	4,566	42	2	0	0	0	0	0	4,609	4,609
9	Secured by mortgages on immovable property	0	0	0	0	0	2,038	120	0	0	0	4	0	0	0	0	0	2,161	2,161
10	Exposures in default	0	0	0	0	0	0	0	0	0	56	131	0	0	0	0	0	187	187
11	Exposures associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	93	0	0	0	0	0	93	93
12	Covered bonds	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	39	4
13	Institutions and corporates with a short-term credit assessment	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	16	0
14	Collective investment undertakings	1,180	0	0	0	0	0	0	0	0	113	0	0	0	0	1,179	0	2,472	2,472
15	Equity	0	0	0	0	0	0	0	0	0	637	0	255	0	0	0	0	892	892
16	Other items	0	0	0	0	0	0	0	0	0	398	0	2,347	0	0	0	0	2,745	2,745
17	Total	69,357	31	126	39	9,060	2,040	2,232	0	4,566	6,542	458	2,601	0	0	1,187	0	98,239	88,134

#### Loan loss provisions for default risks

Equity capital

The tables on loan loss provisions below show the gross carrying values of all risk positions in default and not in default in the IFRS categories AC and FVOCI, including the associated stock of credit risk adjustments, the relevant write-offs and the credit risk adjustment charges of the period (financial year).

The gross carrying values for risk positions not in default also include loans that are past due by at least one day up to 90 days but are not defined as in default by virtue of the minimum threshold (2.5% of the limit or €100).

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

The information is structured by risk exposure class (table EU CR1-A), industry (table EU CR1-B) and geography (table EU CR1-C). The following definitions are used:

- · Specific credit risk adjustments are the sum of Lifetime Expected Credit Loss (LECL) for significant claims in default (volume of more than €5m), determined on the basis of individual cash flow estimates, taking into account various possible scenarios (loan loss provision stage 3 on-balance and off-balance, significant).
- The column general credit risk adjustment comprises the following positions:
  - LECL for non-significant exposures in default (volume up to €5m), portfolio-based determined on the basis of internal risk parameters (stage 3 on balance, non-significant)
  - LECL non-significant off-balance claims in default, determination following those of the on-balance exposures (stage 3, off-balance, non-significant)

LECL for on- and off-balance exposures not in default showing a significant increase in credit risk as according to IFRS9, portfolio-based determined on the basis of intermal risk parameters (stage 2 on- and off-balance)

Specific risk management

A. Credit risk (CR)

- Expected credit loss (ECL) for on- and off-balance exposures not in default and not showing a significant increase in credit risk as according to IFRS9, portfolio-based determined on the basis of internal risk parameters (stage 1 onand off-balance)
- The column accumulated write-offs is the balance of write-ups and write-downs during the financial year.

The country clusters selected in table EU CR1-C match the classification by geographical area used for internal purposes. They are unmodified and base upon the materiality threshold as described in the Disclosure Report as at 31 Dezember 2017, Appendix 4.

The gross carrying value of the defaulted risk positions is at €4.6bn as at 30 June 2018 (December 2017: €6.0bn). The decrease is mainly due to the re-classification of the shipping portfolio under the IFRS9 implementation at the beginning of the year. Further information on this is given in the Interim Report as at 30 June 2018 in the chapter Default risk. In addition to the loan loss provisions presented in the tables, the gross carrying values are also offset by collateral, which is taken into account accordingly in the calculation of the expected credit loss (specific and general credit risk adjustments).

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

Deviating from tables EU CR1-A, EU CR1-B and EU CR1-C, the tables EU CR1-D and EU CR1-E also include positions of the IFRS category FVPL. The increase in the line Loans and advances in table EU CR1-E to €348.5bn (December 2017: €318.2bn) mainly results from growth in the loan business and a seasonal extension in the collateralised money market business in terms of reversed repos and cash collaterals.

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

		a	b	С	d	е	f	g
		Gross carrying	values of	Specific	General	Accumulated	Credit risk	Net values
	€m	defaulted exposures	non-defaulted exposures	credit risk adjustment	credit risk adjustment	write-offs	adjustment charges of the period	(a+b-c-d)
1	Central governments or central banks	38	26,658	0	6	5	6	26,690
2	Institutions	106	44,633	13	74	4	83	44,653
3	Corporates	2,802	203,003	1,310	228	137	-643	204,267
4	thereof SMEs	409	11,152	172	26	35	-59	11,362
5	thereof specialised lending	1,266	20,640	401	83	8	-461	21,422
	thereof other	1,127	171,211	736	119	94	-123	171,483
6	Retail	1,175	128,810	624	147	122	78	129,215
8	thereof secured by mortgages / SMEs	39	1,018	24	0	3	4	1,033
9	thereof secured by mortgages / non-SMEs	414	73,520	148	49	21	25	73,736
10	thereof qualifying revolving	10	13,275	5	19	2	5	13,261
12	thereof other / SME	341	12,923	207	34	41	26	13,022
13	thereof other / non-SMEs	372	28,074	239	45	55	18	28,162
14	Equity exposures IRB	0	0	0	0	0	0	0
	Other non-credit obligation assets	19	11,470	0	0	0	0	11,490
15	Total IRB approach	4,142	414,575	1,947	456	268	-476	416,314
16	Central governments or central banks	0	46,749	0	0	0	10	46,749
17	Regional governments or local authorities	0	18,336	0	0	0	4	18,336
18	Public sector entities	0	4,729	0	0	0	1	4,729
19	Multilateral development banks	0	671	0	0	0	0	671
20	International organisations	0	331	0	0	0	0	331
21	Institutions	0	3,433	0	0	0	0	3,433
22	Corporates	0	8,011	11	1	1	8	7,999
23	thereof SMEs	0	271	1	0	0	0	270
24	Retail	0	8,650	29	55	11	23	8,566
25	thereof SMEs	0	46	8	0	0	0	38
26	Secured by mortgages on immovable property	0	2,173	2	1	0	2	2,170
27	thereof SMEs	0	15	0	0	0	0	15
28	Exposures in default <sup>1</sup>	503	0	292	1	0	61	210
29	Items associated with particularly high risk	0	93	0	0	0	0	93
30	Covered bonds	0	39	0	0	0	0	39
31	Claims on institutions and corporates with a short-term credit assessment	0	16	0	0	0	0	16

Appendix 25

Risk-oriented overall bank management

EU CR1-B: Credit quality of exposures by industry or counterparty types

-		a	b	С	d	е	f	g
		Gross carryin	Gross carrying values of		General	Accumulated	Credit risk	Net values
	€m	defaulted exposures	non-defaulted exposures	credit risk adjustment	credit risk adjustment	write-offs	adjustment charges of the period	(a+b-c-d)
1		1 202	100 220	752	125		•	100 (42
	Production and manufactoring industry	1,303	100,229	753	135	66	78	100,643
2	Energy and water supply	214	19,636	118	15	14	28	19,717
3	Wholesale and retail trade; repairs	423	29,030	244	48	69	56	29,161
4	Transport and telecommunication	533	19,449	87	10	6	-512	19,885
5	Other financial industry and insurances	177	31,104	102	22	66	-265	31,157
6	Banks	64	66,635	12	73	6	39	66,615
7	Other financial industry and insurances	431	23,065	124	8	1	20	23,363
8	Real estate activities	443	30,322	182	48	11	3	30,535
9	Public administration and defence, compulsory social security	39	76,947	1	6	7	75	76,978
10	Private households	975	115,750	634	145	34	105	115,947
11	Others	43	1,749	25	3	0	4	1,765
12	Total	4,645	513,915	2,281	513	279	-368	515,765

According to EBA-Q6A\_2017\_3481, for the gross carrying values of the first column "a" of exposures in default (in line 28) in application of Art. 112(j) CRR, the original asset class should be named in addition. To keep the consistency of the table in regard of totals formation under column "q: net values" or in line 35 "Total SACR", the required assignment is given below as follows:

The gross carrying values of the exposures in default (row 28) in SACR in the value of €503m with a value of €378m evolved from positions in the asset class "corporates" (line 22) and with a value of €125m from the asset class "retail" (line 24) in the SACR.

EU CR1-C: Credit quality of exposures by geography

			a	b	С	d	е	f	g
	€m		Gross carr	ying values of	Specific	General	Accumulated	Credit risk	Net values
			defaulted exposures	non-defaulted exposures	credit risk adjustment	credit risk adjustment	write-offs	adjustment charges of the period	(a+b-c-d)
1	Western Europe	e	2,926	391,110	1,217	431	166	-444	392,388
2	thereof	Germany	2,185	296,248	900	351	121	-454	297,182
3		Switzerland	3	13,781	1	5	1	2	13,778
4		Great Britain	110	18,410	20	8	12	2	18,491
5		Italy	95	13,179	18	2	0	11	13,255
6		France	54	11,860	17	6	0	4	11,890
7		Netherlands	43	6,162	12	5	14	-9	6,188
8		Spain	46	5,381	24	3	0	5	5,400
9		Others	389	26,090	223	52	17	-4	26,204
10	Eastern Europe		1,285	44,946	854	13	110	48	45,364
11	thereof	Poland	1,053	35,380	687	1	63	65	35,745
12		Others	233	9,566	167	12	47	-17	9,619
13	North America		74	30,688	42	7	0	60	30,713
14	thereof	USA	73	26,110	42	6	0	59	26,135
15		Others	0	4,578	0	0	0	1	4,578
16	Asia		114	34,238	68	39	3	13	34,244
17	thereof	China	1	8,461	0	7	0	0	8,454
18		Others	113	25,777	68	32	3	13	25,790
19	Latin America		108	7,529	90	8	0	-19	7,539
20	Other regions		138	5,404	10	15	0	-26	5,517
21	Total		4,645	513,915	2,281	513	279	-368	515,765

#### EU CR1-D: Ageing of past-due exposures

		a	b	С	d	е	f			
	Gross carrying values									
	€m	≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year			
1	Loans and advances	1,863	948	2,370	400	382	1,297			
2	Debt securities	0	0	0	0	0	0			
3	Total exposure	1,863	948	2,370	400	382	1,297			

#### **EU CR1-E: Non-performing and forborne exposures**

		а	b	С	d	е	f	g	h	i	j	k	I	m
	Gross carrying values of performing and non-performing exposures							ted impairmer air value adjus risk	stments due			and financial s received		
			Of which performing	Of which performing		Of which no	n-performing	) <sup>1</sup>	-	forming sures		erforming sures¹	On non- performing	forborne
	€m		but past due > 30 days and ≤ 90 days	forborne		Off which defaulted	Off which impaired <sup>2</sup>			Of which forborne		Of which forborne	exposures <sup>1</sup>	exposures
010	Debt securities	59,138	0	0	56	56	56	0	-76	0	-3	0	0	0
020	Loans and advances	348,476	1,068	2,734	4,328	4,176	3,259	1,323	-523	-64	-1,869	-516	1,284	1,179
030	Off-balance-sheet exposures	173,479		418	407	366		63	187	6	87	5	65	25

<sup>&</sup>lt;sup>1</sup> Besides defaulted (impaired) exposures, the non-performing exposures also include those cases, that do not show any default criterion, but due to the procedure of a forbearance measure for a probation period have to be staged as "non-performing".

<sup>&</sup>lt;sup>2</sup> Not including fair value positions.

Table EU CR2-A below shows the total credit risk adjustments and changes therein. Claims or loan commitments under the IFRS categories AC and FVOCI and their corresponding loan loss provisions are included in the table. Due to the implementation of IFRS9 as at the beginning of the year, the numbers are only comparable to the previous year on a very limited basis. Increases and decreases, respectively, for estimated loan losses are now given on a net basis (position 2/3).

The table EU CR2-B shows the changes in the stock of defaulted and impaired loans and debt securities. Claims or loan com-

mitments under the IFRS categories AC and FVOCI and their corresponding loan loss provisions are included in the table.

The position Return to non-defaulted status also accounts for €727m repayments on loans. The position Other changes is mainly affected by the re-classification of the shipping portfolios due to the IFRS9 implementation as at the beginning of the year. The capter Default risk of the Interim Report as at 30 June 2018 provides more details on this.

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

		a	b
	€m	Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment
1	Opening balance	1,914	602
2/3	Increases due to amounts set aside / decreases due to amounts reversed for estimated loan losses during the period	223	103
4	Decreases due to amounts taken against accumulated credit risk adjustments	-181	-123
5	Transfers between credit risk adjustments	0	0
6	Impact of exchange rate differences	18	0
7	Business combinations, including acquisitions and disposals of subsidiaries	0	0
8	Other adjustments	-54	50
9	Closing balance	1,920	632
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	0	0
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	0	0

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

		a
	€m	Defaulted exposures
1	Opening balance	5,569
	Loans and debt securities that have defaulted or impaired since the last reporting	
2	period	735
3	Returned to non-defaulted status	-801
4	Amounts written off	-349
5	Other changes	-1,165
6	Closing balance	3,989

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

Equity capital

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

and quantifying wrong way risk. They also set out how the exposure must be adjusted to allow for the wrong way risk. In the case of secured transactions, the potential relationship between the performance of the collateral and the credit rating of the counterparty also has to be considered and captured according to the Commerzbank collateral matrix.<sup>1</sup>

The derivative positions shown in the tables below do not include securitisation positions as defined in the CRR; these are described in each case in detail in the Disclosure Report as at yearend. This means that interest rate and currency swaps or credit derivative transactions entered into with special-purpose securitisation companies are not included.

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

### Information on regulatory methods

#### EU CCR1: Analysis of CCR exposure by approach

		а	b	С	d	е	f	g
	€m	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EaD post CRM	RWAs
1	Mark to market approach		4,519	1,078			2,821	1,403
2	Original exposure	0					0	0
3	Standardised approach		0			1.4	0	0
4	IMM (for derivatives and SFTs)				21,650	1.4	21,401	7,185
5	Of which securities financing transactions				8,946	1.4	8,971	1,093
6	Of which derivatives and long settlement transactions				12,704	1.4	12,430	6,092
7	Of which from contractual cross-product netting				0	1.4	0	0
8	Financial collateral simple method (for SFTs)						0	0
9	Financial collateral comprehensive method (for SFTs)						1,447	465
10	VaR for SFTs						0	0
11	Total							9,053

#### EU CCR2: CVA (credit value adjustments) capital charge

		a	b
	€m	Exposure value	RWAs
1	Total portfolios subject to the advanced method	2,267	3,232
2	(i) VaR component (including the 3x multiplier)		453
3	(ii) SVaR component (including the 3x multiplier)		2,779
4	All portfolios subject to the standardised method	245	305
EU4	Based on the original exposure method	0	0
5	Total subject to the CVA capital charge	2,512	3,537

Specific risk management

B. Counterparty credit risk (CCR)

#### EU CCR8: Exposures to CCP (central counterparties)

Equity capital

		a	b
	€m	EaD post CRM	RWAs
1	Exposures to QCCPs (total)		238.4
	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of		
2	which	3,137	65.6
3	(i) OTC derivatives	576	14.3
4	(ii) Exchange-traded derivatives	1,750	35.0
5	(iii) SFTs	812	16.2
6	(iv) Netting sets where cross-product netting has been approved	0	0.0
7	Segregated initial margin	0	
8	Non-segregated initial margin	0	0.0
9	Prefunded default fund contributions	243	172.9
10	Alternative calculation of own funds requirements for exposures		0.0
11	Exposures to non-QCCPs (total)		0.0
	Exposures for trades at non-QCCPs (excluding initial margin and default fund		
12	contributions); of which	0	0.0
13	(i) OTC derivatives	0	0.0
14	(ii) Exchange-traded derivatives	0	0.0
15	(iii) SFTs	0	0.0
16	(iv) Netting sets where cross-product netting has been approved	0	0.0
17	Segregated initial margin	0	
18	Non-segregated initial margin	0	0.0
19	Prefunded default fund contributions	0	0.0
20	Unfunded default fund contributions	0	0.0

### Information by regulatory risk-weighting approach

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

		a	b	С	d	e	f	g
	PD scale	EaD post CRM €m	Average PD %	Number of obligors	Average LGD %	Average maturity1 years	<b>RWA</b> s €m	RWA density
	0.004			47		•		. 70/
_	0.00 to < 0.15	1,557	0.06	47	27.12	0.9	104	6.7%
	0.15 to < 0.25	2	0.18	2	100.00	1.0	1	66.8%
Central governments or central banks	0.25 to < 0.50	115	0.29	11	37.02	0.3	36	31.7%
ks –	0.50 to < 0.75	61	0.62	7	86.45	1.3	82	134.2%
veri ban	0.75 to < 2.50	11	2.04	5	100.00	1.0	2	226.4%
g e –	2.50 to < 10.00 10.00 to < 100.00	4	3.90	10	100.00	1.3	11	290.8%
tral enti		0	89.34	1 0	100.00	1.0	0	132.3%
Central governm or central banks	100.00 (Default)	1.740	0.00		0.00	0.0	0	0.0%
0 0	Subtotal 0.00 to < 0.15	1,740	<b>0.10</b> 0.05	<b>83</b> 320	<b>30.13</b> 53.06	0.9	237	13.6%
_	0.00 to < 0.15	8,840	0.03		47.18	1.5 2.9	1,911	21.6%
_		351					222	63.1%
_	0.25 to < 0.50	864	0.36	137	49.87	1.6	596	68.9%
_	0.50 to < 0.75	113	0.61	62 95	51.55	2.9	131	116.3%
<b>ω</b>	0.75 to < 2.50	116	1.30		47.13	2.1	133	114.6%
. <u>ii</u> –	2.50 to < 10.00	88	6.00	57	46.54	2.2	153	174.7%
Institutions	10.00 to < 100.00	269	12.89	6 0	42.50	1.3	599	222.7%
nsti –	100.00 (Default)	10.441	0.00		0.00	0.0	0	0.0%
_	Subtotal	10,641	0.47	756	52.20	1.5	3,745	35.2%
_	0.00 to < 0.15	2,623	0.04	2,180	32.72	2.0	507	19.3%
_	0.15 to < 0.25	2,561	0.18	1,394	41.02	1.8	937	36.6%
_	0.25 to < 0.50	1,419	0.33	2,028	41.43	3.2	916	64.6%
_	0.50 to < 0.75	589	0.57	1,060	37.74	2.8	415	70.4%
_	0.75 to < 2.50	290 88	1.14 3.39	1,830 638	40.25 38.65	1.8	250	86.1% 109.8%
Corporates TOTAL	2.50 to < 10.00			182	41.64	1.6	97	
Corpora TOTAL	10.00 to < 100.00	522	19.48			2.6	1,334	255.4%
	100.00 (Default)	7	100.00	52	71.34	2.7	0	1.8%
<u> </u>	Subtotal 0.00 to < 0.15	8,100	<b>1.61</b> 0.04	<b>4,679</b> 147	<b>38.69</b> 40.36	<b>2.4</b> 3.5	4,457	55.0% 18.3%
_		116	0.04	94			21 49	
_	0.15 to < 0.25 0.25 to < 0.50	74 67	0.17	159	58.49 59.06	3.4	58	86.7%
_	0.50 to < 0.75	16	0.43	77	56.83	3.4	15	93.2%
_	0.75 to < 2.50	39	1.54	214	47.73	3.4	42	106.9%
AEs –	2.50 to < 10.00	12	4.12	113	47.73	2.0	14	118.9%
ate:	10.00 to < 100.00	1	30.61	36	60.66	2.6	4	265.9%
por eof	100.00 (Default)	4	100.00	12	71.34	2.7	0	2.3%
Corporates, thereof SMEs	Subtotal	329	1.96	852	50.64	3.5	203	61.7%
	0.00 to < 0.15	0	0.00	0	0.00	0.0	0	0.0%
_	0.15 to < 0.25	0	0.00	0	0.00	0.0	0	0.0%
_	0.15 to < 0.25 0.25 to < 0.50	0	0.00	0	0.00	0.0	0	0.0%
eof	0.50 to < 0.75	0	0.00	0	0.00	0.0	0	0.0%
ndii	0.75 to < 2.50	0	0.00	0	0.00	0.0	0	0.0%
s, t	2.50 to < 10.00	0	0.00	0	0.00	0.0	0	0.0%
ate: isec	10.00 to < 100.00	0	0.00	0	0.00	0.0	0	0.0%
por	100.00 (Default)	0	0.00	0	0.00	0.0	0	0.0%
Corporates, thereof specialised lending	Subtotal	0	0.00	0	0.00	0.0	0	0.0%
<b>O W</b>	Subtotal	U	0.00	<u> </u>	0.00	0.0	<u> </u>	0.070

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

EU CCR4\_cont.: IRB approach – CCR exposures by portfolio and PD scale

-		а	b	С	d	е	f	g
	PD scale	EaD post CRM	Average PD	Number of obligors	Average LGD	Average maturity <sup>1</sup>	RWAs	RWA density
		€m	%	<b>,</b> , , , ,	%	years	€m	
	0.00 to < 0.15	2,507	0.08	943	32.72	2.0	486	19.4%
	0.15 to < 0.25	2,487	0.18	603	41.02	1.8	888	35.7%
	0.25 to < 0.50	1,351	0.33	855	41.43	3.2	858	63.5%
ates othe	0.50 to < 0.75	573	0.57	453	37.74	2.8	400	69.8%
Corporates, thereof other	0.75 to < 2.50	251	1.14	701	40.25	1.8	208	82.8%
Corp	2.50 to < 10.00	77	3.39	206	38.65	1.6	83	108.4%
0 =	10.00 to < 100.00	521	19.48	55	41.64	4.8	1,331	255.4%
	100.00 (Default)	3	100.00	14	85.25	2.9	0	1.0%
	Subtotal	7,770	1.60	3,827	38.18	2.4	4,254	54.7%
	0.00 to < 0.15	72	0.04	3980	45.46		4	5.9%
	0.15 to < 0.25	8	0.19	550	46.26		1	16.5%
	0.25 to < 0.50	7	0.34	636	47.41		2	24.0%
=	0.50 to < 0.75	4	0.63	316	46.83		1	33.4%
Retail	0.75 to < 2.50	21	1.30	1,936	48.11		11	54.1%
∞	2.50 to < 10.00	5	3.38	490	50.69		3	58.7%
	10.00 to < 100.00	1	17.67	64	48.04		1	80.2%
	100.00 (Default)	0	100.00	14	46.76		0	18.7%
	Subtotal	117	0.67	4,032	47.03		23	20.0%
	0.00 to < 0.15	13,091	0.04	3,447	27.12	0.9	2,526	19.3%
	0.15 to < 0.25	2,922	0.18	1,053	41.02	1.0	1,162	39.8%
	0.25 to < 0.50	2,405	0.29	1,480	37.02	0.3	1,550	64.5%
_	0.50 to < 0.75	767	0.57	757	37.74	1.1	629	82.0%
Total	0.75 to < 2.50	429	1.14	1,983	40.25	1.0	396	92.5%
	2.50 to < 10.00	185	3.38	631	38.65	1.3	264	143.0%
	10.00 to < 100.00	792	12.89	162	41.64	1.0	1,935	244.1%
	100.00 (Default)	7	100.00	40	46.76	2.7	0	2.0%
	Total (all portfolios)	20,598	0.89	9,550	44.99	1.8	8,463	41.1%

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

EU CCR4\_cont.: IRB approach – CCR exposures by retail sub-portfolio and PD scale

	PD scale	a EaD post	b <b>Average PD</b>	C Number of	d <b>Average LGD</b>	e <b>Averag</b>	f <b>RWAs</b>	g <b>RWA</b>
		<b>CRM</b> €m	0/0	obligors	%	maturity	€m	density
	0.00 to < 0.15	72	0.04	3,980	45.46	years	4	5.9%
	0.15 to < 0.25	8	0.19	550	46.26		1	16.5%
	0.25 to < 0.50	7	0.34	636	47.41		2	24.0%
_	0.50 to < 0.75	4	0.63	316	46.83		1	33.4%
Retail	0.75 to < 2.50	21	1.30	1,936	48.11		11	54.1%
~~	2.50 to < 10.00	5	3.38	490	50.69		3	58.7%
	10.00 to < 100.00	1	17.67	64	48.04		1	80.2%
	100.00 (Default)	0	100.00	14	46.76		0	18.7%
	Subtotal	117	0.67	4,032	47.03		23	20.0%
v	0.00 to < 0.15	0	0.00	0	0.00		0	0.0%
secured by mortgages	0.15 to < 0.25	0	0.00	0	0.00		0	0.0%
rtg.	0.25 to < 0.50	0	0.00	0	0.00		0	0.0%
mo Es	0.50 to < 0.75	0	0.00	0	0.00		0	0.0%
d by mo	0.75 to < 2.50	0	0.00	0	0.00		0	0.0%
red / :	2.50 to < 10.00	0	0.00	0	0.00		0	0.0%
	10.00 to < 100.00	0	0.00	0	0.00		0	0.0%
	100.00 (Default)	0	0.00	0	0.00		0	0.0%
•	Subtotal	0	0.00	0	0.00		0	0.0%
es	0.00 to < 0.15	0	0.00	0	0.00		0	0.0%
	0.15 to < 0.25	0	0.00	0	0.00		0	0.0%
ortc —— Es	0.25 to < 0.50	0	0.00	0	0.00		0	0.0%
secured by mortgages / non-SMEs	0.50 to < 0.75	0	0.00	0	0.00		0	0.0%
	0.75 to < 2.50	0	0.00	0	0.00		0	0.0%
n	2.50 to < 10.00	0	0.00	0	0.00		0	0.0%
	10.00 to < 100.00 100.00 (Default)	0	0.00	0	0.00		0	0.0%
	Subtotal	0	0.00	0	0.00		0	0.0%
	0.00 to < 0.15	0	0.00	0	0.00		0	0.0%
6	0.15 to < 0.25	0	0.00	0	0.00		0	0.0%
<u> </u>	0.25 to < 0.50	0	0.00	0	0.00		0	0.0%
evo —	0.50 to < 0.75	0	0.00	0	0.00		0	0.0%
	0.75 to < 2.50	0	0.00	0	0.00		0	0.0%
iji —	2.50 to < 10.00	0	0.00	0	0.00		0	0.0%
qualified revolving	10.00 to < 100.00	0	0.00	0	0.00		0	0.0%
	100.00 (Default)	0	0.00	0	0.00		0	0.0%
	Subtotal	0	0.00	0	0.00		0	0.0%
	0.00 to < 0.15	6	0.10	185	45.46		0	8.6%
	0.15 to < 0.25	5	0.19	237	46.94		1	15.0%
₩.	0.25 to < 0.50	6	0.36	279	47.67		1	22.7%
	0.50 to < 0.75	3	0.65	141	46.83		1	31.2%
other / SMEs	0.75 to < 2.50	7	1.30	377	48.17		3	42.6%
#	2.50 to < 10.00	5	3.94	236	50.69		3	58.3%
·	10.00 to < 100.00	1	17.67	64	48.04		1	80.2%
	100.00 (Default)	0	100.00	14	46.76		0	18.7%
	Subtotal	32	1.70	1,533	47.63		10	30.4%
	0.00 to < 0.15	66	0.04	1,805	46.52		4	5.7%
/Es	0.15 to < 0.25	2	0.20	38	46.26		0	20.1%
-S-	0.25 to < 0.50	2	0.34	39	47.41		0	28.7%
	0.50 to < 0.75	1 1 1 5	0.63	17	46.87		0	40.4%
	0.75 to < 2.50	15	1.41	591	48.11		9	59.2%
other / non-SMEs	2.50 to < 10.00	0	3.38	9	52.67		0	78.8%
0::	10.00 to < 100.00	0	0.00	0	0.00		0	0.0%
	100.00 (Default)	85	0.00				14	0.0% 16.1%
	Subtotal	85	0.29	2,499	46.81		14	16.19

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

Appendix 35

		a	b
	€m	Risk weighted assets (RWAs)	Capital requirements
1	RWAs as at the end of the previous reporting period	7,049.9	564.0
2	Asset size	277.6	22.2
3	Asset quality	-21.1	-1.7
4	Model updates	-10.6	-0.8
5	Methodology and policy	0.0	0.0
6	Acquisitions and disposals	0.0	0.0
7	Foreign exchange movements	-49.3	-3.9
8	Other	0.0	0.0
9	RWAs as at the end of the reporting period	7,246.4	579.7

Risk-oriented overall bank management

#### EU CCR3: Standardised approach – CCR exposures by regulatory portfolio and risk weight

	Exposure classes   €m					I	Risk weig	jht					Total	Of which
		0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Other		unrated
1	Central governments or central banks	1,042	0	0	0	0	0	0	0	0	0	0	1,042	1,007
2	Regional governments or local authorities	730	0	0	0	1	0	0	0	0	0	0	730	730
3	Public sector entities	2,449	0	0	0	90	0	0	0	2	0	0	2,540	2,539
4	Multilateral development banks	0	0	0	0	0	0	0	0	0	0	0	0	0
5	International organisations	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Institutions	4	1,431	142	0	28	120	0	0	12	0	0	1,737	1,499
7	Corporates	0	1,565	0	0	23	14	0	0	360	0	0	1,961	1,923
8	Retail	0	0	0	0	0	0	0	26	0	0	0	26	26
9	Durch Immobilien besichert	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Exposures in default	0	0	0	0	0	0	0	0	0	1	0	1	1
11	Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Institutions and corporates with a short-term credit assessment	0	0	0	0	4	131	0	0	20	0	0	154	0
14	Collective investment undertakings	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Equity exposure	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Other items	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Total	4,224	2,996	142	0	145	265	0	26	394	1	0	8,192	7,724

### Further information on counterparty credit risk

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

		a	b	С	d	е
	€m	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1	Derivatives	119,167	94,024	25,143	12,731	12,412
2	SFTs (securities financing transactions)	146,535	136,793	9,742	1,798	7,944
3	Cross-product netting	0	0	0	0	0
4	Total	265,702	230,817	34,885	14,529	20,355

#### EU CCR5-B: Composition of collateral for exposures to CCR

		а	b	С	d	е	f	
		Colla	nteral used in der	ivative transa	ctions	Collateral used in SFTs		
	€m		of collateral ceived		e of posted ateral	Fair value of collateral	Fair value of posted	
		Segregated	Unsegregated	Segregated	Unsegregate d	received	collateral	
1	Cash	226	13,513	0	17,886	1,015	4,220	
2	Sovereign Bonds	0	717	0	4,019	107	4,879	
3	Other Bonds	0	1,669	0	786	7	2,131	
4	Equities	0	0	0	0	909	5,260	
5	Other collateral	0	0	0	403	0	0	
6	Total	226	15,899	0	23,094	2,039	16,490	

#### EU CCR6: Credit derivatives exposures

		a	b	С
	€m	Credit derivati	ive hedges	Other credit
		Protection bought	Protection sold	derivatives
1	Notionals			
2	Single-name credit default swaps	3,089	2,191	11,672
3	Index credit default swaps	0	672	9,503
4	Total return swaps	0	10	1,289
5	Credit options	0	0	0
6	Other credit derivatives	0	0	0
7	Total notionals	3,089	2,873	22,464
8	Fair values			
9	Positive fair value (asset)	723	60	248
10	Negative fair value (liability)	28	666	321

## C. Market risk (MR)

Equity capital

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

Details on risk management in the market risk area, in particular on strategy and organisation, risk control and fungibility and valuation of financial instruments, are given in Commerzbank's Disclosure Report as at 31 December 2017. Also, the internal model (historical simulation) which Commerzbank uses to perform VaR and stress test calculations, is described here.

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

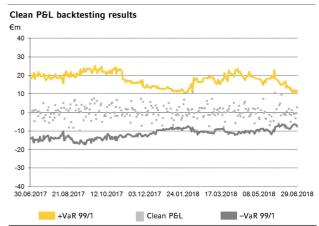
If the resulting loss exceeds the VaR, it is described as a negative backtesting outlier. Analysing the results of backtesting provides an informative basis for checking parameters and for improving the market risk model. In the period from 30 June 2017 to 30 June 2018 no negative clean P&L and no negative dirty P&L outliers were recognised.

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

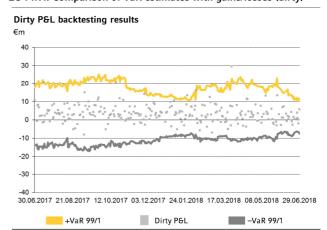
EU MR4: Comparison of VaR estimates with gains/losses (clean)

Specific risk management

C. Market risk (MR)



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



Futher information on the validation of the individual components of the internal model as well as on the further processing of the outcome in the respective committees are given in the Disclosure Report as at 31 December 2017.

# Quantitative information on market risks

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

smaller units in the Commerzbank Group in accordance with the partial use option.

#### Development of market risk assets in the standard approach

The standard approach is essentially used to include the market risk positions of investments/subsidiaries into the calculation of capital requirements. As at 30 June 2018, the standard approach accounts for 13% of total market risk assets. The risk-weighted assets for market risk positions in the standard approach increased by  $\$ 74m to  $\$ 1,041m in the first half-year of 2018.

EU MR1: Market risk under the standardised approach

		a	b
	€m	RWAs	Capital requirements
	Outright products		
1	Interest rate risk (general and specific)	345	28
2	Equity risk (general and specific)	0	0
3	Foreign exchange risk	675	54
4	Commodity risk	0	0
	Options		
5	Simplified approach	0	0
6	Delta-plus method	20	2
7	Scenario approach	0	0
8	Securitisations (specific risk)	0	0
9	Collective investment undertakings	2	0
10	Total	1,041	83

#### Market risk in the internal model approach

As at 30 June 2018, the internal model approach accounted for 87% of all market risk assets. The risk-weighted assets for market risk positions in the internal model approach increased by €99m to €7,037m in the second quarter of 2018. The following table EU MR2-B gives information on the drivers of the development in RWAs. The increase in line 2 (movement in risk levels) is driven by

a higher SVaR due to position changes in the Treasury area as well as in the Corporate Clients segment. The decrease in line 4 (methodology and policy) results from a reduction of the regulatory factor for the SVaR from 4 to 3.5, which is based on the ECB decision of 18 May 2018.

Specific risk management

C. Market risk (MR)

#### EU MR2-A: MR under the Internal Model Approach (IMA)

Equity capital

		a	b
	€m	RWAs	Capital requirements
1	VaR (higher of values a) and b))	1,358	109
a)	Previous day's VaR (Article 365(1) of the CRR (VaRt-1))		24
b)	Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR		109
2	sVaR (higher of values a) and b))	5,041	403
a)	Latest SVaR (Article 365(2) of the CRR (SVaRt-1))		109
b)	Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR)		403
3	IRC (higher of values a) and b))	637	51
a)	Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)		51
b)	Average of the IRC number over the preceding 12 weeks		51
4	Comprehensive risk measure (higher of values a), b) and c))	0	0
a)	Most recent risk number for the correlation trading portfolio (Article 377 of the CRR)		0
b)	Average of the risk number for the correlation trading portfolio over the preceding 12 weeks		0
c)	8% of the own funds requirement in the standardised approach on the most recent risk number for the correlation trading portfolio (Article 338(4) of the CRR)		0
5	Others	0	0
6	Total	7,037	563

#### EU MR2-B: RWA flow statements of market risk exposures under the Internal Model Approach (IMA)

		•			•••			
		a	b	С	d	e		f g
	€m	VaR	SVaR	IRC	Comprehensive risk measure	Others	Total RWAs	Total capital requirement
1	RWAs at previous quarter end	1,408	4,900	630	0	0	6,937	555
1a	Regulatory adjustment	0	0	0	0	0	0	0
1b	RWAs at previous quarter end (end of day)	1,408	4,900	630	0	0	6,937	555
2	Movement in risk levels	-49	862	7	0	0	820	66
3	Model updates/changes	0	0	0	0	0	0	0
4	Methodology and policy	0	-720	0	0	0	-720	-58
5	Acquisitions and disposals	0	0	0	0	0	0	0
6	Foreign exchange movements <sup>1</sup>	0	0	0	0	0	0	0
7	Others	0	0	0	0	0	0	0
8a	RWAs at the end of the reporting period (end of day)	1,358	5,041	637	0	0	7,037	563
8b	Regulatory adjustment	0	0	0	0	0	0	0
8	RWA at the end of the reporting period	1,358	5,041	637	0	0	7,037	563

 $<sup>^{1}\,\</sup>text{Changes of RWA which are due to foreign exchange movements are reported under "Movement in risk levels"}.$ 

#### Market risk in the trading book

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

The VaR (10 day 99%) fell from  $\leqslant$ 30m to  $\leqslant$ 24m over the first half-year of 2018. This is mainly due to low market volatilities and risk-oriented positioning. The ongoing downward trend is also apparent in the average and extreme values.

The market risk profile is diversified across all asset classes. The dominant asset classes are interest rate, foreign exchange and equity price risks. To a lesser extent, value at risk is also affected by credit spread, commodity and inflation risks.

The stressed VaR remained stable over the first half-year of 2018. As compared to 2017, the extreme values are to a lesser extend deviating from the average. The decrease in incremental risk charge is due to the sale of a Venezuela credit linked note and the corresponding hedges.

#### EU MR3: IMA values for trading portfolios

	<b>J</b> .	
	€m	а
	VaR (10 day 99%)	
1	Maximum value	38
2	Average value	30
3	Minimum value	20
4	Period end	24
	sVaR (10 day 99%)	
5	Maximum value	122
6	Average value	97
7	Minimum value	84
8	Period end	97
	IRC (99.9%)	
9	Maximum value	52
10	Average value	46
11	Minimum value	38
12	Period end	51
	Comprehensive risk capital charge (99.9%)	
13	Maximum value	-
14	Average value	-
15	Minimum value	-
16	Period end	-

# Appendix

#### **Supplement to equity structure (CAP1)**

Equity capital

Line	(B) Reference to article in the regulation (EU) Nr. 575/2013
1	26 (1), 27, 28, 29
1a	EBA list 26 (3)
1b	EBA list 26 (3)
2	26 (1) (c)
3	26 (1)
3a	26 (1) (f)
4	486 (2)
5	84
5a	26 (2)
6	
7	34, 105
8	36 (1) (b), 37
10	36 (1) (c), 38
11	33 (1) (a)
12	36 (1) (d), 40, 159
13	32 (1)
14	33 (1) (b)
15	36 (1) (e), 41
16	36 (1) (f), 42
17	36 (1) (g), 44
18	36 (1) (h), 43, 45, 46, 49 (2) & (3), 79
19	36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) - (3), 79
20a	36 (1) (k)
20b	36 (1) (k) (i), 89 - 91
20c	36 (1) (k) (ii), 243 (1) (b), 244 (1) (b), 258
20d	36 (1) (k) (iii), 379 (3)
21	36 (1) (c), 38, 48 (1) (a)
22	48 (1)
23	36 (1) (i), 48 (1) (b)
25	36 (1) (c), 38, 48 (1) (a)
25a	36 (1) (a)
25b	36 (1) (1)
27	36 (1) (j)
28	
29	
30	51, 52
31	
32	
33	
2.4	486 (3)
34	486 (3) 85, 86
35	
	85, 86

Line	(D) Defenses to estimate in the resulation (FII)
Line	(B) Reference to article in the regulation (EU) Nr. 575/2013
38	56 (b), 58
39	56 (c), 59, 60, 79
40	56 (d), 59, 79
42	56 (e)
43	
44	
45	
46	62, 63
47	486 (4)
48	87, 88
49	486 (4)
50	62 (c) & (d)
51	
52	63 (b) (i), 66 (a), 67
53	66 (b), 68
54	66 (c), 69, 70, 79
55	66 (d), 69, 79
57	
58	
59	
60	
61	92 (2) (a)
62	92 (2) (b)
63	92 (2) (c)
64	CRD 128, 129, 130, 131, 133
65	
66	
67	
67a	
68	CRD 128
72	36 (1) (h), 45, 46, 56 (c), 59, 60, 66 (c), 69, 70
73	36 (1) (i), 45, 48
75	36 (1) (c), 38, 48
76	62
77	62
78	62
79	62
80	484 (3), 486 (2) & (5)
81	484 (3), 486 (2) & (5)
82	484 (4), 486 (3) & (5)
83	484 (4), 486 (3) & (5)
84	484 (5), 486 (4) & (5)
85	484 (5), 486 (4) & (5)

Specific risk management

#### List of abbreviations

AMA	Advanced Measurement Approach	IFRS	International Financial Reporting Standards
AC	At Cost	IMA	Internal Model Approach
CCF	Credit Conversion Factor	IMM	Internal Model Method
CRD	Capital Requirements Directive	IRBA	Internal Ratings Based Approach
CRR	Capital Requirements Regulation	LECL	Lifetime Expected Credit Loss
CVA	Credit Value Adjustments	LGD	Loss Given Default
EaD	Exposure at Default	PD	Probability of Default
EBA	European Banking Authority	RWA	Risk Weighted Assets
EEPE	Effective Expected Positive Exposure	SACR	Standard Approach to Credit Risk
FVOCI	Fair Value through Other Comprehensive Income	SFT	Securities Financing Transaction
FVPL	Fair Value through Profit or Loss	SME	Small and medium-sized enterprises
IRC	Incremental Risk Charge	sVaR	stressed Value-at-Risk
IAS	International Accounting Standards	VaR	Value-at-Risk

#### Disclaimer

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

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

#### Commerzbank AG

Head Office Kaiserplatz Frankfurt am Main www.commerzbank.com

Postal address 60261 Frankfurt am Main Tel. +4969136-20 info@commerzbank.com

Investor Relations Tel. +49 69 136-21331 Fax +49 69 136-29492 ir@commerzbank.com