

**Deutsche Bank AG - India Branches**  
(Incorporated in Germany with limited liability)

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**1. Scope of application**

The BASEL III - Pillar 3 disclosures contained herein relate to Deutsche Bank AG, India Branches (herein also referred to as the 'Bank') for the period ended December 31, 2017. These are compiled in accordance with the Reserve Bank of India (the 'RBI') Master Circular – Basel III Capital regulation DBR.No.BP.BC.1/21.06.201/2015-16 dated July 1, 2015 and the amendments thereto issued from time to time.

As at December 31, 2017, the Bank is required to maintain minimum Common Equity Tier1 (CET1) capital ratio of 5.50%, Capital conservation buffer (CCB) of 1.25%, Global Systemically Important Banks buffer (GSIB) of 1.00%, minimum Tier-1 capital ratio of 7% and minimum total capital ratio including CCB and GSIB is 11.25%. The Bank has Overseas Foreign Currency Borrowings beyond the level of 50% of its unimpaired Tier I capital hence is required to maintain a Capital to Risk weight assets ratio (CRAR) of 12%.

The following table lists Bank's associates consolidated for preparation of the consolidated financial statements and their treatment in consolidated capital adequacy computations.

Name of the entity	Included under accounting scope of consolidation	Method of accounting consolidation	Included under regulatory scope of consolidation	Method of regulatory consolidation	Reasons for difference in the method of consolidation	Reasons for consolidation under one of the scope of consolidation
Comfund Consulting Limited	Yes	Consolidated as per AS 23	No	Not Applicable	Not Applicable	Not Applicable - Risk weighted for capital adequacy purposes

List of Group entities operating in India and considered for regulatory scope of consolidation is as under. The bank does not hold any investment in these group entities.

(In Rs '000)

Sr. No.	Name of entity	Principal activity of the entity	Total balance sheet equity *	Total balance sheet assets *
1	Deutsche India Holdings Private Limited (DIHPL)	Holding company	5,102,608	5,104,180
2	Deutsche Investments India Private Limited (DIPL)	Loans and advances / Portfolio management	8,963,400	20,984,200

\* Figures as per audited accounts of March 31, 2017

List of Group entities operating in India and not considered for consolidation both under accounting and regulatory scope of consolidation is as under. The bank does not hold any investment in these group entities.

(In Rs '000)

Sr. No.	Name of entity	Principal activity of the entity	Total balance sheet equity*	Total balance sheet assets*
1	Deutsche Asset Management (India) Private Limited	Asset management / Portfolio Management <sup>s</sup>	848,984	1,030,321
2	Deutsche Securities (India) Private Limited	Securities and debt trading and primary dealership <sup>#</sup>	779,708	849,655
3	Deutsche Equities India Private Limited	Stock broker / Merchant banking and advisory services	3,472,000	25,297,600
4	Deutsche Investor Services Private Limited	Fund accounting	282,434	411,538
5	RREEF India Advisors Private Limited	Sub advisory services <sup>#</sup>	220,766	221,543

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**Management disclosures under Pillar 3 – Period ended December 31, 2017**

(In Rs '000)

Sr. No.	Name of entity	Principal activity of the entity	Total balance sheet equity*	Total balance sheet assets*
6	Deutsche Trustee Services (India) Private Limited	Act as Trustees of all schemes launched by Deutsche Mutual funds#	70,308	73,820
7	Deutsche CIB Centre Private Limited	Global processing centre for Back office processing / support services for business lines.	4,295,700	5,290,500
8	DBOI Global Services Private Limited	Global processing centre for back office / IT enabled services	7,342,000	10,373,400

\* Figures as per audited accounts of March 31, 2017

# The members have passed a resolution for voluntary winding up

\$ Consequent upon the transfer of schemes of Deutsche Mutual Fund, the company does not carry on any operations

**2. Capital Structure**

**a. Summary information on the terms and conditions of the main features of all capital instruments**

CET1 and Tier I Capital primarily comprises of interest free capital received from the Head Office, balance in statutory reserves, capital reserves and remittable surplus retained for CRAR requirement.

Tier II Capital primarily comprises of Provision on Standard Assets, Floating Provision and excess provision on sale of NPA which are created in accordance with the extant RBI guidelines.

**b. Details of Capital Funds**

(In Rs.'000)

Particulars	31 December 2017	31 Mar 2017
Capital - Head Office Account	47,341,087	44,971,087
Statutory Reserve	24,415,584	24,415,584
Capital Reserve	360,607	360,607
Remittable Surplus Retained for CRAR requirement	36,547,133	29,311,662
Less: Intangible assets	(287,979)	(176,922)
<b>CET1 Capital / Tier I Capital</b>	<b>108,376,432</b>	<b>98,882,018</b>
Investment Reserve	288,873	288,873
Provision on Standard Assets	2,942,881	2,745,269
Provision on Country Risk	67,032	13,913
Floating Provision	712,260	712,260
Provision made on Sale of NPA	427,500	427,500
Countercyclical provisioning buffer	150,000	150,000
<b>Tier II Capital</b>	<b>4,588,546</b>	<b>4,337,815</b>
<b>Total Capital*</b>	<b>112,964,978</b>	<b>103,219,833</b>

\* Deutsche Bank AG, India Branches.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**3. Capital adequacy**

**a. Approach to assessing capital adequacy for current and future activities**

The Bank is committed to maintaining its sound capitalisation. Therefore, overall capital demand and supply are constantly monitored and adjusted as necessary in line with the strategic, business and capital plans drawn up annually by the Bank. It should be noted that Deutsche Bank operates as an integrated Group through its business divisions and infrastructure functions. The local Asset and Liability Committee (ALCO) for the Bank is the primary platform for providing strategic direction and follow through action relating to the management of the entity's financial resources. Specifically, the ALCO ensures adequate capitalisation to meet current and future business and regulatory requirements and sets limits for capital usage by business.

Stress testing and sensitivity analysis are used to assess the Bank's ability to sustain operations during periods of stress. They provide an insight into the potential impact of significant adverse events on the Bank's earnings, risk profile and capital position.

**b. Capital requirements for credit risk, market risk, operational risk, and Capital ratios per New Capital Adequacy framework**

The Bank is subject to the Basel III capital adequacy guidelines stipulated by RBI with effect from April 1, 2013. The guidelines provide a transition schedule for Basel III implementation till March 31, 2019.

Standalone capital ratio as per Basel III is 16.50%

(In Rs.'000)		
Particulars	31 December 2017	31 March 2017
<b>Capital requirement for credit risk<sup>#</sup> -</b> (Standardised Approach)		
- Portfolios subject to Standardised Approach	<b>62,633,400</b>	60,839,878
- Portfolios subject to securitisation exposures		-
<b>Capital requirement for market risk<sup>#</sup></b> (Standardised Duration Approach)		
- Interest rate risk	<b>3,173,626</b>	4,767,143
- Foreign exchange risk (including gold)	<b>2,948,906</b>	2,474,297
- Equity risk	<b>230,317</b>	126,330
<b>Capital requirement for operational risk<sup>#</sup></b> (Basic Indicator approach)	<b>8,039,585</b>	7,299,169
<b>Total</b>	<b>77,025,834</b>	75,506,817
<b>Deutsche Bank AG, India Branches</b>		
<b>CET1 Capital / Tier I Capital adequacy ratio</b>	<b>15.83%</b>	14.73%
<b>Total Capital adequacy ratio</b>	<b>16.50%</b>	15.38%
<b>Consolidated Bank</b>		
<b>CET1 Capital / Tier I Capital adequacy ratio</b>	<b>17.04%</b>	15.97%
<b>Total Capital adequacy ratio</b>	<b>17.70%</b>	16.60%

<sup>#</sup> Capital requirement is arrived at after multiplying the risk weighted assets by 11.25%

## Management disclosures under Pillar 3 – Period ended December 31, 2017

### 4. Risk Exposure & Assessment

#### Risk Governance

The risk governance framework at DB is designed according to a three lines of defence (3LoD) operating model in order to ensure clear accountabilities for and a comprehensive, but non-duplicative, coverage of all risk management activities across DB.

DB requires strict independence between its 3 LoD in order to avoid conflicts of interest by an appropriate separation of functions and responsibilities. DB requires all lines of defence to establish an effective and efficient internal governance structure with well-defined roles and responsibilities

The Supervisory Board exercises strategic control and supervision of DB Group. It monitors DB's risk and capital profile regularly via its designated subcommittee, the Risk Committee. The chair of the Risk Committee reports on items discussed during the Risk Committee's meetings to the Supervisory Board.

The Management Board (MB) provides overall risk & capital management supervision for the Group and is responsible for day to day management of the company with the objective of creating sustainable value in the interest of its shareholders, employees, regulators and other stakeholders. The MB is responsible for defining and implementing comprehensive and aligned business and risk strategies, as well as ensuring well-defined risk management functions and operating processes are in place to ensure that DB's overall performance is aligned to its business and risk strategy. The MB is collectively accountable for DB's risk exposure.

The Group Risk Committee (GRC) established by the MB is the central forum for review and decision on all material risk topics. Sub-committees are established to cover the different risk types. The GRC is chaired by the Chief Risk Officer (CRO) and covers the following tasks and duties:

- Review inventory of risks and decide on materiality classification
- Review and recommend DB Group Risk Management Principles to the MB for approval
- Support the MB during group-wide Risk & Capital Planning process and recommend risk appetite parameters to the MB, review risk appetite per material risk type, set risk appetite targets and establish a sanctioning system for excesses
- Review Group-wide Stress Testing results and discuss/recommend actions as required
- Advise the MB on recovery measures in times of crisis and oversee their execution as decided by the MB and decide upon mitigating actions to be taken during periods of anticipated or actual stress. Recommend the Group Risk Appetite Statement to the MB
- Recommend the Group Recovery Plan and the Contingency Funding Plan to the MB for approval and support the authorities in executing the Group resolution plan and coordinate internally
- Review high-level risk portfolios & risk exposure developments as well as overall risk level vs. recovery triggers
- Monitor the development of Risk Culture across DB Group

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**Role of the CRO**

The CRO is responsible for the entirety of the Bank's risk exposure as well as for the organisation of its Risk function to ensure central oversight, the alignment of Risk's responsibility with its administrative setup and a single point of entry for regulators and the Supervisory Board. The CRO is a member of the MB and has group-wide, supra-divisional responsibility for the management of all credit, market and operational risks as well as, comprehensively, i.e. including liquidity risk, for the control of risk and the continuing development of methods for the risk measurement. In addition, the CRO is responsible for monitoring, analysing and reporting risk on a comprehensive basis, including asset and liability gaps, capital, liquidity, legal, compliance and regulatory risks. The CRO is also responsible for ensuring that appropriate Risk Culture frameworks and standards are set for the Group, to which every DB employee must adhere.

In India, a Risk Management Council (RMC) has been established to oversee credit risk, market risk and operational risk related matters for DB India, to provide a platform for integrated risk management in line with local Regulatory requirements and DB Group's 3 lines of defense.

**Specific Banking Risks:**

**Credit risk**

Credit risk arises from all transactions where actual, contingent or potential claims against any counterparty, borrower or obligor (referred collectively as "counterparties") exist, including those claims that the Bank plans to distribute.

The Bank understands the below dimensions as key drivers for credit risk:

- Counterparty risk arises Risk that counterparties fail to meet contractual obligations.
- Country risk is Risk that the Bank may suffer a loss due to possible deterioration of economic conditions; political and social upheaval; nationalisation and expropriation of assets; government repudiation of external indebtedness; exchange controls or currency depreciation or devaluation in any given country.
- Industry risk is Risk of adverse developments in the operating environment for a specific industry segment leading to a deterioration in the financial profile of counterparties operating in that segment and resulting in increased CR across this portfolio of counterparties.
- Product risk is Risk driven by the underlying structure and economic dependencies of the product in question and can include factors such as tenor, recovery expectations and likelihood of having an exposure at the time of a default. Also includes 'settlement risk' arising from the non-simultaneous transfer of cash or securities due to the settlement or clearance of trades.

Our risk assessment also covers concentrations in our credit risk portfolio across the above mentioned dimensions.

**Market risk**

Market risk arises from the uncertainty concerning changes in market prices and rates (including interest rates, equity prices, foreign exchange rates and commodity prices), the correlations among them and their levels of volatility.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**Operational risk**

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. It includes legal risk but excludes business and reputational risk.

**Liquidity risk**

Liquidity risk is the risk arising from our potential inability to meet all payment obligations when they come due or only being able to meet these obligations at excessive costs.

**Other risks**

Other risks such as Reputational Risk, Business Risk including Strategic Risk also consider at Local/Group Level.

**Risk Management Tools**

The Bank uses a comprehensive range of quantitative and qualitative methodologies for assessing and managing risks. As a matter of policy, the Group continually assesses the appropriateness and the reliability of its quantitative tools and metrics in light of the Group's changing risk environment. Some of these tools may be common to a number of risk categories, while others are tailored to the particular features of specific risk categories.

**4.1 Credit risk**

**a. Credit Risk Management Organisation and structure**

DB India has established a Risk Management Council (RMC) by the Executive Committee (EXCO). The Risk Management Council is mandated to oversee credit risk, market risk and operational risk related matters. The committee comprise of Chief Risk Officer (CRO)/ Chief Operating Officer, Head-CRM CIB, Head-MRM, Head-CRM PWM, Head-CRM PCC, Head-Operational Risk, Head-Compliance, Chief Financial Officer, ICAAP coordinator, Treasurer, Head-Legal and Head-IRRM.

**b. CRM CIB**

**(i) Credit Risk policies and procedures**

All business requests that involve credit risk need to be presented to CRM for its approval. Loan policy is updated annually and is also approved by the Risk Management Council. CRM uses its global ratings model for all risks and every counterpart is internally rated. CRM CIB has a policy of annual reviews of all risk limits. This policy is strictly followed and any overdue reviews are regularly monitored and explained. The annual review is a comprehensive exercise which covers the Industry scenario, key business drivers, key risk factors, business and financial risk (including forex risk), management quality and transparency and a peer analysis along with downside scenarios in projections.

CRM CIB in India has significant delegation of approval authority, to enable timely credit decisions, based on an understanding of local market conditions. In line with the global policy, CRM takes decisions in India on the 4 eyes principle.

In the event the credit authority of the local CRM team is not equipped to take a decision on complex / structured products, large ticket transactions, etc, the local CRM team forwards its recommendation on the request to senior CRM officers in APAC or globally, for the final decision, depending on the defined delegated authority.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

CRM globally operates on the “Batch Strategy” concept, where each Industry / sector is reviewed globally in detail for risk drivers, along with an analysis of DB’s exposures in that sector globally – exposure amounts, counterparty ratings, products, risk profile, etc. This system enables DB to quantitatively focus on its global exposures in different Industries / sectors, as well as the credit ratings / facility ratings of the exposures within those sectors.

The Bank globally subjects all risk types covered under its Economic Capital (EC) concept and liquidity risk to regular stress tests. The Bank’s stress tests consider macroeconomic, business related and quantitative aspects to derive implications for its risk profile.

Risk limits and exposures on lower rated counterparties are intensively monitored. There is a quarterly CRM exercise to discuss all watch-list names. Deutsche Bank in India follows all the exposure norms and provisioning requirements as laid down by the RBI in its master circulars.

Within the CRM CIB portfolio, concentration risk monitoring and mitigation plays an important role. CRM has guidelines in terms of maximum exposures on counterparties at different rating levels, with different levels of market access and in different categories of country risk.

The Bank globally has a separate and independent Asset Quality Review function, which periodically reviews the quality of portfolios globally after intensive review and discussions with the local CRM teams. Based on these reviews, counterparty ratings may be adjusted and inconsistencies resolved, using local / global peer analysis as an effective tool. The timeliness of annual reviews as well as quality of the reviews are also looked into and corrective measures stipulated.

The credit risk assessment of exposures that are off-balance sheet are subject to the same vigorous scrutiny and approval process, as is followed for the balance sheet exposures. There is no differentiation between balance sheet and off-balance sheet exposures in the Bank’s risk assessment and monitoring standards.

**(ii) Credit risk on trading instruments**

CRM CIB has global systems in place to monitor the Mark to Market risk on all foreign currency and rates derivative transactions undertaken by the clients. DB uses the Potential Future Exposure at 95% confidence levels as the basis to determine the limit requirements for such products.

Internally, the Bank manages credit risk on all trading instruments by reference to three measures:

- Current Credit Exposure (“CCE”), which is the current value of any contract, at current market rates, as shown in the Bank’s records. CCE will be reported net of enforceable collateral, and may be aggregated to reflect enforceable netting arrangements
- Potential Future Exposure (“PFE”), which is an estimate of the Current Credit Exposure that trading instruments could potentially assume in the future
- Stress Testing, which reflects the short term sensitivity of the portfolio CCE to market parameters.

To reduce derivatives-related credit risk, the Bank regularly seeks the execution of master agreements (such as the International Swap Dealers Association contract) with clients. A master agreement allows the offsetting of the obligations arising under all of the derivatives contracts that the agreement covers upon the counterparty’s default, resulting in one single net claim against the counterparty (called “close-out netting”).

For credit exposure measurement purposes, as the replacement values of the portfolios fluctuate with movements in market rates and with changes in the transactions in the portfolios, the Bank also estimates the potential future replacement costs of the portfolios over their lifetimes. This is based on the Current Exposure method as per RBI master circular on Exposure norms.

## Deutsche Bank AG - India Branches

(Incorporated in Germany with limited liability)

### Management disclosures under Pillar 3 – Period ended December 31, 2017

#### (iii) Credit rating policy

The Bank's rating system uses a granular, transparent 21 grade rating scale, which is in compliance with the Internal Ratings Based approach in Basel III. The credit ratings are the core element of the Bank's risk management framework and determine the –

- Level of authority required for approval
- The SEC classification (performing / non performing) and FED classification (Special Mention, Sub standard, Doubtful, Loss)

The accuracy and consistency of ratings are ensured through Front End Management, Portfolio Reviews including independent Asset Quality Reviews and validation by Risk Analytics and Instruments.

Each and every facility in the banking book is rated based on the internal rating model of DB. For each counterparty, the Credit Risk management assigns a Counterparty Probability of Default ('CPD') and for each facility, a Facility Probability of Default ('FPD') is assigned, along with the Loss Given Default ('LGD') and Country of Risk.

The Bank's ratings scale closely mirrors the scales used by key global rating agencies such as S & P and Moody's.

#### (iv) Definition and classification of past due and impaired (NPAs)

Loans and Advances are classified into performing and non-performing loans in accordance with the extant RBI guidelines.

Past due advances understood to mean Non Performing Advances are identified by periodic appraisals of the portfolio by the management and appropriate provisions are made which meets the prudential accounting norms prescribed by the RBI for asset classification, income recognition and provisioning after considering subsequent recoveries.

#### c. CRM PCC - Credit risk policies and procedures

CRM PCC India manages the credit risk of Retail Banking portfolio in India. All lending product launched within PCC are approved by CRM PCC before the launch. Credit Risk policies are clearly documented through Product Program for each product.

The scope of India Credit Policy covers the credit process for the PCC unit in India and details the following.

- Credit principles
- Generic credit process
- Credit authority guidelines
- Loan Loss Allowance / Write off guidelines

The precise nature of the credit assessment, decision and monitoring process depends primarily on the type of product, exposure and the existence and quality of collateral.

The credit decision on a loan request involves rule based risk assessment which takes into account the following:

- Customer information given in the application form (general customer data / financial information)
- Information on the borrower's behaviour (external data/account movements, where available)
- Specific information of the application itself (credit volume / collateral)



**Management disclosures under Pillar 3 – Period ended December 31, 2017**

When deciding on a loan request, all required information and documents are considered. The credit officer assesses the profile of the applicant and ability to repay the loan based on various reports available, viz. verification, bureau and policy results etc. as part of the loan file. The portfolio is reviewed at periodic intervals and analysis is made to understand the behaviour of the portfolio in terms of repayment, delinquency, transactions etc.

**d. CRM WM**

Credit in WM is governed by the BRM Wealth Management (WM) – Credit Policy and Process Guide. Other related policies governing the credit linked business in WM are the Principles for Managing Credit Risk–DB Group, the India Credit policy and local regulations.

The above credit policy framework details the following:

- Credit principles
- Credit Risk Management process (including initial due diligence, credit reports, rating models used, annual rating review process, credit approval process, credit review process)
- Credit Rating and Credit Limit guidelines (including the relevant rating model to be applied, one-obligor principle)
- Credit Authority guidelines (including delegation of credit authority, approvals under ‘4-eye’)
- Credit Risk Mitigation and Monitoring of risk positions (including collateral monitoring and credit limit excess monitoring)
- Management of distressed exposures (covering watch-list and workout accounts)
- Risk Tools (including credit systems, stress testing)

**e. Total Gross Credit exposures**

(In Rs.'000)		
Category	31 December 2017	31 March 2017
Bills purchased and discounted	<b>86,552,117</b>	80,257,321
Cash credits, overdrafts and loans repayable on demand	<b>170,216,766</b>	166,227,837
Term loans	<b>127,949,666</b>	111,097,368
Inter Bank	<b>49,611,250</b>	21,550,153
Bonds	<b>851,027</b>	834,689
<b>Total Fund-based Exposures</b>	<b>435,180,826</b>	379,967,368
Guarantees given on behalf of customers	<b>128,784,546</b>	155,496,681
Acceptances, endorsements and other obligations	<b>69,989,830</b>	47,759,098
Derivative exposures	<b>272,683,716</b>	260,799,270
Undrawn Commitment and others	<b>79,923,703</b>	74,696,246
<b>Total Non-fund based Exposures</b>	<b>551,381,795</b>	538,751,295

Exposure for the purposes of tables in this section reflect actual notional, except for derivative exposures which is based on the current exposure method prescribed by RBI vide its master circular on Exposure norms.

The Bank renders its services within one geographical segment and has no offices outside India.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**f. Industry Type distribution of exposures (period ended 31 December 2017)**

(In Rs.'000)

Sector ID	Sector Name	Funded	Non Funded	Total	Percentage of Total
1	Mining & Quarrying	205,074	150,000	355,074	0.04%
2	Food Processing	3,713,364	1,647,511	5,360,875	0.54%
3	Beverages	6,601,481	9,819,155	16,420,636	1.66%
4	Textile	7,032,376	537,589	7,569,965	0.77%
5	Leather & Leather Products	576,331	18,079	594,410	0.06%
6	Wood and Wood products	689,490	89,319	778,809	0.08%
7	Paper and paper Products	1,934,246	88,414	2,022,660	0.21%
8	Petroleum, Coal Products and Nuclear Fuels	11,441,775	5,497,517	16,939,292	1.72%
9	Chemical and chemical products	13,354,841	9,334,796	22,689,637	2.30%
10	Rubber Plastic and their products	3,415,135	930,210	4,345,345	0.44%
11	Glass & Glassware	577,859	259,769	837,628	0.08%
12	Cement and Cement Products	819,261	909,819	1,729,080	0.18%
13	Basic Metal and Metal Products	24,998,331	21,184,777	46,183,108	4.68%
14	All Engineering	36,504,353	53,028,723	89,533,076	9.08%
15	Vehicles, Vehicle Parts and Transport Equipments	17,904,044	22,801,197	40,705,241	4.13%
16	Gems and Jewellery	1,774,813	45,100	1,819,913	0.18%
17	Construction	1,332,546	338,789	1,671,335	0.17%
18	Infrastructure	27,584,529	32,497,673	60,082,202	6.09%
19	Other Industries	56,478,851	3,823,498	57,787,961	6.11%
20	Residuary Other Advances	218,242,126	388,379,860	606,621,987	61.48%
Total		435,180,826	551,381,795	986,562,621	100.00%

**Industry Type distribution of exposures (financial year ended 31 March 2017)**

(In Rs.'000)

Sector ID	Sector Name	Funded	Non Funded	Total	Percentage of Total
1	Mining & Quarrying	266,981	124,350	391,331	0.04%
2	Food Processing	3,432,261	2,480,307	5,912,568	0.64%
3	Beverages	2,464,041	9,785,678	12,249,719	1.33%
4	Textile	4,163,890	220,577	4,384,467	0.48%
5	Leather & Leather Products	442,633	39,384	482,017	0.05%
6	Wood and Wood products	396,318	72,792	469,110	0.05%
7	Paper and paper Products	2,267,319	34,882	2,302,201	0.25%
8	Petroleum, Coal Products and Nuclear Fuels	17,393,619	3,805,018	21,198,637	2.31%
9	Chemical and chemical products	20,931,614	9,275,290	30,206,904	3.29%
10	Rubber Plastic and their products	2,585,860	931,095	3,516,955	0.38%
11	Glass & Glassware	534,230	250,585	784,815	0.09%
12	Cement and Cement Products	973,526	405,252	1,378,778	0.15%
13	Basic Metal and Metal Products	31,940,496	7,255,033	39,195,529	4.27%
14	All Engineering	30,425,572	52,257,708	82,683,280	9.00%
15	Vehicles, Vehicle Parts and Transport Equipments	14,407,669	21,558,064	35,965,733	3.91%
16	Gems and Jewellery	370,959	67,846	438,805	0.05%
17	Construction	955,751	408,836	1,364,587	0.15%
18	Infrastructure	19,010,671	43,114,797	62,125,468	6.76%
19	Other Industries	26,529,140	3,158,915	29,688,055	3.23%
20	Residuary Other Advances	200,474,818	383,504,886	583,979,704	63.57%
Total		379,967,368	538,751,295	918,718,663	100.00%

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**g. Residual contractual maturity breaks down of Total Assets**

(In Rs'000)

Maturity buckets	31 December 2017
Day - 1	168,081,330
2-7 Days	80,566,194
8-14 Days	25,765,102
15-30 Days	56,161,952
31 Days to 2 months	36,968,014
Over 2 Months to 3 months	27,414,836
Over 3 Months to 6 months	49,789,353
Over 6 Months to 12 months	24,765,708
Over 1 Year to 3 years	127,628,986
Over 3 Years to 5 years	35,748,976
Over 5 years	204,938,093
<b>Total</b>	<b>837,828,544</b>

(In Rs'000)

Maturity buckets	31-Mar-17
Day - 1	92,143,293
2-7 Days	101,093,718
8-14 Days	34,444,386
15-30 Days	43,681,359
31 Days to 2 months	31,061,416
Over 2 Months to 3 months	35,400,230
Over 3 Months to 6 months	36,851,515
Over 6 Months to 12 months	35,324,166
Over 1 Year to 3 years	119,596,983
Over 3 Years to 5 years	26,434,177
Over 5 years	204,653,825
<b>Total</b>	<b>760,685,068</b>

**h. Amount of Non Performing Assets**

(In Rs'000)  
31 December 2017

NPA Classification	Gross NPAs	Net NPAs
Substandard	2,535,096	2,117,554
Doubtful	7,269,000	891,710
- Doubtful 1	1,853,891	689,670
- Doubtful 2	5,164,561	202,040
- Doubtful 3	250,548	0
Loss	373,989	0
<b>Total</b>	<b>10,178,085</b>	<b>3,009,264</b>
<b>NPA Ratio</b>	<b>2.65%</b>	<b>0.80%</b>

(In Rs'000)  
31 March 2017

NPA Classification	Gross NPAs	Net NPAs
Substandard	3,599,321	2,681,115
Doubtful		
- Doubtful 1	5,541,332	480,790
- Doubtful 2	205,901	114,981
- Doubtful 3	227,184	-
Loss	373,990	-
<b>Total</b>	<b>9,947,728</b>	<b>3,276,886</b>
<b>NPA Ratio</b>	<b>2.78%</b>	<b>0.93%</b>

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**i. Movement in NPAs**

	(In Rs'000)	
	31 December 2017	31 March 2017
<b>Movement in NPAs (funded)</b>		
<b>(i)</b> Net NPAs to Net Advance (%)	<b>0.80%</b>	0.93%
<b>(ii)</b> Movement of Gross NPAs		
a) Opening balance	<b>9,947,728</b>	1,991,244
b) Additions during the year	<b>2,963,925</b>	9,686,485
c) Reductions during the year	<b>(2,733,568)</b>	(1,730,001)
d) Closing Balance	<b>10,178,085</b>	9,947,728
<b>(iii)</b> Movement of Net NPAs		
a) Opening balance	<b>3,276,886</b>	1,104,723
b) Additions during the year	<b>1,744,250</b>	3,533,494
c) Reductions during the year	<b>(2,011,872)</b>	(1,361,331)
d) Closing Balance	<b>3,009,264</b>	3,276,886
<b>(iv)</b> Movement of Provisions for NPAs		
a) Opening balance	<b>6,670,842</b>	886,521
b) Provisions made during the year	<b>1,219,675</b>	6,152,991
c) Write off/write back of excess provisions during the year	<b>(721,696)</b>	(368,670)
d) Closing Balance	<b>7,168,821</b>	6,670,842

**j. Amount of NPIs**

	(In Rs'000)	
Particulars	31 December 2017	31 March 2017
Closing balance for the period	<b>66,000</b>	66,000
Total provisions held	<b>3,000</b>	3,184
<b>Net book Value</b>	<b>63,000</b>	62,816

**k. Movement in Provision for Depreciation on Investments**

	(In Rs'000)	
Provisions for depreciation on investments*	31 December 2017	31 March 2017
Opening balance	<b>428,040</b>	381,389
Add: Provisions made during the period / year	<b>255,475</b>	46,651
Less: Write-off/write back of excess provisions during the period		-
<b>Closing balance</b>	<b>683,515</b>	428,040

\*Includes provision on Non Performing Investments.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**4.2 Credit risk – Portfolios subject to Local Standardised Approach**

**a. Credit rating agencies**

The Bank uses short-term and long-term instrument/bank facilities' ratings from CARE, CRISIL, ICRA and India Ratings and Research Private Limited (Fitch) to assign risk weights in terms of RBI guidelines.

In respect of claims on non-resident corporate and foreign banks, ratings assigned by international rating agencies such as Standard & Poor's, Moody's and Fitch are used. The Bank uses credit ratings that are publicly available for assigning risk weights.

In accordance with the guidelines of RBI, the bank classifies all cash credit exposures and assets which have a contractual maturity of more than one year as long term exposures and accordingly the solicited long term ratings accorded by the chosen credit rating agencies are assigned.

The Bank uses issuer and issue ratings for both fund as well as non fund based exposures. The Bank has used the solicited ratings assigned by the above approved credit rating agencies for all eligible exposures, both on balance sheet and off balance sheet, whether short term or long term, in the manner permitted in the RBI guidelines. The Bank does not have an assigned ratings agency for a given type of claim.

**b. Outstanding amounts**

Bucket wise break up of exposure amounts subject to the standardised approach is as under

Exposure Category	(In Rs'000)	
	31 December 2017	31 March 2017
Under 100% risk weight	<b>181,404,438</b>	128,041,326
100% risk weight	<b>239,766,239</b>	229,390,028
Above 100% risk weight	<b>14,010,149</b>	22,536,014
<b>Total Fund-based Exposures</b>	<b>435,180,826</b>	379,967,368
Under 100% risk weight	<b>360,278,630</b>	344,280,261
100% risk weight	<b>171,708,140</b>	152,719,317
Above 100% risk weight	<b>19,395,025</b>	41,751,717
<b>Total Non Fund-based Exposures</b>	<b>551,381,795</b>	538,751,295

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**4.3 Credit risk mitigation policy**

**a. Collateral valuation and management**

As stipulated by the RBI guidelines, the Bank uses the Comprehensive Approach for collateral valuation. Under this approach, the Bank reduces its credit exposure to counterparty when calculating its capital requirements to the extent of risk mitigation provided by the eligible financial collateral.

**b. Types of collaterals taken by the Bank and main types of guarantor counterparties and Credit risk concentration within mitigation**

Collateral Risk Management is undertaken through the mechanism of the Facility Probability of Default (FPD) assignment.

If there is no liquid collateral and no guarantor mitigating the credit risk, then the FPD will be the same as the Counterparty Probability of Default (CPD).

If the facility risk can be shifted to the guarantor, the guarantor CPD becomes the FPD. In cases of received guarantees from un-correlated third parties, covering a Separate primary DB exposure, where for the Bank to incur a loss there needs to be a default by both the primary obligor as well as the guarantor, the Joint Default Probability ('JDP') applies. The Bank has in place a matrix indicating this JDP for the entire scale of primary obligor and guarantor CPDs.

The Bank accepts security in the form of charge on receivables / inventories for working capital facilities, charge on fixed assets in certain cases, besides guarantees for various obligations by the primary obligor and property collateral for mortgage loans to retail banking clients. The guarantees could be received from the local holding company of the obligor, or a stronger company within the same group or from the MNC parent of the local subsidiary. In certain cases, facilities to obligors may be supported by partial / full insurance protection purchased. Hence, since there are varied sources of credit protection acquired through different guarantors, there is no concentration of guarantor risk.

The Bank records the Joint Obligor Risk Limit on the various guarantors, which ensures that the amounts of guarantees received from various sources are monitored for risk management purposes, e.g. the amount of insurance protection acquired from different insurance companies. The facility ratings for Joint Obligor Risk Limits are determined in accordance with the matrix in the Credit Ratings Policy of the Bank. This matrix captures the counterparty Probability of Default of the obligor as well as that of the guarantor, in determining the JPD.

**c. Exposure covered by eligible financial collateral:**

Exposures covered by financial collateral	(In Rs'000)	
	31 December 2017	31 March 2017
Exposures before Credit Risk Mitigation Technique	<b>124,640,707</b>	105,589,143
Exposures after Credit Risk Mitigation Technique (after application of haircut on collateral)	<b>11,880,289</b>	9,250,246

**d. Securitisation Exposure**

The Bank did not have any securitisation transactions outstanding as the end of the previous year nor were any new securitization transactions entered into current financial year and hence no disclosures are being made.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**4.4 Market risk in trading book**

**a. Market risk management framework**

The Bank uses a combination of risk sensitivities, Value-at-Risk and stress testing metrics to manage market risks and establish limits. Value-at-Risk is a common metric used in the management of trading market risks.

The MB and Group Risk Committee, supported by Group Market Risk Management, which is part of the independent risk management function, set a Group-wide Value-at-Risk limit for the market risks in the trading book. Group Market Risk Management sub-allocates this overall limit to the Group Divisions. Below that, limits are allocated to specific business lines and trading portfolio groups and geographical regions. In addition to the Bank's main market risk Value-at-Risk limits, also stress testing and sensitivity limits are also operated.

The Bank's Value-at-Risk for the trading businesses is based on internal model. In October 1998, the German Banking Supervisory Authority (now the BaFin) approved the internal Value-at-Risk model for calculating market risk capital for the Group for both general and specific market risks. Since then the model has been periodically refined and approval has been maintained.

**b. Types of market risk**

Substantially all of the Bank's businesses are subject to the risk that market prices and rates will move and result in profits or losses. The Bank distinguishes among four types of market risk:

- Interest rate risk including credit spread
- Equity price risk (where applicable)
- Foreign exchange risk
- Commodity price risk (where applicable)

The interest rate and equity price risks consist of two components each. The general risk describes value changes due to general market movements, while the specific risk has issuer-related causes.

**c. Risk Management Tools**

The following are the most important quantitative tools and metrics currently used to measure, manage and report market risk:

- **Value-at-Risk.** The Bank uses the Value-at-Risk approach to derive quantitative measures for trading book market risks under normal market conditions. The Value-at-Risk figures play a role in both internal and external (regulatory) reporting. For a given portfolio, Value-at-Risk measures the potential future loss (in terms of market value) that, under normal market conditions, will not be exceeded with a defined confidence level in a defined period. The Value-at-Risk for a total portfolio represents a measure of diversified market risk (aggregated using pre-determined correlations) in that portfolio.
- **Stress Testing.** While Value-at-Risk, calculated on a daily basis, supplies forecasts for potential large losses under normal market conditions, it is not adequate to measure the tail risks of the portfolios. The Bank therefore also performs regular stress tests in which it values the trading portfolios under severe market scenarios not covered by the confidence interval of the Value-at-Risk model.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**d. Value-at-Risk Analysis**

The Value-at-Risk approach derives a quantitative measure for the trading book market risks under normal market conditions, estimating the potential future loss (in terms of market value) that will not be exceeded in a defined period of time and with a defined confidence level. The Value-at-Risk measure enables to apply a constant and uniform measure across all of the trading businesses and products. It also facilitates comparisons of market risk estimates both over time and against the daily trading results.

The Bank calculates Value-at-Risk using a 99% confidence level and a holding period of one day.

The Bank's Value-at-Risk model is designed to take into account the following risk factors- interest rates, equity prices, foreign exchange rates and commodity prices, as well as their implied volatilities. The model incorporates both linear and, especially for derivatives, nonlinear effects of the risk factors on the portfolio value. The statistical parameters required for the Value-at-Risk calculation are based on a 261 trading day history (corresponding to at least one calendar year of trading days) with equal weighting being given to each observation. The Bank calculates Value-at-Risk using the Monte Carlo simulation technique and assuming that changes in risk factors follow a normal or logarithmic normal distribution.

To determine the aggregated Value-at-Risk, the Bank uses historically observed correlations between different general market risk classes. However, when aggregating general and specific market risks, it is assumed that there is zero correlation between them.

The Value-at-Risk analysis should also be viewed in the context of the limitations of the methodology the Bank uses and are therefore not maximum amounts that can be lost on the market risk positions. The limitations of the Value-at-Risk methodology include the following:

- The use of historical data as a proxy for estimating future events may not capture all potential events, particularly those that are extreme in nature.
- The assumption that changes in risk factors follow a normal or logarithmic normal distribution. This may not be the case in reality and may lead to an underestimation of the probability of extreme market movements.
- The correlation assumptions used may not hold true, particularly during market events that are extreme in nature.
- The use of a holding period of one day assumes that all positions can be liquidated or hedged in that period of time. This assumption does not fully capture the market risk arising during periods of illiquidity, when liquidation or hedging in that period of time may not be possible.
- The use of a 99 % confidence level does not take account of, nor makes any statement about, any losses that might occur beyond this level of confidence.
- The Bank calculates Value-at-Risk at the close of business on each trading day. The Bank does not subject intraday exposures to intraday Value-at-Risk calculations.
- Value-at-Risk does not capture all of the complex effects of the risk factors on the value of positions and portfolios and could, therefore, underestimate potential losses.

The Group acknowledges the limitations in the Value-at-Risk methodology by supplementing the Value-at-Risk limits with other position and sensitivity limit structures, as well as with stress testing, both on individual portfolios and on a consolidated basis.

The calculated Value-at-Risk numbers for India are used for internal control purposes only, the calculation of regulatory capital being based on the Standardised Approach specified by the RBI. At the Group level, however, Value-at-Risk numbers are used for both internal control and Regulatory Capital calculation for market risk.



## Deutsche Bank AG - India Branches

(Incorporated in Germany with limited liability)

### Management disclosures under Pillar 3 – Period ended December 31, 2017

#### e. Back-Testing

The Bank uses back-testing in the trading units to verify the predictive power of the Value-at-Risk calculations. In back-testing, the hypothetical daily profits and losses are compared under the buy-and-hold assumption with the estimates from the Value-at-Risk model. The Bank analyzes performance fluctuations and assesses the predictive power of the Value-at-Risk model, which in turn allows improvement of the risk estimation process.

#### f. Hedging

The Bank manages its risk from derivatives activity on a portfolio basis. Specific hedges undertaken, if any are ring fenced from the transactions undertaken for trading/market making purposes and held in separate designated portfolio for easy identification and control.

#### g. Capital requirements for market risk

Particulars	(In Rs'000)	
	31 December 2017	31 March 2017
Capital requirement for market risk		
- Interest rate risk	3,173,626	4,767,143
- Foreign exchange risk (including gold)	2,948,906	2,474,297
- Equity risk	230,317	126,330
<b>Total</b>	<b>6,352,849</b>	<b>7,367,770</b>

### 4.5 Operational risk

#### a. Operational Risk Management Framework (“ORMF”)

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. It includes legal risk but excludes business and reputational risk.

Group Non-Financial Risk Management (“NFRM”) is responsible for the design, implementation and maintenance of the Operational Risk Management Framework including the associated governance structures. NFRM is also responsible for providing a cross-risk assessment and aggregation of risks to provide a holistic portfolio view of the non-financial risk profile of the Bank, which includes oversight of risk and control mitigation plans to return risk within risk appetite, where required.

Decisions to manage operational risks are taken both strategically as well as in day-to-day business. Four principles form the foundation of the Operational Risk Management Framework (“ORMF”) at Deutsche Bank.

- Operational Risk Principle I: NFRM establishes and maintains the Group Operational Risk Management Framework (Group ORMF).
- Operational Risk Principle II: Risk Owners (1st LoD) have full accountability for their operational risks and have to manage against a defined risk appetite. Risk Owners are defined to be all Business Divisions and service providing Infrastructure Functions, and Control functions to the extent that they own processes or are performing Level 1 controls.
- Operational Risk Principle III: Risk Type Controllers (2nd LoD control functions) establish the framework and define Risk Appetite Statements for the Risk Type they control and perform independent controls and challenge. Risk Type Controllers (RTCs) are a key role of the

### Management disclosures under Pillar 3 – Period ended December 31, 2017

independent 2nd LoD control functions. They control specific operational risk types as per the Operational Risk Type Taxonomy (ORTT), which is a subset of the Group Risk Type Taxonomy.

- Operational Risk Principle IV: Non-Financial Risk Management ensures that sufficient capital is held to underpin operational risk. NFRM is accountable to design, implement and maintain an appropriate approach to determine the sufficient level of capital demand for operational risk for recommendation to the Management Board.

#### **Organisational and Governance structure for India:**

- The roles and responsibilities of the NFRM function with respect to Country Coverage are defined as part of the Operational Risk Management - Country Coverage Minimum Standards.
- The Head of NFRM is responsible for overseeing the adequate implementation of the local NFRM governance process in India.
- The Head of NFRM is a permanent member of the Operating Committee (OpCo) and Risk Management Committee of India and updates the Committees about the Operational Risk profile of the country through the Country Flash Card (CFC) that includes, but is not limited to:
  - The aggregated operational loss reporting and the outline of material events
  - Relevant Key Risk Indicators
  - Specific insights on divisional relevant risks
  - Operational Risk capital developments
  - Overview of the management of issues and findings

#### **Organisational and Governance structure for DB Group (Global):**

At the DB Group level (Global), Operational Risk Management (ORM) and Information & Resilience Risk Management (IRRM) is merged into an integrated Non-Financial Risk Management (NFRM) department as a result of reorganization during April 2017. Non-Financial Risk Management is part of the Group Risk function which is headed by the Chief Risk Officer. The Chief Risk Officer appoints the Head of Non-Financial Risk Management.

Within Group NFRM the Head of Non-Financial Risk Management (Head of NFRM) is accountable for the design, implementation and maintenance of an effective and efficient Group ORMF, including the operational risk capital model.

The Non-Financial Risk Committee, which is chaired by the Chief Risk Officer and the Chief Regulatory Officer, is responsible for the oversight, governance and coordination of the Non-Financial Risk management in the DB Group on behalf of the Management Board and to establish a cross-risk and holistic perspective of the key Non-Financial risks of the Group. Its decision-making and policy-related authority includes the management (as the final escalation point) of open NFR issues, the definition of the Group NFR appetite framework and the challenge of the Risk Types' appetite frameworks, the review of units' NFR assessments and remediation, the review of significant or critical risk acceptances and the review of the Infrastructure Functions' Principle documents.

The Head of Non-Financial Risk Management is fully accountable for the setup and maintenance of the ORMF, including the adherence to all applicable legal and regulatory requirements. He is the owner of the Group's operational risk capital model and oversees its ongoing development as well as the capital calculation process. As the Model Owner, he manages relevant model risks and sets up appropriate controls. He approves quantitative and qualitative changes impacting the Group's regulatory or economic capital, within the limits defined by the Chief Risk Officer.

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

While the day-to-day management of operational risk is the primary responsibility of respective business divisions and infrastructure functions, Group NFRM oversees the Group-wide management of non-financial risks, identifies and reports risk concentrations and promotes a consistent application of the ORMF across the Bank.

In 2016, the Bank further embedded and refined “Three Lines of Defence” model. The core areas of focus were on business leaders continuing to assume primary accountability for the risks and controls in their units and the second LoD Risk Type Controllers developing their risk management capabilities via the implementation of minimum standards.

**b. Managing Our Operational Risk**

DB manages operational risk using the ORMF which enables it to determine the operational risk profile in comparison to the risk appetite, to systematically identify operational risk themes and concentrations, and to define risk mitigating measures and priorities.

In order to cover the broad range of risk types underlying operational risk, DB’s framework contains a number of operational risk management techniques. These aim to efficiently manage the operational risk in the business and are used to identify, assess and mitigate operational risks:

- **Loss Data Collection:** The continuous collection of operational risk loss events, as a prerequisite for operational risk management, includes analyses and provision of timely information to senior management. In India, Operational Loss-related data are captured per the following thresholds set for each Business Division/Infrastructure Function on the basis of the scale of business:
  - Private & Commercial Clients Business and Operations: All losses (i.e. zero threshold)
  - Wealth Management Business & Operations: €1,000
  - CIB Business & Operations: €10,000
  - Global Markets Business: €10,000
  - Global Markets Operations: €2,500
- **The Lessons Learnt process** is triggered for events, including near misses, starting from €500,000. This process includes but is not limited to:
  - Systematic risk analyses, including a description of the business environment in which the loss occurred, previous events, near misses and event-specific Key Risk Indicators,
  - Root cause analysis,
  - Review of control improvements and other actions to prevent or mitigate the recurrence, and
  - Assessment of the residual risk exposure.

The execution of corrective actions identified in this process are systematically tracked and reported monthly to senior management.

- **Emerging Risk Identification:** The Bank assesses and approves the impact of changes on the risk profile as a result of new products, outsourcing activities, strategic initiatives, acquisitions and divestments as well as material systems and process changes. Once operational risks are identified and assessed, they are compared to the relevant specific risk appetite statement and either mitigated or accepted. Risks that violate applicable national or international regulations and legislation cannot be accepted; once identified, such risks must always be mitigated.
- **Risk Mitigation:** When the Bank implements risk mitigating measures, it systematically monitors their resolution. Residual operational risks rated “Significant” or above, which the risk owner decides not to remediate, need to be formally risk accepted by the risk owner of the risk bearing division. The decision is reviewed by relevant second LoD functions and Group NFRM. The Non-Financial Risk Committee has the right to veto the decision.

## Deutsche Bank AG - India Branches

(Incorporated in Germany with limited liability)

### Management disclosures under Pillar 3 – Period ended December 31, 2017

- The Bank performs Top Risk Analyses in which the results of the aforementioned activities are considered. The Top Risk Analyses are a primary input for the annual operational risk management strategy and planning process and aim to identify our most critical risks in terms of probability and severity.
- **Key Risk Indicators** are used to monitor the operational risk profile and alert the organization to impending problems in a timely fashion. Key Risk Indicators enable the monitoring of the Bank's control culture and business environment and trigger risk mitigating actions. They facilitate the forward looking management of operational risks, based on early warning signals.

#### Additional Group-Level Risk Management Tools:

- **Scenario Analyses:** The Bank completes the risk profile using a set of scenarios including relevant external cases provided by a public database and additional internal scenarios. It thereby systematically utilize information on external loss events occurring in the banking industry to prevent similar incidents from happening to us, for example through particular deep dive analyses or risk profile reviews.
- **Read-across Analysis:** The Bank continuously seeks to enhance the process to assess whether identified issues require a broader approach across multiple entities and locations within the Bank. A review of material findings is performed in order to assess their relevance to areas of the Bank other than where they originated. The Bank is developing business intelligence software to identify risk clusters across the Bank accessing various sources of information. The Bank aims to increase the predictive analysis and clustering capabilities and to identify risk concentrations in a timely manner through the use of this tool.
- In bottom-up Self-Assessment process, areas with high risk potential are highlighted, and risk mitigating measures to resolve issues are identified. On a regular basis the Bank conducts risk workshops aiming to evaluate risks specific to local legal entities and the countries the Bank operates in, and take appropriate risk mitigating actions. The Bank is in the course of replacing this existing Self-Assessment process by an enhanced Risk and Control Assessment process, supported by a group-wide IT tool.

Additional functions, methodologies and tools implemented by the responsible second LoD Risk Type Controllers are utilised to complement the ORMF and address specific risk types. These risk types include:

- Compliance Risk- managed by the Bank's Compliance Department
- Financial Crime Risks- managed by the Bank's Anti Financial Crime ("AFC") function
- Legal Risk- managed by the Legal Department with the assistance of its Legal Risk Management ("LRM") function
- NFRM Risk Type Controllers are Risk Type Controllers for a number of risks in Group Risk Type Taxonomy. These include controls over infrastructure risks to prevent technology or process disruption, maintain information security and ensure businesses have robust plans in place to recover critical business processes and functions in the event of disruption from technical or building outage, or the effects of cyber-attack or natural disaster. NFRM Risk Type Controllers also manage the risks arising from the Bank's outsourced activities via the provision of a comprehensive vendor risk management framework.
- Model Risk has been classified as a material risk for the Bank and is managed by a dedicated second LoD model risk function

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

**c. Measuring Operational Risks**

**Measuring Operational Risk at the India Franchise:**

For risk management purposes on a global level, the DB Group uses the Advanced Measurement Approach ("AMA") methodology across all divisions and legal entities to calculate the regulatory capital requirements for Operational Risk. Locally, the Bank uses the Basic Indicator Approach ("BIA") to assess its local regulatory capital requirements for Operational Risk. The operational risk capital charge using BIA is equal to the average of a fixed percentage (15%) of positive annual gross income over the previous three years. Gross income figures are categorised into twelve quarters (equivalent to three years) and if the annual gross income for any given year is negative or zero, the figure shall not be included for the purposes of calculating the operational risk charge.

**Measuring Operational Risk at DB Group**

AMA capital calculation is based upon the Loss Distribution Approach ("LDA"). Gross losses from historical internal and external loss data (Operational Risk dataeXchange Association consortium data) and external scenarios from a public database (IBM OpData) complemented by internal scenario data are used to estimate the risk profile (i.e., a loss frequency and a loss severity distribution). Our Loss Distribution Approach model includes conservatism by recognizing losses on events that arise over multiple years as single events in our historical loss profile.

Within the Loss Distribution Approach Model, the frequency and severity distributions are combined in a Monte Carlo simulation to generate potential losses over a one year time horizon. Finally, the risk mitigating benefits of insurance are applied to each loss generated in the Monte Carlo simulation. Correlation and diversification benefits are applied to the net losses in a manner compatible with regulatory requirements to arrive at a net loss distribution at Group level, covering expected and unexpected losses. Capital is then allocated to each of the business divisions after considering qualitative adjustment and expected loss.

The regulatory capital requirement for operational risk is derived from the 99.9% percentile. The economic capital is set at a level to absorb at a 99.98% percentile very severe aggregate unexpected losses within one year. Both regulatory and economic capital requirements are calculated for a time horizon of one year.

The Regulatory and Economic Capital demand calculations are performed on a quarterly basis. Group NFRM aims to ensure that for the approach for capital demand quantification appropriate development, validation and change governance processes are in place, whereby the validation is performed by an independent validation function and in line with the DB Group's model risk management process.

**4.6 Liquidity Risk**

The Group's MB defines the Group's liquidity risk strategy, and in particular the Group's appetite for liquidity risk based on recommendations made by Treasury and/or Liquidity Risk Control (LRC) via the Group Risk Committee ("GRC"). At least once every year the Group's MB will review and approve the limits which are applied to the Group to measure and control liquidity risk as well as the Group's long-term funding and issuance plan.

The Bank's Treasury function is responsible for the management of the Bank's liquidity and funding risk globally as defined in the liquidity risk strategy. The Bank's liquidity risk management framework is designed to identify, measure and manage the Bank's liquidity risk position. Liquidity and Treasury Reporting and Analysis (LTRA) Team is responsible for the internal reporting on liquidity and funding across the firm on a global and local level. The Group's MB, in this context, is updated via a Liquidity Scorecard. In addition Liquidity Risk

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

Control is responsible for the oversight and validation of the bank's liquidity risk framework. This includes the independent validation of all liquidity risk models as well as the review and back-testing of limits. The Bank's liquidity risk management approach starts at the intraday level forecasting cash flows and factoring in our access to Central Banks. It then covers tactical liquidity risk management dealing with access to secured and unsecured funding sources. Finally, the strategic perspective comprises the maturity profile of all assets and liabilities (Funding Matrix) and the Group's issuance strategy.

The Bank's cash-flow based reporting system provides daily liquidity risk information to global and local management. Stress testing and scenario analysis plays a central role in the Bank's liquidity risk management framework. This also incorporates an assessment of asset liquidity, i.e., the characteristics of the Bank's asset inventory, under various stress scenarios as well as contingent funding requirements from off-balance-sheet commitments. Daily stress test results are used to monitor the Group's ongoing compliance with the Board's overall liquidity risk appetite. Furthermore, the Group's short-term wholesale funding profile limits (both unsecured and secured) which are a key tool of the framework are calibrated against the stress test results on a monthly basis.

**5. Interest rate risk in the banking book**

The vast majority of the interest rate risk and foreign exchange risk arising from the non-trading assets and liability positions in the Banking book are transferred through internal hedges to the trading desks in Global Markets (w.e.f. May 2016 the position has been transferred is to Treasury) and is managed on the basis of Value-at-Risk as reflected in the trading Value-at-Risk numbers. The treatment of interest rate risk in the Group's trading portfolios and the application of the Value-at-Risk model is discussed above. The bank considers this risk to be a part of the overall market risk framework.

**6. Counterparty Credit Risk**

**Credit Limits and Collaterals**

Counterparty credit risk (CCR) is the risk that a Bank's counterparty defaults in a FX, interest rate, commodity or credit derivative contract prior to or at the maturity date of the contract and that the Bank at the time has a claim on the counterparty.

The credit risk arising from all financial derivatives is managed as part of the overall credit limits to both financial institutions and other clients and customers. Exposure values for regulatory capital purposes on over the counter traded products are calculated according to the Current Exposure Method as defined by RBI. This is calculated as the sum of the current replacement cost and the PFE. The current replacement cost is the amount owed by the counterparty to the Bank for various financial derivative transactions. The PFE is an add-on based on a percentage of the notional principal of each transaction. These percentages are prescribed by the RBI in the guidelines and vary according to the underlying asset class and tenor of each trade.

The Bank seeks to negotiate Credit Support Annexes (CSA) to International Swaps and Derivatives Association master agreements with counterparties on a case-by-case basis, where collateral is deemed a necessary or desirable mitigant to the exposure. The credit terms of the CSA are specific to each legal document and determined by the credit risk approval unit responsible for the counterparty. The nature of the collateral will be specified in the legal document and will typically be cash or highly liquid securities. A daily operational process takes place to calculate the MTM on all trades captured under the CSA. Additional collateral will be called from the counterparty if total uncollateralised MTM exposure exceeds the threshold and minimum transfer amount specified in the CSA. Additional collateral may be required from the counterparty to provide an extra buffer to the daily variation margin process.

**Deutsche Bank AG - India Branches**  
(Incorporated in Germany with limited liability)

**Management disclosures under Pillar 3 – Period ended December 31, 2017**

The Bank further reduces its credit exposures to counterparties by entering into contractual netting agreements which result in a single amount owed by or to the counterparty through netting the sum of the positive (amounts owed by the counterparty) and negative (amounts owed by the Bank) MTM values of these transactions.

In India, the Bank follows the Standardised Approach (SA) for credit risk and hence no credit reserve is set aside. However, provisioning for the exposures on derivative contracts is made as per extant RBI guidelines.

**Wrong Way Risk**

Wrong way risk occurs when an exposure increase is coupled with a decrease in the credit quality of the obligor. The Group/Bank employs various policies and procedures to ensure that risk exposures are monitored. For example, as the MTM on a derivative contract increases in favour of the Bank, the counterparty may increasingly be unable to meet its payment, margin call or collateral posting requirements.

**Impact of Credit Rating Downgrade**

Credit ratings are formally reviewed at least annually and additionally reviewed whenever there is any major credit event / releases of regular earning statements of companies. CRM monitors credit ratings of all counterparties on an on-going basis and initiates rating actions throughout the year based on changes in business conditions / specific credit events /changes in sector outlooks / views of external rating agencies.

In case of a rating downgrade, CRM reviews the credit strategy and gets it approved by the respective authority holder. CRM follows the Global Credit Approval Authority Scheme which defines the authority delegation level per type of counterpart (corporate / bank / financial institution etc), size of facility, credit rating of counterpart and type of approval- limit approval / temporary excess approval.

Also in line with market convention, the Bank negotiates CSA terms for certain counterparties where the thresholds related to each party are dependent on their External Credit Assessment Institution (ECAI) long term rating. Such clauses are typically mutual in nature. It is therefore recognised that a downgrade in the Group’s rating could result in counterparties seeking additional collateral calls to cover negative MTM portfolios where thresholds are lowered.

**Quantitative Disclosures**

Particulars*	(in Rs '000)	
	31 December 2017	31-Mar-2017
Gross positive fair value of contracts	<b>91,793,615</b>	115,170,663
Netting benefits	-	-
Netted current credit exposure	<b>91,793,615</b>	115,170,663
Collateral held (including type, e.g. cash, government securities, etc.)	-	-
Net derivatives credit exposure	<b>91,793,615</b>	115,170,663
Potential future exposure	<b>180,890,101</b>	145,628,607
Measures for exposure at default or exposure amount under CEM	<b>272,683,716</b>	260,799,270
The notional value of credit derivative hedges	-	-
Distribution of current credit exposure by types of credit exposure:	-	-
- Interest Rates	<b>42,870,753</b>	24,119,723
- Fx	<b>229,812,963</b>	236,679,547

\* Based on current exposure method

## **Deutsche Bank AG - India Branches**

(Incorporated in Germany with limited liability)

### **Management disclosures under Pillar 3 – Period ended December 31, 2017**

#### **8. Regulatory Capital Instruments**

The Bank has not issued any Regulatory Capital Instruments during the period. Regulatory capital increases for the Bank generally take place via capital infusion from our Head Office, increase in statutory/ regulatory reserves and/or retention of Remittable Surplus for CRAR requirements.

#### **9. Disclosure Requirements for Remuneration**

In accordance with the requirements of the RBI Circular No. DBOD.NO.BC. 72/29.67/001/2011-12 dated 13 January 2012, the Frankfurt Head Office of the Bank has submitted a declaration to RBI that the Bank's compensation structure including that of CEO's, is in conformity with the Financial Stability Board principles and standards.

#### **10. Comparative figures**

Certain comparative figures have been reclassified to conform to the current period's preparation.