Deutsche Bank

Pillar 3 Report as of March 31, 2019

Content

Regulatory framework

Introduction

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

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

The regulatory framework became effective on January 1, 2014, subject to transitional rules. When referring to Deutsche Bank results according to transitional rules we use the term “CRR/CRD 4”. When referring to results according to full application of the final CRR/CRD 4 framework (without consideration of applicable transitional methodology) we use the term “CRR/CRD 4 fully loaded”.

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

Transitional arrangements are still applicable for Additional Tier 1 (AT1) and Tier 2 (T2) capital. Capital instruments that no longer qualify as AT1 or T2 capital under the CRR/CRD 4 fully loaded rules are subject to grandfathering rules during the transitional period and are being phased out from 2013 to 2022 with their recognition capped at 40 % in 2018, 30 % in 2019 and the cap decreasing by ten percentage points every year thereafter.

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

The CRR/CRD 4 framework further introduced new liquidity standards. The Liquidity Coverage Ratio (LCR) aims to measure a bank’s short-term resilience to a severe liquidity stress scenario during a stress period of 30 calendar days. Detailed rules for the calculation of the LCR are set out in the Commission Delegated Regulation 2015/61 adopted in October 2014. The LCR became a binding minimum requirement as of October 1, 2015 and is phased in progressively: the phase-in percentage reached 100 % in 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. Within the European Trilogue a revision of the Capital Requirement Regulation ("CRR") is proposed to implement the NSFR into EU legislation. A binding minimum ratio for the NSFR is expected but its date of application has not been finally defined.

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

ICAAP, ILAAP and SREP

The Internal Capital Adequacy Assessment Process ("ICAAP") as stipulated in Pillar 2 of Basel 3 requires banks to identify and assess risks, maintain sufficient capital to face these risks and apply appropriate risk management techniques to maintain adequate capitalization. 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 of CRD 4 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.

FSB TLAC and European MREL (SRMR/BRRD)

Banks in the European Union are 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").

Instruments which qualify for 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). MREL is expressed as a percentage of Total Liabilities and Own Funds ("TLOF").

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.

Within the European Trilogue a revision of the SRMR and the BRRD are proposed as well as amendments to the CRR. These amendments will implement the Total Loss Absorbing Capacity ("TLAC") standard in Europe for Global Systemically Important Institutions (G-SIIs) as internationally agreed in the Financial Stability Board ("FSB") and will make further adjustments to MREL.

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

			Mar 31, 2019		Dec 31, 2018	
			a1	b1	a2	b2
		in € m.	RWA	Minimum capital requirements	RWA	Minimum capital requirements
	1	Credit risk (excluding CCR)	171,405	13,712	165,445	13,236
		of which:				
Art 438(c)(d)	2	The standardized approach	19,586	1,567	18,315	1,465
Art 438(c)(d)	3	The foundation IRB (FIRB) approach	3,684	295	3,709	297
Art 438(c)(d)	4	The advanced IRB (AIRB) approach	141,362	11,309	136,192	10,895
Art 438(d)	5	Equity IRB under the simple risk-weighted approach or the IMA	6,773	542	7,229	578
Art 107 Art 438(c)(d)	6	Counterparty credit risk (CCR)	34,945	2,796	33,052	2,644
		of which:				
Art 438(c)(d)	7	Mark to market	4,522	362	3,912	313
Art 438(c)(d)	8	Original exposure	0	0	0	0
	9	The standardized approach	0	0	0	0
	9a	Financial collateral comprehensive method (for SFTs)	2,840	227	2,688	215
	10	Internal model method (IMM)	20,087	1,607	18,077	1,446
Art 438(c)(d)	11	Risk exposure amount for contributions to the default fund of a CCP	433	35	380	30
Art 438(c)(d)	12	Credit Valuation Adjustment (CVA)	7,063	565	7,997	640
Art 438(e)	13	Settlement risk	118	9	86	7
Art 449(o)(i)	14	Securitization exposures in the banking book (after the cap)	10,468	837	9,253	740
		of which:				
	15	IRB approach	8,860	709	8,041	643
		of which:				
	16	IRB supervisory formula approach (SFA)	5,167	413	6,059	485
	17	Internal assessment approach (IAA)	0	0	0	0
	18	Standardized approach	1,608	129	1,212	97
	19	Market risk	31,027	2,482	37,535	3,003
		of which:				
	20	Standardized approach	4,582	367	5,673	454
	21	IMA	26,445	2,116	31,862	2,549
Art 438(e)	22	Large exposures	0	0	0	0
Art 438(f)	23	Operational risk	85,633	6,851	91,989	7,359
		of which:				
	24	Basic indicator approach	0	0	0	0
	25	Standardized approach	0	0	0	0
	26	Advanced measurement approach	85,633	6,851	91,989	7,359
Art 437(2), 48,60	27	Amounts below the thresholds for deduction (subject to 250 % risk weight)	13,880	1,110	13,073	1,046
Art 500	28	Floor adjustment	0	0	0	0
	29	Total	**347,475**	**27,798**	350,432	28,035

Our fully-loaded RWA were € 347.5 billion as of March 31, 2019, compared to € 350.4 billion at the end of 2018. The decrease of € 3.0 billion was primarily driven by RWA for market and operational risk partly offset by increased RWA for credit risk. The market risk RWA reduction of € 6.5 billion primarily resulted from decreases in risk exposures within the incremental risk charge and stressed value-at-risk components. The operational risk RWA reduction of € 6.4 billion was primarily due to the model change of the expected loss deductible in alignment with recent regulatory requirements as well as a further reduction arising from favorable development of our internal loss profile and risk appetite metrics. The CVA RWA reduction of € 0.9 billion was driven by methodology-related changes and decreases in risk exposures. Credit risk RWA increased by € 10.8 billion as a result of business growth in CIB and PCB as well as the introduction of IFRS 16. Moreover, the credit risk RWA increase reflected parameter recalibrations, foreign exchange movements and higher RWA for deferred tax assets.

The movements of RWA for the specific risk types are discussed further down in this report for credit risk in section “Article 438 (d) CRR - Development of credit risk RWA” on page 5, for counterparty credit risk in section “Article 438 (d) CRR - Development of CCR RWA” on page 6 and for market risk in section “Article 455 (e) CRR - Regulatory capital requirements for market risk“ on page 7.

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

Quantitative information on the use of the IRB approach

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 the RWA by an 8 % capital ratio.

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

		Three months ended Mar 31, 2019		Three months ended Dec 31, 2018	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
1	Credit risk RWA opening balance	**139,901**	**11,192**	138,009	11,041
2	Book size	76	6	4,275	342
3	Book quality	(1,246)	(100)	(1,613)	(129)
4	Model updates	146	12	(63)	(5)
5	Methodology and policy	4,775	382	0	0
6	Acquisitions and disposals	0	0	(1,653)	(132)
7	Foreign exchange movements	1,395	112	945	76
8	Other	0	0	0	0
9	Credit risk RWA closing balance	**145,046**	**11,604**	139,901	11,192

Organic changes in our portfolio size and composition are considered in the category “Book size”. The category “Book quality” mainly represents the effects from portfolio rating migrations, loss given default, model parameter recalibrations as well as collateral coverage and netting activities. “Model updates” include model refinements and advanced model roll out. RWA movements resulting from externally, regulatory-driven changes, e.g. applying new regulations, are considered in the “Methodology and policy” section. “Acquisition and disposals” is reserved to show significant exposure movements which can be clearly assigned to new businesses or disposal-related activities. Changes that cannot be attributed to the above categories are reflected in the category “Other”.

The increase in RWA for credit risk exposures under the IRB approach by 3.7 % or € 5.1 billion since December 31, 2018 is primarily driven by the increase in the category “Methodology and policy” showing higher RWA from changed risk parameters due to updated regulatory requirements, including the introduction of IFRS 16, in addition to increased RWA due to foreign-exchange movements. This was partly offset by the category “Book quality”, which is related to several favorable risk parameter developments.

Counterparty credit risk (CCR)

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 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 the RWA by an 8 % capital ratio.

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

		Three months ended Mar 31, 2019		Three months ended Dec 31, 2018	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
1	Counterparty credit risk RWA under the IMM opening balance	**18,077**	**1,446**	18,714	1,497
2	Book size	2,043	164	(768)	(61)
3	Book quality	(31)	(3)	81	7
4	Model updates	0	0	0	0
5	Methodology and policy	(250)	(20)	0	0
6	Acquisitions and disposals	0	0	0	0
7	Foreign exchange movements	248	20	50	4
8	Other	0	0	0	0
9	Counterparty credit risk RWA under the IMM closing balance	**20,087**	**1,607**	18,077	1,446

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 increase in RWA for counterparty credit risk exposures under the IMM by 11.1 % or € 2.0 billion since December 31, 2018 is predominantly driven by the category “Book size” reflecting business growth mainly in CIB.

Market risk

Own funds requirements for market risk under the IMA

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

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 the RWA by an 8 % capital ratio.

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

		Three months ended Mar 31, 2019						
		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]	5,368	16,426	10,068	0	0	31,862	2,549
1a	Regulatory adjustment[2]	(3,898)	(12,091)	0	0	0	(15,988)	(1,279)
1b	RWA at the previous quarter-end (end of the day)[3]	1,470	4,336	10,068	0	0	15,874	1,270
2	Movement in risk levels	(581)	(754)	(3,104)	0	0	(4,439)	(355)
3	Model updates/changes	(27)	(432)	22	0	0	(437)	(35)
4	Methodology and policy	0	0	0	0	0	0	0
5	Acquisitions and disposals	0	0	0	0	0	0	0
6	Foreign exchange movements	0	0	0	0	0	0	0
6a	Market data changes and recalibrations	191	0	0	0	0	191	15
7	Other	0	0	0	0	0	0	0
8a	RWA at the end of the reporting period (end of the day)[3]	1,053	3,150	6,986	0	0	11,189	895
8b	Regulatory adjustment[2]	3,517	11,546	193	0	0	15,256	1,220
8	Market Risk RWA closing balance[1]	4,570	14,696	7,179	0	0	26,445	2,116

[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 Dec 31, 2018						
		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]	4,542	12,946	7,854	53	0	25,395	2,032
1a	Regulatory adjustment[2]	(3,483)	(9,989)	0	0	0	(13,471)	(1,078)
1b	RWA at the previous quarter-end (end of the day)[3]	1,059	2,957	7,854	53	0	11,924	954
2	Movement in risk levels	245	1,317	2,214	0	0	3,776	302
3	Model updates/changes	80	62	0	0	0	141	11
4	Methodology and policy	0	0	0	(53)	0	(53)	(4)
5	Acquisitions and disposals	0	0	0	0	0	0	0
6	Foreign exchange movements	0	0	0	0	0	0	0
6a	Market data changes and recalibrations	86	0	0	0	0	86	7
7	Other	0	0	0	0	0	0	0
8a	RWA at the end of the reporting period (end of the day)[3]	1,470	4,336	10,068	0	0	15,874	1,270
8b	Regulatory adjustment[2]	3,898	12,091	0	0	0	15,988	1,279
8	Market Risk RWA closing balance[1]	5,368	16,426	10,068	0	0	31,862	2,549

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

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

As of March 31, 2019 the RWA for market risk was € 31.0 billion. The IMA (Internal Models Approach) components of this totaled € 26.4 billion. The decrease in the IMA component since December 31, 2018 was driven by a decrease in risk levels coming from the incremental risk charge due to a reduction in sovereign exposure, and the value-at-risk and stressed value-at-risk components due to a decrease in interest rate risk.

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