Deutsche Bank

Pillar 3 Report as of March 31, 2020

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) 575/2013 on prudential requirements for credit institutions and investment firms” (Capital Requirements Regulation or “CRR”) and the “Directive (EU) 2013/36 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms” (Capital Requirements Directive or “CRD”) which have been further amended with subsequent Regulations and Directives. Germany implemented the CRD disclosure requirements into national law in Section 26a of the German Banking Act (“Kreditwesengesetz” or “KWG”). Further disclosure guidance has been provided by the European Banking Authority (“EBA”) in its “Final Report on the Guidelines on Disclosure Requirements under Part Eight of Regulation (EU) No 575/2013” (“EBA Guideline”, EBA/GL/2016/11, version 2*). The information provided in this Pillar 3 Report is unaudited.

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

Basel 3 and CRR/CRD

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

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

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

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

A further core element of the CRR/CRD framework is the development and maintenance of a high quality capital base which should primarily consist of Common Equity Tier 1 (CET 1). The CET 1 minimum capital requirement applicable to the Group is 4.5 % of risk-weighted assets. In addition to this minimum capital requirement, various capital buffer requirements were phased in starting 2016 and are fully effective from 2019 onwards.

Further capital components considered for regulatory purposes are Additional Tier 1 (AT1) and Tier 2 (T2) capital. However, for these certain transitional arrangements are still in place which were introduced by the CRR/CRD applicable until June 26, 2019. Capital instruments that no longer qualify as AT1 or T2 capital under these 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.

We present in this report certain figures based on our definition of own funds (applicable for Additional Tier 1 capital and Tier 2 capital and figures based thereon, including Tier 1 capital and Leverage Ratio) on a “fully loaded” basis. The term “fully loaded” is defined as excluding the transitional arrangements for own funds introduced by the CRR/CRD applicable until June 26, 2019. However, it reflects the latest transitional arrangements introduced by the amendments to the CRR/CRD applicable from June 27, 2019.

The CRR/CRD requires banks to calculate and disclose a regulatory leverage ratio that is generally based on the accounting value as the relevant exposure measure for assets. Specific regulatory exposure measures apply to derivatives and securities financing transactions as well as off-balance sheet exposures and must be added to determine the total leverage exposure. With effect from June 2021 the leverage exposure measure will be modified, e.g. the exposure measure for derivatives is determined based on a new standardized approach for counterparty credit risk and pending settlement receivables may be netted with pending settlement payables subject to further requirements, and a minimum leverage ratio requirement of 3 % is introduced. From January 1, 2022 an additional leverage ratio buffer requirement of 50 % of the applicable G-SIB buffer rate will apply. It is currently expected that this additional requirement will equal 0.75 %.

The CRR/CRD framework further defines liquidity standards. The Liquidity Coverage Ratio (LCR) aims to measure a bank's short-term resilience to a severe liquidity stress scenario during a stress period of 30 calendar days. Detailed rules for the calculation of the LCR are set out in the Commission Delegated Regulation 2015/61. The binding minimum liquidity coverage ratio is set to 100 % since 2018.

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

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

TLAC and European MREL (SRMR/BRRD)

The key change regarding the amendments to CRR that is applicable from June 27, 2019 relates to the introduction of a total loss-absorbing capacity ("TLAC") requirement which implements the internationally agreed TLAC standard as documented in the Financial Stability Board's (FSB) TLAC term sheet in Europe.

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

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

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

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

ICAAP, ILAAP and SREP

The Internal Capital Adequacy Assessment Process ("ICAAP") as stipulated in Pillar 2 of Basel 3 requires banks to identify and assess risks, maintain sufficient capital to face these risks and apply appropriate risk management techniques to maintain adequate capitalization. Our Internal Liquidity Adequacy Assessment Process ("ILAAP") aims to ensure that sufficient levels of liquidity are maintained on an ongoing basis by identifying the key liquidity and funding risks to which the Group is exposed, by monitoring and measuring these risks, and by maintaining tools and resources to manage and mitigate these risks.

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

Prudential measures for non-performing exposure

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

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

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

Regarding guidances and measures taken from EBA and ECB in view of COVID-19 pandemic which were applied in first quarter of 2020, please refer to Deutsche Bank’s Earnings Report as of March 31, 2020.

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, 2020		Dec 31, 2019	
			a1	b1	a2	b2
		in € m.	RWA	Minimum capital requirements	RWA	Minimum capital requirements
	1	Credit risk (excluding CCR)	181,289	14,503	172,515	13,801
		of which:				
Art 438(c)(d)	2	The standardized approach	15,694	1,256	16,278	1,302
Art 438(c)(d)	3	The foundation IRB (FIRB) approach	3,955	316	3,970	318
Art 438(c)(d)	4	The advanced IRB (AIRB) approach	153,935	12,315	145,143	11,611
Art 438(d)	5	Equity IRB under the simple risk-weighted approach or the IMA	7,704	616	7,124	570
Art 107 Art 438(c)(d)	6	Counterparty credit risk (CCR)	32,835	2,627	28,157	2,253
		of which:				
Art 438(c)(d)	7	Mark to market	4,533	363	4,402	352
Art 438(c)(d)	8	Original exposure	0	0	0	0
	9	The standardized approach	0	0	0	0
	9a	Financial collateral comprehensive method (for SFTs)	1,883	151	1,839	147
	10	Internal model method (IMM)	21,492	1,719	16,838	1,347
Art 438(c)(d)	11	Risk exposure amount for contributions to the default fund of a CCP	249	20	395	32
Art 438(c)(d)	12	Credit Valuation Adjustment (CVA)	4,678	374	4,683	375
Art 438(e)	13	Settlement risk	139	11	242	19
Art 449(o)(i)	14	Securitization exposures in the banking book (after the cap)	15,467	1,237	11,615	929
		of which:				
	15	IRB approach	11,879	950	8,881	710
		of which:				
	16	IRB supervisory formula approach (SFA)	466	37	4,270	342
	17	Internal assessment approach (IAA)	0	0	0	0
	18	Standardized approach	3,589	287	2,734	219
	19	Market risk	25,264	2,021	25,368	2,029
		of which:				
	20	Standardized approach	3,046	244	2,493	199
	21	IMA	22,218	1,777	22,875	1,830
Art 438(e)	22	Large exposures	0	0	0	0
Art 438(f)	23	Operational risk	72,202	5,776	72,662	5,813
		of which:				
	24	Basic indicator approach	0	0	0	0
	25	Standardized approach	0	0	0	0
	26	Advanced measurement approach	72,202	5,776	72,662	5,813
Art 437(2), 48,60	27	Amounts below the thresholds for deduction (subject to 250 % risk weight)	13,331	1,066	13,456	1,077
Art 500	28	Floor adjustment	0	0	0	0
	29	Total	**340,527**	**27,242**	324,015	25,921

Our RWA were € 340.5 billion as of March 31, 2020, compared to € 324.0 billion at the end of 2019. The increase of € 16.5 billion was primarily driven by credit risk RWA, which was partly offset by the other RWA risk types. Credit risk RWA increased by € 17.2 billion mainly due to the introduction of the new framework for securitization positions, increased client demand and market volatility on the back of the repercussion of the prevailing COVID-19 pandemic impact. The decrease of operational risk RWA by € 0.5 billion was driven by improvements in the forward looking risk component, in particular key risk indicator scores, as well as a lighter internal and external loss profile feeding into our capital model. The decreases in RWA for CVA and market risk were only minor over the quarter. The increase in market volatility in March 2020 led to a number of backtesting outliers that resulted in an increase in the quantitative component of the Market Risk RWA multiplier. However, following the ECB announcement on the temporary relief for capital requirements for market risk, dated April 16, 2020, this increase was offset by an equal reduction in the qualitative component of the RWA multiplier leading to no net impact.

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

Development of CCR RWA" on page 8 and for market risk in section "Article 455 (e) CRR - Regulatory capital requirements for market risk" on page 9.

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, 2020		Three months ended Dec 31, 2019	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
1	Credit risk RWA opening balance	**149,113**	**11,929**	150,838	12,067
2	Book size[1]	3,373	270	1,032	83
3	Book quality[1]	929	74	(1,186)	(95)
4	Model updates	162	13	(250)	(20)
5	Methodology and policy	4,503	360	0	0
6	Acquisitions and disposals	(162)	(13)	0	0
7	Foreign exchange movements	(28)	(2)	(1,321)	(106)
8	Other	0	0	0	0
9	Credit risk RWA closing balance	**157,890**	**12,631**	149,113	11,929

[1] Numbers for 2019 have been restated to account for a reallocation of exposures from the category 'Book size' to the category 'Book quality.

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 5.9 % or € 8.8 billion since December 31, 2019 is primarily driven by the increase in the categories "Methodology and policy" and "Book size". The increase in "Methodology and policy" is mainly related to the updates to the framework for securitization positions. "Book size" reflects business growth and increased client demand on the back of the COVID-19 pandemic impact. The category "Book quality" reflects the increase stemming from parameter developments, in particular rating changes.

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, 2020		Three months ended Dec 31, 2019	
		a	b	a	b
	in € m.	RWA	Capital requirements	RWA	Capital requirements
1	Counterparty credit risk RWA under the IMM opening balance	**16,838**	**1,347**	18,839	1,507
2	Book size[1]	4,009	321	(1,560)	(125)
3	Book quality[1]	(183)	(15)	40	3
4	Model updates	0	0	0	0
5	Methodology and policy	840	67	(257)	(21)
6	Acquisitions and disposals	0	0	0	0
7	Foreign exchange movements	(12)	(1)	(224)	(18)
8	Other	0	0	0	0
9	Counterparty credit risk RWA under the IMM closing balance	**21,492**	**1,719**	16,838	1,347

[1] Numbers for 2019 have been restated to account for a reallocation of exposures from the category 'Book size' to the category 'Book quality.

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

The RWA for counterparty credit risk exposures under the IMM increased by 27.6 % or € 4.7 billion since December 31, 2019 and was primarily driven by the increase in category "Book size" reflecting increased client demand and market volatility under the situation around the coronavirus. Additionally a parameter update to our internal model reflected in the category "Methodology and policy" drove the increase. This was partly offset by less RWA from the category "Book quality" stemming from favorable parameter developments.

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

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

		Three months ended Dec 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]	5,199	15,580	7,162	–	0	27,940	2,235
1a	Regulatory adjustment[2]	(3,898)	(11,696)	(1,553)	–	0	(17,147)	(1,372)
1b	RWA at the previous quarter-end (end of the day)[3]	1,300	3,884	5,609	–	0	10,793	863
2	Movement in risk levels	(203)	(566)	(1,349)	–	0	(2,118)	(169)
3	Model updates/changes	9	(1)	0	–	0	8	1
4	Methodology and policy	0	0	0	–	0	0	0
5	Acquisitions and disposals	0	0	0	–	0	0	0
6	Foreign exchange movements	0	0	0	–	0	0	0
6a	Market data changes and recalibrations	(171)	0	0	–	0	(171)	(14)
7	Other	0	0	0	–	0	0	0
8a	RWA at the end of the reporting period (end of the day)[3]	936	3,317	4,260	–	0	8,513	681
8b	Regulatory adjustment[2]	3,337	10,417	608	–	0	14,362	1,149
8	Market Risk RWA closing balance[1]	4,273	13,734	4,868	–	0	22,875	1,830

[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, 2020 the IMA (Internal Models Approach) components for market risk totaled € 22.2 billion, which was a decrease of € 0.7 billion since December 31, 2019 mainly driven by a reduction in the sixty day average stressed value-at-risk. Notably the value-at-risk at reporting period end was higher than the previous quarter due to a € 0.58 billion impact from changes in market data as market volatility increased following the global COVID-19 pandemic impact. However, the increase in volatility occurred in the latter few weeks of the quarter and as a result did not significantly impact the regulatory sixty day average value-at-risk which was materially unchanged compared to the previous quarter.

The increase in market volatility in March 2020 led to a number of backtesting outliers that resulted in an increase in the quantitative component of the Market Risk RWA multiplier. However, following the ECB announcement on the temporary relief for capital requirements for market risk, dated April 16, 2020, this increase was offset by an equal reduction in the qualitative component of the RWA multiplier leading to no net impact.

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