

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Form 20-F

- ☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
- or
- ☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017
- or
- ☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
- or
- ☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report.....

Commission file number 1-15242

Deutsche Bank Aktiengesellschaft

(Exact name of Registrant as specified in its charter)

Deutsche Bank Corporation

(Translation of Registrant's name into English)

Federal Republic of Germany

(Jurisdiction of incorporation or organization)

Taunusanlage 12, 60325 Frankfurt am Main, Germany

(Address of principal executive offices)

Steve Morris, +44-207-54-75705, steve.morris@db.com, Taunusanlage 12, 60325 Frankfurt am Main, Germany

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act

See following page

Securities registered or to be registered pursuant to Section 12(g) of the Act.

NONE

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

NONE

(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or capital stock as of the close of the period covered by the annual report:

Ordinary Shares, no par value

2,066,402,041

(as of December 31, 2017)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☒

No ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes ☐

No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒

No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes ☒

No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer", "accelerated filer", and emerging growth company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards* provided pursuant to Section 13(a) of the Exchange Act.

*The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☐

International Financial Reporting Standards ☒

Other ☐

as issued by the International Accounting Standards Board

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow

Item 17 ☐

Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐

No ☒

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes ☐

No ☐

Securities registered or to be registered pursuant to Section 12(b) of the Act (as of February 28, 2018)

Title of each class	Name of each exchange on which registered
Ordinary shares, no par value	New York Stock Exchange
6.55 % Trust Preferred Securities of Deutsche Bank Contingent Capital Trust II	New York Stock Exchange
6.55 % Company Preferred Securities of Deutsche Bank Contingent Capital LLC II*	
Subordinated Guarantees of Deutsche Bank AG in connection with Capital Securities*	
8.05 % Trust Preferred Securities of Deutsche Bank Contingent Capital Trust V	New York Stock Exchange
8.05 % Company Preferred Securities of Deutsche Bank Contingent Capital LLC V*	
Subordinated Guarantees of Deutsche Bank AG in connection with Capital Securities*	
Fixed to Fixed Reset Rate Subordinated Tier 2 Notes Due 2028	New York Stock Exchange
4.50 % Fixed Rate Subordinated Tier 2 Notes Due 2025	New York Stock Exchange
DB Agriculture Short Exchange Traded Notes due April 1, 2038	NYSE Arca
DB Agriculture Long Exchange Traded Notes due April 1, 2038	NYSE Arca
DB Agriculture Double Short Exchange Traded Notes due April 1, 2038	NYSE Arca
DB Agriculture Double Long Exchange Traded Notes due April 1, 2038	NYSE Arca
DB Base Metals Short Exchange Traded Notes due June 1, 2038	NYSE Arca
DB Base Metals Double Short Exchange Traded Notes due June 1, 2038	NYSE Arca
DB Base Metals Double Long Exchange Traded Notes due June 1, 2038	NYSE Arca
DB Commodity Short Exchange Traded Notes due April 1, 2038	NYSE Arca
DB Commodity Double Long Exchange Traded Notes due April 1, 2038	NYSE Arca
DB Commodity Double Short Exchange Traded Notes due April 1, 2038	NYSE Arca
DB Crude Oil Short Exchange Traded Notes due June 1, 2038	NYSE Arca
DB Crude Oil Long Exchange Traded Notes due June 1, 2038	NYSE Arca
DB Crude Oil Double Short Exchange Traded Notes due June 1, 2038	NYSE Arca
DB Gold Double Long Exchange Traded notes due February 15, 2038	NYSE Arca
DB Gold Double Short Exchange Traded notes due February 15, 2038	NYSE Arca
DB Gold Short Exchange Traded notes due February 15, 2038	NYSE Arca
ELEMENTS "Dogs of the Dow" Linked to the Dow Jones High Yield Select 10 Total Return Index due November 14, 2022	NYSE Arca
ELEMENTS Linked to the Morningstar® Wide Moat Focus(SM) Total Return Index due October 24, 2022	NYSE Arca
FI Enhanced Global High Yield Exchange Traded Notes Linked to the MSCI World High Dividend Yield USD Gross Total Return Index due October 12, 2023	NYSE Arca

* For listing purpose only, not for trading

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Deutsche Bank Aktiengesellschaft, which we also call Deutsche Bank AG, is a stock corporation organized under the laws of the Federal Republic of Germany. Unless otherwise specified or required by the context, in this document, references to “we”, “us”, “our”, “the Group”, “Deutsche Bank” and “Deutsche Bank Group” are to Deutsche Bank Aktiengesellschaft and its consolidated subsidiaries.

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.

Our registered address is Taunusanlage 12, 60325 Frankfurt am Main, Germany, and our telephone number is +49-69-910-00.

Inclusion of Our Annual Report

We have included as an integral part of this Annual Report on Form 20-F our Annual Report 2017, to which we refer for the responses to certain items hereof. Certain portions of the Annual Report 2017 have been omitted, as indicated therein. The included Annual Report 2017 contains our consolidated financial statements, which we also incorporate by reference into this report, in response to Items 8.A and 18. Such consolidated financial statements differ from those contained in the Annual Report 2017 used for other purposes in that, for Notes 43 and 44 thereto, notes addressing non-U.S. requirements have been replaced with notes addressing U.S. requirements, and Note 45 thereto has been omitted. Such consolidated financial statements have been audited by KPMG AG Wirtschaftsprüfungsgesellschaft, as described in their “Report of Independent Registered Public Accounting Firm” included in the Annual Report 2017, which report is included only in the version of the Annual Report 2017 included in this Annual Report on Form 20-F.

Cautionary Statement Regarding Forward-Looking Statements

We make certain forward-looking statements in this document with respect to our financial condition and results of operations. In this document, forward-looking statements include, among others, statements relating to:

- the potential development and impact on us of economic and business conditions and the legal and regulatory environment to which we are subject;
- the implementation of our strategic initiatives and other responses thereto;
- the development of aspects of our results of operations;
- our expectations of the impact of risks that affect our business, including the risks of losses on our trading processes and credit exposures; and
- other statements relating to our future business development and economic performance.

In addition, we may from time to time make forward-looking statements in our periodic reports to the United States Securities and Exchange Commission on Form 6-K, annual and interim reports, invitations to Annual General Meetings and other information sent to shareholders, offering circulars and prospectuses, press releases and other written materials. Our Management Board, Supervisory Board, officers and employees may also make oral forward-looking statements to third parties, including financial analysts.

Forward-looking statements are statements that are not historical facts, including statements about our beliefs and expectations. We use words such as “believe”, “anticipate”, “expect”, “intend”, “seek”, “estimate”, “project”, “should”, “potential”, “reasonably possible”, “plan”, “aim” and similar expressions to identify forward-looking statements.

By their very nature, forward-looking statements involve risks and uncertainties, both general and specific. We base these statements on our current plans, estimates, projections and expectations. You should therefore not place too much reliance on them. Our forward-looking statements speak only as of the date we make them, and we undertake no obligation to update any of them in light of new information or future events.

We caution you that a number of important factors could cause our actual results to differ materially from those we describe in any forward-looking statement. These factors include, among others, the following:

- the potential development and impact on us of economic and business conditions;
- other changes in general economic and business conditions;
- changes and volatility in currency exchange rates, interest rates and asset prices;
- changes in governmental policy and regulation, including measures taken in response to economic, business, political and social conditions;
- the potential development and impact on us of legal and regulatory proceedings to which we are or may become subject;
- changes in our competitive environment;
- the success of our acquisitions, divestitures, mergers and strategic alliances;
- our success in implementing our strategic initiatives and other responses to economic and business conditions and the legal and regulatory environment and realizing the benefits anticipated therefrom; and
- other factors, including those we refer to in “Item 3: Key Information – Risk Factors” and elsewhere in this document and others to which we do not refer.

Use of Non-GAAP Financial Measures

This document and other documents we have published or may publish contain non-GAAP financial measures. Non-GAAP financial measures are measures of our historical or future performance, financial position or cash flows that contain adjustments that exclude or include amounts that are included or excluded, as the case may be, from the most directly comparable measure calculated and presented in accordance with IFRS in our financial statements. Examples of our non-GAAP financial measures, and the most directly comparable IFRS financial measures, are as follows:

Non-GAAP Financial Measure	Most Directly Comparable IFRS Financial Measure
Net income attributable to Deutsche Bank shareholders	Net income
Adjusted costs	Noninterest expenses
Tangible shareholders' equity, Average tangible shareholders' equity, Tangible book value, Average tangible book value	Total shareholders' equity (book value)
Post-tax return on average shareholders' equity (based on Net income attributable to Deutsche bank shareholders)	Post-tax return on average shareholders' equity
Post-tax return on average tangible shareholders' equity	Post-tax return on average shareholders' equity
Tangible book value per basic share outstanding, Book value per basic share outstanding	Book value per share outstanding

For descriptions of these non-GAAP financial measures and the adjustments made to the most directly comparable financial measures under IFRS, please refer to “Supplementary Information: Non-GAAP Financial Measures”, which is incorporated by reference herein.

When used with respect to future periods, our non-GAAP financial measures are also forward-looking statements. We cannot predict or quantify the levels of the most directly comparable financial measures under IFRS that would correspond to these measures for future periods. This is because neither the magnitude of such IFRS financial measures, nor the magnitude of the adjustments to be used to calculate the related non-GAAP financial measures from such IFRS financial measures, can be predicted. Such adjustments, if any, will relate to specific, currently unknown, events and in most cases can be positive or negative, so that it is not possible to predict whether, for a future period, the non-GAAP financial measure will be greater than or less than the related IFRS financial measure.

CRR/CRD 4 Solvency Measures

Our regulatory assets, exposures, risk-weighted assets, capital and ratios thereof are calculated for regulatory purposes as of December 31, 2017, December 31, 2016 and December 31, 2015 and set forth throughout this document under the regulation on prudential requirements for credit institutions and investment firms (“CRR”) and the Capital Requirements Directive 4 (“CRD 4”) implementing Basel 3, which were published on June 27, 2013 and which apply on and after January 1, 2014. CRR/CRD 4 provides for “transitional” (or “phase-in”) rules, under which capital instruments that are no longer eligible under the new rules are permitted to be phased out as the new rules on regulatory adjustments are phased in, as well as regarding the risk weighting of certain categories of assets. In some cases, CRR/CRD 4 maintains transitional rules that had been adopted in earlier capital adequacy frameworks through Basel 2 or Basel 2.5. The transitional rules relate, e.g., to the risk weighting of certain categories of assets. Unless otherwise noted, our CRR/CRD 4 solvency measures as of December 31, 2017, December 31, 2016 and December 31, 2015 set forth in this document reflect these transitional rules.

We also set forth in this document such CRR/CRD 4 measures on a “fully loaded” basis, reflecting full application of the final CRR/CRD 4 framework without consideration of the transitional provisions under CRR/CRD 4, except as described below. Measures calculated pursuant to our fully loaded methodology are non-GAAP financial measures.

The transitional rules included rules permitting the grandfathering of equity investments at a risk-weight of 100 % instead of a risk weight between 190 % and 370 % determined based on Article 155 CRR that would apply under the CRR/CRD 4 fully loaded rules. Despite the grandfathering rule for equity investments not applying under the full application of the final CRR/CRD 4 framework, we continued to apply it in our CRR/CRD 4 fully loaded methodology for a limited subset of equity positions for the periods ended December 31, 2015 and December 31, 2016, based on our intention to mitigate the impact of the expiration of the grandfathering rule through sales of the underlying assets or other measures prior to its expiration at end of 2017. We did not apply the grandfathering rule in our CRR/CRD 4 fully loaded methodology for the period ended December 31, 2017.

As the final implementation of CRR/CRD 4 may differ from our expectations, and our competitors’ assumptions and estimates regarding such implementation may vary, our fully loaded CRR/CRD 4 measures may not be comparable with similarly labeled measures used by our competitors.

We believe that these fully loaded CRR/CRD 4 calculations provide useful information to investors as they reflect our progress against the new regulatory capital standards and as many of our competitors have been describing CRR/CRD 4 calculations on a “fully loaded” basis.

For descriptions of these fully loaded CRR/CRD 4 measures and the differences from the most directly comparable measures under the CRR/CRD 4 transitional rules, please refer to “Management Report: Risk Report: Risk and Capital Performance: Capital and Leverage Ratio” in the Annual Report 2017, in particular the subsections thereof entitled “Development of Regulatory Capital”, “Development of Risk-Weighted Assets” and “Leverage Ratio”, and, with respect to the effect of the grandfathering rule on our fully loaded CRR/CRD 4 measures, to “Supplementary Information: Non-GAAP Financial Measures: Fully loaded CRR/CRD 4 Measures” in the Annual Report 2017, each of which are incorporated by reference herein.

When used with respect to future periods, our fully loaded CRR/CRD 4 measures are also forward-looking statements. We cannot predict or quantify the levels of the most directly comparable transitional CRR/CRD 4 measures that would correspond to these fully loaded CRR/CRD 4 measures for future periods. In managing our business with the aim of achieving targets based on fully loaded CRR/CRD 4 measures, the relation between the fully loaded and transitional measures will depend upon, among other things, management action taken in light of future business, economic and other conditions.

Use of Internet Addresses

This document contains inactive textual addresses of Internet websites operated by us and third parties. Reference to such websites is made for informational purposes only, and information found at such websites is not incorporated by reference into this document.

PART I

Item 1: Identity of Directors, Senior Management and Advisers

Not required because this document is filed as an annual report.

Item 2: Offer Statistics and Expected Timetable

Not required because this document is filed as an annual report.

Item 3: Key Information

Selected Financial Data

We have derived the data we present in the tables below from our audited consolidated financial statements for the years presented. You should read all of the data in the tables below together with the consolidated financial statements and notes included in “Item 18: Financial Statements” and the information we provide in “Item 5: Operating and Financial Review and Prospects.” Except where we have indicated otherwise, we have prepared all of the consolidated financial information in this document in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”) and as endorsed by the European Union (“EU”). Our corporate division and segment data comes from our management reporting systems and is not in all cases prepared in accordance with IFRS. For a discussion of the major differences between our management reporting systems and our consolidated financial statements under IFRS, see Note 4 “Business Segments and Related Information” to the consolidated financial statements.

Income Statement Data

in € m.	2017	2016	2015	2014	2013
Net interest income	12,378	14,707	15,881	14,272	14,834
Provision for credit losses	525	1,383	956	1,134	2,065
Net interest income after provision for credit losses	11,853	13,324	14,925	13,138	12,769
Commissions and fee income	11,002	11,744	12,765	12,409	12,308
Net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,926	1,401	3,842	4,299	3,817
Other noninterest income (loss)	142	2,162	1,037	969	956
Total net revenues	26,447	30,014	33,525	31,949	31,915
Compensation and benefits	12,253	11,874	13,293	12,512	12,329
General and administrative expenses	11,973	15,454	18,632	14,654	15,126
Policyholder benefits and claims	0	374	256	289	460
Impairment of goodwill and other intangible assets	21	1,256	5,776	111	79
Restructuring activities	447	484	710	133	399
Total noninterest expenses	24,695	29,442	38,667	27,699	28,394
Income (loss) before income taxes	1,228	(810)	(6,097)	3,116	1,457
Income tax expense	1,963	546	675	1,425	775
Net income (loss)	(735)	(1,356)	(6,772)	1,691	681
Net income attributable to noncontrolling interests	15	45	21	28	15
Net income (loss) attributable to Deutsche Bank shareholders and additional equity components	(751)	(1,402)	(6,794)	1,663	666
in €					
(unless stated otherwise)					
Basic earnings per share ^{1,2}	(0.53)	(1.08)	(4.52)	1.20	0.57
Diluted earnings per share ^{1,3}	(0.53)	(1.08)	(4.52)	1.17	0.56
Dividends paid per share ⁴	0.19 ⁶	0.00	0.75	0.75	0.75
Dividends paid per share in U.S.\$ ⁵	0.21	0.00	0.84	1.02	0.97

¹ The number of average basic and diluted shares outstanding has been adjusted for all periods before April 2017 in order to reflect the effect of the bonus component of subscription rights issued in connection with the capital increase completed in April 2017, all periods before June 2014 have been adjusted in order to reflect the effect of the bonus component of subscription rights issued in connection with the capital increase completed in June 2014.

² We calculate basic earnings per share for each period by dividing our net income attributable to Deutsche Bank shareholders by the average number of common shares outstanding. Earnings were adjusted by € 298 million and € 276 million and € 228 million net of tax for the coupons paid on Additional Tier 1 Notes in April 2017, April 2016 and April 2015, respectively.

³ We calculate diluted earnings per share for each period by dividing our net income attributable to Deutsche Bank shareholders by the average number of common shares outstanding, both after assumed conversions. Earnings were adjusted by € 298 million and € 276 million and € 228 million net of tax for the coupons paid on Additional Tier 1 Notes in April 2017, April 2016 and April 2015, respectively. For 2017, 2016 and 2015, there is no dilutive effect as the Group reported a net loss.

⁴ Dividends we declared and paid in the year.

⁵ Dividends declared and paid in U.S.\$ were translated from euro into U.S.\$ based on the exchange rates as of the respective payment days.

⁶ The dividend paid in 2017 consisted of € 0.11 for 2016 and of € 0.08 for 2015 that were paid simultaneously in 2017 after the agreement by the annual general meeting in 2017.

Balance Sheet Data

	2017	2016	2015	2014	2013
	in € m.	in € m.	in € m.	in € m.	in € m.
Total assets	1,474,732	1,590,546	1,629,130	1,708,703	1,611,400
Loans	401,699	408,909	427,749	405,612	376,582
Deposits	580,812	550,204	566,974	532,931	527,750
Long-term debt	159,715	172,316	160,016	144,837	133,082
Common shares ¹	5,291	3,531	3,531	3,531	2,610
Total shareholders' equity	63,174	59,833	62,678	68,351	54,719
Common Equity Tier 1 capital (CRR/CRD 4) ²	50,808	47,782	52,429	60,103	38,534
Common Equity Tier 1 capital (CRR/CRD 4 fully loaded) ²	48,300	42,279	44,101	46,076	38,534
Tier 1 capital (CRR/CRD 4) ²	57,631	55,486	58,222	63,898	50,717
Tier 1 capital (CRR/CRD 4 fully loaded) ²	52,921	46,829	48,651	50,695	50,717
Total regulatory capital (CRR/CRD 4) ²	64,016	62,158	64,522	68,293	55,464
Total regulatory capital (CRR/CRD 4 fully loaded) ²	63,250	59,502	60,976	63,072	55,464

¹ Capital increased from authorized capital against cash contributions through a public offering with subscription rights in April 2017 and in June 2014.

² Figures presented for 2017, 2016, 2015 and 2014 are based on the transitional rules ("CRR/CRD 4") and the full application ("CRR/CRD 4 fully loaded") of the CRR/CRD 4 framework. Figures presented for 2013 are based on "Basel 2.5". The capital ratios relate the respective capital to risk-weighted assets. Until 2013 transitional items pursuant to the former Section 64h (3) of the German Banking Act are excluded.

Certain Key Ratios and Figures

	2017	2016	2015	2014	2013
Share price at period-end ¹	€ 15.88	€ 15.40	€ 20.10	€ 22.30	€ 29.52
Share price high ¹	€ 17.82	€ 19.72	€ 29.83	€ 34.05	€ 32.97
Share price low ¹	€ 13.11	€ 8.83	€ 18.46	€ 20.22	€ 25.04
Book value per basic share outstanding ^{2, 4}	€ 30.16	€ 38.14	€ 40.31	€ 44.02	€ 45.34
Tangible book value per basic share outstanding ^{3, 4}	€ 25.94	€ 32.42	€ 33.83	€ 34.39	€ 33.79
Post-tax return on average shareholders' equity ⁵	(1.2)%	(2.3)%	(9.8)%	2.7%	1.2%
Post-tax return on average tangible shareholders' equity ⁶	(1.4)%	(2.7)%	(12.3)%	3.5%	1.6%
Cost/income ratio ⁷	93.4%	98.1%	115.3%	86.7%	89.0%
Compensation ratio ⁸	46.3%	39.6%	39.7%	39.2%	38.6%
Noncompensation ratio ⁹	47.0%	58.5%	75.7%	47.5%	50.3%
Common Equity Tier 1 capital ratio (CRR/CRD 4) ¹⁰	14.8%	13.4%	13.2%	15.2%	12.8%
Common Equity Tier 1 capital ratio (CRR/CRD 4 fully loaded) ¹⁰	14.0%	11.8%	11.1%	11.7%	12.8%
Tier 1 capital ratio (CRR/CRD 4) ¹⁰	16.8%	15.6%	14.7%	16.1%	16.9%
Tier 1 capital ratio (CRR/CRD 4 fully loaded) ¹⁰	15.4%	13.1%	12.3%	12.9%	16.9%
Employees at period-end (full-time equivalent):					
In Germany	42,526	44,600	45,757	45,392	46,377
Outside Germany	55,009	55,144	55,347	52,746	51,877
Branches at period-end:					
In Germany	1,570	1,776	1,827	1,845	1,924
Outside Germany	855	880	963	969	983

¹ Historical share prices have been adjusted on March 20, 2017 with retroactive effect to reflect the capital increase by multiplying a correcting factor of 0.8925.

² Shareholders' equity divided by the number of basic shares outstanding (both at period-end).

³ Shareholders' equity less goodwill and other intangible assets, divided by the number of basic shares outstanding (both at period-end).

⁴ The number of average basic shares outstanding has been adjusted for all periods before April 2017 in order to reflect the effect of the bonus element of the subscription rights issue in connection with the capital increase in April 2017, all periods before June 2014 have been adjusted in order to reflect the effect of the bonus component of subscription rights issued in connection with the capital increase completed in June 2014.

⁵ Net income attributable to our shareholders as a percentage of average shareholders' equity.

⁶ Net income attributable to our shareholders as a percentage of average tangible shareholders' equity.

⁷ Total noninterest expenses as a percentage of net interest income before provision for credit losses, plus noninterest income.

⁸ Compensation and benefits as a percentage of total net interest income before provision for credit losses, plus noninterest income.

⁹ Noncompensation noninterest expenses, which is defined as total noninterest expenses less compensation and benefits, as a percentage of total net interest income before provision for credit losses, plus noninterest income.

¹⁰ Figures presented for 2017, 2016, 2015 and 2014 are based on the transitional rules ("CRR/CRD 4") and the full application ("CRR/CRD 4 fully loaded") of the CRR/CRD 4 framework. Figures presented for 2013 are based on "Basel 2.5". The capital ratios relate the respective capital to risk-weighted assets. Until 2013 transitional items pursuant to the former Section 64h (3) of the German Banking Act are excluded.

Dividends

The following table shows the dividend per share in euro and in U.S. dollars for the years ended December 31, 2017, 2016, 2015, 2014 and 2013. We declare our dividends at our Annual General Meeting following each year. For 2017, the Management Board will propose to the Annual General Meeting to pay a dividend of € 0.11 per share. Our dividends are based on the non-consolidated results of Deutsche Bank AG as prepared in accordance with German accounting principles. Because we declare our dividends in euro, the amount an investor actually receives in any other currency depends on the exchange rate between euro and that currency at the time the euros are converted into that currency.

The German withholding tax applicable to dividends is 26.375 % (consisting of a 25 % withholding tax and an effective 1.375 % surcharge). For individual German tax residents the withholding tax paid represents for private dividends, generally, the full and final income tax applicable to the dividends. Dividend recipients who are tax residents of countries that have entered into a convention for avoiding double taxation may be eligible to receive a refund from the German tax authorities for a portion of the amount withheld and in addition may be entitled to receive a tax credit for the German withholding tax not refunded in accordance with their local tax law.

U.S. residents will be entitled to receive a refund equal to 11.375 % of the dividends received. For U.S. federal income tax purposes, the dividends we pay are not eligible for the dividends received deduction generally allowed for dividends received by U.S. corporations from other U.S. corporations.

Dividends in the table below are presented before German withholding tax.

See “Item 10: Additional Information – Taxation” for more information on the tax treatment of our dividends.

	Dividends per share ¹	Dividends per share	Payout ratio ^{2,3}	
			Basic earnings per share	Diluted earnings per share
2017 (proposed)	\$ 0.13	€ 0.11	N/M	N/M
2016 ⁴	\$ 0.12	€ 0.11	N/M	N/M
2015 ⁴	\$ 0.09	€ 0.08	N/M	N/M
2014	\$ 0.91	€ 0.75	63 %	64 %
2013	\$ 1.03	€ 0.75	132 %	134 %

N/M – Not meaningful

¹ For your convenience, we present dividends in U.S. dollars for each year by translating the euro amounts at the period end rate for the last business day at each year end as described below under “Exchange Rate and Currency Information”.

² We define our payout ratio as the dividends we paid per share in respect of each year as a percentage of our basic and diluted earnings per share for that year.

³ The number of average basic and diluted shares outstanding has been adjusted in order to reflect the effect of the bonus element of the subscription rights issue in connection with the capital increases in April 2017 and in June 2014. For 2017, 2016 and 2015, there is no dilutive effect as the Group reported a net loss.

⁴ Dividends for 2016 and 2015 were approved by the annual general meeting in 2017 and were paid simultaneously in 2017.

Exchange Rate and Currency Information

Germany’s currency is the euro. For your convenience, we have translated some amounts denominated in euro appearing in this document into U.S. dollars. Unless otherwise stated, we have made these translations at U.S.\$ 1.1993 per euro, the euro foreign exchange reference rate for U.S. dollars published by the European Central Bank (ECB) for December 31, 2017. ECB euro foreign exchange reference rates are based on a regular daily concertation procedure between central banks across Europe and worldwide, which normally takes place at 2.15 p.m. CET. You should not construe any translations as a representation that the amounts could have been exchanged at the rate used on December 31, 2017 or any other date.

The ECB euro foreign exchange reference rate for U.S. dollars for December 31, 2017 may differ from the actual rates we used in the preparation of the financial information in this document. Accordingly, U.S. dollar amounts appearing in this document may differ from the actual U.S. dollar amounts that we originally translated into euros in the preparation of our financial statements.

Fluctuations in the exchange rate between the euro and the U.S. dollar will affect the U.S. dollar equivalent of the euro price of our shares quoted on the German stock exchanges and, as a result, are likely to affect the market price of our shares on the New York Stock Exchange. These fluctuations will also affect the U.S. dollar value of cash dividends we may pay on our shares in euros. Past fluctuations in foreign exchange rates may not be predictive of future fluctuations.

Euro foreign exchange reference rates for U.S. dollars as published by the ECB

in U.S.\$ per €	Period-end ¹	Average ²	High	Low
2018				
February	1.2214	0.0000	1.2493	1.2214
January	1.2457	0.0000	1.2457	1.1932
2017				
December	1.1993	0.0000	1.1993	1.1736
November	1.1849	0.0000	1.1952	1.1562
October	1.1638	0.0000	1.1856	1.1605
September	1.1806	0.0000	1.2060	1.1741
2016	1.0541	1.1032	1.1569	1.0364
2015	1.0887	1.1046	1.2043	1.0552
2014	1.2141	1.3211	1.3953	1.2141
2013	1.3791	1.3308	1.3814	1.2768

¹ Period-end rate is the rate announced for the last business day of the period.

² We calculated the average rates for each year using the average of exchange rates on the last business day of each month during the year. We did not calculate average exchange rates within months.

Capitalization and Indebtedness

Consolidated capitalization in accordance with IFRS as of December 31, 2017

	in € m.
Debt:^{1,2}	
Long-term debt	159,715
Trust preferred securities	5,491
Long-term debt at fair value through profit or loss	6,439
Total debt	171,645
Shareholders' equity:	
Common shares (no par value)	5,291
Additional paid-in capital	39,918
Retained earnings	17,454
Common shares in treasury, at cost	(9)
Accumulated other comprehensive income, net of tax	
Unrealized net gains (losses) on financial assets available for sale, net of applicable tax and other	689
Unrealized net gains (losses) on derivatives hedging variability of cash flows, net of tax	18
Unrealized net gains (losses) on assets classified as held for sale, net of tax	0
Foreign currency translation, net of tax	(227)
Unrealized net gains (losses) from equity method investments	40
Total shareholders' equity	63,174
Equity component of financial instruments	4,675
Noncontrolling interests	250
Total equity	68,099
Total capitalization	239,744

¹ € 785 million (0.5 %) of our debt was guaranteed as of December 31, 2017. This consists of debt of a subsidiary which is guaranteed by the German government.

² € 64,929 million (38 %) of our debt was secured as of December 31, 2017.

Reasons for the Offer and Use of Proceeds

Not required because this document is filed as an annual report.

Risk Factors

An investment in our securities involves a number of risks. You should carefully consider the following information about the risks we face, together with other information in this document, when you make investment decisions involving our securities. If one or more of these risks were to materialize, it could have a material adverse effect on our financial condition, results of operations, cash flows or prices of our securities.

While the global economy was strong in 2017 as monetary policy remained generally accommodative, political risks, especially in Europe, did not materialize and election outcomes were broadly market-friendly, significant macroeconomic risks remain that could negatively affect the results of operations and financial condition in some of our businesses as well as our strategic plans. These include the possibility of an early recession in the United States, inflation risks, global imbalances, Brexit, the rise of Euroscepticism, and geopolitical risks, as well as the continuing low interest rate environment and competition in the financial services industry, which have compressed margins in many of our businesses. If these conditions persist or worsen, our business, results of operations or strategic plans could continue to be adversely affected.

The global economy was surprisingly strong in 2017 as monetary policy remained accommodative, despite the gradual tightening in the United States. Political risks, especially in Europe, did not materialize and election outcomes were broadly market-friendly. Against this backdrop, global economic growth increased to 3.8 % in 2017, following 3.2 % in 2016. This is the strongest economic expansion since 2011. Despite the higher growth momentum the global inflation rate remained at 2.9 %, as in 2016. GDP in industrialized countries grew by 2.2 % and consumer prices rose by 1.7 % while in emerging markets economies GDP increased by 4.8 % and inflation by 3.9 %.

The economic outlook for the euro area improved markedly. The Eurozone economy expanded by 2.5 %, roughly one percentage point above expectations at the start of the year. The economy gained momentum on the back of supportive fiscal and monetary policy. While monetary policy remains expansive, the European Central Bank (ECB) scaled back its asset purchases to € 60 billion per month from April until December 2017. Consumer prices rose by 1.5 %. The German economy also surprised to the upside with a GDP growth of 2.2 % in 2017, almost solely driven by the domestic economy. As a result, Germany's current account surplus decreased.

The United States economy performed close to expectations and expanded by 2.3 % in 2017. Investment spending became a major driver as corporate sentiment has picked up strongly, probably in anticipation of the tax reform legislation that was enacted at the end of the year. The key driver of the U.S. economy remained consumer spending backed by a well-functioning labor market. In 2017 fears of a persistent low inflation scenario have started to ease. The inflation rate was at 2.1 % -- slightly above target. The Federal Reserve's monetary policy responded with three interest rate hikes in 2017. The Federal Reserve also started to cut back the reinvestment of bonds held on its balance sheets.

The Japanese economy showed a balanced growth mix with both the domestic and external sector contributing to the GDP growth of 1.8 % in 2017. The external sector benefitted from the depreciation of the yen and the higher momentum of global trade. The strong export performance also boosted capital expenditures. As the inflation rate continues to hover around zero, the Bank of Japan was not under pressure to act.

In 2017 GDP growth in the emerging markets increased by 4.9 %. With GDP growth of 6.1 %, the emerging markets in Asia were once again the global driving force, as intra-Asian trade was strengthened. The Chinese economy expanded by 6.9 %, slightly higher than expected. Official Chinese inflation was well under control with 1.6 %. Risks from the overvalued real estate sector did not materialize.

The heat-map of global risks has changed little from 2017. An early recession in the United States due to changes in the structure of the yield curve, the Italian parliamentary elections in March as Eurosceptic parties remain popular, populist movements in Europe as well as geopolitical risks, particularly with respect to the Middle East and North Korea, could potentially have substantial adverse effects. While higher economic momentum may work as a shock absorber, the impact on the economy and financial markets may nevertheless be severe if any of these materialize in 2018. Notably, inflation risks, not an issue for several years, have resurfaced and as a key economic risk. A faster than expected pick-up in inflation could surprise markets and lead to a sharp reset of central bank rate rise expectations, which could be disruptive for risk assets – akin to 2013's "taper tantrum". Another risk is slowing growth in China, as we expect a deleveraging process to cool down the housing market. Authorities seem to have gotten more comfortable with slightly slower growth, and central banks are tightening monetary policy. We expect some policy easing in mid-2018 to support growth, but this option may be off the table if inflation is high, in which case the economy could then slow and could weigh on global growth.

Although economic data appear to have improved during the course of 2017 in many of the countries in which we operate, our business, financial results and strategic plans continue to be negatively impacted by the continued low interest rate environment, uneven and tepid economic growth, especially in our home markets in Europe, and elevated political uncertainty. Recent political events, including the notification by the UK of its withdrawal from European Union ("EU") membership ("Brexit"), and the rather unpracticable political climate in the U.S. following the November 2016 presidential election, continue to contribute to considerable uncertainty concerning the current and future economic environment. Global economic growth also continues to be reliant on the supportive monetary policy stance of the major central banks, and could be harmed substantially if the current trend towards tightening overshoots the mark.

Our results of operation and financial condition, in particular those of our Corporate & Investment Bank corporate division, continue to be negatively impacted by the challenging market environment, uncertain macro-economic and geopolitical conditions, lower levels of client activity, increased competition and regulation, and the immediate impacts resulting from our strategic decisions as we continue to work on the implementation of our strategy. If we are unable to improve our profitability as we continue to face these headwinds as well as persistently high litigation costs, we may be unable to meet many of our strategic aspirations, and may have difficulty maintaining capital, liquidity and leverage at levels expected by market participants and our regulators.

In 2017, our revenues declined in each of our corporate divisions, reflecting the negative impact of a challenging market environment characterized by low interest rates and low volatility, uncertain macro-economic and geopolitical conditions, lower levels of client activity and increased competition and regulation. The implementation of some of the strategic measures towards our financial targets also continued to negatively impact our revenues. The ultra-low interest rate environment, especially in the eurozone, has put pressure on our margins in our traditional banking business and our trading and markets businesses, and the low volatility in the market has had a negative impact on our trading and client-driven businesses that perform well in more volatile environments. These conditions have impacted our fixed income franchise, as well as our Equities franchise, where results have not matched those of many of our international peers.

Changes in our business mix towards lower-margin, lower-risk products can limit our opportunities to profit from volatility. Regulators have generally encouraged the banking sector to focus more on the facilitation of client flow and less on risk taking. This has been effected in part by increasing capital requirements for higher-risk activities. In addition, some of our regulators have encouraged or welcomed changes to our business perimeter, consistent with their emphasis on lower-risk activities for banks. Our strategy provides for us to reduce our exposures in a number of businesses that focused on riskier but more capital-intensive products (but that in earlier periods also had the potential to be more highly profitable than those dependent on low-risk, low-margin flow in a very low interest rate environment). Further pressure on our revenues and profitability has resulted from long-term structural trends driven by regulation (especially increased regulatory capital, leverage and liquidity requirements and increased compliance costs) and competition that have further compressed our margins in many of our businesses. Should a combination of these factors continue to lead to reduced margins and subdued activity levels in our trading and markets business over the longer term, this could reflect structural challenges that may lead us to consider even further-reaching changes to aspects of our business mix than those contained in our financial targets.

Against this backdrop, we expect the costs to us arising from the resolution of litigation, enforcement and similar matters pending against us to continue to be significant in the near to medium term (although they vary considerably from period to period) and to adversely affect our business, financial condition and results of operations. In particular, these costs could substantially exceed the level of provisions that we established for our litigation, enforcement and similar matters, which can contribute to negative market perceptions about our financial health, costing us business. This, combined with the actual costs of litigation, enforcement and other matters, could in turn adversely affect our ability to maintain capital, liquidity and leverage at levels expected by market participants and our regulators. In particular, we suffered, at the end of the third quarter and beginning of the fourth quarter of 2016, some reduction in business volumes and outflows of funds, particularly in some parts of our Corporate & Investment Bank business and of our Wealth Management business, as a result of speculation about the potential magnitude of a settlement of civil claims then being negotiated with the U.S. Department of Justice ("DOJ") in connection with our issuance and underwriting of residential mortgage-backed securities. Although these negative effects on our business have abated since then and in some cases have reversed, future market speculation about potential settlement demands with respect to litigation and enforcement matters could have persistent adverse effects on our revenue levels. Negative news about us, including our reporting of lower revenues, can also harm perceptions of us in the market and lead to further pressure on revenues. These factors have placed pressure on the markets for our securities, along with concerns regarding our ability to overcome the numerous headwinds facing us. As a result of the substantial uncertainties with respect to the potential outflows in respect of litigation and enforcement matters as well as the broader prospects for our business, we may find it necessary or desirable to raise additional capital in the future to maintain our capital, liquidity and leverage at levels required by our regulators or viewed by market participants as necessary for our businesses in comparison with our international peers, which would result in dilution to our current shareholders.

Continued elevated levels of political uncertainty could have unpredictable consequences for the financial system and the greater economy, and could contribute to an unwinding of aspects of European integration, potentially leading to declines in business levels, write-downs of assets and losses across our businesses. Our ability to protect ourselves against these risks is limited.

The last several years have been characterized by increased political uncertainty as Europe in particular has been impacted by the European sovereign debt crisis, the outcomes of the referenda in the UK on EU membership and in Italy on constitutional reform, the refugee crisis and the increasing attractiveness to voters of populist and anti-austerity movements. Although the severity of the European debt crisis appeared to have abated somewhat over recent years as the actions by the ECB, the rescue packages and the economic recovery appeared to have stabilized the situation in Europe, political uncertainty has nevertheless continued to be at an elevated level in recent periods and could trigger the unwinding of aspects of European integration that have benefitted our businesses. Against this backdrop, the prospects for national structural reform and further integration among EU member states, both viewed as important tools to reduce the eurozone's vulnerabilities to future crises, appear to have worsened. These trends may ultimately result in material reductions in our business levels as our customers rein in activity levels in light of decreased economic output and increased uncertainty, which would materially adversely affect our operating results and financial condition.

An escalation of political risks could have unpredictable consequences both for the financial system and the greater economy as a whole, potentially leading to declines in business levels, write-downs of assets and losses across our businesses. In particular, the UK voted on June 23, 2016 in a non-binding national referendum to withdraw from the EU ("Brexit"). Following an act of Parliament adopted in early 2017, on March 29, 2017, the UK formally gave notice of its withdrawal from the EU to the European Council. Pursuant to the Treaty of the European Union, withdrawal would be effective on the date of entry into force of a withdrawal agreement that remains to be negotiated or, failing that, two years after the withdrawal notification unless the EU Council and UK agree to extend the two-year period. Following the notice of withdrawal, potentially tense and highly uncertain negotiations regarding the UK's exit from the EU commenced. Given these and other uncertainties in connection with the UK's withdrawal from the EU, it is difficult to determine the exact impact on us over the long term. We are also unable to determine with any precision the impact of Brexit on our current UK structure or business model in the short term, as there remains no clarity into the details or timing of the changes. However, the UK's economy and those of the eurozone countries are very tightly linked as a result of EU integration projects other than the euro, and the scale of our businesses in the UK – especially those dependent on activity levels in the City of London, to which we are heavily exposed and which may deteriorate as a result of Brexit – means that even modest effects in percentage terms can have a very substantial adverse effect on our businesses. In addition, in a number of EU member states which had national elections in 2017, including France, Germany and the Netherlands, political parties disfavoring current levels of European integration, or espousing the unwinding of European integration to varying extents, have attracted support. The Brexit vote has also given a voice to some of these political parties to challenge European integration. The resulting uncertainty could have significant effects on the value of the euro and on prospects for member states' financial stability, which in turn could potentially lead to a significant deterioration of the sovereign debt market, especially if Brexit or any other member country's exit did not result in the catastrophic effects on the exiting country that many have predicted. If one or more members of the eurozone defaults on their debt obligations or decides to leave the common currency, this would result in the reintroduction of one or more national currencies. Should a eurozone country conclude it must exit the common currency, the resulting need to reintroduce a national currency and restate existing contractual obligations could have unpredictable financial, legal, political and social consequences, leading not only to significant losses on sovereign debt but also on private debt in that country. Given the highly interconnected nature of the financial system within the eurozone, and the high levels of exposure we have to public and private counterparties around Europe, our ability to plan for such a contingency in a manner that would reduce our exposure to non-material levels is likely to be limited. If the overall economic climate deteriorates as a result of one or more departures from the eurozone, our businesses could be adversely affected, and, if overall business levels decline or we are forced to write down significant exposures among our various businesses, we could incur substantial losses.

We may be required to take impairments on our exposures to the sovereign debt of European or other countries if the European sovereign debt crisis reignites. The credit default swaps into which we have entered to manage sovereign credit risk may not be available to offset these losses.

The effects of the sovereign debt crisis have been especially evident in the financial sector, as a large portion of the sovereign debt of eurozone countries is held by European financial institutions, including us. As of December 31, 2017, we had a direct sovereign credit risk exposure of € 2.8 billion to Italy, € 1.7 billion to Spain, € 709 million to Ireland and € 55 million to Greece. Despite the apparent abatement of the crisis in recent years, it remains uncertain whether, in light of the current political environment, Greece or other eurozone sovereigns, such as Spain, Italy, Portugal and Cyprus, will be able to manage their debt levels in the future and whether Greece will attempt to renegotiate its past international debt restructuring. The rise of anti-austerity parties and populist sentiment in many of these countries poses a threat to the medium- to long-term measures recommended for these countries to alleviate the tensions in the eurozone caused by drastically differing economic situations among the eurozone states. In the future, negotiations or exchanges similar to the Greek debt restructuring in 2012 could take place with respect to the sovereign debt of these or other affected countries. The outcome of any negotiations regarding changed terms (including reduced principal amounts or extended maturities) of sovereign debt may result in additional impairments of assets on our balance sheet. Any negotiations are highly likely to be subject to political and economic pressures that we cannot control, and we are unable to predict their effects on the financial markets, on the greater economy or on ourselves.

In addition, any restructuring of outstanding sovereign debt may result in potential losses for us and other market participants that are not covered by payouts on hedging instruments that we have entered into to protect against the risk of default. These instruments largely consist of credit default swaps, generally referred to as CDSs, pursuant to which one party agrees to make a payment to another party if a credit event (such as a default) occurs on the identified underlying debt obligation. A sovereign restructuring that avoids a credit event through voluntary write-downs of value may not trigger the provisions in CDSs we have entered into, meaning that our exposures in the event of a write-down could exceed the exposures we previously viewed as our net exposure after hedging. Additionally, even if the CDS provisions are triggered, the amounts ultimately paid under the CDSs may not correspond to the full amount of any loss we incur. We also face the risk that our hedging counterparties have not effectively hedged their own exposures and may be unable to provide the necessary liquidity if payments under the instruments they have written are triggered. This may result in systemic risk for the European banking sector as a whole and may negatively affect our business and financial position.

Our liquidity, business activities and profitability may be adversely affected by an inability to access the debt capital markets or to sell assets during periods of market-wide or firm-specific liquidity constraints. Credit rating downgrades have contributed to an increase in our funding costs, and any future downgrade could materially adversely affect our funding costs, the willingness of counterparties to continue to do business with us and significant aspects of our business model.

We have a continuous demand for liquidity to fund our business activities. Our liquidity may be impaired by an inability to access secured and/or unsecured debt markets, an inability to access funds from our subsidiaries or otherwise allocate liquidity optimally across our businesses, an inability to sell assets or redeem our investments, or unforeseen outflows of cash or collateral. This situation may arise due to circumstances unrelated to our businesses and outside our control, such as disruptions in the financial markets, or circumstances specific to us, such as reluctance of our counterparties or the market to finance our operations due to perceptions about potential outflows resulting from litigation, regulatory and similar matters, actual or perceived weaknesses in our businesses, our business model or our strategy, as well as in our resilience to counter negative economic and market conditions. For example, we have experienced steep declines in the price of our shares and increases in the spread versus government bonds at which our debt trades in the secondary markets. Reflecting these conditions, our internal estimates of our available liquidity over the duration of a stressed scenario have at times been negatively impacted in recent periods. Such effects were particularly acute in the autumn of 2016 in response to market speculation about the potential magnitude of a settlement of civil claims then being negotiated with the DOJ in connection with our issuance and underwriting of residential mortgage-backed securities. In addition, negative developments concerning other financial institutions perceived to be comparable to us and negative views about the financial services industry in general have also affected us in recent years. These perceptions have affected the prices at which we have accessed the capital markets to obtain the necessary funding to support our business activities; should these perceptions exist, continue or worsen, our ability to obtain this financing on acceptable terms may be adversely affected. Among other things, an inability to refinance assets on our balance sheet or maintain appropriate levels of capital to protect against deteriorations in their value could force us to liquidate assets we hold at depressed prices or on unfavorable terms, and could also force us to curtail business, such as the extension of new credit. This could have an adverse effect on our business, financial condition and results of operations.

In addition, we have benefited in recent years from a number of incremental measures by the ECB and other central banks to provide additional liquidity to financial institutions and the financial markets, particularly in the eurozone. To the extent these actions are curtailed or halted, our funding costs could increase, or our funding supply could decrease, which could in turn result in a reduction in our business activities. In particular, any decision by the ECB to discontinue or reduce quantitative easing or further steps by the Federal Reserve to tighten its monetary policy or actions by central banks more generally to tighten their monetary policy will likely cause long-term interest rates to increase and accordingly impact the costs of our funding.

Since the start of the global financial crisis, the major credit rating agencies have lowered our credit ratings or placed them on review or negative watch on multiple occasions. These credit rating downgrades have contributed to an increase in our funding costs, and any future downgrade could materially affect our funding costs, although we are unable to predict whether this would be the case or the extent of any such effect. The effect would depend on a number of factors including whether a downgrade affects financial institutions across the industry or on a regional basis, or is intended to reflect circumstances specific to us, such as our potential settlement of regulatory, litigation and similar matters; any actions our senior management may take in advance of or in response to the downgrade; the willingness of counterparties to continue to do business with us; any impact of other market events and the state of the macroeconomic environment more generally. In particular, should any of the major credit rating agencies lower our credit rating to a level considered sub-investment grade, significant aspects of our business model would be materially and adversely affected.

Additionally, under many of the contracts governing derivative instruments to which we are a party, a downgrade could require us to post additional collateral, lead to terminations of contracts with accompanying payment obligations for us or give counterparties additional remedies. We take these effects into account in our liquidity stress testing analysis, as further described in “Management Report: Risk Report: Liquidity Risk: Stress Testing and Scenario Analysis” in the Annual Report 2017.

Regulatory reforms enacted and proposed in response to weaknesses in the financial sector, together with increased regulatory scrutiny more generally, have created significant uncertainty for us and may adversely affect our business and ability to execute our strategic plans, and competent regulators may prohibit us from making dividend payments or payments on our regulatory capital instruments or take other actions if we fail to comply with regulatory requirements.

In response to the global financial crisis and the European sovereign debt crisis, governments, regulatory authorities and others have made and continue to make proposals to reform the regulatory framework for the financial services industry to enhance its resilience against future crises. Legislation has been enacted and regulations have been issued in response to many of these proposals, while others continue to be developed. The regulatory framework for financial institutions is likely to undergo further significant change. This creates significant uncertainty for us and the financial industry in general. The wide range of new laws and regulations or current proposals includes, among other things:

- provisions for more stringent regulatory capital, leverage and liquidity standards,
- restrictions on compensation practices,
- restrictions on proprietary trading and other investment activities,
- special bank levies and financial transaction taxes,
- recovery and resolution powers to intervene in a crisis including “bail-in” of creditors,
- large exposure limits,
- the creation of a single supervisory authority and a single resolution authority within the eurozone and any other participating member states,
- separation of certain businesses from deposit taking,
- stress testing and capital planning regimes,
- heightened reporting requirements, and
- reforms of derivatives, other financial instruments, investment products and market infrastructures.

In addition, regulatory scrutiny of compliance with existing laws and regulations has become more intense and supervisory expectations remain significant. The specific effects of a number of new laws and regulations remain uncertain because the drafting and implementation of these laws and regulations are still on-going and supervisory expectations continue to develop.

As a core element of the reform of the regulatory framework, in December 2010, the Basel Committee on Banking Supervision (“Basel Committee”) published a set of comprehensive changes to minimum capital adequacy and liquidity standards, known as Basel 3, which have been implemented into European and national (in our case, German) law beginning in 2014, with the European legislative package also referred to as “CRR/CRD 4”. In November 2016, the European Commission proposed a package (commonly referred to as “CRR 2” and “CRD 5”, and referred to herein as the “November 2016 Package”) of legislative reforms implementing various remaining elements of the regulatory framework agreed within the Basel Committee and the Financial Stability Board (“FSB”) to refine and supplement the Basel 3 framework/CRR/CRD 4 legislative package. The November 2016 Package includes more risk-sensitive capital requirements, in particular in the area of market risk, counterparty credit risk and for exposures to central counterparties, methodologies that reflect more accurately the actual risks to which banks may be exposed, a binding leverage ratio of 3 % of Tier 1 capital, a binding net stable funding ratio (“NSFR”), tighter regulation of large exposures, and the implementation of the FSB’s standard on total loss-absorbing capacity (“TLAC”). It is expected that most of the proposed amendments will start being applied at the end of 2020 at the earliest, save for the TLAC requirements, which are expected to apply from January 2019.

Furthermore, in December 2017 the Basel Committee published its final agreement (“December 2017 Agreement”) on revisions to the Basel 3 framework that aim to increase consistency in risk-weighted asset calculations and improve the comparability of banks’ capital ratios. The December 2017 Agreement includes, among other things, changes to the standardized and internal ratings-based approaches for determining credit risk, revisions to the operational risk framework, and an “output floor”, set at 72.5 %. The “output floor” limits the amount of capital benefit a bank can obtain from its use of internal models relative to using the standardized approach. This package of reforms is intended to finalize the Basel 3 framework and would reduce the ability of banks to apply internal models, while making the standardized approaches more risk-sensitive and granular. In addition, the December 2017 Agreement introduces a leverage ratio buffer for global systemically important banks (“G-SIBs”), such as Deutsche Bank, to be met with Tier 1 capital and set at 50 % of the applicable risk-based G-SIB buffer requirement. The Basel Committee also reached agreement on an implementation date of this package of January 1, 2022, with a phase-in period of five years through January 1, 2027 for the output floor. The December 2017 Agreement also extends the implementation date for the final market risk framework resulting from the Basel Committee’s “Fundamental Review of the Trading Book” to January 1, 2022.

The changes proposed by the November 2016 Package and the December 2017 Agreement must be implemented by the European Union and Germany, as the case may be, in order to become effective and binding on us. If implemented in their current form, the November 2016 Package and the December 2017 Agreement could lead to a significant increase of our risk-weighted assets and, as a result, a higher capital requirement, changes in our deductions from our regulatory capital and the imposition of additional capital charges. These requirements may be in addition to regulatory capital buffers that may also be increased or be in addition to those already imposed on us and could themselves materially increase our capital requirements.

Regulatory authorities have substantial discretion in how to regulate banks, and this discretion, and the means available to the regulators, have been steadily increasing during recent years. Regulation may be imposed on an ad hoc basis by governments and regulators in response to ongoing or future crises, and may especially affect financial institutions such as Deutsche Bank that are deemed to be systemically important.

In particular, the regulators with jurisdiction over us, including the ECB under the Single Supervisory Mechanism (also referred to as the “SSM”), may, in connection with the supervisory review and evaluation process (“SREP”) or otherwise, conduct stress tests and have discretion to impose capital surcharges on financial institutions for risks, including for litigation, regulatory and similar matters, that are not otherwise recognized in risk-weighted assets or other surcharges depending on the individual situation of the bank and take or require other measures, such as restrictions on or changes to our business. In this context, the ECB may impose on us individual capital requirements resulting from the SREP which are referred to as “Pillar 2” requirements. “Pillar 2” requirements must be fulfilled with Common Equity Tier 1 capital in addition to the statutory minimum capital and buffer requirements and any non-compliance may have immediate legal consequences such as restrictions on dividend payments. Also following the SREP, the ECB may communicate to individual banks an expectation to hold a further “Pillar 2” Common Equity Tier 1 capital add-on, the so-called “Pillar 2” guidance. Although the “Pillar 2” guidance is not legally binding and failure to meet the “Pillar 2” guidance does not automatically trigger legal action, the ECB has stated that it expects banks to meet the “Pillar 2” guidance. Also, more generally, competent regulators may, if we fail to comply with regulatory requirements, in particular with statutory minimum capital requirements, “Pillar 2” requirements or buffer requirements, or if there are shortcomings in our governance and risk management processes, prohibit us from making dividend payments to shareholders or distributions to holders of our other regulatory capital instruments. This could occur, for example, if we fail to make sufficient profits due to declining revenues, or as a result of substantial outflows due to litigation, regulatory and similar matters. Generally, a failure to comply with the new quantitative and qualitative regulatory requirements could have a material adverse effect on our business, financial condition and results of operations, including our ability to pay out dividends to shareholders or distributions on our other regulatory capital instruments or, in certain circumstances, conduct business which we currently conduct or plan to conduct in the future.

European and German legislation regarding the recovery and resolution of banks and investment firms could, if steps were taken to ensure our resolvability or resolution measures were imposed on us, significantly affect our business operations, and lead to losses for our shareholders and creditors.

Germany participates in the Single Resolution Mechanism (referred to as the “SRM”), which centralizes at a European level the key competences and resources for managing the failure of any bank in member states of the European Union participating in the banking union. The SRM is based on the SRM Regulation and the Bank Recovery and Resolution Directive (or “BRRD”), which was implemented in Germany through the German Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz, “SAG”). In addition, the German Resolution Mechanism Act (Abwicklungsmechanismusgesetz) adapted German bank resolution laws to the SRM.

The SRM Regulation and the German Recovery and Resolution Act require the preparation of recovery and resolution plans for banks and grant broad powers to public authorities to intervene in a bank which is failing or likely to fail. For a bank directly supervised by the ECB, such as Deutsche Bank, the Single Resolution Board (referred to as the “SRB”) assesses its resolvability and may require legal and operational changes to the bank’s structure to ensure its resolvability. In the event that such bank is failing or likely to fail and certain other conditions are met, the SRB is responsible for adopting a resolution scheme for resolving the bank pursuant to the SRM Regulation. The European Commission and, to a lesser extent, the Council of the European Union, have a role in endorsing or objecting to the resolution scheme proposed by the SRB. The resolution scheme would be addressed to and implemented by the competent national resolution authorities (in Germany, since 2018, the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, “BaFin”)) in line with the national laws implementing the BRRD. Resolution measures that could be imposed upon a failing bank may include a range of measures including the transfer of shares, assets or liabilities of the bank to another legal entity, the reduction, including to zero, of the nominal value of shares, the dilution of shareholders of a failing bank or the cancellation of shares outright, or the amendment, modification or variation of the terms of the bank’s outstanding debt instruments, for example by way of a deferral of payments or a reduction of the applicable interest rate. Furthermore, certain eligible unsecured liabilities, in particular certain senior unsecured debt instruments specified by the German Banking Act, as amended by the German Resolution Mechanism Act, may be written down, including to zero, or converted into equity (commonly referred to as “bail-in”) after the bank’s regulatory capital has been exhausted.

In order to facilitate the authorities’ bail-in powers, which became effective in Germany on January 1, 2015, banks are required to include in their eligible liabilities issued under non-EU law conditions to the effect that the respective counterparties recognize the regulatory powers to write down or convert such liabilities as well as other resolution powers. The SRM Regulation, the BRRD and the Recovery and Resolution Act are intended to eliminate, or reduce, the need for public support of troubled banks. Therefore, financial public support for such banks, if any, would be used only as a last resort after having assessed and exploited, to the maximum extent practicable, the resolution powers, including a bail-in. The taking of actions to ensure our resolvability or the exercise of resolution powers by the competent resolution authority could materially affect our business operations and lead to a significant dilution of our shareholders or even the total loss of our shareholders’ or creditors’ investment.

Regulatory and legislative changes require us to maintain increased capital, in some cases (including in the United States) applying liquidity, risk management, capital adequacy and resolution planning rules to our local operations on a standalone basis. These requirements may significantly affect our business model, financial condition and results of operations as well as the competitive environment generally. Any perceptions in the market that we may be unable to meet our capital or liquidity requirements with an adequate buffer, or that we should maintain capital or liquidity in excess of these requirements or another failure to meet these requirements could intensify the effect of these factors on our business and results.

The implementation of the CRR/CRD 4 legislative package resulted, among other things, in increased capital and tightened liquidity requirements, including additional capital buffer requirements which are being gradually phased into through January 1, 2019, and it also contained rules preparing the introduction of a binding non-risk based leverage ratio. Similarly, the U.S. federal bank regulators in 2013 issued final rules implementing elements of the Basel 3 capital adequacy framework that are applicable to U.S. banking organizations, such as DB USA Corporation. Further revisions, such as stricter rules on the measurement of risks and the changes proposed by the November 2016 Package and the December 2017 Agreement, could further increase risk-weighted assets and the corresponding capital demand for banks, as well as further tighten liquidity requirements.

Furthermore, under the SRM Regulation, the BRRD and the German Recovery and Resolution Act, banks in the European Union are required to meet at all times a robust minimum requirement for own funds and eligible liabilities ("MREL") which is determined on a case-by-case basis by the competent resolution authority. In addition, on November 9, 2015, the Financial Stability Board ("FSB") published a new standard applicable to all G-SIBs (and not only European G-SIBs), such as Deutsche Bank, that will require, when transposed as law, G-SIBs to meet a new firm-specific minimum requirement for total loss-absorbing capacity ("TLAC") starting from January 2019. Also in order to facilitate the meeting of TLAC requirements by German banks, obligations of German banks under certain, specifically defined senior unsecured debt instruments issued by them (such as bonds that are not structured debt instruments) rank, since 2017, junior to all other outstanding unsecured unsubordinated obligations of such bank (such as deposits, derivatives, money market instruments and certain structured debt instruments), but continue to rank in priority to contractually subordinated debt instruments (such as Tier 2 instruments). Both the TLAC and MREL requirements are specifically designed to require banks to maintain a sufficient amount of instruments which are eligible to absorb losses in resolution with the aim of ensuring that failing banks can be resolved without recourse to taxpayers' money.

As part of the November 2016 Package, the European Commission published a proposal to implement the FSB's TLAC standard in the European Union and align it with MREL and also harmonize national rules on the priority of claims of banks' creditors in the European Union. This review comes as part of a broader review of the CRR/CRD 4 rules incorporating changes to the market risk framework, liquidity framework and leverage ratio calculation, amongst others. These rules are now subject to the EU co-decision process and will likely be subject to change over the coming months. As regards the harmonization of the national rules on the priority of claims, on December 27, 2017, the European Union published a directive amending the BRRD. The BRRD amendment will allow banks to issue "senior non-preferred" debt instruments ranking according to their terms (and not only statutorily) junior to the bank's other unsubordinated debt instruments (including bonds that are not treated as "senior non-preferred" debt instruments), but in priority to the bank's contractually subordinated liabilities (such as Tier 2 instruments). Any such "senior non-preferred" debt instruments issued by Deutsche Bank AG under the new rules are expected to rank pari passu with its then outstanding "senior non-preferred" debt instruments under the current rules. The BRRD amendment is required to be implemented into German law by December 29, 2018.

In the United States, on December 15, 2016, the Federal Reserve Board adopted final rules that implement the FSB's TLAC standard in the United States. The final rules, which apply beginning in 2019, require, among other things, the U.S. intermediate holding companies ("IHCs") of non-U.S. G-SIBs, including our IHC, DB USA Corporation, to maintain a minimum amount of TLAC, and separately require them to maintain a minimum amount of long-term debt meeting certain requirements.

While the final impact of the MREL and TLAC requirements will depend on their final implementation, the need to comply with such requirements may affect our business, financial condition and results of operation and in particular may increase our financing costs.

We may not have sufficient capital or other loss-absorbing liabilities to meet these increasing regulatory requirements. This could occur due to regulatory changes and other factors, such as the gradual phase out of our hybrid capital instruments qualifying as Additional Tier 1 (or AT1) capital or our inability to issue new securities which are recognized as regulatory capital or loss-absorbing liabilities under the new standards, due to an increase of risk-weighted assets based on more stringent rules for the measurement of risks or as a result of a future decline in the value of the euro as compared to other currencies, due to stricter requirements for the compliance with the non-risk based leverage ratio, due to any substantial losses we may incur, which would reduce our retained earnings, a component of Common Equity Tier 1 capital, or due to a combination of these or other factors.

If we are unable to maintain sufficient capital to meet the statutory minimum capital requirements, the buffer requirements or any specific "Pillar 2" capital requirements imposed on us by the ECB or capital ratios expected by the market, we may become subject to enforcement actions and/or restrictions on the pay-out of dividends, share buybacks, payments on our other regulatory capital instruments, and discretionary compensation payments. In addition, any requirement to increase risk-based capital ratios or the leverage ratio could lead us to adopt a strategy focusing on capital preservation and creation over revenue generation and profit growth, including the reduction of higher margin risk-weighted assets. If we are unable to increase our capital ratios to the regulatory minimum in such a case or by raising new capital through the capital markets, through the reduction of risk-weighted assets or through other means, we may be required to activate our group recovery plan. If these actions or other private or supervisory actions do not restore capital ratios to the levels required under the CRR/CRD 4 legislative package, and we are failing or likely to fail, competent authorities may apply resolution powers under the SRM Regulation, the German Recovery and Resolution Act and other applicable rules and regulations, which could lead to a significant dilution of our shareholders' or even the total loss of our shareholders' or creditors' investment.

Moreover, we are required to hold and calculate capital and to comply with rules on liquidity and risk management separately for our local operations in different jurisdictions. In the United States, the Federal Reserve Board has adopted rules that impose enhanced prudential standards on our U.S. operations. In February 2014, the Federal Reserve Board adopted U.S. prudential reforms (the “FBO Rules”) applicable to foreign banking organizations (“FBOs”). FBOs with U.S.\$ 50 billion or more in U.S. non-branch assets, such as Deutsche Bank, were required to establish or designate a separately capitalized top-tier U.S. IHC to hold substantially all of the FBO’s ownership interests in U.S. subsidiaries by July 1, 2016. On July 1, 2016, we designated DB USA Corporation as our IHC and, as of that date, DB USA Corporation became subject, on a sub-consolidated basis, to the capital requirements under the U.S. Basel 3 capital framework, capital planning and stress testing requirements (on a phased-in basis), U.S. liquidity buffer requirements and other enhanced prudential standards comparable to those applicable to top-tier U.S. bank holding companies of a similar size. Certain of these requirements also apply to our New York branch. U.S. leverage ratio and supplementary leverage ratio requirements applicable to DB USA Corporation as an IHC took effect beginning in January 2018. The Federal Reserve Board has the authority to examine an IHC, including DB USA Corporation, and any of its subsidiaries, and the U.S. branches and agencies of an FBO, including our New York branch.

In September 2014, the Federal Reserve Board and other U.S. regulators approved a final rule implementing liquidity coverage ratio (“LCR”) requirements for large U.S. banking holding companies and certain of their subsidiary depository institutions that are generally consistent with the Basel Committee’s revised Basel 3 liquidity standards. DB USA Corporation and our principal U.S. bank subsidiary Deutsche Bank Trust Company Americas (“DBTCA”) became subject to the full LCR on April 1, 2017.

On June 1, 2016, the Federal Reserve Board and other U.S. regulators proposed rules implementing the second element of the Basel 3 liquidity framework, the net stable funding ratio (“NSFR”), which measures whether an institution maintains sufficiently stable amounts of longer-term funding. Under the proposed rules, DB USA Corporation and DBTCA would be subject to the full NSFR, but this proposal has yet to be finalized and is not yet in effect.

Our combined U.S. operations, including our New York branch, are expected to become subject to additional quantitative requirements related to liquidity and risk management.

DB USA Corporation is subject to enhanced prudential standards applicable to large U.S. bank holding companies, including the requirement to submit a capital plan detailing proposed capital distributions and showing how, under stressed economic conditions, it would still meet or exceed its minimum regulatory requirements. DB USA Corporation provided its first capital plan submission to the Federal Reserve Board in April 2017; however, the results of its first submission were not made public by the Federal Reserve Board. DB USA Corporation will make its second capital plan submission to the Federal Reserve Board in April 2018 as part of the Federal Reserve Board’s annual Comprehensive Capital Analysis and Review (“CCAR”), the results of which will be made public by the Federal Reserve Board.

Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”) and the implementing regulations require each bank holding company with assets of U.S.\$ 50 billion or more, including Deutsche Bank AG, to prepare and submit annually a plan for the orderly resolution of subsidiaries and operations in the event of future material financial distress or failure (the “U.S. Resolution Plan”). For foreign-based covered companies such as Deutsche Bank AG, the U.S. Resolution Plan only relates to subsidiaries, branches, agencies and businesses that are domiciled in or conducted in whole or in material part in the United States. Deutsche Bank AG filed its most recent U.S. Resolution Plan in July 2015 and, as a foreign-based covered company, was not required to file one in 2016 or 2017. Our next U.S. Resolution Plan filing is due on July 1, 2018. If the Federal Reserve Board and the FDIC were to jointly deem our U.S. Resolution Plan not credible and we failed to remedy the deficiencies in the required timeframe, we could be required to restructure or reorganize businesses, legal entities, operational systems and/or intra-company transactions in ways that may negatively impact our operations and strategy, or could be subject to restrictions on growth. We could also eventually be subjected to more stringent capital, leverage or liquidity requirements, or be required to divest certain assets or operations.

U.S. rules and interpretations, including those described above, could cause us to reduce assets held in the United States, inject capital and/or liquidity into or otherwise change the structure of our U.S. operations. To the extent that we are required to reduce operations in the United States or deploy capital in the United States that could be deployed more profitably elsewhere, these requirements could have an adverse effect on our business, financial condition and results of operations.

Any increased capital or liquidity requirements, including those described above, could have adverse effects on our business, financial condition and results of operations, as well as on perceptions in the market of our stability, particularly if any such proposal becomes effective and results in our having to raise capital at a time when we or the financial markets are distressed, or take other measures to increase liquidity in certain jurisdictions due to local requirements. These measures we might be required or find necessary to take in response to these shifting local requirements may be inconsistent with, and hinder the achievement of our strategic goals. In addition, if these regulatory requirements must be implemented more quickly than currently foreseen, we may decide that the quickest and most reliable path to compliance is to reduce the level of assets on our balance sheet, dispose of divisions or otherwise segregate certain activities or reduce or close down certain business lines. The effects on our capital raising efforts in such a case could be amplified due to the expectation that our competitors, at least those subject to the same or similar capital requirements, would likely also be required to raise capital at the same time. Moreover, some of our competitors, particularly those outside the European Union, may not face the same or similar regulations, which could put us at a competitive disadvantage.

In addition to these regulatory initiatives, market sentiment may encourage financial institutions such as Deutsche Bank to maintain significantly more capital, liquidity and loss-absorbing capital instruments than regulatory-mandated minima, which could exacerbate the effects on us described above or, if we do not increase our capital to the encouraged levels, could lead to the perception in the market that we are undercapitalized relative to our peers generally.

It is unclear whether the increased U.S. capital and other requirements described above, as well as similar developments in other jurisdictions could lead to a fragmentation of supervision of global banks that could adversely affect our reliance on regulatory waivers allowing us to meet capital adequacy requirements, large exposure limits and certain organizational requirements on a consolidated basis only rather than on both a consolidated and non-consolidated basis. Should we no longer be entitled to rely on these waivers, we would have to adapt and take the steps necessary in order to meet regulatory capital requirements and other requirements on a consolidated as well as a non-consolidated basis, which could result also in significantly higher costs and potential effects on our profitability and dividend paying ability.

[Our regulatory capital and liquidity ratios and our funds available for distributions on our shares or regulatory capital instruments will be affected by our business decisions and, in making such decisions, our interests and those of the holders of such instruments may not be aligned, and we may take decisions in accordance with applicable law and the terms of the relevant instruments that result in no or lower payments being made on our shares or regulatory capital instruments.](#)

Our regulatory capital and liquidity ratios are affected by a number of factors, including decisions we make relating to our businesses and operations as well as the management of our capital position, of our risk-weighted assets and of our balance sheet in general, and external factors, such as regulations regarding the risk weightings we are permitted to allocate to our assets, commercial and market risks or the costs of our legal or regulatory proceedings. While we and our management are required to take into account a broad range of considerations in our and their managerial decisions, including the interests of the Bank as a regulated institution and those of our shareholders and creditors, particularly in times of weak earnings and increasing capital requirements, the regulatory requirements to build capital and liquidity may become paramount. Accordingly, in making decisions in respect of our capital and liquidity management, we are not required to adhere to the interests of the holders of instruments we have issued that qualify for inclusion in our regulatory capital, such as our Additional Tier 1 capital instruments. We may decide not to take any measures, including increasing our capital at a time when it is feasible to do so (through securities issuances or otherwise), even if our failure to take such an action would result in a non-payment or a write-down or other recovery- or resolution-related measure in respect of any of our regulatory capital instruments. Our decisions could cause the holders of such regulatory capital instruments to lose all or part of the value of their investments in these instruments due to their effect on our regulatory capital ratios, and such holders will not have any claim against us relating to such decisions, even if they result in a non-payment or a write-down or other recovery- or resolution-related measure in respect of such instruments they hold.

In addition, our annual profit and distributable reserves form an important part of the funds available for us to pay dividends on our shares and make payments on our other regulatory capital instruments, as determined in the case of each such instrument by its terms or by operation of law, and any adverse change in our financial prospects, financial position or profitability, or our distributable reserves, each as calculated on an unconsolidated basis, may have a material adverse effect on our ability to make dividend or other payments on these instruments. In addition, as part of the implementation of our strategy, we may record impairments that reduce the carrying value of subsidiaries on our unconsolidated balance sheet and reduce profits and distributable reserves. Future impairments or other events that reduce our profit or distributable reserves on an unconsolidated basis could lead us to be unable to make such payments in respect of future years in part or at all. In particular, the direct costs of our potential settlements of litigation, enforcement and similar matters, especially to the extent in excess of provisions we have established for them, and their related business impacts, if they occur, could impact such distributable amounts.

In addition, German law places limits on the extent to which annual profits and otherwise-distributable reserves, as calculated on an unconsolidated basis, may be distributed to our shareholders or the holders of our other regulatory capital instruments, such as our Additional Tier 1 capital instruments. Our management also has, subject to applicable law, broad discretion under the applicable accounting principles to influence all amounts relevant for calculating funds available for distribution. Such decisions may impact our ability to make dividend or other payments under the terms of our regulatory capital instruments.

Consistent with our updated strategy, our Management Board intends to propose to our Annual General Meeting in May 2018 to resolve the payment of a dividend of € 0.11 per share.

Legislation in the United States and in Germany regarding the prohibition of proprietary trading or its separation from the deposit-taking business has required us to modify our business activities to comply with applicable restrictions. This could adversely affect our business, financial condition and results of operations.

Rules implementing the U.S. “Volcker Rule” prohibit U.S. insured depository institutions and companies that control or are affiliated with U.S. insured depository institutions (such as Deutsche Bank) from engaging in proprietary trading of certain securities, derivatives, commodity futures and options on these instruments, for their own account. The final rules also impose limits or restrictions on investments in, and other relationships with, hedge funds, private equity funds and other private funds and limit the ability of banking entities and their affiliates to enter into certain transactions with such funds with which they or their affiliates have certain relationships. The Volcker Rule requires banking entities to establish comprehensive compliance programs designed to help ensure and monitor compliance with restrictions under the Volcker Rule.

In Germany, the German Act on the Separation of Risks and Recovery and Resolution Planning for Credit Institutions and Banking Groups (Trennbankengesetz), referred to as the “Separation Act”, provides that deposit-taking banks and their affiliates are prohibited from engaging in proprietary trading that does not constitute a service for others, high-frequency trading (with the exception of market-making activities), and credit or guarantee transactions with hedge funds and comparable enterprises, unless such activities are transferred to a separate legal entity. The separation requirement applies if certain thresholds are exceeded, which is the case for Deutsche Bank. In addition, the German Separation Act authorizes the BaFin, since July 1, 2016, to prohibit the deposit-taking bank and its affiliates, on a case-by-case basis, from engaging in market-making and other activities that are comparable to the activities prohibited by law, if these activities may put the solvency of the deposit-taking bank or any of its affiliates at risk. In the event that the BaFin orders such a prohibition, the respective activities must be discontinued or transferred to a separate legal entity (referred to as financial trading institution (Finanzhandelsinstitut)). The prohibition for deposit-taking banks and their affiliates to conduct activities associated with increased risks became effective on July 1, 2015, with a further transitional period of twelve months to accomplish the separation requirement, unless the BaFin extends this period. The German Separation Act became applicable to Deutsche Bank Group on July 1, 2017, after the extension of the period to cease or transfer the activities concerned expired on June 30, 2017. The German Separation Act requires ongoing surveillance of the activities of banks within the scope of the legislation and assessment of compliance and control frameworks to ensure that no prohibited activities are conducted. Non-compliance with the prohibitions set forth in the German Separation Act could ultimately result in civil and criminal liability.

The Volcker Rule and the German Separation Act have required us to modify our business activities to comply with their restrictions, as well as to implement detailed compliance programs. As a result, we no longer engage in certain business activities from which we once profited. This could adversely affect our business, financial condition and results of operations.

Other regulatory reforms adopted or proposed in the wake of the financial crisis – for example, extensive new regulations governing our derivatives activities, compensation, bank levies, deposit protection or a possible financial transaction tax – may materially increase our operating costs and negatively impact our business model.

Beyond capital requirements, recovery and resolution planning, separation of certain bank activities and other requirements discussed above, we are affected, or expect to be affected, by various additional regulatory reforms adopted or proposed in the wake of the financial crisis including, among other things, new regulations governing our derivatives activities, compensation, bank levies, deposit protection or a possible financial transaction tax.

On August 16, 2012, the EU Regulation on over-the-counter (“OTC”) derivatives, central counterparties and trade repositories, referred to as EMIR, entered into force. EMIR introduced a number of requirements, including clearing obligations for certain classes of OTC derivatives and various reporting and disclosure obligations. Although some of the particular effects brought about by EMIR are not yet fully foreseeable, many of its elements have led and may lead to changes which may negatively impact our profit margins, require us to adjust our business practices or increase our costs (including compliance costs). The revised Markets in Financial Instruments Directive (“MiFID 2”) and the corresponding Regulation (“MiFIR”) became applicable to us on January 3, 2018 and provide for, among other things, a trading obligation for those OTC derivatives which are subject to mandatory clearing and which are sufficiently standardized. We will also be impacted by the BCBS-IOSCO final minimum standards for margin requirements for non-centrally cleared derivatives, for which enabling legislation exists in the EU (EMIR and implementing regulations) but where much of the impact depends on how these requirements are further implemented.

In the United States, the Dodd-Frank Act has numerous provisions that affect or may affect our operations. Pursuant to regulations implementing provisions of the Dodd-Frank Act, we provisionally registered as a swap dealer with the U.S. Commodity Futures Trading Commission (“CFTC”) and became subject to the CFTC’s extensive oversight. Regulation of swap dealers by the CFTC imposes numerous corporate governance, business conduct, capital, margin, reporting, clearing, execution and other regulatory requirements on us. It also requires us to comply with certain U.S. rules in some circumstances with respect to transactions conducted outside of the United States or with non-U.S. persons. Although the coverage of EMIR and CFTC regulations implementing the Dodd-Frank Act is in many ways similar, certain swaps may be subject to both regulatory regimes to a significant extent. However, the CFTC’s guidance on cross-border swaps regulation, as well as the margin requirements recently adopted by the U.S. bank regulatory agencies and the CFTC, may allow us to comply with some, but not all, U.S. regulatory requirements on a substituted basis by complying with EMIR and MiFID. The requirements under the Dodd-Frank Act may adversely affect our derivatives business and make us less competitive, especially as compared to competitors not subject to such regulation. Additionally, under the Dodd-Frank Act, security-based swaps are subject to a standalone regulatory regime under the jurisdiction of the U.S. Securities and Exchange Commission (“SEC”). The SEC is finalizing rules for its security-based swap regime that are expected to be parallel to, but not identical to, the CFTC’s regulation of swaps. This will impose further regulation of our derivatives business.

In addition, the CRR/CRD 4 legislative package provides for executive compensation reforms including caps on bonuses that may be awarded to “material risk takers” and other employees as defined therein and in the German Banking Act and other applicable rules and regulations such as the Remuneration Regulation for Institutions (Institutsvergütungsverordnung). Such restrictions on compensation, including any guidelines issued by the EBA to further implement them, could put us at a disadvantage to our competitors in attracting and retaining talented employees, especially compared to those outside the European Union that are not subject to these caps and other constraints.

Following the financial crisis, bank levies have been introduced in some countries including, among others, Germany and the United Kingdom. We accrued € 596 million for bank levies in 2017, € 547 million in 2016 and € 653 million in 2015. Also, we are required to contribute substantially to the Single Resolution Fund (“SRF”) under the SRM (which is intended to reach a target level of 1 % of insured deposits of all banks in member states participating in the SRM by the end of 2023) and the statutory deposit guarantee and investor compensation schemes under the recast European Union directive on deposit guarantee schemes (“DGS Directive”) and the European Union directive on investor compensation schemes. The DGS Directive defines a 0.8 % target level of prefunding by 2024 (similar to resolution funds), which has significantly increased the costs of the statutory deposit protection scheme. In addition, in this context, on November 24, 2015, the European Commission proposed a regulation to establish a European Deposit Insurance Scheme, or “EDIS” for bank deposits of all credit institutions that are members of any of the current national statutory deposit guarantee schemes of member states participating in the banking union. While the total impact of these future levies cannot currently be quantified, they may have a material adverse effect on our business, financial condition and results of operations in future periods.

Separately, on January 22, 2013, the Council of the European Union adopted a decision authorizing eleven EU member states (Austria, Belgium, Estonia, France, Germany, Greece, Italy, Portugal, Slovakia, Slovenia and Spain) to proceed with the introduction of a financial transaction tax under the European Union’s “enhanced cooperation procedure”. The European Commission on February 14, 2013 adopted a draft directive for the implementation of the financial transaction tax. Following several rounds of political discussions there is currently no timetable for the conclusion of an agreement. If a financial transaction tax is ultimately adopted, depending on its final details, it could result in compliance costs as well as market consequences and have a material adverse effect on our profit and business.

Adverse market conditions, asset price deteriorations, volatility and cautious investor sentiment have affected and may in the future materially and adversely affect our revenues and profits, particularly in our investment banking, brokerage and other commission- and fee-based businesses. As a result, we have in the past incurred and may in the future incur significant losses from our trading and investment activities.

As a global investment bank, we have significant exposure to the financial markets and are more at risk from adverse developments in the financial markets than are institutions engaged predominantly in traditional banking activities. Sustained market declines have in the past caused and can in the future cause our revenues to decline, and, if we are unable to reduce our expenses at the same pace, can cause our profitability to erode or cause us to show material losses. Volatility can also adversely affect us, by causing the value of financial assets we hold to decline or the expense of hedging our risks to rise. Reduced customer activity can also lead to lower revenues in our “flow” business.

Specifically, our investment banking revenues, in the form of financial advisory and underwriting fees, directly relate to the number and size of the transactions in which we participate and are susceptible to adverse effects from sustained market downturns. These fees and other income are generally linked to the value of the underlying transactions and therefore can decline with asset values. In addition, periods of market decline and uncertainty tend to dampen client appetite for market and credit risk, a critical driver of transaction volumes and investment banking revenues, especially transactions with higher margins. In recent and other times in the past, decreased client appetite for risk has led to lower levels of activity and lower levels of profitability in our Corporate & Investment Bank corporate division. Our revenues and profitability could sustain material adverse effects from a significant reduction in the number or size of debt and equity offerings and merger and acquisition transactions.

Market downturns also have led and may in the future lead to declines in the volume of transactions that we execute for our clients and, therefore, to declines in our noninterest income. In addition, because the fees that we charge for managing our clients' portfolios are in many cases based on the value or performance of those portfolios, a market downturn that reduces the value of our clients' portfolios or increases the amount of withdrawals reduces the revenues we receive from our asset management and private banking businesses. Even in the absence of a market downturn, below-market or negative performance by our investment funds may result in increased withdrawals and reduced inflows, which would reduce the revenue we receive from our asset management business. While our clients would be responsible for losses we incur in taking positions for their accounts, we may be exposed to additional credit risk as a result of their need to cover the losses where we do not hold adequate collateral or cannot realize it. Our business may also suffer if our clients lose money and we lose the confidence of clients in our products and services.

In addition, the revenues and profits we derive from many of our trading and investment positions and our transactions in connection with them can be directly and negatively impacted by market prices, which have been volatile in prior years. In each of the product and business lines in which we enter into these trading and investment positions, part of our business entails making assessments about the financial markets and trends in them. When we own assets, market price declines can expose us to losses. Many of the more sophisticated transactions of our Corporate & Investment Bank corporate division are designed to profit from price movements and differences among prices. If prices move in a way we have not anticipated, we may experience losses. Also, when markets are volatile, the assessments we have made may prove to lead to lower revenues or profits, or may lead to losses, on the related transactions and positions. In addition, we commit capital and take market risk to facilitate certain capital markets transactions; doing so can result in losses as well as income volatility. Such losses may especially occur on assets we hold for which there are not very liquid markets initially. Assets that are not traded on stock exchanges or other public trading markets, such as derivatives contracts between banks, may have values that we calculate using models other than publicly-quoted prices. Monitoring the deterioration of prices of assets like these is difficult and could lead to losses we did not anticipate. We can also be adversely affected if general perceptions of risk cause uncertain investors to remain on the sidelines of the market, curtailing their activity and in turn reducing the levels of activity in those of our businesses dependent on transaction flow.

[We announced the next phase of our strategy in April 2015, gave further details on it in October 2015 and announced an update in March 2017. If we are unable to implement our strategic plans successfully, we may be unable to achieve our financial objectives, or we may incur losses or low profitability or erosions of our capital base, and our financial condition, results of operations and share price may be materially and adversely affected.](#)

We announced the next phase of our strategy in April 2015, gave further details on it in October 2015 and announced an update in March 2017. Our plans included becoming simpler and more efficient by focusing on the markets, products and clients where we are better positioned to succeed, becoming less risky by modernizing our technology and by withdrawing from higher-risk client relationships, becoming better capitalized and running the Bank in a more disciplined way. In October 2015 we announced specific execution measures for each business division and updated our financial targets to highlight the financial objectives of our strategy. In March 2017, we announced an update that includes a number of new steps to further strengthen the Bank and place it in a better position to pursue growth opportunities, including a € 8 billion capital raise, the reorganization of our business into three distinct units, the combination of Postbank's and PCB's German business, the establishment of a cost reduction plan as described below, and an update to the Group's targets. The details of our strategy are set forth in "Item 4: Information on the Company – Business Overview – Our Business Strategy."

Our strategic goals are subject to various internal and external factors including market, regulatory, economic and political uncertainties, and to limitations relating to our operating model. These could negatively impact or prevent the implementation of our strategic goals or the realization of their anticipated benefits. Economic uncertainties such as the recurrence of extreme turbulence in the markets; potential weakness in global, regional and national economic conditions; the continuation of a market environment characterized by low interest rates and low volatility; increased competition for business; and political instability, especially in Europe, may impact our ability to achieve our strategic goals. Regulatory changes could also adversely impact our ability to achieve our strategic aims. In particular, regulators could demand changes to our business model or organization that could reduce our profitability, or we may be forced to make changes that reduce our profitability in an effort to remain compliant with law and regulation. We are also involved in numerous litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside of Germany, especially in the U.S. Such matters are subject to many uncertainties. We expect the litigation environment to continue to be challenging. If litigation and regulatory matters continue to occur at the same rate and magnitude as in recent years or if we are subject to sustained market speculation about our potential settlement of such matters, we may not be able to achieve our strategic aspirations.

In particular, macroeconomic risks and the risks relating to regulatory changes and our legal proceedings may impact our ability to meet our financial and capital targets. As financial targets, we are aiming to achieve a post-tax return on tangible equity of approximately 10 %, assuming a normalized operating environment, in addition to the cost-related targets and net revenues expectations referred to below. Our capital targets comprise a fully loaded Common Equity Tier 1 capital ratio comfortably above 13.0 %, and a leverage ratio of 4.5 % over time. Furthermore, we intend to target a competitive dividend payout ratio for the financial year 2018 and thereafter. Our strategy is based on an ambitious financial plan with, we believe, some buffer for downside scenarios and contingencies. However, the base case scenario for our financial and capital plan includes revenue

growth estimates which are dependent on positive macroeconomic developments. Stagnation or a downturn in the macroeconomic environment could significantly impact our ability to generate the revenue growth necessary to achieve these strategic financial and capital targets. Furthermore, even if we are able to grow our revenues in accordance with our strategic plans, the materialization of any of the regulatory changes or the costs for us – in terms of the outcomes or necessary changes to our businesses – of the litigation and regulatory matters mentioned above, including market speculation about our potential settlement of them, or any other unforeseen risk, could adversely impact our net income and thereby cause us to fall short of our strategic financial and capital targets.

In March 2017, we announced an adjusted costs target of approximately € 22 billion for 2018 including approximately € 900 million of planned cost savings through business disposals. While we have made some progress on planned disposals, some of them have been delayed or in some cases suspended. As a result, we currently do not expect to achieve the planned € 900 million of cost savings in 2018. Furthermore, we expect higher costs from Brexit and MiFID II implementation in 2018 than we had anticipated when we set our adjusted costs target. Additionally, some of the cost synergies we expected to realize in 2018 from the merger of Postbank into our German banking entity have been delayed as we now expect this merger to be completed in the second quarter of 2018. Those savings are now expected to be realized in 2019. Therefore, we now expect our adjusted costs in 2018 will be about € 23 billion, which reflects our original € 22 billion target plus the cost impact of the delayed and suspended business disposals. We target a further reduction in our adjusted costs in the years to 2021 to € 21 billion. This target, however, depends in part on our ability to execute those business disposals that we do expect to complete by 2021 successfully and within the timeframes we now plan for them. We may be unable to complete those business disposals we intend to complete on a delayed basis due to market developments or an inability to achieve dispositions on sufficiently attractive terms. Our achievement of our adjusted costs targets may also be hindered if our efforts to improve our internal control environment and enhance our regulatory compliance functions prove to be more expensive than we anticipate.

Our capital targets are further dependent on our ability to reduce the size of our balance sheet in accordance with our strategy. We plan disposals of a number of smaller businesses, and we also plan for CIB to separately manage identified legacy asset portfolios. Difficult market conditions or regulatory uncertainties may prevent us from being able to dispose of assets at all, or at prices we would consider to be reasonable, thereby causing us either to sell these assets for losses (or losses that are higher than expected) or hold these assets for a longer period of time than desired or planned. If we cannot reduce our risk-weighted assets or leverage exposure according to plan, we may not be able to achieve the capital targets set out under our strategy.

Our strategic objectives are also subject to the following assumptions and risks:

- We assume that we will be able to overcome significant challenges arising from our business model. We continue to rely on our trading and markets businesses as a significant source of profit. However, these businesses, in particular our fixed income securities franchise, have continued to face an extremely challenging environment, caused by uncertainty about the duration of the market environment characterized by low interest rates and low volatility, low levels of client activity, negative perceptions about our business and central bank intervention in markets and the gradual cessation thereof. We are substantially dependent on the performance of these businesses, and this dependency exceeds that of many of our competitors. Many of our businesses dependent on client flow are increasingly challenged in the current market environment. In addition, some of our businesses may be resistant to change, posing risks to the implementation of changes to our business model. Should we be unable to implement this new business model successfully, or should the new business model fail to be profitable, we may not be able to achieve some or all of our strategic goals.
- While asset and client levels have largely rebounded from the impact of the negative market perceptions in the fourth quarter 2016, a renewed negative market focus on Deutsche Bank could result in new client and asset outflows.
- Given the operating environment in 2016, the Management Board decided to cancel the discretionary bonus element of the compensation for the Bank's senior employees for that year. Across all our businesses, we need to attract and retain highly qualified staff. The decision to cancel the discretionary bonus element for 2016 may adversely affect our ability to succeed in attracting or retaining highly qualified employees. We restored this element of compensation for 2017 even though our operating environment remains challenging. If our efforts to attract and/or retain employees should fail, this may have a material adverse effect on our ability to implement our strategy and may reduce our future compensation flexibility.
- We currently operate a highly complex infrastructure, which can compromise the quality of the overall control environment. Establishing a more efficient bank with a strong control environment depends on successfully streamlining and simplifying the IT landscape as well as cultural change. Furthermore, capital and execution plans require robust monitoring and tracking that is dependent on accurate, timely and relevant data. We have undertaken initiatives designed to address existing challenges in our IT and data architecture as well as in our data aggregation capabilities. Potential delays and challenges to implementing these initiatives would impact our ability to achieve efficiency improvements and enhance the control environment, thereby affecting our ability to implement our strategy successfully.
- A robust and effective internal control environment is necessary to ensure that we conduct our business in compliance with the laws and regulations applicable to us. We are undertaking several major initiatives to enhance the efficacy of the transaction processing environment, strengthen our controls and manage non-financial risks, in particular as a response to the circumstances that have resulted in many of the litigations and regulatory and enforcement investigations and proceedings to which the Bank has been subject in recent years. However, we may be unable to complete these initiatives as quickly as we intend or as our regulators demand, and our efforts may be insufficient to prevent all future deficiencies in our control en-

vironment or to result in fewer litigations or regulatory and enforcement investigations and proceedings in the future. Furthermore, implementation of enhanced controls may result in higher than expected costs of regulatory compliance that could offset efficiency gains. Any of these factors could affect our ability to implement our strategy in a timely manner or at all.

- The buffers that we have provided for in our financial targets may prove to be insufficient in a downside scenario. We have already seen challenges to our adjusted costs target for 2018 due to delays and suspensions in planned business disposals. Should we exhaust buffers we have included in other financial targets, whether as a result of the macroeconomic, regulatory, litigation or other factors discussed above or for reasons we have not yet anticipated, we may fail to meet our strategic targets.
- If we fail to implement our strategic initiatives in whole or in part or should the initiatives that are implemented fail to produce the anticipated benefits, or should the costs we incur to implement our initiatives exceed the amounts anticipated, or should we fail to achieve the publicly communicated targets we have set for implementation of these initiatives, we may fail to achieve our financial objectives, or incur losses or low profitability or erosions of our capital base, and our financial condition, results of operations and share price may be materially and adversely affected.

As part of our strategic initiatives announced in March 2017, we reconfigured our Global Markets, Corporate Finance and Transaction Banking businesses into a single Corporate & Investment Bank division to position ourselves for growth through increased cross-selling opportunities for Deutsche Bank's higher return corporate clients. Clients may choose not to expand their businesses or portfolios with us, thereby negatively influencing our ability to capitalize on these opportunities.

As part of our strategic initiatives announced in March 2017, we reconfigured our Global Markets, Corporate Finance and Transaction Banking businesses into a single Corporate & Investment Bank division. The combination, which took effect in the second quarter of 2017, is intended to promote a more seamless and aligned offering of products to clients, meaningfully enhance cross selling opportunities, ensure better client rationalization with resources being focused on higher return relationships, and achieve greater cost and asset efficiencies to drive improved returns. Our clients' product needs, business plans and general willingness to engage into a deeper banking relationship with us will ultimately determine whether we are successful in capturing this anticipated spending. Should we be unable to deliver on the cross-selling efforts due to either lack of client demand, product availability or quality or delivery, there is a risk that this could negatively influence our ability to capitalize on these opportunities. The aforementioned macroeconomic, geo-political and regulatory risks also pose a challenge to the operating models of our Corporate & Investment Bank clients, and our ability to capture the incremental opportunity.

As part of our March 2017 updates to our strategy, we announced our intention to retain and combine Deutsche Postbank AG (together with its subsidiaries, "Postbank") with our existing retail and commercial operations, after earlier having announced our intention to dispose of Postbank. We may face difficulties integrating Postbank into the Group following the completion of operational separability from the Group. Consequently, the cost savings and other benefits we expect to realize may only come at a higher cost than anticipated, or may not be realized at all.

As part of our March 2017 updates to our strategy, we announced our intention to retain and combine Postbank with our existing retail and commercial operations, both of which are part of our Private & Commercial Bank division, after earlier having announced our intention to dispose of Postbank. This shift from the prior strategy reflects a number of evolving factors, including our belief that growth in small and mid-sized German corporate clients and private banking clients will continue, changes in the expected regulatory requirements and market expectations for leverage ratios of European banks, the positive impact on the business model of retaining a large and stable business with a substantial deposit base, our revised view on the possible degree of integration of Postbank and the resulting scale and incremental synergies, and future growth opportunities we have identified, reflecting a potential improvement in the macroeconomic outlook and the changing dynamics in private and commercial banking, the growing likelihood of eventual industry consolidation in German retail banking and the continued positive opportunities presented by digitization.

To this end, Postbank and Deutsche Bank Privat- und Geschäftskunden AG will be merged into one single legal entity by the end of the second quarter of 2018. We expect that the integration of Postbank will create Germany's largest private and commercial bank. This integration is intended to achieve cost efficiencies by more readily permitting rationalization of central functions, improved efficiency across technology platforms and infrastructure and more efficient investment in areas including digitization, distribution channels and regulatory change.

We estimate that the total cost of the planned restructuring measures to integrate Postbank into the Group and other investments will be € 1.9 billion, with restructuring and severance costs estimated to be approximately € 1.0 billion by 2022 and the remainder related to IT and other costs, and we are targeting substantial synergies, gradually rising to about € 0.9 billion annually by 2022. Unforeseen difficulties may emerge in connection with the integration efforts, including potential difficulties due to differing IT systems, difficulties in integrating personnel, the commitment of management resources in connection with the integration process and the potential loss of key personnel. The benefits, cost and timeframe of the integration could be adversely affected by any of these factors, as well as a variety of factors beyond our and Postbank's control, such as negative market developments. Should any of these risks materialize, the cost savings and other benefits we expect to realize from the integration may only come at a higher cost than anticipated, or may not be realized within the period we anticipate or to the extent we plan, or at all.

As part of our March 2017 updates to our strategy, we announced our intention to create an operationally segregated Asset Management division through a partial initial public offering (IPO). If economic or market conditions, or the financial position, results of operations and business prospects of Deutsche AM, are unfavorable, we may not be able to sell a stake in Deutsche AM at a favorable price or timing, or at all. Additionally, we may not be able to capitalize on the expected benefits that we believe an operationally segregated Deutsche AM can offer.

In March 2017, we announced our intention to create a segregated Asset Management business and sell a minority interest in it in an initial public offering (IPO). We believe that the growth potential of Deutsche Asset Management (Deutsche AM) has been constrained by its full ownership by the Bank, with reputational issues and wider market concerns around Deutsche Bank's capital strength in late 2016 affecting Deutsche AM. Additionally, resourcing limitations, as Deutsche Bank has pursued its restructuring efforts, further constrained Deutsche AM. We therefore believe that Deutsche AM remains undervalued in the current corporate structure. Accordingly, we intend to sell a minority stake in Deutsche AM and provide the division with more flexibility to enhance its ability to pursue growth opportunities globally and gain market share.

We may, however, have difficulties selling a stake in Deutsche AM at a favorable price or timing, or at all. Our ability to sell a stake in Deutsche AM will, among other things, depend on economic, regulatory and market conditions, particularly those relevant to the asset management business in Germany. Our ability to sell a stake in Deutsche AM will also depend on the financial position, results of operations and business prospects of Deutsche AM. If economic, regulatory or market conditions, or the financial position, results of operations and business prospects of Deutsche AM, are unfavorable, we may not be able to sell a stake in Deutsche AM at a favorable price or timing, or at all. Additionally, we may not be able to capitalize upon the expected benefits that we believe a more operationally segregated Deutsche AM has to offer. Furthermore, an IPO of Deutsche AM may not entirely mitigate the market concerns about Deutsche Bank that impacted Deutsche AM's business in 2016 or that may arise from new circumstances with a similar impact.

We may have difficulties selling companies, businesses or assets at favorable prices or at all and may experience material losses from these assets and other investments irrespective of market developments.

As part of our strategy, we are seeking to continue to reduce our assets, including in particular those of our CIB corporate division, as described above. We also have other assets that are not part of our core business, and we may seek to sell them or otherwise reduce the amount and the risk of our exposure to them. These reductions are part of our strategy to simplify and focus our business and to meet or exceed the new capital and leverage requirements by reducing risk-weighted assets and leverage exposures and thereby improving our capital and leverage ratios, as well as to help us meet our return on tangible equity target. This strategy may prove difficult in the current and future market environment as many of our competitors are also seeking to dispose of assets to improve their capital and leverage ratios and returns on equity. We have already sold a substantial portion of our non-core assets, and our remaining non-core assets may be particularly difficult for us to sell as quickly as we have expected at prices we deem acceptable. Also, we are often a passive investor in such investments and as such we are reliant on the actions of third parties. Where we sell companies or businesses, we may remain exposed to certain of their losses or risks under the terms of the sale contracts, and the process of separating and selling such companies or businesses may give rise to operating risks or other losses. Unfavorable business or market conditions may make it difficult for us to sell companies, businesses or assets at favorable prices, or may preclude a sale altogether. If we cannot reduce our assets according to plan, we may not be able to achieve the capital targets set out under our strategy.

A robust and effective internal control environment and adequate infrastructure (comprising people, policies and procedures, controls testing and IT systems) are necessary to ensure that we conduct our business in compliance with the laws, regulations and associated supervisory expectations applicable to us. We have identified the need to strengthen our internal control environment and infrastructure and have embarked on initiatives to accomplish this. If these initiatives are not successful or are delayed, our reputation, regulatory position and financial condition may be materially adversely affected, and our ability to achieve our strategic ambitions may be impaired.

Our businesses are highly dependent on our ability to maintain a robust and effective internal control environment. This is needed for the Bank to process and monitor, on a daily basis, a wide variety of transactions, many of which are highly complex and occur at high speeds, volumes and frequencies, and across numerous and diverse markets and currencies. Such a robust and effective control environment is in turn dependent on the sufficiency of our infrastructure to support that environment. This infrastructure consists broadly of internal policies and procedures, testing protocols, and the IT systems and employees needed to enforce and enable them. An effective control environment is dependent on infrastructure systems and procedures that cover the processing and settling of transactions; the valuation of assets; the identification, monitoring, aggregation, measurement and reporting of risks and positions against various metrics; the evaluation of counterparties and customers for legal, regulatory and compliance purposes; the escalation of reviews; and the taking of mitigating and remedial actions where necessary. They are also critical for regulatory reporting and other data processing and compliance activities.

Both our internal control environment and the infrastructure that underlies it fall short in a number of areas of our standards for completeness and comprehensiveness and are not well integrated across the Bank. Our IT infrastructure, in particular, is fragmented, with numerous distinct platforms, many of which need significant upgrades, in operation across the Bank. Our business processes and the related control systems often require manual procedures and actions that increase the risks of human error and other operational problems that can lead to delays in reporting information to management and to the need for more adjustments and revisions than would be the case with more seamlessly integrated and automated systems and processes. As a result, it is often difficult and labor-intensive for us to obtain or provide information of a consistently high quality and on a timely basis to comply with regulatory reporting and other compliance requirements or to meet regulatory expectations on a consistent basis and, in certain cases, to manage our risk comprehensively. Furthermore, it often takes intensive efforts to identify, when possible, inappropriate behavior by our staff and attempts by third parties to misuse our services as a conduit for prohibited activities, including those relating to anti-financial crime laws and regulation.

In addition, we may not always have the personnel with the appropriate experience, seniority and skill levels to compensate for shortcomings in our processes and infrastructure, or to identify, manage or control risks, and it often has been difficult to attract and retain the requisite talent. This has impacted our ability to remediate existing weaknesses and manage the risks inherent in our activity.

Against this backdrop, our regulators, our Management Board and our Group Audit function have increasingly and more intensively focused on our internal controls and infrastructure through numerous formal reviews and audits of our operations. These reviews and audits have identified various areas for improvement relating to a number of elements of our control environment and infrastructure. These include the infrastructure relating to transaction capturing and recognition, classification of assets, asset valuation frameworks, data and process consistency, risk identification, measurement and management and other processes required by laws, regulations, and supervisory expectations. They also include regulatory reporting, anti-money laundering (AML), "know your customer" and other internal processes that are aimed at preventing use of our products and services for the purpose of committing or concealing financial crime. As one example, our January 2017 settlement with the UK Financial Conduct Authority (FCA) relating to trading activities involving our Russian operations stemmed in part from the FCA's review of the AML control functions in our investment bank.

Our principal regulators, including the ECB and the Federal Reserve Board, have also conducted numerous reviews focused on various aspects of our internal controls and the related infrastructure, including among others, controls around AML and around valuation. These regulators have required us formally to commit to remediate our AML and other weaknesses, including the fragmented and manual nature of our infrastructure. Local regulators in other countries in which we do business also review the sufficiency of our control environment and infrastructure with respect to their jurisdictions. While the overall goals of the various prudential regulators having authority over us in the many places in which we do business are broadly consistent, and the general themes of our deficiencies in internal controls and the supporting infrastructure are similar, the regulatory frameworks applicable to us in the area of internal controls are generally applicable at a national or EU-wide level and are not always consistent across the jurisdictions in which we operate around the world. This adds complexity and cost to our efforts to reduce fragmentation and put in place automated systems that communicate seamlessly and quickly with one another.

In order to improve in the areas discussed above, we are undertaking several major initiatives to enhance the efficacy of the transaction processing environment, strengthen our controls and infrastructure, manage non-financial risks and enhance the skill set of our personnel. We believe that these initiatives will better enable us to avoid the circumstances that have resulted in many of the litigations and regulatory and enforcement investigations and proceedings to which we have recently been subject, and will improve our ability to comply with laws and regulations and meet supervisory expectations. In particular, we are making efforts to reduce the complexity of our business and to integrate and automate processes and business and second-line controls. We have also exited certain businesses, for example in Russia, selectively off-boarded a number of clients, worked to strengthen our compliance culture and control functions and increased the size of and strengthened our Group Audit function. However, we may be unable to complete these initiatives as quickly as we intend or as our regulators demand, and our efforts may be insufficient to remediate existing deficiencies and prevent future deficiencies or to result in fewer litigations or regulatory and enforcement investigations, proceedings and criticism in the future. We may also, when faced with the considerable expense of these initiatives, fail to provide sufficient resources for them quickly enough or at all, especially during periods when our operating performance and profitability are challenged. If we are unable to significantly improve our infrastructure and control environment in a timely manner, some of our regulators may require us to reduce our exposure to or terminate certain kinds of products or businesses, counterparties or regions, which could, depending on the extent of such requirement, significantly challenge our ability to operate profitably under our current business model.

Regulators can also impose capital surcharges, requiring capital buffers in addition to those directly required under the regulatory capital rules applicable to us, to reflect the additional risks posed by deficiencies in our control environment. In extreme cases, regulators can suspend our permission to operate in the businesses and regions within their jurisdictions or require extensive and costly remedial actions. Furthermore, implementation of enhanced infrastructure and controls may result in higher-than-expected costs of regulatory compliance that could offset or exceed efficiency gains or significantly affect our profitability. Any of these factors could affect our ability to implement our strategy in a timely manner or at all.

We operate in a highly and increasingly regulated and litigious environment, potentially exposing us to liability and other costs, the amounts of which may be substantial and difficult to estimate, as well as to legal and regulatory sanctions and reputational harm.

The financial services industry is among the most highly regulated industries. Our operations throughout the world are regulated and supervised by the central banks and regulatory authorities in the jurisdictions in which we operate. In recent years, regulation and supervision in a number of areas has increased, and regulators, law enforcement authorities, governmental bodies and others have sought to subject financial services providers to increasing oversight and scrutiny, which in turn has led to additional regulatory investigations or enforcement actions. This trend has accelerated markedly as a result of the global financial crisis. There has been a steep escalation in the severity of the terms which regulators and law enforcement authorities have required to settle legal and regulatory proceedings against financial institutions, with recent settlements including unprecedented monetary penalties as well as criminal sanctions. As a result, we may continue to be subject to increasing levels of liability and regulatory sanctions, and may be required to make greater expenditures and devote additional resources to addressing these liabilities and sanctions. Regulatory sanctions may include status changes to local licenses or orders to discontinue certain business practices.

We and our subsidiaries are involved in various litigation proceedings, including civil class action lawsuits, arbitration proceedings and other disputes with third parties, as well as regulatory proceedings and investigations by both civil and criminal authorities in jurisdictions around the world. We expect that the costs to us arising from the resolution of litigation, enforcement and similar matters pending against us to continue to be significant in the near to medium term and to adversely affect our business, financial condition and results of operations. Litigation and regulatory matters are subject to many uncertainties, and the outcome of individual matters is not predictable with assurance. We may settle litigation or regulatory proceedings prior to a final judgment or determination of liability. We may do so for a number of reasons, including to avoid the cost, management efforts or negative business, regulatory or reputational consequences of continuing to contest liability, even when we believe we have valid defenses to liability. We may also do so when the potential consequences of failing to prevail would be disproportionate to the costs of settlement. Furthermore, we may, for similar reasons, reimburse counterparties for their losses even in situations where we do not believe that we are legally compelled to do so. The financial impact of legal risks might be considerable but may be difficult or impossible to estimate and to quantify, so that amounts eventually paid may exceed the amount of provisions made or contingent liabilities assessed for such risks.

We are under continuous examination by tax authorities in the jurisdictions in which we operate. Tax laws are increasingly complex. In the current political and regulatory environment, tax administrations' and courts' interpretation of tax laws and regulations and their application are evolving, and scrutiny by tax authorities has become increasingly intense. On December 22, 2017, the new U.S. tax legislation, known as the "Tax Cuts and Jobs Act" or "TCJA", was signed into law. The TCJA includes a number of provisions, such as the Base Erosion Anti-Abuse Tax, that are subject to interpretation and for which further interpretative guidance through technical corrections or treasury regulations may be issued over the coming months and years. In addition, wide ranging changes in the principles of international taxation emanating from the OECD's Base Erosion and Profit Shifting agenda are generating significant uncertainties for us and our subsidiaries and may result in an increase in instances of bilateral tax disputes going forward, as member states may take different approaches in transposing these requirements into national law. Tax administrations have also been focusing on the eligibility of taxpayers for reduced withholding taxes on dividends in connection with certain cross-border lending or derivative transactions with the German Federal Ministry of Finance having issued administrative guidance in this area. As a result, the cost to us arising from the conclusion and resolution of routine tax examinations, tax litigation and other forms of tax proceedings or tax disputes, as well as from rapidly changing and increasingly complex and uncertain tax laws and principles, may increase and may adversely affect our business, financial condition and results of operation.

Investigations involving the Bank and actions currently pending against us or our current or former employees may not only result in judgments, settlements, fines or penalties, but may also cause substantial reputational harm to us. The risk of damage to our reputation arising from such investigations and actions is also difficult or impossible to quantify.

Regulators have increasingly sought admissions of wrongdoing in connection with settlement of matters brought by them. This could lead to increased exposure in subsequent civil litigation or in consequences under so-called "bad actor" laws, in which persons or entities determined to have committed offenses under some laws can be subject to limitations on business activities under other laws, as well as adverse reputational consequences. In addition, the DOJ conditions the granting of cooperation credit in civil and criminal investigations of corporate wrongdoing on the company involved having provided to investigators all relevant facts relating to the individuals responsible for the alleged misconduct. This policy may result in increased fines and penalties if the DOJ determines that we have not provided sufficient information about applicable individuals in connection with an investigation. Other governmental authorities could adopt similar policies.

In addition, the financial impact of legal risks arising out of matters similar to some of those we face have been very large for a number of participants in the financial services industry, with fines and settlement payments greatly exceeding what market participants may have expected and, as noted above, escalating steeply over the last few years to unprecedented levels. The experience of others, including settlement terms, in similar cases is among the factors we take into consideration in determining the level of provisions we maintain in respect of these legal risks. Recent developments in cases involving other financial institutions have led to greater uncertainty as to the predictability of outcomes and could lead us to add to our provisions. Moreover, the costs of our investigations and defenses relating to these matters are themselves substantial. Further uncertainty may arise as a result of a lack of coordination among regulators from different jurisdictions or among regulators with varying competencies in a single jurisdiction, which may make it difficult for us to reach concurrent settlements with each regulator. Should we be subject to financial impacts arising out of litigation and regulatory matters to which we are subject in excess of those we have calculated in accordance with our expectations and the relevant accounting rules and contrary to our publicly communicated expectation that 2015 and 2016 were peak years for the financial impact of litigation and regulatory matters, our provisions in respect of such risks may prove to be materially insufficient to cover these impacts. This could have a material adverse effect on our results of operations, financial condition or reputation as well as on our ability to maintain capital, leverage and liquidity ratios at levels expected by market participants and our regulators. In such an event, we could find it necessary to reduce our risk-weighted assets (including on terms disadvantageous to us) or substantially cut costs to improve these ratios, in an amount corresponding to the adverse effects of the provisioning shortfall.

We are currently the subject of industry-wide investigations by regulatory and law enforcement agencies relating to inter-bank offered rates, as well as civil actions. Due to a number of uncertainties, including those related to the high profile of the matters and other banks' settlement negotiations, the eventual outcome of these matters is unpredictable, and may materially and adversely affect our results of operations, financial condition and reputation.

We have received requests for information from various regulatory and law enforcement agencies in connection with industry-wide investigations concerning the setting of the London Interbank Offered Rate (LIBOR), Euro Interbank Offered Rate (EURIBOR), Tokyo Interbank Offered Rate (TIBOR) and other interbank offered rates. We are cooperating with these investigations. The investigations underway have the potential to result in the imposition of significant financial penalties and other consequences for the Bank.

As previously reported, we reached a settlement with the European Commission in 2013 as part of a collective settlement to resolve its investigations in relation to anticompetitive conduct in the trading of Euro and Yen interest rate derivatives, pursuant to which we agreed to pay € 725 million in total. Also as previously reported, on April 23, 2015, we reached settlements with the DOJ, the CFTC, FCA, and the New York State Department of Financial Services ("DFS") to resolve investigations into misconduct concerning the setting of LIBOR, EURIBOR, and TIBOR. Under the terms of these agreements, we agreed to pay penalties of U.S.\$ 2.175 billion to the DOJ, CFTC and DFS and GBP 226.8 million to the FCA. As part of the resolution with the DOJ, DB Group Services (UK) Ltd. (an indirectly-held, wholly-owned subsidiary of ours) pled guilty to one count of wire fraud in the U.S. District Court for the District of Connecticut and we entered into a Deferred Prosecution Agreement with a three year term. On October 25, 2017, we entered into a settlement with a working group of U.S. state attorneys general resolving their interbank offered rate investigation. Among other conditions, we made a settlement payment of U.S.\$ 220 million. Factual admissions we have made in connection with these settlements could make it difficult for us to defend against pending and future claims. Other investigations of us concerning the setting of various interbank offered rates remain ongoing, and we remain exposed to further action.

In addition, we are party to 43 U.S. civil actions concerning alleged manipulation relating to the setting of various Interbank Offered Rates, as well as one action pending in the UK. Most of the civil actions, including putative class actions, are pending in the U.S. District Court for the Southern District of New York (SDNY), against us and numerous other defendants. All but four of the U.S. civil actions were filed on behalf of parties who allege losses as a result of manipulation relating to the setting of U.S. dollar LIBOR. The four civil actions pending against us that do not relate to U.S. dollar LIBOR are also pending in the SDNY, and include one action concerning EURIBOR, one consolidated action concerning Pound Sterling (GBP) LIBOR, one action concerning Swiss franc (CHF) LIBOR, and one action concerning two Singapore Dollar (SGD) benchmark rates, the Singapore Interbank Offered Rate (SIBOR) and the Swap Offer Rate (SOR).

We cannot predict the effect on us of the interbank offered rates matters, which could include fines levied by government bodies, damages from private litigation for which we may be liable, legal and regulatory sanctions (including possible criminal sanctions) and other consequences.

Regulators and law enforcement authorities are investigating, among other things, our compliance with the U.S. Foreign Corrupt Practices Act and other laws with respect to our hiring practices related to candidates referred by clients, potential clients and government officials, and its engagement of finders and consultants.

Certain regulators and law enforcement authorities in various jurisdictions, including the U.S. Securities and Exchange Commission and the DOJ, are investigating, among other things, our compliance with the U.S. Foreign Corrupt Practices Act and other laws with respect to our hiring practices related to candidates referred by clients, potential clients and government officials, and our engagement of finders and consultants. We are responding to and continuing to cooperate with these investigations. Certain regulators in other jurisdictions have also been briefed on these investigations. In the event that any violations of law or regulation are found to have occurred or are alleged to have occurred, and an enforcement action is filed, legal and regulatory sanctions in respect thereof may materially and adversely affect our results of operations, financial condition and reputation.

We have been subject to litigation claims in respect of our U.S. residential mortgage loan trust administration business that may materially and adversely affect our results of operations, financial condition or reputation. We have also been subject to other contractual claims, litigation and governmental investigations in respect of our U.S. residential mortgage loan business.

We or our affiliates have been sued by investors in civil litigation concerning their roles as trustees of over 600 residential mortgage backed securities (referred to as "RMBS") trusts. Investor plaintiffs in these cases assert claims for alleged violation of the U.S. Trust Indenture Act, violation of New York's *Streit* Act, breach of contract, breach of fiduciary duty, breach of trust, negligence and/or negligent misrepresentation based on alleged failures to perform duties as trustees for the trusts. More specifically, the investor plaintiffs allege that we or our affiliates failed to perform purported duties as trustee to enforce, for the benefit of investors, claims that (a) loan sellers breached representations and warranties made in respect of mortgage loans backing the RMBS and (b) loan servicers breached obligations to service mortgage loans in accordance with RMBS contracts. The investor plaintiffs allege that realized and future RMBS trust losses, which in the aggregate may exceed U.S.\$ 100 billion, have been exacerbated by our or our affiliates' alleged failure, as trustee, to enforce such claims. The investor plaintiffs have brought similar suits against other banks that acted as trustees for RMBS. Such pending RMBS litigations are in various stages and we continue to defend these actions vigorously.

From 2005 to 2008, as part of our U.S. residential mortgage loan business, we sold large volumes of loans into private label securitizations and via whole loan sales. We have been, and may in the future be, presented with demands to repurchase loans from purchasers, investors and financial insurers based on alleged material breaches of representations and warranties or to indemnify such persons with respect to losses allegedly caused thereby. Our general practice is to process valid repurchase claims that are presented in compliance with contractual rights and applicable statutes of limitations.

In addition, we have been named as defendant in numerous civil litigations brought by private parties in connection with our various roles, including issuer or underwriter, in offerings of RMBS and other asset-backed securities. We have also received subpoenas and requests for information from certain regulators and government entities concerning our activities regarding the origination, purchase, securitization, sale, valuation and/or trading of mortgage loans, RMBS, commercial mortgage-backed securities (CMBS), collateralized debt obligations (CDOs), other asset-backed securities and credit derivatives. Though we have resolved some of these civil litigation and regulatory and governmental matters, including entering into a settlement in January 2017 with the DOJ to resolve potential claims related to our RMBS business under which we paid a civil monetary penalty of U.S.\$ 3.1 billion and agreed to provide U.S.\$ 4.1 billion in consumer relief, others remain outstanding.

Legal proceedings are subject to many uncertainties, and the outcome of individual matters is not predictable. The extent of our financial exposure to these matters could be material, and our reputation may suffer material harm as a result of these matters.

We are currently involved in civil proceedings in connection with our voluntary takeover offer for the acquisition of all shares of Postbank. The extent of our financial exposure to this matter could be material, and our reputation may be harmed.

On September 12, 2010, we announced the decision to make a voluntary takeover offer for the acquisition of all shares in Deutsche Postbank AG (Postbank). On October 7, 2010, we published the official offer document. In our takeover offer, we offered Postbank shareholders consideration of € 25 for each Postbank share. The takeover offer was accepted for a total of approximately 48.2 million Postbank shares.

In November 2010, a former shareholder of Postbank, Effecten-Spiegel AG, which had accepted the takeover offer, brought a claim against us alleging that the offer price was too low and was not determined in accordance with the applicable law of the Federal Republic of Germany. The plaintiff alleges that we had been obliged to make a mandatory takeover offer for all shares in Postbank, at the latest, in 2009. The plaintiff avers that, at the latest in 2009, the voting rights of Deutsche Post AG in Postbank had to be attributed to us pursuant to Section 30 of the German Takeover Act. Based thereon, the plaintiff alleges that the consideration offered by us for the shares in Postbank in the 2010 voluntary takeover offer needed to be raised to € 57.25 per share.

The Cologne District Court dismissed the claim in 2011 and the Cologne appellate court dismissed the appeal in 2012. The Federal Court set aside the Cologne appellate court's judgment and referred the case back to the appellate court. In its judgment, the Federal Court stated that the appellate court had not sufficiently considered the plaintiff's allegation that we and Deutsche Post AG "acted in concert" in 2009.

Starting in 2014, additional former shareholders of Postbank, who accepted the 2010 tender offer, brought similar claims as Effecten-Spiegel AG against Deutsche Bank which are pending with the Cologne District Court and the Higher Regional Court of Cologne, respectively. On October 20, 2017, the Cologne District Court handed down a decision granting the claims in a total of 14 cases which were combined in one proceeding. The Cologne District Court took the view that Deutsche Bank was obliged to make a mandatory takeover offer already in 2008 so that the appropriate consideration to be offered in the takeover offer should have been € 57.25 per share. Taking the consideration paid into account, the additional consideration per share owed to shareholders which have accepted the takeover offer would thus amount to € 32.25. Deutsche Bank appealed this decision and the appeal has been assigned to the 13th Senate of the Higher Regional Court of Cologne, which also is hearing the appeal of Effecten-Spiegel AG.

On November 8, 2017, a hearing took place before the Higher Regional Court of Cologne in the Effecten-Spiegel case. In that hearing, the Higher Regional Court indicated that it disagreed with the conclusions of the Cologne District Court and took the preliminary view that Deutsche Bank was not obliged to make a mandatory takeover offer in 2008 or 2009. Initially the Higher Regional Court resolved to announce a decision on December 13, 2017. However, this was postponed to February 2018 because the plaintiff challenged the three members of the 13th Senate of the Higher Regional Court of Cologne for alleged prejudice. The challenge was rejected by the Higher Regional Court of Cologne at the end of January 2018. In February 2018, the court granted a motion by Effecten-Spiegel AG to re-open the hearing and scheduled a further hearing for June 29, 2018.

Deutsche Bank has been served with a large number of additional lawsuits filed against Deutsche Bank shortly before the end of the year 2017 and these claims are now pending with the District Court of Cologne. Some of the new plaintiffs allege that the consideration offered by Deutsche Bank AG for the shares in Postbank in the 2010 voluntary takeover should be raised to € 64.25 per share.

The claims for payment against Deutsche Bank in relation to these matters total almost € 700 million (excluding interest). In February 2018, a law firm representing some plaintiffs in the above-mentioned civil actions also filed a criminal complaint with the public prosecutor in Frankfurt am Main against certain Deutsche Bank personnel alleging that they engaged in fraudulent conduct in connection with the takeover offer.

In September 2015, former shareholders of Postbank filed in the Cologne District Court shareholder actions against Postbank to set aside the squeeze-out resolution taken in the shareholders meeting of Postbank in August 2015. Among other things, the plaintiffs allege that Deutsche Bank was subject to a suspension of voting rights with respect to its shares in Postbank based on the allegation that Deutsche Bank failed to make a mandatory takeover offer at a higher price in 2009. The squeeze out is final and the proceeding itself has no reversal effect, but may result in damage payments. The claimants in this proceeding refer to legal arguments similar to those asserted in the Effecten-Spiegel proceeding described above. In a decision on October 20, 2017, the Cologne District Court declared the squeeze-out resolution to be void. The court, however, did not rely on a suspension of voting rights due to an alleged failure of Deutsche Bank to make a mandatory takeover offer, but argued that Postbank violated information rights of Postbank shareholders in Postbank's shareholders meeting in August 2015. Postbank has appealed this decision.

The legal question whether Deutsche Bank had been obliged to make a mandatory takeover offer for all Postbank shares prior to its 2010 voluntary takeover may also impact two pending appraisal proceedings (*Spruchverfahren*). These proceedings were initiated by former Postbank shareholders with the aim to increase the cash compensation offered in connection with the squeeze-out of Postbank shareholders in 2015 and the cash compensation offered and annual guaranteed dividend paid in connection with the execution of a domination and profit and loss transfer agreement (*Beherrschungs- und Gewinnabführungsvertrag*) between DB Finanz-Holding AG (now DB Beteiligungs-Holding GmbH) and Postbank in 2012. The Cologne District Court issued resolutions indicating that it is inclined to consider a potential obligation of Deutsche Bank to make a mandatory takeover offer for Postbank at an offer price of € 57.25 when determining the adequate cash compensation in the appraisal proceedings. The cash compensation paid in connection with the domination and profit and loss transfer agreement was € 25.18 and was accepted for approximately 0.5 million shares. The squeeze-out compensation paid in 2015 was € 35.05 and approximately 7 million shares were squeezed-out.

The extent of our financial exposure to this matter could be material, and our reputation may be harmed.

We have investigated the circumstances around equity trades entered into by certain clients in Moscow and London and have advised regulators and law enforcement authorities in several jurisdictions about those trades. In the event that violations of law or regulation are found to have occurred, any resulting penalties against us may materially and adversely affect our results of operations, financial condition and reputation.

We have investigated the circumstances around equity trades entered into by certain clients with us in Moscow and London that offset one another. The total volume of transactions reviewed is significant. Our internal investigation of potential violations of law, regulation and policy and into the related internal control environment has concluded, and we are assessing the findings identified during the investigation; to date we have identified certain violations of our policies and deficiencies in our control environment. We have advised regulators and law enforcement authorities in several jurisdictions (including Germany, Russia, the UK and U.S.) of this investigation and have taken disciplinary measures with regards to certain individuals in this matter and will continue to do so with respect to others as warranted.

On January 30 and 31, 2017, the DFS and FCA announced settlements with the Bank related to their investigations into this matter. The settlements conclude the DFS and the FCA's investigations into the bank's anti-money laundering (AML) control function in its investment banking division, including in relation to the equity trading described above. Under the terms of the settlement agreement with the DFS, Deutsche Bank entered into a consent order, and agreed to pay civil monetary penalties of U.S.\$ 425 million and to engage an independent monitor to conduct a comprehensive review of its existing AML compliance programs that pertain to or affect activities conducted by or through our U.S. bank subsidiary DBTCA and our New York branch for a term of up to two years. Under the terms of the settlement agreement with the FCA, Deutsche Bank agreed to pay civil monetary penalties of approximately GBP 163 million. On May 30, 2017, the Federal Reserve announced its settlement with us resolving this matter as well as additional AML issues identified by the Federal Reserve. We paid a penalty of U.S.\$ 41 million. We also agreed to retain independent third parties to assess our Bank Secrecy Act/AML program and review certain foreign correspondent banking activity of DBTCA. We are also required to submit written remediation plans and programs.

We continue to cooperate with regulators and law enforcement authorities, including the DOJ, which has its own ongoing investigation into these securities trades. In the event that violations of law or regulation are found to have occurred, legal and regulatory sanctions in respect thereof may materially and adversely affect our results of operations, financial condition and reputation.

We are currently involved in civil and criminal proceedings in connection with transactions with Monte dei Paschi di Siena. The extent of our financial exposure to these matters could be material, and our reputation may be harmed.

In February 2013, Banca Monte Dei Paschi Di Siena ("MPS") issued civil proceedings in Italy against us alleging that we assisted former MPS senior management in an accounting fraud on MPS, by undertaking repo transactions with MPS and "Santorini", a wholly owned special-purpose vehicle of MPS, which helped MPS defer losses on a previous transaction undertaken with us. Subsequently, in July 2013, the Fondazione Monte Dei Paschi, MPS' largest shareholder, also commenced civil proceedings in Italy for damages based on substantially the same facts. In December 2013, we reached an agreement with MPS to settle the civil proceedings and the transactions were unwound. The civil proceedings by the Fondazione Monte Dei Paschi, in which damages of between € 220 million and € 381 million are claimed, remain pending. The Fondazione's separate claim filed in July 2014 against their former administrators and a syndicate of 12 banks including DB S.p.A. for € 286 million has resumed before the Florence Court.

A criminal investigation was launched by the Siena Public Prosecutor into the transactions and certain unrelated transactions entered into by MPS with other parties. Such investigation was moved in summer 2014 from Siena to the Milan Public Prosecutors as a result of a change in the alleged charges being investigated. On February 16, 2016, the Milan Public Prosecutors issued a request of committal to trial against us and six current and former employees. The committal process concluded with a hearing on October 1, 2016, during which the Milan court committed all defendants in the criminal proceedings to trial. Our potential exposure is for administrative liability under Italian Legislative Decree n. 231/2001 and for civil vicarious liability as an employer of current and former employees who are being criminally prosecuted. Trial commenced on December 15, 2016 and is ongoing. We continue to cooperate and update our regulators. The extent of our financial exposure to these matters could be material, and our reputation may suffer material harm as a result of these matters.

We are currently involved in a legal dispute with the German tax authorities in relation to the tax treatment of certain income received with respect to our pension plan assets. The proceeding is pending in front of the German supreme fiscal court (Bundesfinanzhof). Should the courts ultimately rule in favor of the German tax authorities, the outcome could have a material effect on our comprehensive income and financial condition.

We sponsor a number of post-employment benefit plans on behalf of our employees. In Germany, the pension assets that fund the obligations under these pension plans are held by Benefit Trust GmbH. The German tax authorities are challenging the tax treatment of certain income received by Benefit Trust GmbH in the years 2010 to 2013 with respect to its pension plan assets. For the year 2010 Benefit Trust GmbH paid the amount of tax and interest assessed of € 160 million to the tax authorities and is seeking a refund of the amounts paid in litigation with the relevant lower fiscal court. For 2011 to 2013 the matter is stayed pending the outcome of the 2010 tax litigation. The amount of tax and interest under dispute for years 2011 to 2013, which also has been paid to the tax authorities, amounts to € 456 million. In March 2017, the lower fiscal court ruled in favor of Benefit Trust GmbH and in September 2017 the tax authorities appealed the decision to the German supreme fiscal court (Bundesfinanzhof). A decision by the supreme fiscal court is not expected for a number of years. An ultimate decision by the courts that is unfavorable to us could materially and adversely affect our comprehensive income and financial condition.

Guilty pleas by or convictions of us or our affiliates in criminal proceedings may have consequences that have adverse effects on certain of our businesses.

We and our affiliates have been and are subjects of criminal proceedings or investigations. In particular, as part of the resolution of the investigation of the DOJ into misconduct relating to interbank offered rates, our subsidiary DB Group Services (UK) Ltd. entered into a plea agreement with the DOJ, pursuant to which the company pled guilty to one count of wire fraud. Also, in connection with the KOSPI Index unwind matters, our subsidiary Deutsche Securities Korea Co. was convicted of vicarious corporate criminal liability in respect of spot/futures linked market manipulation by its employees. We and our subsidiaries are also subjects of other criminal proceedings or investigations.

Guilty pleas or convictions against us or our affiliates could lead to our ineligibility to use an important trading exemption under ERISA. In particular, such guilty pleas or convictions could cause our affiliates to no longer qualify as a “qualified professional asset manager” (“QPAM”) under the QPAM Prohibited Transaction Exemption, which exemption is relied on to provide asset management services to certain pension plans in connection with certain asset management strategies. Loss of QPAM status could cause customers who rely on such status (whether because they are legally required to do so or because we have agreed contractually with them to maintain such status) to cease to do business or refrain from doing business with us and could negatively impact our reputation more generally. In addition, other clients may mistakenly see the loss as a signal that we are somehow no longer approved by the U.S. Department of Labor (DOL), the agency responsible for ERISA, and cease to do business or refrain from doing business with us for that reason. This could have a material adverse effect on our results of operations, particularly those of our asset management business in the United States. On December 9, 2017, the DOL published an individual exemption permitting certain of our affiliates to retain their QPAM status despite both the guilty plea of DB Group Services (UK) Ltd. and the conviction of Deutsche Securities Korea Co. The exemption applies through April 17, 2021 and would terminate immediately if, among other things, we or our affiliates are convicted of crimes in other matters. The disqualification period arising from the guilty plea and conviction extends until April 17, 2027, and so we would need to obtain a further exemption by April 18, 2021 to avoid a loss of QPAM status at that time, with the potential for the adverse effects described above.

In addition to our traditional banking businesses of deposit-taking and lending, we also engage in nontraditional credit businesses in which credit is extended in transactions that include, for example, our holding of securities of third parties or our engaging in complex derivative transactions. These nontraditional credit businesses materially increase our exposure to credit risk.

As a bank and provider of financial services, we are exposed to the risk that third parties who owe us money, securities or other assets will not perform their obligations. Many of the businesses we engage in beyond the traditional banking businesses of deposit-taking and lending also expose us to credit risk.

In particular, much of the business we conduct through our Corporate & Investment Bank corporate division entails credit transactions, frequently ancillary to other transactions. Nontraditional sources of credit risk can arise, for example, from holding securities of third parties; entering into swap or other derivative contracts under which counterparties have obligations to make payments to us; executing securities, futures, currency or commodity trades that fail to settle at the required time due to non-delivery by the counterparty or systems failure by clearing agents, exchanges, clearing houses or other financial intermediaries; and extending credit through other arrangements. Parties to these transactions, such as trading counterparties, may default on their obligations to us due to bankruptcy, political and economic events, lack of liquidity, operational failure or other reasons.

Many of our derivative transactions are individually negotiated and non-standardized, which can make exiting, transferring or settling the position difficult. Certain credit derivatives require that we deliver to the counterparty the underlying security, loan or other obligation in order to receive payment. In a number of cases, we do not hold, and may not be able to obtain, the underlying security, loan or other obligation. This could cause us to forfeit the payments otherwise due to us or result in settlement delays, which could damage our reputation and ability to transact future business, as well as impose increased costs on us. Recently enacted legislation in the European Union (EMIR) and the U.S. (the Dodd-Frank Act) has introduced requirements for the standardization, margining, central clearing and transaction reporting of certain over-the-counter derivatives. While such requirements are aimed at reducing the risk posed to counterparties and the financial system by such derivatives, they may reduce the volume and profitability of the transactions in which we engage, and compliance with such provisions may impose substantial costs on us.

The exceptionally difficult market conditions experienced during the global financial crisis severely adversely affected certain areas in which we do business that entail nontraditional credit risks, including the leveraged finance and structured credit markets, and may do so in the future.

A substantial proportion of the assets and liabilities on our balance sheet comprise financial instruments that we carry at fair value, with changes in fair value recognized in our income statement. As a result of such changes, we have incurred losses in the past, and may incur further losses in the future.

A substantial proportion of the assets and liabilities on our balance sheet comprise financial instruments that we carry at fair value, with changes in fair value recognized in the income statement. Fair value is defined as the price at which an asset or liability could be exchanged in an arm's length transaction between knowledgeable, willing parties, other than in a forced or liquidation sale. If the value of an asset carried at fair value declines (or the value of a liability carried at fair value increases) a corresponding unfavorable change in fair value is recognized in the income statement. These changes have been and could in the future be significant. Additionally, in recent periods there has been a significant difference between fair value and book value for some assets.

Observable prices or inputs are not available for certain classes of financial instruments. Fair value is determined in these cases using valuation techniques we believe to be appropriate for the particular instrument. The application of valuation techniques to determine fair value involves estimation and management judgment, the extent of which will vary with the degree of complexity of the instrument and liquidity in the market. Management judgment is required in the selection and application of the appropriate parameters, assumptions and modeling techniques. If any of the assumptions change due to negative market conditions or for other reasons, subsequent valuations may result in significant changes in the fair values of our financial instruments, requiring us to record losses.

Our exposure and related changes in fair value are reported net of any fair value gains we may record in connection with hedging transactions related to the underlying assets. However, we may never realize these gains, and the fair value of the hedges may change in future periods for a number of reasons, including as a result of deterioration in the credit of our hedging counterparties. Such declines may be independent of the fair values of the underlying hedged assets or liabilities and may result in future losses.

Our risk management policies, procedures and methods leave us exposed to unidentified or unanticipated risks, which could lead to material losses.

We have devoted significant resources to developing our risk management policies, procedures and assessment methods and intend to continue to do so in the future. Nonetheless, the risk management techniques and strategies have not been and may in the future not be fully effective in mitigating our risk exposure in all economic market environments or against all types of risk, including risks that we fail to identify or anticipate. Some of our quantitative tools and metrics for managing risk are based upon our use of observed historical market behavior. We apply statistical and other tools to these observations to arrive at quantifications of our risk exposures. During the financial crisis, the financial markets experienced unprecedented levels of volatility (rapid changes in price direction) and the breakdown of historically observed correlations (the extent to which prices move in tandem) across asset classes, compounded by extremely limited liquidity. In this volatile market environment, our risk management tools and metrics failed to predict some of the losses we experienced, particularly in 2008, and may in the future fail to predict important risk exposures. In addition, our quantitative modeling does not take all risks into account and makes numerous assumptions regarding the overall environment, which may not be borne out by events. As a result, risk exposures have arisen and could continue to arise from factors we did not anticipate or correctly evaluate in our statistical models. This has limited and could continue to limit our ability to manage our risks especially in light of geopolitical developments, many of the outcomes of which are currently unforeseeable. Our losses thus have been and may in the future be significantly greater than the historical measures indicate.

In addition, our more qualitative approach to managing those risks not taken into account by our quantitative methods could also prove insufficient, exposing us to material unanticipated losses. Also, if existing or potential customers or counterparties believe our risk management is inadequate, they could take their business elsewhere or seek to limit their transactions with us. This could harm our reputation as well as our revenues and profits. See “Management Report: Risk Report” in the Annual Report 2017 for a more detailed discussion of the policies, procedures and methods we use to identify, monitor and manage our risks.

Operational risks, which may arise from errors in the performance of our processes, the conduct of our employees, instability, malfunction or outage of our IT system and infrastructure, or loss of business continuity, or comparable issues with respect to our vendors, may disrupt our businesses and lead to material losses.

We face operational risk arising from errors, inadvertent or intentional, made in the execution, confirmation or settlement of transactions or from transactions not being properly recorded, evaluated or accounted for. An example of this risk concerns our derivative contracts, which are not always confirmed with the counterparties on a timely basis. For so long as the transaction remains unconfirmed, we are subject to heightened credit and operational risk and in the event of a default may find it more difficult to enforce the contract. The European sovereign debt crisis and the global financial crisis, in which the risk of counterparty default increased, have increased the possibility that this operational risk materializes.

In addition, our businesses are highly dependent on our ability to process manually or through our systems a large number of transactions on a daily basis, across numerous and diverse markets in many currencies. Some of the transactions have become increasingly complex. Moreover, management relies heavily on its financial, accounting and other data processing systems that include manual processing components. If any of these processes or systems do not operate properly, or are disabled, or subject to intentional or inadvertent human error, we could suffer financial loss, a disruption of our businesses, liability to clients, regulatory intervention or reputational damage.

We are also dependent on our employees to conduct our business in accordance with applicable laws, regulations and generally accepted business standards. If our employees do not conduct our business in this manner, we may be exposed to material losses. Furthermore, if an employee's misconduct reflects fraudulent intent, we could also be exposed to reputational damage. We categorize these risks as conduct risk, which comprises inappropriate business practices, including selling products that are not suitable for a particular customer, fraud, unauthorized trading and failure to comply with applicable regulations, laws and internal policies.

We in particular face the risk of loss events due to the instability, malfunction or outage of our IT system and IT infrastructure. Such losses could materially affect our ability to perform business processes and may, for example, arise from the erroneous or delayed execution of processes as either a result of system outages or degraded services in systems and IT applications. A delay in processing a transaction, for example, could result in an operational loss if market conditions worsen during the period after the error. IT-related errors may also result in the mishandling of confidential information, damage to our computer systems, financial losses, additional costs for repairing systems, reputational damage, customer dissatisfaction or potential regulatory or litigation exposure.

Business continuity risk is the risk of incurring losses resulting from the interruption of normal business activities. We operate in many geographic locations and are frequently subject to the occurrence of events outside of our control. Despite the contingency plans we have in place, our ability to conduct business in any of these locations may be adversely impacted by a disruption to the infrastructure that supports our business, whether as a result of, for example, events that affect our third party vendors or the community or public infrastructure in which we operate. Any number of events could cause such a disruption including deliberate acts such as sabotage, terrorist activities, bomb threats, strikes, riots and assaults on the bank's staff; natural calamities such as hurricanes, snow storms, floods, disease pandemic and earthquakes; or other unforeseen incidents such as accidents, fires, explosions, utility outages and political unrest. Any such disruption could have a material adverse effect on our business and financial position.

We utilize a variety of vendors in support of our business and operations. Services provided by vendors pose risks to us comparable to those we bear when we perform the services ourselves, and we remain ultimately responsible for the services our vendors provide. Furthermore, if a vendor does not conduct business in accordance with applicable standards or our expectations, we could be exposed to material losses or regulatory action or litigation or fail to achieve the benefits we sought from the relationship.

We utilize a variety of vendors in support of our business and operations. We do so in order to focus on our core competencies and to seek improvements in costs, efficiency and effectiveness in our operations, for instance in connection with our IT modernization efforts. Services provided by vendors pose risks to us comparable to those we bear when we perform the services ourselves, and we remain ultimately responsible for the services our vendors provide. We depend on our vendors to conduct their delivery of services in compliance with applicable laws, regulations and generally accepted business standards and in accordance with the contractual terms and service levels they have agreed with us. If our vendors do not conduct business in accordance with these standards, we may be exposed to material losses and could be subject to regulatory action or litigation as well as be exposed to reputational damage. More generally, if a vendor relationship does not meet our expectations, we could be exposed to financial risks, such as the costs and expenses associated with migration of the services to another vendor

and business and operational risks related to the transition, and we could fail to achieve the benefits we sought from the relationship.

Our operational systems are subject to an increasing risk of cyber-attacks and other internet crime, which could result in material losses of client or customer information, damage our reputation and lead to regulatory penalties and financial losses.

Among the operational risks we face is the risk of breaches of the security of our or our vendors' computer systems due to unauthorized access to networks or resources, the introduction of computer viruses or malware, or other forms of cybersecurity attacks or incidents. Such breaches could threaten the confidentiality of our or our clients' data and the integrity of our systems. We devote significant resources toward the protection of our computer systems against such breaches and toward ensuring that our vendors employ appropriate cybersecurity safeguards. To address the evolving cyber threat risk, we have expended significant resources to modify and enhance our protective measures and to investigate and remediate any information security vulnerabilities. These measures, however, may not be effective against the many security threats we face.

The increasing frequency and sophistication of recent cyber-attacks has resulted in an elevated risk profile for many organizations around the world, and significant attention by our management has been paid to the overall level of preparedness against such attacks. Cybersecurity is growing in importance due to factors such as the continued and increasing reliance on our technology environment. We and other financial institutions have experienced attacks on computer systems, including attacks aimed at obtaining unauthorized access to confidential company or customer information or damaging or interfering with company data, resources or business activities, or otherwise exploiting vulnerabilities in our infrastructure. We expect to continue to be the target of such attacks in the future. Although we have to date not experienced any material business impact from these attacks, we may not be able to effectively anticipate and prevent more material attacks from occurring in the future. A successful attack could have a significant negative impact on us, including as a result of disclosure or misappropriation of client or proprietary information, damage to computer systems, financial losses, remediation costs (such as for investigation and re-establishing services), increased cybersecurity costs (such as for additional personnel, technology, or third-party vendors), reputational damage, customer dissatisfaction and potential regulatory or litigation exposure.

The size of our clearing operations exposes us to a heightened risk of material losses should these operations fail to function properly.

We have large clearing and settlement businesses and an increasingly complex and interconnected information technology (IT) landscape. These give rise to the risk that we, our customers or other third parties could lose substantial sums if our systems fail to operate properly for even short periods. This will be the case even where the reason for the interruption is external to us. In such a case, we might suffer harm to our reputation even if no material amounts of money are lost. This could cause customers to take their business elsewhere, which could materially harm our revenues and profits.

We may have difficulty in identifying and executing acquisitions, and both making acquisitions and avoiding them could materially harm our results of operations and our share price.

We consider business combinations from time to time. Even though we review the companies, businesses, assets, liabilities or contracts we plan to acquire, it is generally not feasible for these reviews to be complete in all respects. As a result, we may assume unanticipated liabilities, or an acquisition may not perform as well as expected. Were we to announce or complete a significant business combination transaction, our share price could decline significantly if investors viewed the transaction as too costly or unlikely to improve our competitive position. In addition, we might have difficulty integrating any entity with which we combine our operations. Failure to complete announced business combinations or failure to integrate acquired businesses successfully into ours could materially and adversely affect our profitability. It could also affect investors' perception of our business prospects and management, and thus cause our share price to fall. It could also lead to departures of key employees, or lead to increased costs and reduced profitability if we felt compelled to offer them financial incentives to remain.

If we avoid entering into additional business combination transactions or fail to identify attractive companies to acquire, market participants may perceive us negatively. We may also be unable to expand our businesses, especially into new business areas, as quickly or successfully as our competitors if we do so through organic growth alone. These perceptions and limitations could cost us business and harm our reputation.

Intense competition, in our home market of Germany as well as in international markets, could materially adversely impact our revenues and profitability.

Competition is intense in all of our primary business areas, in Germany as well as in international markets. If we are unable to respond to the competitive environment in these markets with attractive product and service offerings that are profitable for us, we may lose market share in important areas of our business or incur losses on some or all of our activities. In addition, downturns in the economies of these markets could add to the competitive pressure, through, for example, increased price pressure and lower business volumes for us.

In recent years there has been substantial consolidation and convergence among financial services companies, culminating in unprecedented consolidations in the course of the global financial crisis. This trend has significantly increased the capital base and geographic reach of some of our competitors and has hastened the globalization of the securities and other financial services markets. As a result, we must compete with financial institutions that may be larger and better capitalized than we are and that may have a stronger position in local markets. Also, governmental action in response to the global financial crisis may place us at a competitive disadvantage.

In addition to our traditional competitors such as other universal banks and financial services firms, an emerging group of future competitors in the form of start-ups and technology firms are showing an increasing interest in banking services and products. These new competitors could increase competition in both core products, e.g., payments, basic accounts and loans and investment advisory, as well as in new products, e.g., peer to peer lending and equity crowd funding.

Transactions with counterparties in countries designated by the U.S. State Department as state sponsors of terrorism or persons targeted by U.S. economic sanctions may lead potential customers and investors to avoid doing business with us or investing in our securities, harm our reputation or result in regulatory or enforcement action which could materially and adversely affect our business.

We engage or have engaged in a limited amount of business with counterparties, including government-owned or -controlled counterparties, in certain countries or territories that are subject to comprehensive U.S. sanctions, including Iran and Cuba (referred to as "Sanctioned Countries"), or with persons targeted by U.S. economic sanctions (referred to as "Sanctioned Persons"). U.S. law generally prohibits U.S. persons or any other persons acting within U.S. jurisdiction from doing business with Sanctioned Countries or Sanctioned Persons. Additionally, U.S. indirect or "secondary" sanctions threaten retaliation against certain activities, including categories of transactions with certain entities and countries, by non-U.S. persons entirely outside of U.S. jurisdiction. Thus, U.S. regulations may extend to activities in other geographic areas and by non-U.S. persons depending on the circumstances. Our U.S. subsidiaries, branch offices, and employees are, and our non-U.S. subsidiaries, branch offices, and employees may become, subject to those prohibitions and other regulations.

We are a German bank and our activities with respect to Sanctioned Countries and Sanctioned Persons have been subject to policies and procedures designed to avoid the involvement of persons acting within U.S. jurisdiction in any managerial or operational role and to ensure compliance with United Nations, European Union and German sanctions and embargoes; in reflection of legal developments in recent years, we have further developed our policies and procedures with the aim of ensuring compliance with regulatory requirements extending to other geographic areas regardless of jurisdiction. However, should our policies prove to have been ineffective, we may be subject to regulatory or enforcement action that could materially and adversely affect our reputation, financial condition, or business. We have taken action to reduce the risk of compliance violations. In 2007, our Management Board decided that we will not engage in new business with counterparties in countries such as Iran, Syria, Sudan and North Korea and to exit existing business to the extent legally possible. It also decided to limit our business with counterparties in Cuba. Iran, North Korea, Sudan and Syria are currently designated as state sponsors of terrorism by the U.S. State Department.

We had a representative office in Tehran, Iran, which we discontinued on December 31, 2007. Our remaining business with Iranian counterparties consists mostly of participations as lender and/or agent in a few large trade finance facilities arranged before 2007 to finance the export contracts of exporters in Europe and Asia. The lifetime of most of these facilities is ten years or more and we are legally obligated to fulfil our contractual obligations. We do not believe our business activities with Iranian counterparties are material to our overall business, with the outstanding loans to Iranian borrowers representing substantially less than 0.01 % of our total assets as of December 31, 2017 and the revenues from all such activities representing less than 0.01 % of our total revenues for the year ended December 31, 2017.

In recent years, the United States has taken steps to deter foreign companies from dealing with Iran by providing for a variety of secondary sanctions against companies engaged in targeted activities there. The bulk of these secondary sanctions were suspended following the occurrence on January 16, 2016 of "Implementation Day" of the Joint Comprehensive Plan of Action (referred to as the "JCPOA") between the "P5+1" parties and Iran, pursuant to which Iran agreed to limits on its nuclear program and the P5+1 parties agreed to provide certain sanctions relief. However, non-U.S. persons remain exposed to secondary sanctions for knowingly engaging in significant transactions with any "specially designated nationals" ("SDNs") in Iran or any SDNs outside of Iran designated in connection with Iranian weapons of mass destruction, terrorism, or the Iranian Revolutionary Guard Corps. Following the Implementation Day, we engage in new activities with respect to Iran, but only to a limited extent. We execute cash payments in Euro from or to Iran on behalf of our own non-Iranian clients with enhanced due diligence. In principle, we remain restrictive towards any new trade finance activities and do not plan to engage in loan arrangements with Iranian counterparties. We do not believe we have engaged in activities sanctionable under Iran-related secondary sanctions, but the U.S. authorities have considerable discretion in applying the statutes, and any imposition of sanctions against us could be material. It is also possible that primary and secondary sanctions imposed by the U.S. and other jurisdictions against Iran could be expanded in the future, particularly if the JCPOA with Iran is abandoned. The JCPOA and U.S. sanctions against Iran remain a contentious issue in the United States and proposals for expanded sanctions are discussed on a continuing basis in the U.S. Administration, the U.S. Congress and elsewhere. On October 13, 2017, President Trump declined to certify Iran's compliance with the terms of the JCPOA but did not take any action to reimpose suspended U.S. sanctions on Iran. In January

2018, President Trump extended U.S. sanctions relief under the JCPOA but threatened to terminate the agreement unless it is amended by the end of the extension period in May 2018. Given the substantial uncertainty surrounding the JCPOA, there is a risk that the U.S. secondary sanctions suspended under the JCPOA could be reimposed were the United States to declare that Iran is in violation of the JCPOA or otherwise abandon the agreement. If the suspended sanctions against Iran were reimposed, it is possible that our ongoing activities related to Iran may need to be terminated on short notice. However, we do not believe that such activities are material to our business.

As required by Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (Section 13(r) of the Securities Exchange Act of 1934, as amended) we have disclosed certain information regarding our activities or transactions with persons subject to U.S. sanctions against Iran and other persons subject to such provision. Such disclosure is set forth in the section of this document entitled "Disclosures Under Iran Threat Reduction and Syria Human Rights Act of 2012", which follows "Item 16H: Mine Safety Disclosure".

We are also engaged in a limited amount of business with counterparties domiciled in Cuba, which is not subject to any United Nations, European Union or German embargo. The business consists of a limited number of letters of credit, as well as claims resulting from letters of credit, and it represented substantially less than 0.01 % of our assets as of December 31, 2017. The transactions served to finance commercial products such as machinery as well as medical products.

We are aware of and quickly adapted to other substantial changes in United States economic sanctions that occurred in 2017. On August 2, 2017, the United States signed into law the "Countering America's Adversaries Through Sanctions Act" (referred to as "CAATSA"), which codifies existing U.S. sanctions against Russia (including designation of Russian entities under U.S. sanctions), expands U.S. secondary sanctions against Russia, tightens existing sectoral sanctions (targeting specific sectors of the Russian economy), and permits the imposition of sectoral sanctions against additional sectors of the Russian economy. In particular, expanded U.S. secondary sanctions under CAATSA now allow for the imposition of U.S. sanctions on non-U.S. entities who engage in "significant" transactions with Russian SDNs or specific entities in the Russian defense and intelligence sectors. We have set up appropriate processes and procedures aimed at complying with the expanded U.S. sanctions under CAATSA to the extent that such sanctions are applicable to our activities. We do not believe we have engaged or are currently engaged in any transactions with Russian entities that violate, or are sanctionable under, U.S. sanctions. However, given the broad discretion U.S. authorities have in interpreting and enforcing U.S. sanctions, there can be no assurances that U.S. authorities will not bring enforcement actions against us, or impose secondary sanctions on us for our ongoing activities. Any such actions could have a material impact on our business and harm our reputation. It is also possible that the United States could impose broader sanctions on Russia or Russian entities in the future and that such sanctions could have a material impact on our business activities.

Additionally, on August 24, 2017, the U.S. Administration imposed sanctions on the Government of Venezuela. These sanctions prohibit transactions or other dealings by U.S. persons or within the United States involving new debt of and certain bonds issued by the Government of Venezuela or the direct or indirect purchases of securities from the Government of Venezuela. While the U.S. Administration has provided several general licenses to mitigate the impact of these sanctions, a substantial portion of economic activity within U.S. jurisdiction involving the Government of Venezuela is now prohibited by U.S. sanctions. We have taken appropriate steps and established appropriate processes and procedures aimed at complying with the new U.S. sanctions against the Government of Venezuela. In response to these new U.S. sanctions, we have wound down several client relationships. With respect to entities of the Government of Venezuela, we are currently only engaged in legacy transactions. We do not believe that any of our remaining activities related to the Government of Venezuela violate U.S. sanctions. However, given the broad discretion U.S. authorities have in interpreting and enforcing U.S. sanctions, there can be no assurances that U.S. authorities do not allege that our ongoing activities violate U.S. sanctions.

We are aware, through press reports and other means, of initiatives by governmental and non-governmental entities in the United States and elsewhere to adopt laws, regulations or policies prohibiting transactions with or investment in, or requiring divestment from, entities doing business with Sanctioned Countries, particularly Iran. Such initiatives may result in our being unable to gain or retain entities subject to such prohibitions as customers or as investors in our securities. In addition, our reputation may suffer due to our association with such countries. Such a result could have significant adverse effects on our business or the price of our securities. It is also possible that new direct or indirect secondary sanctions could be imposed by the United States or other jurisdictions without warning as a result of geopolitical developments.

Item 4: Information on the Company

History and Development of the Company

The legal and commercial name of our company is Deutsche Bank Aktiengesellschaft. It is a stock corporation organized under the laws of Germany.

Deutsche Bank Aktiengesellschaft originated from the reunification of Norddeutsche Bank Aktiengesellschaft, Hamburg, Rheinisch-Westfälische Bank Aktiengesellschaft, Düsseldorf, and Süddeutsche Bank Aktiengesellschaft, Munich. Pursuant to the Law on the Regional Scope of Credit Institutions, these were disincorporated in 1952 from Deutsche Bank, which had been founded in 1870. The merger and the name were entered in the Commercial Register of the District Court Frankfurt am Main on May 2, 1957.

We are registered under registration number HRB 30 000. Our registered address is Taunusanlage 12, 60325 Frankfurt am Main, Germany, and our telephone number is +49-69-910-00. Our agent in the United States is: DB USA Corporation, c/o Office of the Secretary, 60 Wall Street, Mail Stop NYC60-4099, New York, NY 10005.

For information on significant capital expenditures and divestitures, please see “Management Report: Operating and Financial Review: Deutsche Bank Group: Significant Capital Expenditures and Divestitures” in the Annual Report 2017.

Business Overview

Our Organization

Please see “Management Report: Operating and Financial Review: Deutsche Bank Group: Our Organization” in the Annual Report 2017. For information on net revenues by geographic area and by corporate division please see Note 4 “Business Segments and Related Information: Entity-Wide Disclosures” to the consolidated financial statements and “Management Report: Operating and Financial Review: Results of Operations: Segment Results of Operations” in the Annual Report 2017.

Management Structure

Please see “Management Report: Operating and Financial Review: Deutsche Bank Group: Management Structure” in the Annual Report 2017.

Our Business Strategy

We are a leading European bank with global reach supported by a strong home base in Germany, Europe’s largest economy. We provide services in commercial and investment banking and retail banking as well as wealth and asset management products to corporations, governments, institutional investors, small and medium-sized businesses, and private individuals.

In October 2015, we outlined a multi-year strategy to build on the core strengths of our business model and client franchise. The four goals were to be: simpler and more efficient, less risky, better capitalized and better run with more disciplined execution.

During the course of 2016, we made significant improvements to our control systems and reduced our legal risks, including some of our most significant litigation matters such as the then-pending investigation by the U.S. Department of Justice (DOJ) of our U.S. residential mortgage-backed securities (RMBS) business. We also completed the disposal of several non-strategic assets, including the sale of our stake in Hua Xia Bank and the sales of Abbey Life and the U.S. Private Client Services business unit. Furthermore, we prepared or completed previously announced country exits and accelerated the wind down of the Non-Core Operations Unit, which was then closed at the start of 2017.

In March 2017, we took additional measures to further strengthen the bank and place it in a better position to pursue growth opportunities. Most notably this included the raising of € 8 billion of additional equity capital through a rights offering. The main goals of these measures included:

- maintaining high CET 1 capital, supported by the capital raise, as well as high levels of liquidity,
- with our Corporate & Investment Bank (CIB) having a leading franchise with the scale and strength to successfully compete and grow globally,
- occupying the number one private and commercial banking position in our home market of Germany, serving more than 20 million clients in with our Private & Commercial Bank (PCB)
- giving our world class Deutsche Asset Management (Deutsche AM) division operational segregation that can support accelerated growth,
- reducing the size of our corporate center and cost base in part through more front-to-back alignment and shifting large portions of infrastructure functions to the business divisions, and
- shifting our earnings and business mix more towards stable businesses.

Geographically, we intend to retain our global capabilities where our management believes our franchise is the strongest, the growth potential the largest, and the potential risk-adjusted returns the highest.

- PCB is primarily focused in Germany, with wealth management businesses around the world.
- Given the global nature of our core corporate clients, we intend to retain and build CIB capabilities across Germany and EMEA (ex- Germany), the U.S. and Canada, and in Asia Pacific (APAC). While we intend to have a global institutional client footprint, we expect to be focused primarily on Germany and EMEA (ex-Germany) where our competitive franchise is the strongest. We also intend to maintain a strong, but more focused U.S. footprint.
- Deutsche AM continues to provide a full suite of investment management services in Germany and the wider EMEA region, while enhancing its specialist capabilities in the U.S. and APAC.

Our Financial Targets

Our financial targets:

- Adjusted costs of € 22 billion in 2018, and € 21 billion by 2021, which includes the adjusted costs of Postbank; we now expect adjusted costs in 2018 to be approximately € 23 billion, which reflects our € 22 billion target plus the cost impact of the delayed and suspended business sales
- Achieve a Post-tax Return on Average Tangible Equity of approximately 10 % in a normalized operating environment
- Maintain a CRR/CRD 4 Common Equity Tier 1 capital ratio (fully loaded) of comfortably above 13 % at all times
- Achieve a CRR/CRD 4 leverage ratio of 4.5 %, and
- Target a competitive dividend payout ratio for the financial year 2018 and thereafter.

We are committed to our goal of further reducing our adjusted costs. In October 2015 we established a € 22 billion annual target in adjusted costs for 2018. Achieving that cost target assumed savings of € 900 million of annual expenses associated with planned business disposals. However, those disposals have been delayed or suspended and as a result the € 900 million in cost savings will not materialize in 2018 as originally planned. Therefore, we now expect to achieve adjusted costs of approximately € 23 billion in 2018. The € 900 million in adjusted costs associated with these businesses is expected to be more than offset by the corresponding revenues retained leading to a net positive IBIT impact in 2018.

Update on Strategy Execution

In 2017, we made material progress towards our goals announced at the start of the year. Major achievements in 2017 included:

- We substantially strengthened our capitalization through a capital raise, resulting in net proceeds of approximately € 8 billion. Our Common Equity Tier 1 ratio (CRR/CRD 4, fully loaded) was 14.0 % at the end of 2017, up from 11.8 % at the end of 2016
- We successfully reorganized our business divisions into three distinct units, with the goals of strengthening the businesses of each, enhancing client coverage, improving market share and driving efficiencies and growth:
 - The new Corporate & Investment Bank (CIB) that combines our markets, advisory, financing and transaction banking businesses
 - The Private & Commercial Bank (PCB) that combines Postbank and our existing private, commercial and wealth management businesses
 - An operationally and legally segregated Deutsche Asset Management (Deutsche AM).
- We are in the process of combining Postbank and our existing Private & Commercial Client business in Germany with the goal of creating a market leading retail presence in Germany, driving greater efficiency through scale and better earnings and funding stability for Deutsche Bank
- Meanwhile, we continued the execution of existing strategic initiatives in PCB and we have virtually completed our target to close 188 retail branches in Germany
- We are progressing well in the preparation of the planned initial public offering of Deutsche AM; we have aligned the organizational structure more closely by bringing our Active, Passive and Alternative capabilities into one globally integrated investment platform and created a single global coverage group. The majority of the dedicated Asset Management legal entities was transferred under a common German Asset Management holding company, DWS SE, during 2017 and the first quarter of 2018, with the remaining Asset Management legal entities, including the U.S. holding company, to be re-parented in the first half of 2018. The conversion of the holding company DWS SE into a partnership limited by shares has been completed successfully in the first quarter 2018. The partnership, DWS Group GmbH & Co. KgaA, is managed by a general partner (DWS Management GmbH) whose managing directors were formally appointed in March 2018. In addition, Asset Management business activities and employees were transferred to AM-dedicated entities, and new European branches of DeAM International GmbH will be set-up in the course of 2018.
- We are progressing with our program of business disposals and have completed and signed a number of transactions in 2017, including the agreement to sell most of our Polish Private & Commercial Bank business in line with our effort to continue to sharpen our focus and reduce complexity
- We also continued to reduce complexity in our IT landscape by decommissioning nearly 30 % of our key operating systems since 2015

Strategy in Corporate & Investment Bank

The combined Corporate & Investment Bank (CIB) division was created in 2017 to closely align product and sales efforts across Global Markets, Corporate Finance and Global Transaction Banking with the intent to deliver better service to our clients and to drive asset and cost efficiency.

We believe there are substantial opportunities to capture market share and revenue growth in our core client proposition through the reorganised CIB. The combined CIB is intended to support a more efficient and seamless client coverage and product offering, meaningfully enhance cross selling opportunities and improve the ability to direct resources to the highest return relationships, and ultimately increase our share of clients' "wallet" (amounts they spend on banking products). CIB is focused on reinvigorating its client-led franchise through more effective coverage and has made progress in selectively hiring to capture key strategic opportunities. As of 2017, CIB is the largest division in Deutsche Bank, with net revenues of € 14.2 billion.

CIB also intends to target further cost efficiencies, eliminate complexity and streamline internal processes to contribute to our adjusted costs targets and has made progress towards better front-to-back alignment of certain infrastructure functions, in particular business-aligned technology functions.

We continue to see a clear opportunity for CIB to occupy an attractive position as one of the handful of globally relevant European participants in the Global CIB market. CIB intends to pursue a number of objectives to achieve revenue growth:

- In **Origination and Advisory**, we intend to regain the number one position in EMEA as measured by revenues and to strengthen our franchise globally, with particular emphasis on deepening strategic client relationships to drive M&A and equity capital market mandates. Additionally, we intend to grow our leading debt capital markets franchise with an emphasis on Financial Institutions, and Sovereign, Supranational and Agency clients
- In **Transaction Banking**, we intend to continue to capitalise on our market position by improved cross selling of cash management on the back of our strong trade finance franchise and by continuing to drive efficiency through infrastructure investments to improve our cost income ratios
- In **Financing**, we intend to maintain a leading Credit Financing and Solutions franchise with particular emphasis on Asset Based Financing, Commercial Real Estate, and the Transport, Infrastructure and Energy sector
- In **Sales & Trading Fixed Income and Currencies**, we target a top-five position globally and a top-three position in EMEA. Of particular focus will be deepening strategic partnerships in Rates with insurance and pension clients and continuing to invest in cutting-edge technology with the goal of becoming the top provider of foreign exchange payments and treasury solutions services
- In **Sales & Trading Equities**, we are targeting to be an international equity franchise ranked amongst the top ten competitors by reported revenues with leading Prime and Investment Solution platforms through enhancing our liquidity and collateral management product offerings, and selectively gaining share in equity trading and derivatives.

Strategy in Private & Commercial Bank

The Private & Commercial Bank (PCB) combines operations in Postbank, Private & Commercial Clients Germany (PCC Germany), Private & Commercial Clients International (PCC International) and Wealth Management. PCB is focused on offering high quality advice as well as a wide range of financial services to private individuals and small and medium-sized businesses. In terms of products, PCB focuses on three key offerings: current account & transaction banking (including trade finance and cash management for our 'Mittelstand' clients in cooperation with our Corporate & Investment Bank), lending products and tailor-made investment and insurance advice to our private and wealth clients. All of these come with a comprehensive digital offering as well as onsite branch advice to provide a full omni-channel banking experience.

Our objective is to offer a seamless client experience including standard retail and advisory banking with a global network, strong expertise in capital markets and financing solutions and cutting-edge digital services.

PCC Germany & Postbank

In March 2017, we announced that we will retain Postbank and combine it with our existing Private & Commercial Client Business in Germany over the next three to five years. This strategic decision reflects a number of evolving factors. The integration of Postbank is expected to strengthen the position in our home market and will create Germany's largest private and commercial bank with over 20 million clients and € 224 billion of assets under management.

Despite the challenging environment from low interest rates and competitive pressure in Germany, we believe that growth in the small and medium-sized German corporate clients segment and the private banking clients segment will continue. These two client segments represent a majority of the identified fee pool in Germany and both are client segments that we believe we are well positioned to serve. In the more standard retail banking segment where fee pools are expected to be flat, we will respond with continued efficiency efforts and seek market share gains through digitalization.

To this end, Deutsche Postbank AG and Deutsche Bank Privat- und Geschäftskunden AG will be merged into one single legal entity, and we currently expect to complete this by the end of the second quarter of 2018. The entity will have a joint head office and combined service units and a shared IT platform. We expect the reorganization to provide substantial synergies, which we estimate will gradually rise to approximately € 900 million annually by 2022. The total cost of the planned restructuring measures and other investments is estimated to be € 1.9 billion.

The combined business will continue to operate with two distinct brands in Germany, which are to be further enhanced for private and commercial clients: while Deutsche Bank is focusing on its role as partner and risk manager providing intensive advisory services to its private and commercial clients, Postbank will cover day-to-day banking needs providing financial services for retail, business and corporate clients as well as for other financial service providers.

Additionally, digitalization remains a dominant theme. We intend to further expand our digital market leadership in Germany. At the end of 2018, we plan to launch a new digital bank aimed primarily at younger and self-directed clients.

PCC International

In PCC International, we provide advisory and relationship banking services to retail and affluent clients, private banking clients as well as small and medium-sized companies in five European countries (Italy, Spain, Portugal, Belgium and Poland) and India. In these markets, we offer a comprehensive range of products, comprising investment and insurance products, deposits, current accounts, cards and transaction services as well as loans and business banking products.

In December 2017, we entered into an agreement to sell most of our PCC business in Poland in order to sharpen the focus of our bank and reduce complexity. Deutsche Bank will remain present in Poland with its Corporate & Investment Bank operations, including Global Transaction Banking. While we are aiming for a finalization of the transaction in the fourth quarter of 2018, the transaction remains subject to required approvals from regulators, corporate consents and other conditions.

Wealth Management

In Wealth Management, we combine long experience and high expertise with a global investment approach and an innovative investment process to seek to generate solid risk-adjusted performance according to the individual needs for our clients. We serve high-net-worth (HNW) and ultra-high-net-worth (UHNW) individuals and family offices and offer a broad range of traditional and alternative investment products and solutions, as well as lending and deposit products.

In Germany, we have decided to realign our Wealth Management unit. Consequently, in the course of 2018, Sal. Oppenheim's Wealth Management business will be absorbed into Deutsche Bank's Wealth Management. This will give clients better access to the entire range of advisory services, combined with Deutsche Bank's global investment and capital market expertise. Sal. Oppenheim's asset management operations and comprehensive quantitative investment expertise are planned to be transferred to Deutsche Asset Management on April 1, 2018, depending on relevant preconditions.

Strategy in Deutsche Asset Management

Deutsche AM is a core business of Deutsche Bank that has generated stable income and relatively high returns by earning recurring fee-based revenues. We realized € 16 billion of net flows in 2017. Deutsche AM has a market-leading position as the largest retail asset manager in Germany and the number five retail asset manager in Europe and with the number two position in Europe and number six position globally in passive/ETFs, all based on publicly disclosed assets under management. Deutsche AM is also a leading alternatives manager, being the number eleven real estate manager globally and number three for infrastructure securities.

Since the announcement in March 2017 that we intend to pursue a partial initial public offering of Deutsche AM, we have made considerable progress towards this goal. The rationale for the partial IPO is to unlock the potential of the business by fostering greater autonomy. As a standalone asset manager, we will introduce the DWS brand for our global business and enhance our external profile. The integration of our infrastructure partners will enable us to achieve further operating efficiencies across the platform, including process improvements to reduce costs and enhance the client experience.

Over the long-term, the industry's global assets under management are expected to increase substantially, driven by strong net flows in passive strategies, alternatives and multi-asset solutions, as clients increasingly demand value-for-money, transparency and outcome oriented products. We are optimistic that these industry growth trends will favor our capabilities in beta (passive) products, alternative investments, next generation active products and multi-asset solutions, areas where we believe we can grow market share both in our home market and abroad. Deutsche AM's diversified business across asset class, geography, and client type and channel should further support the growth potential. However, we anticipate industry revenue pools to be challenged by fee compression and competitive dynamics in addition to our expectation of rising costs of compliance with regulations. In the face of this challenge, we intend to focus our growth initiatives on products and services where we can differentiate, while also maintaining a disciplined cost base. We believe Deutsche AM will be able to leverage the investments made in creating a scalable operating platform (investment management platform via Aladdin and customer relationship management via salesforce) with digital capabilities and will continue to drive efficiency.

In 2018 we intend to undertake strategic initiatives in client coverage and product and digital capabilities. We also intend to achieve efficiency gains from a target operating model review primarily across the business support organization with the aim of simplifying business operations to enhance client service, business controls and efficiency.

Our Corporate Divisions

Please see “Management Report: Operating and Financial Review: Deutsche Bank Group: Corporate Divisions” in the Annual Report 2017.

The Competitive Environment

2017 The Global Economy

The global economy surprised to the upside as monetary policy remained accommodative, despite the gradual tightening in the U.S. Political risks, especially in Europe, did not materialize and election outcomes were broadly market-friendly. Against this backdrop, global economic growth increased to 3.8 % in 2017, following 3.2 % in 2016. This is the strongest economic expansion since 2011. Despite the higher growth momentum the global inflation rate remained at 2.9 %, as in 2016. The industrialized countries GDP grew by 2.2 % and consumer prices rose by 1.7 % while in emerging markets economies GDP increased by 4.9 % and inflation by 3.8 %.

The economic outlook for the euro area improved markedly. The economy expanded by 2.5 %, roughly one percentage point above expectations at the start of the year. The economy gained momentum on the back of supportive fiscal and monetary policy. While monetary policy remains expansive, the ECB scaled back its asset purchases to € 60 billion from April until December 2017. Consumer prices rose by 1.5 %. The German economy also surprised to the upside with a GDP growth of 2.2 % in 2017, almost solely driven by the domestic economy. As a result, the current account surplus decreased.

The US economy performed almost as expected and expanded by 2.3 % in 2017. Investment spending became a major driver as corporate sentiment has picked up strongly, probably in anticipation of the tax reform, which got enacted towards year end. The key driver of the US economy remained consumer spending backed by a well-functioning labor market. In 2017 fears of a persistent low inflation scenario have started to ease. The inflation rate was at 2.1 % - slightly above target. The Federal Reserve's monetary policy responded with three interest rate hikes in 2017. The Fed also started to cut back the reinvestment of bonds held on its balance sheets.

The Japanese economy showed a balanced growth mix with both the domestic and external sector contributing to the GDP growth of 1.8 % in 2017. The external sector benefitted from the depreciation of the yen and the higher momentum of global trade. The strong export performance also boosted capital expenditures. As the inflation rate continues to hover around zero, the Bank of Japan was not under pressure to act.

In 2017 GDP growth in the emerging markets increased by 4.9 %. With GDP growth of 6.1 %, the emerging markets in Asia were once again the global driving force, as intra-Asian trade was strengthened. The Chinese economy expanded by 6.9 %, slightly higher than expected. Official Chinese inflation was well under control with 1.6 %. Risks from the overvalued real estate sector did not materialize.

2018 Outlook

The global outlook seems to be based on a solid foundation. Leading indicators suggest that the economic momentum will carry over well into 2018. Labor markets in several large economies are close to full employment. The investment activity has markedly improved. Central banks are considering to gradually tighten the still very accommodative monetary policy. The mood on the financial markets also contributes to the positive economic assessment, as risk assets are at or close to multi-year highs. We forecast a GDP expansion of 3.9 %, slightly above the 2017 growth rate. The better economic environment may also drive up prices, in particular in commodity markets. The 2018 global inflation rate is forecasted to be at 3.3 %, 0.3 % pp above the 2017 inflation rate.

In the euro area we expect GDP growth to remain at 2.3% and above trend. With the output gap getting closed during the course of the year, inflation is expected to start rising albeit slowly. German wage settlements could add to the price pressure. It will take a few more years for inflation to fully normalize the economy. We expect the ECB hawks to grow in number over the next year. The end of ECB net asset purchases should come about at the end of 2018, we expect the first ECB policy rate hike by mid-2019. As a key political event in Europe, the result of the elections in Italy did not bring a majority for a single party or an electoral alliance. From an arithmetical point of view, however, a coalition of anti-establishment and eurosceptic parties would have an absolute majority. With at best a transitional deal in the near term, the risks of the Brexit to the UK economy do not appear to easily or quickly dissipate.

In the U.S., economic growth should accelerate to 2.7 % which is above potential. Modest positive impulses for corporates and households are expected from the US tax reform. Repatriation tax holiday may lead to a pick-up in demand, a tighter labor market with potentially higher wages and a stronger investment activity. These may have positive impulses on inflation which may partly be counter-balanced by four Fed rate hikes in 2018. Accordingly, we expect inflation to remain slightly above 2 % as in 2017.

The Japanese economy is expected to slow to 1.2 %. We expect both the domestic and the external sector to add to GDP growth. The Inflation rate should remain almost flat at 0.4 %. Therefore, the Bank of Japan is not under pressure to act. The control of the yield curve should remain the key monetary target. No change of rates is expected. In 2018, growth in emerging markets is projected to slightly rise to 4.9 % and economic growth in Asia (excluding Japan) is expected to expand by 6.0 %. Inflation in emerging markets is expected to move higher to 4.3 % after 3.8 % in 2017. In 2018, the Chinese economy growth should slow down but only moderately to 6.3 % (6.9 % in 2017). However, this would be the lowest growth rate since 1990. The slowdown is expected to be driven by policies as the government plans to mark the beginning of a deleveraging process. The tightening cycles in Chinese monetary, fiscal, and property market policies are expected to continue in 2018. Inflation is expected to increase to 2.7 %.

The heat-map of global risks has changed little from 2017. An early recession in the U.S. due to changes in the structure of the yield curve, the elections in Italy which resulted in a possible coalition of anti-establishment and eurosceptic parties, populist movements in Europe as well as geopolitical risks, particularly with respect to the Middle East and North Korea, could potentially have a substantial adverse effect on our forecasts. However, if any of these materialize in 2018 the impact on the economy and financial markets might be less severe than in it would have been previous years, as the higher economic momentum worked as a shock absorber. But inflation risks, not an issue for several years, have resurfaced and as a key economic risk. A faster than expected pick-up could surprise markets and lead to a sharp repricing of central bank rate rise expectations, which could be disruptive for risk assets – akin to 2013's taper tantrum. Another risk is China growth as we expect a deleveraging process to cool down the housing market. Authorities seem to have gotten more comfortable with slightly slower growth, and central banks are tightening monetary policy. We expect some policy easing in mid-2018 to support growth. But this option may be off the table if inflation is high. The economy would then slow and could weigh on global growth.

Competitor Landscape

Against this backdrop, Deutsche Bank competes in the financial services sector with a spectrum of competitors, who include other universal banks, commercial banks, savings banks, public sector banks, brokers and dealers, investment banking firms, asset management firms, private banks, investment advisors, payments services providers, financial technology firms and insurance companies. Some of the competitors are global like Deutsche Bank, while others have a regional, product or niche client footprint. Deutsche Bank competes on a number of factors, including the quality of client relationships, transaction execution, products and services, innovation, reputation and price.

The European banking industry's performance improved in 2017. On the macroeconomic front, higher growth has helped an expansion in revenues and a further reduction in loan loss provisions, while at the same time the low rate environment continues to keep the net interest margin under pressure. At the microeconomic level, several European banks are still running complex restructuring programs, while also delivering on sizeable regulatory requirements. Good progress has been made on all these fronts, however this has also led to management distraction and the loss of market share to U.S. competitors within Europe.

The uncertainty around the outcome and timing of key regulations has declined in 2017 with the finalization of the Basel III package and the entry into force of MiFID II and PSD II at the start of 2018. Looking forward, we believe that the European banking sector will benefit from both a continuing benign and improving macroeconomic environment and with increased clarity on major regulatory initiatives in 2018. The single biggest remaining political and regulatory risk for European banks remains Brexit, while on the business side the speed and timing of the exit from quantitative easing by central banks also poses a material risk.

In our home market, Germany, the retail banking market remains fragmented and our competitive environment is influenced by the three pillar system of private banks, public banks and cooperative banks. Competitive intensity has increased in recent years following some consolidation activity, particularly among public regional commercial banks (Landesbanken) and private banks, and increased activity levels from foreign players.

Looking at the wider banking ecosystem, the evolution of financial technology firms remains as much an opportunity as a challenge for banks. While we see the risk of banking disruption in select product areas, particularly the unregulated segments, there is also the opportunity to selectively partner with financial technology firms and leverage their solutions to become more efficient and/or develop differentiated delivery channels for the end clients.

Regulatory Reform

The flow of new legislative proposals under the post crisis global regulatory reform agenda has slowed, but as the focus of regulators turns to implementation and supervision, in many instances there remains a lack of clarity around the final rules and the impact that they might have on banks in different regions.

While a number of regulatory reforms impacting Deutsche Bank are already in force, others continue to be developed on an international level and implemented regionally. Where primary legislation has been agreed on by lawmakers, regulators have yet to develop detailed rules, or determine their cross-border application, which might lead to a fragmented and inconsistent landscape. Moreover, certain post-crisis reforms which have already been implemented are or have been subject to reviews that might lead to additional changes in legislation in the coming years. The impact of the implementation of such final or revised standards on specific institutions remains uncertain.

During 2017, a number of international developments in the area of banking regulation and supervision have been implemented and will continue to be further refined, in particular with a view to strengthening international standards to create financially resilient institutions and ensuring resolvability of banks.

Regulatory developments in the area of market structure, securities and derivatives regulation also remained subject to change during 2017 and will continue to be a focus for 2018 with the entry into force of the (revised) European Markets in Financial Instruments Directive ("MiFID 2") and Regulation ("MiFIR", together "MiFID 2/MiFIR") with implications for Deutsche Bank globally.

Additional legal uncertainty and operational complexity for the banking sector globally has been created by the decision of the United Kingdom to leave the European Union on March 29, 2019, so called "Brexit". This will require ongoing contingency planning during 2018 and is likely to have implications for the structure and operations of all banks currently operating cross-border from entities or branches in the United Kingdom. Whilst political negotiations continue, there is no clarity yet around precisely what constraints on cross-border banking activity may emerge and what the implications will be for us or our peers. A Brexit with no relief assumption has therefore been factored into DB's preparations for a potential transition of clients, products and services.

Banking Regulation and Supervision

Capital, liquidity and leverage requirements – In the area of banking regulation and supervision, core elements of the Basel 3 capital adequacy, liquidity and leverage requirements have been defined and implemented in 2017, with such process expected to continue in 2018 and beyond. In the European Union, the Capital Requirements Regulation and the Capital Requirements Directive ("CRR/CRD 4"), which implemented the Basel 3 framework, became effective on January 1, 2014. However a number of requirements, such as capital buffers, continue to be phased in through 2019.

On November 23, 2016, following a routine review of the CRR/CRD 4 legislative package and other major legal acts in the area of banking regulation and supervision, the European Commission published a comprehensive package of reforms (commonly referred to as "CRR 2" and "CRD 5") to further strengthen the resilience of European Union banks. If implemented, the proposals will amend, among others, CRR/CRD 4, in order to incorporate various remaining elements of the regulatory framework agreed within the Basel Committee on Banking and Supervision ("Basel Committee") and the Financial Stability Board ("FSB") to refine and supplement the Basel 3 framework. This includes more risk-sensitive capital requirements, in particular in the area of market risk, counterparty credit risk, and for exposures to central counterparties, methodologies that reflect more accurately the actual risks to which banks may be exposed, a binding leverage ratio, a binding net stable funding ratio, tighter regulation of large exposures, and a requirement for global systemically important banks ("G-SIBs"), such as us, to hold certain minimum levels of capital and other instruments which are capable of bearing losses in resolution ("Total Loss-Absorbing Capacity" or "TLAC"). Other proposed measures are aimed at improving banks' lending capacity to support the European Union economy and further facilitate the role of banks in achieving deeper and more liquid European Union capital markets. It is expected that most of the proposed amendments will start being applied at the end of 2020 at the earliest, save for the TLAC requirements, which are expected to apply from January 2019.

At the international level, the Basel Committee published its final agreement (“December 2017 Agreement”) on revisions to the Basel 3 framework that aim to increase consistency in risk-weighted asset calculations and improve the comparability of banks’ capital ratios. The December 2017 Agreement includes, among other things, changes to the standardized and internal ratings-based approaches for determining credit risk, revisions to the operational risk framework, and an “output floor”, set at 72.5 %. The “output floor” limits the amount of capital benefit a bank can obtain from its use of internal models relative to using the standardized approach. This package of reforms is intended to finalize the Basel 3 framework and would reduce the ability of banks to apply internal models, while making the standardized approaches more risk-sensitive and granular. In addition, the December 2017 Agreement introduces a leverage ratio buffer for G-SIBs, such as us, to be met with Tier 1 capital and sets it at 50 % of the applicable risk-based G-SIB buffer requirement. The Basel Committee also reached agreement on an implementation date for this package of January 1, 2022, with a phase-in period of five years through January 1, 2027 for the output floor. The December 2017 Agreement also extends the implementation date for the final market risk framework resulting from the Basel Committee’s “Fundamental Review of the Trading Book” to January 1, 2022.

While the expected impacts on capital requirements of the proposed new standardized approaches have been factored into our strategy projections and objectives to the extent possible, their ultimate impact and competitive implications on us will depend on how they are implemented through binding legislation and regulation.

Capital planning and stress testing – In 2017, Deutsche Bank Trust Corporation (“DBTC”) submitted its third capital plan and related information to the Federal Reserve Board. In its supervisory stress tests, the Federal Reserve Board projected that DBTC’s capital ratios would exceed the quantitative minimum requirements even under the supervisor’s hypothetical severely adverse stress scenario. DBTC’s capital plan received a non-objection from the Federal Reserve Board. In 2017, our intermediate holding company, DB USA Corporation, did not participate in the Federal Reserve Board’s Comprehensive Capital Analysis and Review (“CCAR”) process. DB USA Corporation did, however, provide its first capital plan submission to the Federal Reserve Board in April 2017; but the results of its first submission were not made public by the Federal Reserve Board. DB USA Corporation will participate in the 2018 CCAR, while DBTC will no longer participate in CCAR pursuant to the Federal Reserve Board’s regulations. Capital planning and stress testing will continue to be a focus in 2018.

The EBA has updated its Supervisory Review and Evaluation Process in 2017 and will continue to do so in 2018 and beyond. The revisions comprise, among other things, updating guidelines on common procedures, technical aspects and stress testing, further revising the “Pillar 2” guidance and integrating it with supervisory stress testing, and generally elaborating further on the way the EBA assesses certain aspects of regulatory requirements.

Recovery and resolution – The major jurisdictions where we have significant group operations have now finalized the implementation of the FSB’s Key Attributes for Effective Resolution Regimes. However, the European Union Bank Recovery and Resolution Directive (“BRRD”), which grants far-reaching powers to competent resolution authorities to impose resolution measures upon failing banks, is subject to a review as part of a broader package of measures targeting risk reduction (see “Capital, liquidity and leverage requirements” above). This review includes proposals to implement the FSB’s TLAC requirements within the EU (see below), the harmonization of the creditor hierarchy in resolution and an extension to the period of contractual stays (both pre and during resolution). As regards the already finalized creditor hierarchy proposals, please see “Regulation and Supervision - Recovery and Resolution Planning, Restructuring Powers” below.

In the U.S., Deutsche Bank AG expects to file a U.S. Resolution Plan on or before July 1, 2018, after the Federal Reserve and FDIC issued guidance that extended the date by which four foreign banking organizations must submit their next resolution plans to July 1, 2018.

Loss-absorbing capacity – Following the FSB’s final term-sheet on TLAC in November 2015, several jurisdictions have started to implement the TLAC standard in their regulatory frameworks. The TLAC standard is designed to ensure that G-SIBs, such as Deutsche Bank, maintain enough capital and long-term debt instruments that can be effectively bailed-in to absorb losses and recapitalize the bank. Our TLAC requirements will be determined by the European Union implementation of the FSB’s TLAC standard and a corresponding proposal is expected to apply from January 1, 2019. We also expect that we may be subject to TLAC requirements in other jurisdictions. For example, in December 2016, the Federal Reserve Board finalized rules implementing the TLAC standard in the United States, with TLAC requirements that would apply to U.S. intermediate holding companies (such as ours) of non-U.S. G-SIBs. Compliance with these rules, including a minimum long term debt requirement and clean holding company requirements, is required from January 1, 2019.

Regulation of Financial Markets

Markets Regulation – A major regulatory project for European Union banks in 2017 was, the implementation of the (revised) Markets in Financial Instruments Directive (“MiFID 2”) and Regulation (“MiFIR”, together “MiFID 2/MiFIR”) which became applicable on January 3, 2018. MiFID 2/ MiFIR is a cornerstone of financial markets regulation in the European Union and is designed to strengthen the functioning, transparency and competitiveness of European financial markets, as well as enhancing investor protection. MiFID 2/MiFIR will impact Deutsche Bank’s branches globally through the application of pre- and post-trade transparency for equities, fixed income, currency and commodities transactions, and through the application of investor protection requirements. MiFID 2/MiFIR will also introduce a trading obligation on certain venues for shares and for those OTC derivatives which are subject to mandatory clearing and which are sufficiently standardized and liquid. A number of equivalence decisions for trading venues in the United States, Australia and Hong Kong, which have been made by the European Commission in December 2017, will allow us to continue to trade on these third-country venues and access liquidity globally. It is expected that during 2018, guidance from European regulators will result in a further refinement and clarity of the legislative measures for all market participants.

Regulation of Securities and Derivatives Markets – The requirements for non-centrally cleared derivatives to exchange initial and variation margin, which had been deferred in a number of jurisdictions, including the European Union, Hong Kong, Australia and Singapore in the Asia Pacific region, became effective in early 2017. The mandatory clearing obligation for certain standardized derivatives will continue to be phased in for specific counterparties in the United States and the European Union over the next few years.

The European Markets Infrastructure Regulation (“EMIR”) has also undergone a review with proposals to establish enhanced supervision for the most systemic third country central counterparties (“CCPs”) and targeted amendments to reduce compliance burdens, currently being negotiated. The proposals also include a mechanism by which EU central banks, supervisors and the European Commission may refuse the recognition of a third country CCP which is deemed to be too systemically important. This would have the effect of requiring EU based counterparties to move risk positions to a CCP recognized under EMIR, or face increased capital requirements. A loss of equivalence for a systemically important CCP could also lead to a fragmentation of clearing liquidity in certain products, with longer-term implications for costs and competitiveness.

Work has also continued in the EU on efforts to develop more granular international standards relating to the recovery and resolution of CCPs with legislative proposal currently subject to political negotiations.

Benchmarks – Following a number of conduct-related scandals involving financial benchmarks, regulatory initiatives by, among others, the International Organization of Securities Commissions (“IOSCO”) have resulted in changes to the way benchmarks are being used, authorized and regulated globally. Financial benchmarks comprise a wide range of interest rate, currency, securities, commodity and other indices and reference prices. In the European Union, the EU Financial Benchmarks Regulation became fully applicable in January 2018. In addition, the FSB has recommended that existing global interbank benchmarks are replaced by risk-free rates (“RFR”) which are considered to be more robust and less susceptible to market manipulation. Regulators globally, in particular in the European Union, the United States and Japan are currently starting to identify RFRs to replace existing benchmarks going forward.

Further measures to harmonize legislation in the European Union – After the coming into force of the fourth European anti-money laundering directive and its implementation in Germany in 2017, revised European Union legislation on anti-money laundering, payment services, and distribution of bank products are also in the process of being finalized and will be implemented through the course of 2018.

The update to the Payment Services Directive (PSD 2), which came into effect in January 2018, has the potential to significantly change the existing payments landscape in the EU. The directive aims to open up the EU payment market to companies offering consumer- or business-oriented payment services based on access to information about the payment account. The directive sets out rules on strict security requirements for electronic payments and the protection of consumers’ financial data, guaranteeing safe authentication and reducing the risk of fraud, the transparency of conditions and information requirements for payment services as well as the rights and obligations of users and providers of payment services.

In January 2018, a new regulation addressing Packaged Retail and Insurance-based Investment Products (“PRIIPs”) came into effect within the European Union. This regulation aims to enhance retail investors’ access to information by obliging those who produce or sell investment products to provide investors with standardized key information documents (“KIDs”). A person who advises a retail investor on a PRIIP or sells a PRIIP to a retail investor must provide the retail investor with a KID in good time before any transaction is concluded. In addition to advisers, this will impact intermediaries such as distributors.

Other Key Post-Crisis Reforms

Several regulatory proposals (including in connection with the implementation of existing laws) including those discussed below are being contemplated and have not yet been finalized. Such proposals, depending on whether and in what form they become law, might have a material impact on our activities, balance sheet and profitability. To the extent possible, the impact of such proposals on us has been taken into account in our strategy projections and objectives. The proposals include:

- **Further structural changes**, as a result of changes in the bank organization potentially required by the Single Resolution Board to ensure resolvability.
- **Focus on enhancing the Capital Markets Union (“CMU”)** will continue in 2018 in particular with a view to reforming and strengthening the governance and power of the European Supervisory Authorities (ESA) which include the European Securities Markets Authority (ESMA) and the European Banking Authority (EBA).
- **Completion of the European Banking Union (“EBU”)** is envisaged for 2018. The EBU consists of a number of measures to place the European banking sector on a sounder footing and restore confidence in the euro and includes, among other things, a proposal for a European Deposit Insurance Scheme (EDIS), which is currently under negotiation.
- **Addressing Non-Performing Loans (“NPL”)** in the European Union with a view to reducing NPLs on banks, balance sheets, establishing secondary markets for NPLs, and ensuring comprehensive supervision.
- **Additional direct costs as a result of financial sector specific tax and levies**, for example the European Union enhanced cooperation financial transaction tax, which is still under negotiation.
- **Digital Transformation** and the increased recognition of risks posed by new technologies as well as cyber risk and data protection will shape regulatory discussions in 2018.
- **Sustainable Finance** with the European Commission developing recommendations to facilitate green and sustainable investment and to ensure an increase in capital flow towards long-term projects that help the orderly transition to a low-carbon economy.

Climate change, environmental and social issues

The Sustainable Development Goals address the most pressing economic, social and environmental challenges of our time. These challenges include issues closely related to global warming and climate change, whose impacts remain a topic of public discourse. For example, 19 out of the 20 developed and emerging countries confirmed their commitment to the Paris Agreement on Climate Change during the G20 summit in Hamburg. Additionally, during the United Nations Framework Convention on Climate Change, COP 23 (Conference of the Parties, COP), participants negotiated measures to achieve the so-called 2°C goal. Public and private-sector collaboration will be critical in shaping the shift towards a low-emissions global economy and in forging a climate-resilient development “pathways”.

Another enduring global trend is poverty and migration. More than 800 million people around the world live in extreme poverty, while 65 million people are refugees (half of them children). Around 57 million children below the age of 10 have no access to schooling or education, and many youngsters are disenfranchised, even in the Western world. Goal 17 of the United Nations’ 2030 agenda aims to revitalize the global partnership for sustainable development by promoting effective public-private and civil society cooperation to tackle worlds’ greatest challenges. Leveraging their corporate citizenship, global firms like Deutsche Bank have the opportunity to make a tangible difference – especially when they join forces with others to promote impactful initiatives that create shared value.

Regulation and Supervision

Overview

Our operations throughout the world are regulated and supervised by the relevant authorities in each of the jurisdictions where we conduct business. Such regulation relates to licensing, capital adequacy, liquidity, risk concentration, conduct of business as well as organizational and reporting requirements. It affects the type and scope of the business we conduct in a country and how we structure specific operations. In reaction to the crisis in the financial markets, the regulatory environment has undergone and is still undergoing significant changes.

In December 2010, the Basel Committee on Banking Supervision ("Basel Committee") proposed revised minimum capital adequacy and liquidity standards that were significantly more stringent than the then-existing requirements. The set of comprehensive changes to the capital adequacy framework published by the Basel Committee, known as Basel 3, was implemented into European Union law by a legislative package referred to as "CRR/CRD 4". The CRR/CRD 4 legislative package includes a European Union regulation (which is referred to as the Capital Requirements Regulation or "CRR") which is directly enforceable as law in every member state of the European Union, and a European Union directive (which is referred to as the Capital Requirements Directive or "CRD 4"), which has been implemented into national (in our case, German) law. CRR/CRD 4 contains, among other things, detailed rules on regulatory banking capital, increased capital requirements and the introduction of additional capital buffers, tightened liquidity standards and a non-risk based leverage ratio. Most of the new rules came into effect on January 1, 2014, with some of the regulatory requirements being gradually phased in through January 1, 2019.

On November 23, 2016, following a routine review of the CRR/CRD 4 legislative package and other major legal acts in the area of banking regulation and supervision, the European Commission published a comprehensive package of reforms (commonly referred to as "CRR 2" and "CRD 5") to further strengthen the resilience of European Union banks. If implemented, the proposals will amend, among others, CRR/CRD 4, in order to incorporate various remaining elements of the regulatory framework agreed within the Basel Committee and the Financial Stability Board ("FSB") to refine and supplement Basel 3. This includes more risk-sensitive capital requirements, in particular in the area of market risk, counterparty credit risk, and for exposures to central counterparties, methodologies that reflect more accurately the actual risks to which banks may be exposed, a binding leverage ratio, a binding net stable funding ratio, tighter regulation of large exposures, and a requirement for global systemically important banks ("G-SIBs"), such as Deutsche Bank, to hold certain minimum levels of capital and other instruments which are capable of bearing losses in resolution ("Total Loss-Absorbing Capacity" or "TLAC"). Other proposed measures are aimed at improving banks' lending capacity to support the European Union economy and further facilitate the role of banks in achieving deeper and more liquid European Union capital markets. It is expected that most of the proposed amendments will start being applied at the end of 2020 at the earliest, save for the TLAC requirements, which are expected to apply from January 2019.

In addition to the continued implementation and refinement of the CRR/CRD 4 legislative package, the European Union is pursuing a deeper integration and harmonization of banking regulation and supervision by establishing a banking union. Currently, the banking union consists of two pillars, the Single Supervisory Mechanism ("SSM") and the Single Resolution Mechanism ("SRM") for banks domiciled in the eurozone as well as for banks domiciled in other member states of the European Union that decide to participate in the SSM and the SRM. The banking union shall be complemented by a third pillar, a common European Deposit Insurance Scheme ("EDIS"), and is underpinned by an increasingly harmonized regulatory framework (the so-called "single rulebook") for financial services in the European Union. While the SSM and the SRM have already become effective, the EDIS is currently debated among European Union member states, based upon a proposal of the European Commission published on November 24, 2015.

Under the SSM, the European Central Bank ("ECB") is the primary supervisor of "significant" credit institutions (such as Deutsche Bank) and their banking affiliates in the relevant member states. The competent national authorities supervise the remaining, "less significant" banks under the oversight of the ECB. The SSM is based on a European Union regulation (referred to as the "SSM Regulation") which is directly enforceable as law in every participating member state.

The SRM, which came into force on January 1, 2016, centralizes at a European level the key competences and resources for managing the failure (or likely failure) of any bank in the participating member states. Under the SRM, broad resolution powers with respect to banks domiciled in the participating member states are granted to the Single Resolution Board ("SRB") as the central European resolution authority and to the competent national resolution authorities. Resolution powers in particular include the power to reduce, including to zero, the nominal value of shares, or to cancel shares outright, and to write down certain eligible subordinated and unsubordinated unsecured liabilities, including to zero, or convert them into equity (commonly referred to as "bail-in"). The SRB is also in charge of the Single Resolution Fund ("SRF"), a pool of money financed by the banking sector which is set up to ensure that medium-term funding support is available for purposes of restructuring banks under the SRM. The SRM is based on a European Union regulation (referred to as the "SRM Regulation") which is directly enforceable as law in every participating member state and a European Union directive (referred to as the Bank Recovery and Resolution Directive or "BRRD") which has been implemented into national (in our case, German) law. The BRRD is also applicable in member states that do not participate in the SRM.

Further changes continue to be under consideration in the jurisdictions in which we operate. While the extent and nature of these changes cannot be predicted now, they may include a further increase in regulatory oversight and enhanced prudential standards relating to capital, liquidity, leverage, employee compensation, conduct of business, limitations on activities and other aspects of our operations that may have a material effect on our business and the services and products that we will be able to offer.

The following sections present a description of the regulation and supervision of our business by the authorities in Germany, our home market, in the contracting states to the European Economic Area, and in the U.S., which we view as the most significant markets for us. Beyond these regions, local country regulations generally have limited impact on our operations that are unconnected with these countries.

Regulation and Supervision in Germany – Basic Principles

Deutsche Bank AG is authorized to conduct banking business and to provide financial services as set forth in the German Banking Act (Kreditwesengesetz) and is subject to comprehensive regulation and supervision by the ECB, the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, “BaFin”) and the Deutsche Bundesbank (“Bundesbank”), the German central bank.

As a “significant” credit institution within the meaning of the SSM Regulation, we are directly supervised by the ECB. With respect to us and other “significant” credit institutions, the ECB is the primary supervisor and is responsible for most tasks of prudential supervision, such as compliance with regulatory requirements set forth in CRR/CRD 4 concerning own funds, large exposure limits, leverage, liquidity, securitizations, corporate governance, business organization and risk management requirements. The ECB carries out its supervisory functions through a Joint Supervisory Team (“JST”) established for Deutsche Bank Group. The JST is led by the ECB and comprises staff from the ECB and national supervisory authorities, including the BaFin and the Bundesbank. In addition, and regardless of whether an institution is significant or not, the ECB is responsible for issuing new licenses to credit institutions and for assessing the acquisition and increase of significant participations (also referred to as qualifying holdings) in credit institutions established in those member states of the European Union that participate in the SSM and where notification of such changes must be filed.

The BaFin is our principal supervisor for regulatory matters with respect to which we are not supervised by the ECB. These include the rules on business conduct in the securities markets, in particular when providing securities services to clients, the regulation of anti-money laundering, terrorist financing and payment services, as well as certain special areas of bank regulation, such as those related to the issuance of covered bonds (Pfandbriefe) and the supervision of German home loan banks (Bausparkassen) with regard to certain regulatory requirements specifically applicable to such home loan banks. Generally, the BaFin also supervises us with respect to those requirements under the German Banking Act that are not based upon European law. The Bundesbank supports the BaFin and the ECB and closely cooperates with them. The cooperation includes the ongoing review and evaluation of reports submitted by us and of our audit reports as well as assessments of the adequacy of our capital base and risk management systems. The ECB, the BaFin and the Bundesbank receive comprehensive information from us in order to monitor our compliance with applicable legal requirements and to obtain information on our financial condition. Generally, supervision by the ECB (together with the BaFin and the Bundesbank) applies on an unconsolidated basis (company only) and on a consolidated basis (the company and the entities consolidated with it for German regulatory purposes) (see “Consolidated Regulation and Supervision” below). However, banks forming part of a consolidated group may be allowed to waive the application of specific regulatory requirements on an unconsolidated basis if certain conditions are met. As of December 31, 2017, Deutsche Bank AG was allowed to waive the application of provisions on own funds (Part Two CRR), capital requirements (Part Three CRR), large exposures (Part Four CRR), exposures to transferred credit risk (Part Five CRR), leverage (Part Seven CRR) and disclosure by institutions (Part Eight CRR) as well as certain risk management requirements on a stand-alone basis.

The ECB and the BaFin have extensive supervisory and investigatory powers, including the ability to issue requests for information, to conduct regulatory investigations and on-site inspections, to impose monetary and other sanctions, to request the replacement of members of the bank’s management or supervisory board, or to repeal the license of a bank.

Banking Legislation

The German Banking Act and the CRR contain the principal rules for German banks, including the requirements for a banking license, and regulate the business activities of German banks. In particular, the German Banking Act requires that an enterprise that engages in one or more of the activities defined in the German Banking Act as “banking business” or “financial services” in Germany must be licensed as a “credit institution” (Kreditinstitut) or “financial services institution” (Finanzdienstleistungsinstitut), as the case may be. Deutsche Bank AG is licensed as a credit institution.

Significant parts of the regulatory framework for banks in the European Union are governed by the CRR. The CRR primarily sets forth the requirements applicable to us relating to regulatory capital, risk-based capital adequacy, monitoring and control of large exposures, consolidated supervision, leverage, liquidity and public disclosure. Certain other requirements applicable to us, including those with respect to capital buffers, organizational and risk management requirements, are set forth in the German Banking Act and other German laws, partly implementing European Union directives such as CRD 4.

Furthermore, European banking regulation is to a large extent based on legislative and administrative acts at the European level with the purpose of implementing or complementing the rules contained in the so-called “basic acts” and to ensure a consistent application of European Union law by the relevant national supervisory authorities (so-called level 2 and 3 measures). Among these acts are delegated and implementing regulations enacted by the European Commission (level 2) as well as regulatory and technical standards, guidelines, recommendations and questions and answers (Q&A) developed and issued by the European Supervisory Authorities (“ESAs”), in particular the European Banking Authority (“EBA”) and the European Securities and Markets Authority (“ESMA”) (level 3).

Securities Trading Legislation

Under the German Securities Trading Act (Wertpapierhandelsgesetz), the BaFin regulates and supervises securities trading, including the provision of securities services, in Germany. The German Securities Trading Act contains, among other things, disclosure and transparency rules for issuers of securities that are listed on a German exchange and organizational requirements as well as rules of conduct which apply to all businesses that provide securities services. Securities services include, in particular, the purchase and sale of securities or derivatives for others and the intermediation of transactions in securities or derivatives and investment advice. The BaFin has broad powers to investigate businesses providing securities services to monitor their compliance with the organizational requirements, rules of conduct and reporting requirements. In addition, the German Securities Trading Act requires an independent auditor to perform an annual audit of the securities services provider's compliance with its obligations under the German Securities Trading Act.

On July 3, 2016, a new legal regime on market abuse entered into force consisting of a directly applicable European Union regulation on market abuse ("Market Abuse Regulation" or "MAR") and a European Union directive on criminal sanctions for market abuse ("MAD") which has been implemented into national (in our case, German) law. The MAR establishes a common European Union framework for, inter alia, insider dealing, the public disclosure of inside information, market manipulation, and managers' transactions. The German Securities Trading Act, which had contained rules on market abuse prior to the entering into force of the MAR, continues to supplement the MAR and, e.g., provides for sanctions in case of violations of the MAR.

The European Union enacted several legislative proposals which resulted in further regulation of securities trading and the trading in derivatives in particular. Notably, the European Union adopted the European Regulation on OTC Derivatives, Central Counterparties and Trade Repositories ("EMIR"), which became effective on August 16, 2012. EMIR introduced requirements for standardized over-the-counter derivatives to be centrally cleared and derivative transactions to be reported to trade repositories. EMIR also includes additional capital and margin requirements for non-cleared trades.

In addition, the revised Markets in Financial Instruments Directive ("MiFID 2") and the new Markets in Financial Instruments Regulation ("MiFIR") became applicable on January 3, 2018 and provide for, among other things, greater regulation and oversight of financial firms providing investment services or activities in the European Union by covering additional markets and instruments, the extension of pre- and post-trade transparency rules from equities to all financial instruments, greater restrictions on operating trading platforms, and greater sanctioning powers. The trading venues under supervision now also include organized trading facilities. In addition, MiFID 2/MiFIR, introduced a trading obligation for those OTC derivatives which are subject to mandatory clearing and which are sufficiently standardized, and new investor protection rules which significantly impact the way we distribute products. Whereas MiFIR is a directly applicable European Union regulation, MiFID 2, as a European Union directive, needed to be transposed into national law. In Germany in particular, the German Securities Trading Act implements MiFID 2 and supplements MiFIR.

Furthermore, European securities regulation is to a large extent based on technical standards, guidelines and recommendations developed by the ESMA.

Capital Adequacy Requirements

Minimum Capital Adequacy Requirements (Pillar 1)

The minimum capital adequacy requirements for banks are primarily set forth in the CRR. The CRR requires German banks to maintain an adequate level of regulatory capital in relation to their risk positions. Risk positions (commonly referred to as "risk-weighted assets") include credit risks, market risks and operational risks (including, among other things, risks related to certain external factors, as well as to technical errors and errors of employees). The most important type of capital for compliance with the capital requirements under the CRR (see below) is "Common Equity Tier 1" capital. Common Equity Tier 1 capital primarily consists of share capital, retained earnings and other reserves, subject to certain regulatory adjustments. Another component of regulatory capital is "Additional Tier 1" capital which includes, for example, certain unsecured subordinated perpetual capital instruments and related share premium accounts. Generally, the terms and conditions of all instruments recognized as Additional Tier 1 capital must require that the principal amount of the instruments will be written down, or converted into Common Equity Tier 1 capital when the Common Equity Tier 1 capital ratio of the financial institution falls below a minimum of 5.125 % (or such higher level as the issuing bank may determine), although regulators may require an earlier conversion, for example for stress-testing purposes. Common Equity Tier 1 capital and Additional Tier 1 capital together constitute "Tier 1" capital. Tier 1 capital requirements are aimed at ensuring the ability to absorb losses on a "going concern" basis. The other type of regulatory capital is "Tier 2" capital which generally consists of long-term subordinated debt instruments and must be able to absorb losses on a "gone concern" basis. Tier 1 capital and Tier 2 capital together constitute "own funds". Pursuant to the CRR, hybrid capital instruments that qualified as Tier 1 or Tier 2 capital under what is known as Basel 2.5 cease to qualify as such and will be gradually phased out through the end of 2021. Tier 3 capital is no longer recognized as own funds under the CRR. In addition, the CRR tightened the regime for certain deductions from capital.

Under the CRR, banks are required to maintain a minimum ratio of Tier 1 capital to risk-weighted assets of 6 % and a minimum ratio of Common Equity Tier 1 capital to risk-weighted assets of 4.5 %. The minimum total capital ratio of own funds to risk-weighted assets is 8 %.

Capital Buffers

The German Banking Act also requires banks to build up a mandatory capital conservation buffer (Common Equity Tier 1 capital amounting to 2.5 % of risk-weighted assets), and authorizes the BaFin to set a domestic counter-cyclical capital buffer for Germany (Common Equity Tier 1 capital of generally 0 % to 2.5 % of risk-weighted assets, or more in particular circumstances) during periods of high credit growth. In order to comply with the countercyclical capital buffer requirement, banks must calculate their institution-specific countercyclical capital buffer as the weighted average of the countercyclical capital buffers that apply to them in the jurisdictions where their relevant credit exposures are located. Accordingly, the total countercyclical buffer requirement (if any) that we need to comply with also depends on the corresponding buffer requirements in other jurisdictions. In addition, the BaFin may require banks to build up a systemic risk buffer (Common Equity Tier 1 capital of between 1 % and 3 % of risk-weighted assets for all exposures and – in exceptional cases – up to 5 % for domestic and third-country exposures) to prevent and mitigate long term non-cyclical systemic or macro-prudential risks not otherwise covered by CRR/CRD 4. G-SIBs (such as Deutsche Bank) are subject to an additional capital buffer (Common Equity Tier 1 capital of between 1 % and 3.5 % of risk-weighted assets), which the BaFin determines for German banks based on a scoring system measuring the bank's global systemic importance. The BaFin can also determine a capital buffer of Common Equity Tier 1 capital of up to 2 % of risk-weighted assets for other systemically important banks (so-called O-SIs, such as Deutsche Bank) in Germany, based on criteria measuring, among others, the bank's importance for the economy in Germany and the European Economic Area. The provisions in the German Banking Act on capital buffers are generally being phased in gradually through January 1, 2019. The systemic risk buffer, the buffers for G-SIBs and the buffer for O-SIs are generally not cumulative; only the highest of these buffers applies. If a bank fails to build up the required capital buffers, it will be subject to restrictions on the pay-out of dividends, share buybacks and discretionary compensation payments. Also, the ECB may require banks to maintain higher capital buffers than those required by the BaFin.

Leverage Ratio

The Basel 3 framework also proposes a non-risk based leverage ratio as a complement to the risk-based capital requirements. While the CRR, as currently in effect, does not require banks to comply with a specific leverage ratio, banks are required to report and publish their leverage ratios for a future assessment and calibration of the leverage ratio. Among the package of reforms published by the European Commission on November 23, 2016 (see "Overview" above) is a proposal to introduce a binding minimum leverage ratio requirement of 3 % of Tier 1 capital as part of CRR 2. In addition, in December 2017, the Basel Committee adopted a leverage ratio buffer for G-SIBs (such as Deutsche Bank) to be applied from January 2022 onwards, which must be met with Tier 1 capital and is set at 50 % of a G-SIB's risk-weighted capital buffer. In order for the Basel standards to become binding on banks, they must be implemented in the laws of the European Union and the individual member jurisdictions. In the EU, such implementation is done through amendments to the CRR/CRD 4 legislative package as well as corresponding national laws.

Supervisory Review and Evaluation Process or "SREP" (Pillar 2)

Furthermore, the ECB may impose capital requirements on individual significant credit institutions within the SSM which are more stringent than the statutory minimum requirements set forth in the CRR, the German Banking Act or the related regulations. In this context, in December 2014, the EBA published its final guidelines for common procedures and methodologies for the supervisory review and evaluation process ("SREP"). In connection with the SREP, competent supervisory authorities, including the ECB, are required to review the arrangements, strategies, processes and mechanisms of supervised banks on a regular basis, in order to evaluate risks to which they are or might be exposed, risks they could pose to the financial system, and risks revealed by stress testing, taking into account the nature, scale and complexity of their activities. At the end of the process, the competent supervisory authority takes an SREP decision in relation to each relevant bank setting out, depending on the outcome of the SREP, specific capital and liquidity requirements for each affected bank. Any additional bank-specific capital requirements resulting from the SREP are referred to as "Pillar 2" requirements and must be fulfilled in addition to the statutory minimum capital and buffer requirements. The "Pillar 2" requirement must be met with Common Equity Tier 1 capital. Also following the SREP, the ECB may communicate to individual banks an expectation to hold a further "Pillar 2" Common Equity Tier 1 capital add-on, the so-called "Pillar 2" guidance. The ECB has stated that it expects banks to meet the "Pillar 2" guidance although it is not legally binding and failure to meet the "Pillar 2" guidance does not automatically trigger legal action. Finally, also based on the outcome of the SREP, the competent supervisory authority may take a range of other measures in response to shortcomings in a bank's governance and risk management processes as well as its capital or liquidity position, such as prohibiting dividend payments to shareholders or distributions to holders of regulatory capital instruments.

The EBA has updated its SREP framework in 2017 and will continue to do so in 2018 and beyond. The revisions comprise, among other things, updating guidelines on common procedures, technical aspects and stress testing, further revising the “Pillar 2” guidance and integrating it with supervisory stress testing, and generally elaborating further on the way the EBA assesses certain aspects of regulatory requirements.

For details of Deutsche Bank’s regulatory capital, see “Management Report: Risk Report: Risk and Capital Performance” in our Annual Report 2017.

Limitations on Large Exposures

The CRR also contains the primary restrictions on large exposures, which limit a bank’s concentration of credit risks. The German Banking Act and the Large Exposure Regulation (Großkredit- und Millionenkreditverordnung) supplement the CRR. For example, the Large Exposure Regulation sets forth exemptions (in addition to those contained in the CRR) from the applicability of limits to large exposures. Under the CRR, our exposure to a customer (and any customers affiliated with it) is deemed to be a “large exposure” when the value of such exposure is equal to or exceeds 10 % of our “eligible regulatory capital”. All exposures to a single customer (and customers affiliated with it) are aggregated for these purposes. In general, no large exposure may exceed 25 % of our eligible regulatory capital. “Eligible regulatory capital” for this purpose means the sum of Tier 1 capital and Tier 2 capital which may not exceed one third of Tier 1 capital. If the customer is a credit institution or investment firm, the exposure is limited to the higher of 25 % of our eligible regulatory capital or € 150 million. Competent authorities may set a lower limit than € 150 million. Among the package of reforms published by the European Commission on November 23, 2016 (see “Overview” above), is a proposal to restrict a bank’s exposures to a single counterparty to 25 % of its Tier 1 capital (instead of 25 % of the sum of its Tier 1 and Tier 2 capital) and further limit exposures between banks designated as G-SIBs (such as Deutsche Bank) to 15 % of Tier 1 capital.

Under certain conditions, the limits to large exposures may be exceeded by the exposures on the bank’s trading book. In this case, the bank must meet an additional own funds requirement.

Consolidated Regulation and Supervision

Deutsche Bank AG, headquartered in Frankfurt am Main, Germany, is the parent institution of the Deutsche Bank Group of institutions (the “regulatory group”), which is subject to the supervisory provisions of the German Banking Act and the CRR. Generally, a regulatory group of institutions (Institutsgruppe) consists of an institution (meaning a credit institution or an investment firm within the meaning of the CRR that is responsible for the consolidation of the group) as the parent company, and all other institutions, financial institutions (comprising inter alia financial holding companies, payment institutions and asset management companies) and ancillary services undertakings that are the parent company’s subsidiaries as defined in the CRR. The provisions of the German Banking Act and the CRR on consolidated supervision require that a regulatory group of institutions taken as a whole complies with the requirements on capital adequacy, limitations on large exposures as well as organizational, risk management and other prudential requirements under the CRR and the German Banking Act. The ECB is responsible for our supervision on a consolidated basis.

Liquidity Requirements

The CRR introduced a new liquidity coverage requirement intended to ensure that banks have an adequate stock of unencumbered high quality liquid assets that can be easily and quickly converted into cash to meet their liquidity needs for a 30-calendar day liquidity stress scenario. The required liquidity coverage ratio (“LCR”) is calculated as the ratio of a bank’s liquidity buffer to its net liquidity outflows. Also, banks must regularly report the composition of the liquid assets in their liquidity buffer to their competent authorities. The liquidity coverage requirement was phased in through January 1, 2018, becoming fully applicable in 2018. Details on the liquidity coverage requirement have been set forth by the European Commission in implementing legislation, which became applicable on October 1, 2015. The ECB supervises our compliance with the liquidity coverage requirement under the CRR and the corresponding implementing legislation.

In addition, Basel 3 contains a proposal to introduce a net stable funding ratio (“NSFR”) to reduce medium- to long-term funding risks by requiring banks to fund their activities with sufficiently stable sources of funding over a one-year period. The CRR contains interim reporting requirements on stable funding but does not yet include substantive provisions relating to the NSFR. Among the package of reforms published by the European Commission on November 23, 2016 (see “Overview” above) is a proposal to introduce a binding NSFR as part of CRR 2. According to this proposal, the NSFR is defined as the ratio of a bank’s available stable funding relative to the amount of required stable funding over a one-year period. According to the proposal, banks must maintain an NSFR of at least 100 %.

The ECB may impose on individual banks liquidity requirements which are more stringent than the general statutory requirements if the bank’s continuous liquidity would otherwise not be ensured.

Financial Statements and Audits

As required by the German Commercial Code (Handelsgesetzbuch), Deutsche Bank AG prepares its non-consolidated financial statements in accordance with German GAAP. Deutsche Bank Group's consolidated financial statements are prepared in accordance with International Financial Reporting Standards ("IFRS"), and our compliance with capital adequacy requirements and large exposure limits is determined solely based upon such consolidated financial statements.

Under German law, Deutsche Bank AG is required to be audited annually by a certified public accountant (Wirtschaftsprüfer). Deutsche Bank AG's auditor is appointed each year at the annual shareholders' meeting. However, the supervisory board mandates the auditor and supervises the audit. The BaFin and the Bundesbank must be informed of the appointment and the BaFin may reject the auditor's appointment. The German Banking Act requires that a bank's auditor inform the BaFin and the Bundesbank of any facts that come to the auditor's attention which would lead it to refuse to certify or to limit its certification of the bank's annual financial statements or which would adversely affect the bank's financial position. The auditor is also required to notify the BaFin and the Bundesbank in the event of a material breach by management of the articles of association or of any other applicable law. The auditor is required to prepare a detailed and comprehensive annual audit report (Prüfungsbericht) for submission to the bank's supervisory board, the BaFin and the Bundesbank. The BaFin and the Bundesbank share their information with the ECB.

Investigative and Enforcement Powers

Investigations and Supervisory Audits

The ECB and the BaFin may conduct audits of banks on a random basis, as well as for cause. In particular, the ECB may audit our compliance with requirements with respect to which it supervises us, such as those set forth in CRR/CRD 4. The BaFin may also decide to audit our compliance with requirements with respect to which it supervises us, such as those relating to business conduct in the securities markets and the regulation of anti-money laundering, to counter terrorist financing and payment services, as well as certain special areas of bank regulation, such as those related to the issuance of covered bonds and the supervision of German home loan banks.

The ECB as well as the BaFin may require a bank to furnish information and documents in order to ensure that the bank is complying with applicable bank supervisory laws. The ECB and the BaFin may conduct investigations without having to state a reason therefore. Such investigations may also take place at a foreign entity that is part of a bank's group for regulatory purposes. Investigations of foreign entities are limited to the extent that the law of the jurisdiction where the entity is located restricts such investigations.

The ECB and the BaFin may attend meetings of a bank's supervisory board and shareholders meetings. They also have the authority to require that such meetings be convened.

Supervisory and Enforcement Powers

The ECB has a wide range of enforcement powers in the event it discovers any irregularities concerning adherence to requirements with respect to which it supervises us. It may, for example,

- impose additional own funds or liquidity requirements in excess of statutory minimum requirements;
- restrict or limit a bank's business;
- require the cessation of activities to reduce risk;
- require a bank to use net profits to strengthen its own funds;
- restrict or prohibit dividend payments to shareholders or distributions to holders of Additional Tier 1 instruments; or
- remove the members of the bank's management or supervisory board members from office.

To the extent necessary to carry out the tasks granted to it, the ECB may also require national supervisory authorities to make use of their powers under national law. If these measures are inadequate, the ECB may revoke the bank's license. Furthermore, the ECB has the power to impose administrative penalties in case of breaches of directly applicable European Union laws, such as the CRR, or of applicable ECB regulations and decisions. Penalties imposed by the ECB may amount to up to twice the amount of profits gained or losses avoided because of the violation, or up to 10 % of the total annual turnover of the relevant entity in the preceding business year or such other amounts as may be provided for in relevant European Union law. In addition, where necessary to carry out the tasks granted to it, the ECB may also require that the BaFin initiate proceedings to ensure that appropriate penalties are imposed on the affected bank.

The BaFin also retains a wide range of enforcement powers. As discussed above, it may take action if instructed by the ECB in connection with supervisory tasks granted to the ECB. With respect to supervisory tasks remaining with the BaFin, the BaFin may take action upon its own initiative. In particular, if a bank is in danger of defaulting on its obligations to creditors, the BaFin may take emergency measures to avert default. These emergency measures may include:

- issuing instructions relating to the management of the bank;
- prohibiting the acceptance of deposits and the extension of credit;
- prohibiting or restricting the bank's managers from carrying on their functions;
- prohibiting payments and disposals of assets;
- closing the bank's customer services; and
- prohibiting the bank from accepting any payments other than payments of debts owed to the bank.

The BaFin may also impose administrative pecuniary penalties under the German Banking Act and other German laws. Penalties under the German Banking Act may amount to generally up to € 5 million or, in certain cases, € 20 million, depending of the type of offense. If the economic benefit derived from the offense is higher, the BaFin may impose penalties of up to 10 % of the net turnover of the preceding business year or twice the amount of the economic benefit derived from the violation.

Finally, violations of the German Banking Act may result in criminal penalties against the members of the Management Board or senior management.

Recovery and Resolution Planning, Restructuring Powers

Germany participates in the SRM, which centralizes at a European level the key competences and resources for managing the failure of banks in member states of the European Union participating in the banking union. The SRM is based on the SRM Regulation and the BRRD, which was implemented in Germany through the German Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz). In addition, the German Resolution Mechanism Act (Abwicklungsmechanismusgesetz) adapted German bank resolution laws to the SRM. The SRM Regulation and the German Recovery and Resolution Act require the preparation of recovery and resolution plans for banks and grant broad powers to public authorities to intervene in a bank which is failing or likely to fail. For a bank directly supervised by the ECB, such as Deutsche Bank, the SRB draws up the resolution plan, assesses the bank's resolvability and may require legal and operational changes to the bank's structure to ensure its resolvability.

In the event that a bank is failing or likely to fail and certain other conditions are met, in particular where there is no reasonable prospect that any alternative private sector measures would prevent the failure and resolution measures are necessary in the public interest, the SRB is responsible for adopting a resolution scheme for resolving the bank pursuant to the SRM Regulation. The European Commission and, to a lesser extent, the Council of the European Union, have a role in endorsing or objecting to the resolution scheme proposed by the SRB. The resolution scheme would be addressed to and implemented by the competent national resolution authorities (in Germany, since 2018, the BaFin).

Resolution measures that could be imposed upon a failing bank may include a range of measures including the transfer of shares, assets or liabilities of the bank to another legal entity, the reduction, including to zero, of the nominal value of shares, the dilution of shareholders of a failing bank or the cancellation of shares outright, or the amendment, modification or variation of the terms of the bank's outstanding debt instruments, for example by way of deferral of payments or a reduction of the applicable interest rate. Furthermore, certain eligible unsecured liabilities, in particular certain senior unsecured debt instruments specified by the German Banking Act, as amended by the German Resolution Mechanism Act, may be written down, including to zero, or converted into equity (commonly referred to as "bail-in") after the bank's regulatory capital has been exhausted. In addition, the SRB is charged with administering the SRF, a pool of money which is financed by bank levies raised at national level and is intended to reach a target level of 1 % of insured deposits of all banks in member states participating in the SRM by the end of 2023. It will be used for resolving failing banks after other options, such as the bail-in tool, have been exhausted. In line with the German Recovery and Resolution Act, public financial support for a failing bank should only be used as a last resort, after having assessed and exploited, to the maximum extent possible, resolution measures set forth in the SRM Regulation and the German Recovery and Resolution Act, including the bail-in tool.

To prevent banks from structuring their liabilities in a way that impedes the effectiveness of the bail-in or other resolution tools, the SRM Regulation and the German Recovery and Resolution Act, implementing the BRRD, introduced a requirement for banks to meet minimum requirements for own funds and eligible liabilities ("MREL"). The MREL is to be determined by the competent resolution authorities for each supervised bank individually. MREL applies to all banks across the European Union. In addition, on November 9, 2015, the FSB published a similar new standard applicable to all G-SIBs (and not only European G-SIBs), such as Deutsche Bank, to meet a new minimum requirement for TLAC as from January 1, 2019. The FSB has proposed that competent authorities determine a firm-specific minimum TLAC requirement for each G-SIB of at least 16 % of risk-weighted assets as from January 1, 2019, rising to at least 18 % from January 1, 2022. In addition, the FSB has proposed that minimum TLAC must be at least 6 % of the Basel 3 leverage ratio denominator from January 1, 2019, rising to at least 6.75 %

of the Basel 3 leverage ratio denominator from January 1, 2022. Among the package of reforms published by the European Commission on November 23, 2016 (see "Overview" above) is a proposal to implement the FSB's TLAC proposal in the European Union and harmonize it with MREL through amendments to CRR/CRD 4, the BRRD and the SRM Regulation. The ultimate impact of any TLAC requirements on us will depend on how the proposals will be implemented into binding legislation.

With effect from January 1, 2017, the German Banking Act – as amended by the German Resolution Mechanism Act – subordinates non-structured senior unsecured debt instruments issued by German banks (such as bank bonds), including debt instruments issued prior to January 1, 2017 ("statutory subordination"). These new "senior non-preferred" debt instruments rank junior to a bank's other unsubordinated liabilities (including deposits, derivatives, money market instruments and debt instruments that are "structured" as defined in the German Banking Act), but in priority to the bank's contractually subordinated liabilities, such as those qualifying as Tier 2 instruments. Thus, in the event of insolvency or resolution proceedings affecting Deutsche Bank AG, senior non-preferred debt instruments would bear losses after the bank's contractually subordinated liabilities but before the bank's other unsubordinated liabilities.

On December 27, 2017, the European Union published a directive amending the BRRD in order to harmonize the ranking of unsecured debt instruments issued by banks in the European Union. The new directive needs to be implemented into national law of EU member states by December 29, 2018, at the latest. The BRRD amendment will create a harmonized class of non-structured senior non-preferred debt instruments at European Union level by allowing a bank to determine in the contractual documentation and, where applicable, the prospectus that its non-structured debt instruments with an original contractual maturity of at least one year rank in the senior non-preferred category junior to the bank's other unsubordinated liabilities but in priority to the bank's contractually subordinated liabilities, such as those qualifying as Tier 2 instruments ("contractual subordination"). Once implemented in Germany, it is expected that Deutsche Bank AG will be able to issue non-structured senior non-preferred debt instruments ranking pari passu with its existing senior non-preferred debt instruments as well as non-structured "senior preferred" debt instruments ranking pari passu with Deutsche Bank AG's other unsecured and unsubordinated liabilities, such as "structured" debt instruments, money market instruments, derivatives and corporate deposits (with the exception of certain preferred deposits that are more senior under the German Banking Act).

Finally, in addition to resolution proceedings under the SRM and the German Recovery and Resolution Act, a German bank can become subject to a stabilization plan or reorganization proceedings under the German Credit Institution Reorganization Act (Gesetz zur Reorganisation von Kreditinstituten).

Separation of Proprietary Trading Activities by Universal Banks

The German Separation Act provides that deposit-taking banks and their affiliates are prohibited from engaging in proprietary trading that does not constitute a service for others, high-frequency trading (with the exception of market-making activities), and credit or guarantee transactions with hedge funds and comparable enterprises, unless such activities are transferred to a separate legal entity (referred to as a financial trading institution (Finanzhandelsinstitut)). The separation requirement applies if certain thresholds are exceeded, which is the case for us. In addition, the German Separation Act authorizes the BaFin, since July 1, 2016, to prohibit the deposit-taking bank and its affiliates, on a case-by-case basis, from engaging in market-making and other activities that are comparable to the activities prohibited by law, if these activities may put the solvency of the deposit-taking bank or any of its affiliates at risk. In the event that the BaFin orders such a prohibition, the respective activities must be discontinued or transferred to a separate financial trading institution. The financial trading institution may be established in the form of an investment firm or a bank and may be part of the same group as the deposit-taking bank. However, it must be economically and organizationally independent from the deposit-taking bank and its (other) affiliates, and it has to comply with enhanced risk management requirements. The prohibition for deposit-taking banks and their affiliates to conduct activities associated with increased risks became effective on July 1, 2015, with a further transitional period of twelve months to accomplish the separation requirement, unless the BaFin extends this period. The German Separation Act became applicable to Deutsche Bank Group on July 1, 2017, after the extension of the period to cease or transfer the activities concerned expired on June 30, 2017. The German Separation Act requires ongoing surveillance of the activities of banks within the scope of the legislation and assessment of compliance and control frameworks to ensure that no prohibited activities are conducted.

Remuneration Rules

Under the German Banking Act and the German Credit Institution Remuneration Regulation (Institutsvergütungsverordnung), we are subject to certain restrictions on the remuneration we pay our management board members and employees. These remuneration rules implement requirements of the CRD 4 and impose a cap on bonuses. Pursuant to this cap, the variable remuneration for management board members and employees must not exceed the fixed remuneration. The variable remuneration may be increased to twice the management board member's or employee's fixed remuneration if expressly approved by the shareholders' meeting with the required majority. In addition, we are obliged to identify individuals who have a material impact on our risk profile ("material risk takers"). Such material risk takers are subject to additional rules, such as the requirement that at least 40 % to 60 % of the variable remuneration granted to them must be on a deferred basis. The deferral period must be at least three to five years. Also at least 50 % of the variable remuneration for material risk takers must be paid in the form of instruments that adequately reflect the credit quality of the bank, such as shares or instruments linked to shares.

Finally, we are required to comply with certain disclosure requirements relating to the remuneration we pay to, and our remuneration principles in respect of, our material risk takers and other affected employees. The German Credit Institution Remuneration Regulation was amended in 2017, including in respect of the definition of fixed remuneration and to introduce further requirements relating to determining the variable remuneration of material risk takers.

For details of Deutsche Bank's remuneration system, see "Management Report: Compensation Report" in our Annual Report 2017.

Deposit Protection and Investor Compensation in Germany

The Deposit Protection Act and the Investor Compensation Act

The German Deposit Protection Act (Einlagensicherungsgesetz) and the German Investor Compensation Act (Anlegerschädigungsgesetz) provide for a mandatory deposit protection and investor compensation system in Germany, based on a European Union directive on deposit guarantee schemes ("DGS Directive"), recast in 2014, and a European Union directive on investor compensation schemes.

The German Deposit Protection Act requires that each German bank participates in one of the statutory government-controlled deposit protection schemes (Entschädigungseinrichtungen). Entschädigungseinrichtung deutscher Banken GmbH acts as the deposit protection scheme for private sector banks such as Deutsche Bank, collects and administers the contributions of the member banks, and settles any compensation claims of depositors in accordance with the German Deposit Protection Act.

Under the German Deposit Protection Act, deposit protection schemes are liable for obligations resulting from deposits denominated in any currency in an amount of up to € 100,000 per depositor and bank. In addition, deposits made in connection with particular life events (such as the sale of private residential properties, marriage or severance payments) are protected up to an amount of € 500,000 for a period of six months after the amount has been deposited or become transferable. Deposit protection schemes are not liable for liabilities the existence of which can be proven only by financial instruments such as transferable securities that are not repayable at par or the principal of which is repayable at par only under a particular guarantee or agreement provided by the bank or a third party. Deposits by certain entities, such as banks, financial institutions (Finanzinstitute), insurance companies, investment funds, the Federal Republic of Germany, the German federal states and municipalities, as well as liabilities arising from own acceptances (eigene Akzepte) and sola bills (Solawechsel) are not protected.

The deposit protection scheme must repay insured deposits in euro within seven working days after the BaFin has ascertained a compensation case for the bank concerned and without the requirement for depositors to specifically apply for repayment, except where they claim to be insured above the level of € 100,000 in connection with specific life events.

Deposit protection schemes are financed by annual contributions of the participating banks. They must have "available financial means" proportionate to their potential liabilities and must reach a target level of such means of 0.8 % of the total covered deposits of their participating banks by July 3, 2024. The "financial means" must be contributed by the banks participating in the deposit protection scheme. The amount of contributions of each bank will be based upon the amount of its covered deposits and the degree of risk the bank is exposed to. Deposit protection schemes may also levy special contributions if required to settle compensation claims. There is no absolute limit on such special contributions.

Deposit protection schemes will be required to contribute to bank resolution costs where resolution tools are used. The contribution made by the deposit protection scheme is limited to the compensation it would have to pay if the affected bank had become subject to insolvency proceedings. Furthermore, deposit protection schemes under certain circumstances may provide funding to its participating banks to avoid their failure.

Under the German Investor Compensation Act, in the event that the BaFin ascertains a compensation case, Entschädigungseinrichtung deutscher Banken GmbH as our deposit protection scheme is also required to compensate 90 % of any creditor's aggregate claims arising from securities transactions denominated in euro or in a currency of any other European Union member state up to an amount of the equivalent of € 20,000. Claims arising from securities transactions include claims of securities account holders for the return of instruments owned by, and held or deposited for them in connection with securities transactions. Claims arising from securities transactions of certain entities, such as banks, financial institutions (Finanzinstitute), insurance companies, investment funds, the Federal Republic of Germany, the German federal states, municipalities and medium-sized and large corporations, are not protected.

European Deposit Insurance Scheme

On November 24, 2015, the European Commission proposed a regulation to establish a European Deposit Insurance Scheme, or "EDIS" for bank deposits of all credit institutions which are members of any of the current national statutory deposit guarantee schemes of member states participating in the banking union (see "Overview" above). The Commission's proposal envisages a progressive integration of existing national deposit guarantee schemes in three stages, from a reinsurance of national deposit guarantee schemes, to a coinsurance system, and then to the final stage, which would be reached in 2024, when EDIS would fully insure all relevant national deposit guarantee schemes in case of a bank failure. EDIS would be administered by the SRB in all stages jointly with participating national deposit guarantee schemes or, where a deposit guarantee scheme does not administer itself, by the national designated authority responsible for administering the respective participating deposit guarantee scheme. Noting that the political discussion on setting up EDIS has not made any progress in the last two years, on October 11, 2017, the European Commission published a communication suggesting to introduce EDIS via a more gradual process. In the reinsurance phase, EDIS could provide liquidity to national deposit guarantee schemes in case of a bank failure, which would have to be paid back by the national deposit guarantee schemes. In the coinsurance phase, EDIS could also cover losses, without recouping them from the national deposit guarantee schemes. However, moving to this second phase would be conditional on progress achieved in reducing the level of nonperforming loans and other legacy assets in the banking sector assets through an asset quality review. These proposals are currently being negotiated at the European Union level and the ultimate impact on us is uncertain.

Voluntary Deposit Protection System

Liabilities to creditors that are not covered by a statutory compensation scheme may be covered by one of the various protection funds set up by the banking industry on a voluntary basis. Deutsche Bank AG takes part in the Deposit Protection Fund (Einlagensicherungsfonds) set up by the Association of German Banks (Bundesverband deutscher Banken e. V.). The Deposit Protection Fund protects deposits, i.e., generally credit balances credited to an account or resulting from interim positions which the bank is required to repay, subject to the exclusions described below, up to an amount equal to 20 % of the bank's own funds (Eigenmittel) as further specified in the Deposit Protection Fund's by-laws. This limit will be reduced to 15 % from January 1, 2020 onwards and to 8.75 % from January 1, 2025 onwards.

Not protected are, among other liabilities, deposits forming part of the bank's own funds, liabilities resulting from bearer or order bonds, as well as deposits made by other banks. Following a reform of the Deposit Protection Fund's becoming effective on October 1, 2017, further liabilities are no longer protected, subject to certain grandfathering provisions. In particular, deposits of federal, regional and local governmental agencies as well as certain "bank-like" clients (certain investment firms and financial institutions) are no longer protected. Also, promissory notes (Schuldscheindarlehen) and registered bonds (Namensschuldverschreibungen) held by companies, institutional investors and semi-governmental agencies are no longer protected. In addition, from January 1, 2020, deposits with a term of over 18 months held by companies, institutional investors and semi-governmental agencies will no longer be protected. The detailed scope of deposit protection and the full list of exclusions as well as any applicable grandfathering provisions are set out in the Deposit Protection Fund's by-laws.

To the extent the Deposit Protection Fund makes payments to customers of a bank, it will be subrogated to their claims against the bank.

The financial resources of the Deposit Protection Fund are funded by contributions of participating banks. If the resources of the Fund are insufficient, banks may be required to make special contributions. If one or more German banks are in financial difficulties, we may participate in their restructuring even where we have no business relationship or strategic interest, in order to avoid making special contributions to the Deposit Protection Fund in case of an insolvency of such bank or banks, or we may be required to make such special contributions.

Further Regulation and Supervision in the European Economic Area

Since 1989 the European Union has enacted a number of regulations and directives to create a single European Union-wide market with almost no internal barriers on banking and financial services. The Agreement on the European Economic Area extends this single market to Iceland, Liechtenstein and Norway. Within this market our branches generally operate under the so-called "European Passport". Under the European Passport, our branches are subject to regulation and supervision primarily by the ECB and the BaFin. Similarly, we also provide cross-border services in the European Economic Area under the "European Passport" directly without intermediation of branches. To the extent that activities are carried out within its jurisdiction, the authorities of the host country supervise the conduct of such activities. This includes, for example, rules on treating clients fairly and rules governing a bank's conduct in the securities market.

On November 24, 2010, the European Union enacted regulations to further integrate the existing national supervisory authorities into a European System of Financial Supervision. A European Systemic Risk Board (“ESRB”) was established and the independent advisory committees to the European Commission for banks, insurance companies and securities markets which had existed since 2004 were transformed into new European authorities, the ESAs: the EBA, the ESMA and the European Insurance and Occupational Pensions Authority (“EIOPA”).

The ESRB is responsible for the macro-prudential oversight of the financial system within the European Union. It collects and analyzes in particular all relevant information to identify systemic risks and issue warnings and recommendations for remedial action as appropriate. The secretariat of the ESRB is supported by the ECB. The tasks of the EBA, EIOPA, and ESMA are to further integrate and harmonize the work of the relevant national supervisory authorities and to ensure a consistent application of European Union law. To that effect they shall in particular develop technical standards for supervision, and help develop regulatory standards, which will become effective if the European Commission endorses them. They shall also issue guidelines and recommendations for supervisory practices and coordinate the work of competent supervisory authorities in emergency situations where the orderly functioning or integrity of the financial markets or the stability of the financial system in the European Union is jeopardized (see “Banking Legislation” above). In such case, the EBA and the other new authorities may give instructions to competent supervisory authorities and, in certain circumstances, directly to banks and other financial institutions, to take remedial measures.

On September 20, 2017, the European Commission proposed certain amendments to the ESAs’ and the ESRB’s governance and powers. The proposals seek, among other things, to strengthen the ESAs’ role in coordinating supervision of national supervisor authorities, to bring certain areas of capital markets under direct supervision of ESMA, and to ensure that supervisory decisions are more independent from EU member states’ national interests. The proposals are currently being negotiated at EU level and the impact on us is uncertain.

Regulation and Supervision in the United States

Our operations are subject to extensive federal and state banking, securities and derivatives regulation and supervision in the United States. We engage in U.S. banking activities directly through our New York branch. We also control U.S. banking organization subsidiaries, including DB USA Corporation, Deutsche Bank Trust Corporation and Deutsche Bank Trust Company Americas (“DBTCA”), and U.S. broker-dealers, such as Deutsche Bank Securities Inc., U.S. nondeposit trust companies and nonbanking subsidiaries.

In 2010, the United States enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”), which provides a broad framework for significant regulatory changes that extend to almost every area of U.S. financial regulation. While rulemaking in respect of many of the provisions of the Dodd-Frank Act has already taken place, full implementation of the Dodd-Frank Act will require further detailed rulemaking and uncertainty remains about the final details, timing and impact of many of the rules. In addition, the substance and impact of the Dodd-Frank Act may be affected by changes in the U.S. political landscape.

The Dodd-Frank Act provisions known as the “Volcker Rule” limit the ability of banking entities and their affiliates to engage as principal in certain types of proprietary trading unrelated to serving clients and to sponsor or invest in private equity or hedge funds or similar funds (“covered funds”), subject to certain exclusions and exemptions. In the case of non-U.S. banking entities such as Deutsche Bank AG, these exemptions permit certain activities conducted outside the United States, provided that certain criteria are satisfied. The Volcker Rule also limits the ability of banking entities and their affiliates to enter into certain transactions with covered funds with which they or their affiliates have certain relationships. The Volcker Rule requires banking entities to establish comprehensive compliance programs designed to help ensure and monitor compliance with restrictions under the Volcker Rule.

The Dodd-Frank Act also provides regulators with tools to provide greater capital, leverage and liquidity requirements and other prudential standards, particularly for financial institutions that pose significant systemic risk. U.S. regulators are also able to restrict the size and growth of systemically significant non-bank financial companies and large interconnected bank holding companies. U.S. regulators are also required to impose bright-line debt-to-equity ratio limits on financial companies that the Financial Stability Oversight Council determines pose a grave threat to financial stability if it determines that the imposition of such limits is necessary to minimize the risk.

With respect to prudential standards, in February 2014, the Federal Reserve Board adopted rules that set forth how the U.S. operations of certain foreign banking organizations (“FBOs”), such as Deutsche Bank, are required to be structured in the U.S., as well as the enhanced prudential standards that apply to our U.S. operations (the “FBO Rules”).

Under the FBO Rules, as of July 1, 2016, a large FBO with U.S.\$ 50 billion or more in U.S. non-branch assets, such as Deutsche Bank, was required to establish or designate a separately capitalized top-tier U.S. intermediate holding company ("IHC") that would hold substantially all of the FBO's ownership interests in its U.S. subsidiaries. On July 1, 2016, we designated DB USA Corporation as our IHC and, as of that date, DB USA Corporation became subject, on a consolidated basis, to the risk-based capital requirements under the U.S. Basel 3 capital framework, capital planning and stress testing requirements (on a phased-in basis), U.S. liquidity buffer requirements and other enhanced prudential standards comparable to those applicable to top-tier U.S. bank holding companies of a similar size. The Federal Reserve Board has the authority to examine an IHC, such as DB USA Corporation, and any of its subsidiaries, as well as U.S. branches and agencies of FBOs, such as our New York branch. U.S. leverage ratio and supplementary leverage ratio requirements applicable to DB USA Corporation as an IHC took effect beginning in January 2018. An FBO's U.S. branches and agencies are not held beneath an IHC; however, the U.S. branches and agencies of the FBO (and in certain cases, the entire U.S. operations of the FBO) are subject to certain liquidity requirements, as well as other specific enhanced prudential standards, such as risk management and, under certain circumstances, asset maintenance requirements. Additionally, the FBO Rules also placed requirements on the FBO itself related to the adequacy and reporting of the FBO's home country capital and stress testing regime. On March 4, 2016, the Federal Reserve Board issued a re-proposal of its requirements relating to single counterparty credit limits that would apply to an FBO's combined U.S. operations and its IHC. The re-proposal is still under consideration by the Federal Reserve Board. In addition, the Federal Reserve Board is still considering an "early remediation" framework under which the Federal Reserve Board would implement prescribed restrictions and penalties against the FBO and its U.S. operations, such as restrictions on the ability of the FBO and its U.S. operations to make discretionary compensation payments to certain of its officers and directors, if the FBO and/or its U.S. operations do not meet certain risk-based capital, leverage, liquidity, stress testing or other risk management requirements, and would authorize the termination of U.S. operations under certain circumstances. The Federal Reserve Board has yet to issue a final rule for its requirements relating to single counterparty credit limits.

Title I of the Dodd-Frank Act and the implementing regulations issued by the Federal Reserve Board and the Federal Deposit Insurance Corporation ("FDIC") require each bank holding company with assets of U.S.\$ 50 billion or more, including Deutsche Bank AG, to prepare and submit annually a plan for the orderly resolution of subsidiaries and operations in the event of future material financial distress or failure (the "U.S. Resolution Plan"). For foreign-based companies subject to these resolution planning requirements such as Deutsche Bank AG, the U.S. Resolution Plan relates only to subsidiaries, branches, agencies and businesses that are domiciled in or whose activities are carried out in whole or in material part in the United States. Deutsche Bank AG filed its last U.S. Resolution Plan in July 2015 and was not required to file a U.S. Resolution Plan in 2016 or 2017. Our next U.S. Resolution Plan is due on July 1, 2018.

The core elements of the U.S. Resolution Plan are Material Entities ("MEs"), Core Business Lines ("CBLs"), Critical Operations ("COs"). The U.S. Resolution Plan lays out the resolution strategy for each ME, defined as those entities significant to the activities of a CO or CBL, and demonstrates how each ME, CBL and CO, as applicable, can be resolved in a rapid and orderly manner and without systemic impact on U.S. financial stability. The U.S. Resolution Plan also discusses the strategy for continuing Critical Services in resolution. Key factors addressed in the U.S. Resolution Plan include how to ensure:

- Continued access to services from other U.S. and non-U.S. legal entities as well as from third parties such as payment servicers, exchanges and key vendors;
- Availability of funding from both external and internal sources;
- Retention of key employees during resolution; and
- Efficient and coordinated close-out of cross-border contracts.

The U.S. Resolution Plan is drafted in coordination with the U.S. businesses and infrastructure groups so that it accurately reflects the business, critical infrastructure and key interconnections.

In addition to the U.S. Resolution Plan, in 2014, DBTCA, one of our insured depository institutions ("IDIs") in the United States, became subject to the FDIC's rule requiring IDIs with total assets of U.S.\$ 50 billion or more to submit periodically to the FDIC a plan for resolution in the event of failure (the "IDI Plan"). DBTCA last submitted an IDI Plan in September 2015 and was not required to submit one in 2016 or 2017. Because DBTCA did not have average total assets of U.S.\$ 50 billion or more for the four quarter ends through December 31, 2017, it is not required to submit an IDI Plan in 2018.

During 2017 our other U.S. bank holding company subsidiary, Deutsche Bank Trust Corporation, was subject to risk-based and leverage capital requirements, liquidity requirements, and other enhanced prudential standards applicable to large U.S. bank holding companies; however, as of January 1, 2018, it is no longer subject to the Federal Reserve Board's enhanced prudential standards, because DB USA Corporation became subject to the enhanced prudential standards requirements applicable to our combined U.S. operations, including our U.S. subsidiaries such as Deutsche Bank Trust Corporation. Deutsche Bank Trust Corporation was subject to the Federal Reserve Board's Comprehensive Capital Analysis and Review ("CCAR") for 2017. On June 28, 2017, the Federal Reserve Board publicly indicated that it had not objected to Deutsche Bank Trust Corporation's 2017 capital plan. Deutsche Bank Trust Corporation's stressed Common Equity Tier 1 capital ratio was forecast by the Federal Reserve Board to fall to as low as 62.3 % under the supervisory severely adverse scenario. This hypothetical stressed ratio would be substantially above the minimum required ratio of 4.5 %. Stress testing results are based on hypothetical adverse scenarios and should not be viewed or interpreted as forecasts of expected outcomes or capital adequacy or of the actual financial condition of Deutsche Bank Trust Corporation. Deutsche Bank Trust Corporation will no longer be subject to CCAR. DB USA Corporation provided its first capital plan submission to the Federal Reserve Board in April 2017; however, the results of its first submission were not made public by the Federal Reserve Board. DB USA Corporation will make its second capital plan submission to the Federal Reserve Board in April 2018, the results of which will be made public by the Federal Reserve Board.

In September 2014, the Federal Reserve Board and other U.S. regulators approved a final rule implementing liquidity coverage ratio ("LCR") requirements for large U.S. banking holding companies and certain of their subsidiary depository institutions that are generally consistent with the Basel Committee's revised Basel 3 liquidity standards. Deutsche Bank Trust Corporation, as a U.S. bank holding company with total assets of U.S.\$ 50 billion or more that is not an advanced approaches bank holding company, became subject to a modified, less stringent version of the LCR beginning in January 2016. Since DB USA Corporation is a U.S. bank holding company that had more than U.S.\$ 10 billion in foreign exposure as of December 31, 2016, it became subject to the full LCR on April 1, 2017. At the same time, DBTCA as an IDI with more than U.S.\$ 10 billion in total consolidated assets, became subject to the full LCR. Following DB USA Corporation becoming subject to the full LCR on April 1, 2017, Deutsche Bank Trust Corporation is no longer subject to a standalone LCR requirement.

On June 1, 2016, the Federal Reserve Board and other U.S. regulators proposed rules implementing the second element of the Basel 3 liquidity framework, the net stable funding ratio ("NSFR"). Under the proposed rules, DB USA Corporation and DBTCA would be subject to the full NSFR; however, this proposal has yet to be finalized and, accordingly, such entities are not currently subject to the proposed requirements.

On December 15, 2016, the Federal Reserve Board adopted final rules that implement a U.S. version of the FSB's TLAC standard in the United States. The final rules require, among other things, the U.S. IHCs of non-U.S. G-SIBs, including DB USA Corporation, to maintain a minimum amount of TLAC, and separately require them to maintain a minimum amount of long-term debt. Under the final rules, the required amounts of minimum TLAC and the ability of the IHC to issue long-term debt externally varies depending on the G-SIB's planned resolution strategy. Our current expectation is that DB USA Corporation would be considered a "non-resolution covered IHC", which means that it is intended, under the planned resolution strategy of its G-SIB parent (Deutsche Bank AG), to continue to operate outside of resolution proceedings while the G-SIB parent is resolved under a single-point of entry resolution strategy. The final rules require a "non-resolution covered IHC" to maintain, by 2019, (i) internal minimum TLAC of at least 16 % of its risk-weighted assets, 6 % of its Basel 3 leverage ratio denominator and 8 % of its average total consolidated assets, (ii) internal eligible long-term debt of at least 6 % of its risk-weighted assets, 2.5 % of its Basel 3 leverage ratio denominator and 3.5 % of its average total consolidated assets. Eligible long-term debt instruments are required to meet certain criteria, including issuance to a foreign company that controls directly or indirectly the covered IHC or a foreign affiliate (a non-U.S. entity that is wholly owned, directly or indirectly, by the non-U.S. G-SIB)) and the inclusion of a contractual trigger allowing for, in limited circumstances, the immediate conversion or exchange of some or all of the instrument into Common Equity Tier 1 upon an order by the Federal Reserve Board. Internal TLAC requirements could be satisfied with a combination of eligible long-term debt instruments and Tier 1 capital. DB USA Corporation will also face restrictions on its discretionary bonus payments and capital distributions if it fails to maintain a TLAC buffer consisting of Common Equity Tier 1 capital equal to 2.5 % of risk-weighted assets above the minimum TLAC requirement. The final rules also prohibit or limit DB USA Corporation's ability to engage in certain types of financial transactions.

Furthermore, the Dodd-Frank Act provides for an extensive framework for the regulation of over-the-counter ("OTC") derivatives, including mandatory clearing, exchange trading and transaction reporting of certain OTC derivatives, as well as rules regarding the registration of, and capital, margin and business conduct standards for, swap dealers, security-based swap dealers, major swap participants and major security-based swap participants. The Commodity Futures Trading Commission ("CFTC") adopted final rules in 2016 that will require additional interest rate swaps to be cleared, with a phased implementation schedule ending in October 2018. In December 2016, also pursuant to the Dodd-Frank Act, the CFTC re-proposed regulations to impose position limits on certain commodities and economically equivalent swaps, futures and options. This proposal has not yet been finalized. The Securities and Exchange Commission ("SEC") has also finalized rules regarding registration, business conduct standards and trade acknowledgement and verification requirements for security-based swap dealers and major security-based swap participants, although these rules will not come into effect until the SEC completes further security-based swap rulemakings. Finally, the U.S. prudential regulators (the Federal Reserve Board, the FDIC, the Office of the Comptroller of the Currency, the

Farm Credit Administration and the Federal Housing Finance Agency) have adopted final rules establishing margin requirements for non-cleared swaps and security-based swaps, and the CFTC has adopted final rules establishing margin requirements for non-cleared swaps. The final margin rules follow a phased implementation schedule, with certain initial margin and variation margin requirements in effect as of September 2016, additional variation margin requirements in effect as of March 2017, and additional initial margin requirements phased in on an annual basis from September 2017 through September 2020, with the relevant compliance dates depending in each case on the transactional volume of the parties and their affiliates.

The Dodd-Frank Act also requires broader regulation of hedge funds and private equity funds, as well as credit rating agencies, and imposes new requirements with respect to securitization activities. The federal regulatory agencies have issued final rules, which became effective in 2015 and 2016, to implement the credit risk retention requirements of Section 941 of the Dodd-Frank Act, which generally require securitizers of different types of asset-backed securitizations, including transactions backed by residential mortgages, commercial mortgages, and commercial, credit card and auto loans, to retain at least five percent of the credit risk of the assets being securitized, with an exemption for securitizations that are wholly composed of “qualified residential mortgages.”

The Dodd-Frank Act also established a regulatory framework and enhanced regulation for several other areas, including but not limited to the following. Under the Dodd-Frank Act and implementing regulations, a new regime for the orderly liquidation of systemically significant financial companies is established, which authorizes assessments on financial institutions that have U.S.\$ 50 billion or more in consolidated assets to repay outstanding debts owed to the Treasury in connection with a liquidation of a systemically significant financial company under the new insolvency regime. In addition, the Dodd-Frank Act requires U.S. regulatory agencies to prescribe regulations with respect to incentive-based compensation at financial institutions in order to prevent inappropriate behavior that could lead to a material financial loss. Other provisions require issuers with securities listed on U.S. stock exchanges, which may include foreign private issuers such as Deutsche Bank, to establish a “clawback” policy to recoup previously awarded executive compensation in the event of an accounting restatement; in May 2016, the SEC re-proposed rules to implement this provision of the Dodd-Frank Act that would cover foreign private issuers. The Dodd-Frank Act also grants the SEC discretionary rule-making authority to impose a new fiduciary standard on brokers, dealers and investment advisers, and expands the extraterritorial jurisdiction of U.S. courts over actions brought by the SEC or the United States with respect to violations of the antifraud provisions of the Securities Act of 1933, the Securities Exchange Act of 1934 and the Investment Advisers Act of 1940.

Implementation of the Dodd-Frank Act and related final regulations will result in additional costs and could limit or restrict the way we conduct our business. Although uncertainty remains about many of the details, impact and timing of these reforms and any potential changes to the Dodd-Frank Act or new rules, we expect that there will be significant costs and may be significant limitations on our businesses resulting from these regulatory initiatives.

Regulatory Authorities

We, as well as our wholly owned subsidiaries DB USA Corporation and Deutsche Bank Trust Corporation, are bank holding companies under the U.S. Bank Holding Company Act of 1956, as amended (the “Bank Holding Company Act”), by virtue of, among other things, our and their ownership of DBTCA. As bank holding companies, we and they have elected to become financial holding companies. As a result, we and our U.S. operations are subject to regulation, supervision and examination by the Federal Reserve Board as our U.S. “umbrella supervisor”.

DBTCA is a New York state-chartered bank whose deposits are insured by the FDIC to the extent permitted by law. DBTCA is subject to regulation, supervision and examination by the Federal Reserve Board and the New York State Department of Financial Services and to relevant FDIC regulation. In addition, DBTCA is also subject to regulation by the Consumer Financial Protection Bureau in relation to its retail products and services offered to its customers. Deutsche Bank Trust Company Delaware is a Delaware state-chartered bank which is subject to regulation, supervision and examination by the FDIC and the Office of the State Bank Commissioner of Delaware. Deutsche Bank’s New York branch is supervised by the Federal Reserve Board and the New York State Department of Financial Services. Deutsche Bank’s federally chartered nondeposit trust companies are subject to regulation, supervision and examination by the Office of the Comptroller of the Currency. We and our subsidiaries are also subject to regulation, supervision and examination by state banking regulators of certain states in which they conduct banking operations.

Restrictions on Activities

As described below, federal and state banking laws and regulations restrict our ability to engage, directly or indirectly through subsidiaries, in activities in the United States. We are required to obtain the prior approval of the Federal Reserve Board before directly or indirectly acquiring the ownership or control of more than 5 % of any class of voting shares of U.S. banks, certain other depository institutions, and bank or depository institution holding companies. Under applicable U.S. federal banking law, our U.S. banking operations are also restricted from engaging in certain “tying” arrangements involving products and services.

Our two U.S. FDIC-insured bank subsidiaries, as well as our New York branch, are subject to requirements and restrictions under federal and state law, including requirements to maintain reserves against deposits, restrictions on the types and amounts of loans that may be made and the interest that may be charged thereon, and limitations on the types of investments that may be made and the types of services that may be offered.

In addition to the business of banking, and managing or controlling banks, so long as we are a financial holding company under U.S. law, we may also engage in nonbanking activities in the United States that are financial in nature, or incidental or complementary to such financial activity, including securities, merchant banking, insurance and other financial activities, subject to certain limitations on the conduct of such activities and to prior regulatory approval in some cases. As a non-U.S. bank, Deutsche Bank AG and our non-U.S. subsidiaries are generally authorized under U.S. law and regulations to acquire a non-U.S. company engaged in nonfinancial activities as long as that company’s U.S. operations do not exceed certain thresholds and certain other conditions are met. On January 14, 2014, the Federal Reserve Board sought comment on the appropriateness of further restrictions on the physical commodity and merchant banking activities conducted by financial holding companies under several provisions of the Bank Holding Company Act in order to address various prudential considerations, including the potential risks of such activities to the safety and soundness of financial holding companies and financial stability more broadly. In September 2016, the Federal Reserve Board proposed a rule that would limit the commodities activities of financial holding companies by, among other things, imposing additional capital charges in relation to activities involving environmentally hazardous commodities, tightening quantitative limits on certain commodities activities and establishing new public reporting requirements. There has been no further action by the Federal Reserve Board on its request for comments on the appropriateness of further restrictions on physical commodity and merchant banking activities or its proposal to limit commodity activities.

In August 2017, the Federal Reserve Board issued a proposal to revise its supervisory rating system for bank holding companies with U.S.\$ 50 billion or more in total consolidated assets and for IHCs, including DB USA Corporation. Under the proposal, covered companies would receive separate ratings from the Federal Reserve Board for (i) capital planning and positions, (ii) liquidity risk management and positions and (iii) governance and controls. Each of these component areas would receive one of the following four ratings: (i) Satisfactory, (ii) Satisfactory Watch, (iii) Deficient-1, and (iv) Deficient-2. As proposed, a covered company would have to maintain a rating of “Satisfactory” or “Satisfactory Watch” for each of the three components to be considered “well managed.” Also in August 2017, the Federal Reserve Board issued proposed guidance intended to enhance the effectiveness of boards of directors and refocus the Federal Reserve Board’s supervisory expectations for boards of directors on their core responsibilities, and also to delineate between roles and responsibilities for boards of directors and for senior management. Although the proposed guidance would not directly apply to DB USA Corporation, the Federal Reserve Board indicated that it expects to issue a separate proposal on governance specific to IHCs.

Our status as a financial holding company, and our resulting ability to engage in a broader range of nonbanking activities, are dependent on Deutsche Bank AG, DB USA Corporation, Deutsche Bank Trust Corporation and our two insured U.S. depository institutions qualifying as “well capitalized” and “well managed” under applicable regulations and upon our insured U.S. depository institutions meeting certain requirements under the Community Reinvestment Act. The Federal Reserve Board’s and other U.S. regulators’ “well capitalized” standards are generally based on specified quantitative thresholds set at levels above the minimum requirements to be considered “adequately capitalized.” For our two insured depository institution subsidiaries, Deutsche Bank Trust Company Americas and Deutsche Bank Trust Company Delaware, the well-capitalized thresholds under the U.S. Basel 3 framework are a Common Equity Tier 1 capital ratio of 6.5 %, a Tier 1 capital ratio of 8 %, a Total capital ratio of 10 %, and a U.S. leverage ratio of 5 %. For bank holding companies, including Deutsche Bank AG, DB USA Corporation and Deutsche Bank Trust Corporation, the well-capitalized thresholds are a Tier 1 capital ratio of 6 % and a Total capital ratio of 10 %, both of which are calculated for Deutsche Bank AG under its home country standards.

State-chartered banks (such as DBTCA) and state-licensed branches and agencies of foreign banks (such as our New York branch) may not, with certain exceptions that require prior regulatory approval, engage as a principal in any type of activity not permissible for their federally chartered or licensed counterparts. In addition, DBTCA and Deutsche Bank Trust Company Delaware are subject to their respective state banking laws pertaining to legal lending limits and permissible investments and activities. Likewise, the United States federal banking laws also subject state branches and agencies to the same single-borrower lending limits that apply to federal branches or agencies, which are substantially similar to the lending limits applicable to national banks. These single-borrower lending limits are based on the worldwide capital of the entire foreign bank (i.e., Deutsche Bank AG in the case of the New York branch).

The Federal Reserve Board may terminate the activities of any U.S. office of a foreign bank if it determines that the foreign bank is not subject to comprehensive supervision on a consolidated basis in its home country or that there is reasonable cause to believe that such foreign bank or its affiliate has violated the law or engaged in an unsafe or unsound banking practice in the United States or, for a foreign bank that presents a risk to the stability of the United States financial system, the home country of the foreign bank has not adopted, or made demonstrable progress toward adopting, an appropriate system of financial regulation to mitigate such risk.

The lending limits applicable to our FDIC-insured state-chartered bank subsidiaries take into account credit exposures arising from derivative transactions, and the lending limits applicable to our New York branch take into account both credit exposures arising from derivative transactions as well as securities borrowing and lending transactions and repurchase and reverse repurchase agreements with counterparties.

Also, under the so-called swap “push-out” provisions of the Dodd-Frank Act, certain structured finance derivatives activities of FDIC-insured banks and U.S. branch offices of foreign banks (including our New York branch) are restricted.

In addition, the regulations which the Consumer Financial Protection Bureau may adopt could affect the nature of the consumer activities which a bank (including our FDIC-insured bank subsidiaries and our New York branch) may conduct, and may impose restrictions and limitations on the conduct of such activities.

There are various qualitative and quantitative restrictions on the extent to which we and our nonbank subsidiaries can borrow or otherwise obtain credit from our U.S. banking subsidiaries or engage in certain other transactions involving those subsidiaries. In general, these transactions must be on terms that would ordinarily be offered to unaffiliated entities, must be secured by designated amounts of specified collateral and are subject to volume limitations. These restrictions also apply to certain transactions of our New York branch with our U.S. broker-dealers and certain of our other affiliates. Credit exposure arising from derivative transactions, securities borrowing and lending transactions, and repurchase/reverse repurchase agreements is subject to these collateral and volume limitations.

A major focus of U.S. governmental policy relating to financial institutions is aimed at preventing money laundering and terrorist financing and compliance with economic sanctions in respect of designated countries or activities. Failure of an institution to have policies and procedures and controls in place to prevent, detect and report money laundering and terrorist financing could in some cases have serious legal, financial and reputational consequences for the institution.

New York Branch

The New York branch of Deutsche Bank AG is licensed by the Superintendent of the New York State Department of Financial Services to conduct a commercial banking business and is required to maintain eligible high-quality assets with banks in the State of New York (up to a maximum of U.S.\$ 100 million of assets pledged so long as the New York branch remains “well-rated” by the Superintendent of Financial Services). Should our New York branch cease to be “well-rated”, we may need to maintain substantial additional amounts of eligible assets. The Superintendent of Financial Services may also establish asset maintenance requirements for branches of foreign banks. In addition, the Federal Reserve Board is authorized to establish asset maintenance requirements for our New York branch under certain conditions, pursuant to the FBO Rules. Currently, no such requirements have been imposed upon our New York branch.

The New York State Banking Law authorizes the Superintendent of Financial Services to take possession of the business and property of a New York branch of a foreign bank under certain circumstances, generally involving violation of law, conduct of business in an unsafe manner, impairment of capital, suspension of payment of obligations, or initiation of liquidation proceedings against the foreign bank at its domicile or elsewhere. In liquidating or dealing with a branch’s business after taking possession of a branch, only the claims of depositors and other creditors which arose out of transactions with a branch are to be accepted by the Superintendent of Financial Services for payment out of the business and property of the foreign bank in the State of New York, without prejudice to the rights of the holders of such claims to be satisfied out of other assets of the foreign bank. After such claims are paid, the Superintendent of Financial Services will turn over the remaining assets, if any, to the foreign bank or its duly appointed liquidator or receiver.

Deutsche Bank Trust Company Americas

The Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA") provides for extensive regulation of depository institutions (such as DBTCA and its direct and indirect parent companies), including requiring federal banking regulators to take "prompt corrective action" with respect to FDIC-insured banks that do not meet minimum capital requirements. As an insured bank's capital level declines and the bank falls into lower categories (or if it is placed in a lower category by the discretionary action of its supervisor), greater limits are placed on its activities and federal banking regulators are authorized (and, in many cases, required) to take increasingly more stringent supervisory actions, which could ultimately include the appointment of a conservator or receiver for the bank (even if it is solvent). In addition, FDICIA generally prohibits an FDIC-insured bank from making any capital distribution (including payment of a dividend) or payment of a management fee to its holding company if the bank would thereafter be undercapitalized. If an insured bank becomes "undercapitalized", it is required to submit to federal regulators a capital restoration plan guaranteed by the bank's holding company. Since the enactment of FDICIA, both of our U.S. insured banks have maintained capital above the "well capitalized" standards, the highest capital category under applicable regulations.

DBTCA, like other FDIC-insured banks, is required to pay assessments to the FDIC for deposit insurance under the FDIC's Deposit Insurance Fund (calculated using the FDIC's risk-based assessment system). The minimum reserve ratio for the Deposit Insurance Fund was increased under the Dodd-Frank Act from 1.15 % to 1.35 %, with the target of 1.35 % to be reached by 2020 and with the incremental cost charged to banks with more than U.S.\$ 10 billion in assets. In addition, the FDIC has set the designated reserve ratio at 2 % as a long-term goal. This shift has had financial implications for all FDIC-insured banks, including DBTCA. In order to achieve the 1.35 % goal, in March 2016, the FDIC adopted a rule imposing an additional surcharge of 4.5 % per \$ 100 of the quarterly assessments (after making certain adjustments) of insured depository institutions with total consolidated assets of U.S.\$ 10 billion or more, including DBTCA. The surcharge took effect on July 1, 2016, and the FDIC expects it to remain in place for two years. The surcharge has increased costs for DBTCA and may be material to the results of operation of DBTCA. The FDIC's standard maximum deposit insurance amount per customer at an insured depository institution is U.S.\$ 250,000.

Other

In the United States, our U.S.-registered broker-dealers are regulated by the SEC. Broker-dealers are subject to regulations that cover all aspects of the securities business, including sales methods, trade practices among broker-dealers, use and safekeeping of customers' funds and securities, capital structure, recordkeeping, the financing of customers' purchases and the conduct of directors, officers and employees.

Our principal U.S. SEC-registered broker-dealer subsidiary, Deutsche Bank Securities Inc., is a member of the New York Stock Exchange and is regulated by the Financial Industry Regulatory Authority, Inc. ("FINRA") and the individual state securities authorities in the states in which it operates. The U.S. government agencies and self-regulatory organizations, as well as state securities authorities in the United States having jurisdiction over our U.S. broker-dealer affiliates, are empowered to conduct administrative proceedings that can result in censure, fine, the issuance of cease-and-desist orders or the suspension or expulsion of a broker-dealer or its directors, officers or employees. Deutsche Bank Securities Inc. is also registered with and regulated by the SEC as an investment adviser, and by the CFTC and the National Futures Association as a futures commission merchant and commodity pool operator.

Under the Dodd-Frank Act, with certain exceptions, our entities that are swap dealers, security-based swap dealers, major swap participants or major security-based swap participants are registered or will be required to register with the SEC or CFTC, or both. Currently, Deutsche Bank AG is provisionally registered as a swap dealer. At a future date, we will be required to register one or more subsidiaries as security-based swap dealers with the SEC and may be required to register additional subsidiaries as swap dealers with the CFTC and certain subsidiaries as CFTC-regulated major swap participants and/or SEC-regulated major security-based swap participants. Registration, including provisional registration, as swap dealers, security-based swap dealers, major swap participants or major security-based swap participants subjects us to requirements as to capital, margin, business conduct and recordkeeping, among other requirements.

Organizational Structure

We operate our business along the structure of our three corporate divisions. Deutsche Bank AG is the direct or indirect holding company for our subsidiaries. The following table sets forth the significant subsidiaries we own, directly or indirectly, as of December 31, 2017. We used the three-part test set out in Section 1-02 (w) of Regulation S-X under the U.S. Securities Exchange Act of 1934 to determine significance. We do not have any other subsidiaries we believe are material based on other, less quantifiable, factors.

We own 100 % of the equity and voting interests in these subsidiaries. These subsidiaries prepare financial statements as of December 31, 2017 and are included in our consolidated financial statements. Their principal countries of operation are the same as their countries of incorporation.

Subsidiary	Place of Incorporation
DB USA Corporation ¹	Delaware, United States
Deutsche Bank Americas Holding Corporation ²	Delaware, United States
Deutsche Investment Management Americas Inc. ³	Delaware, United States
DB U.S. Financial Markets Holding Corporation ⁴	Delaware, United States
Deutsche Bank Securities Inc. ⁵	Delaware, United States
DB Structured Products Inc. ⁶	Delaware, United States
Deutsche Bank Trust Corporation ⁷	New York, United States
Deutsche Bank Trust Company Americas ⁸	New York, United States
Deutsche Bank Luxembourg S.A. ⁹	Luxembourg
Deutsche Bank Privat- und Geschäftskunden Aktiengesellschaft ¹⁰	Frankfurt am Main, Germany
DB Beteiligungs-Holding GmbH ¹¹	Frankfurt am Main, Germany
Deutsche Postbank AG ¹²	Bonn, Germany
DWS Group SE ¹³	Frankfurt am Main, Germany

¹ DB USA Corporation is the top-level holding company for our subsidiaries in the United States.

² Deutsche Bank Americas Holding Corporation is a second tier holding company for subsidiaries in the United States.

³ The company provides investment and advisory services to clients (individuals, institutions and others) on a discretionary and nondiscretionary basis. These services are provided through separately managed accounts, registered investment companies, and a variety of pooled investment vehicles.

⁴ DB U.S. Financial Markets Holding Corporation is a second tier holding company for subsidiaries in the United States.

⁵ Deutsche Bank Securities Inc. is a U.S. company registered as a broker dealer and investment advisor with the Securities and Exchange Commission and as a futures commission merchant with the Commodities Futures Trading Commission.

⁶ DB Structured Products, Inc. is a U.S. subsidiary that has ceased engaging in new business and has surrendered the licenses it holds in respect of mortgage-related activities.

⁷ Deutsche Bank Trust Corporation is a bank holding company under Federal Reserve Board regulations.

⁸ Deutsche Bank Trust Company Americas is a New York State-chartered bank and member of the Federal Reserve System. It originates loans and other forms of credit, accepts deposits, arranges financings and provides numerous other commercial banking and financial services.

⁹ The company's primary business model comprises loan business with international clients (Corporate & Investment Banking), where the bank acts globally as lending office and as risk transfer hub for the Credit Portfolio Strategies Group of Deutsche Bank, as well as structured finance activities covering long-term infrastructure projects and high quality investment goods (Global Markets). Furthermore, the bank offers tailor-made solutions with a wide range of products and services to their Wealth Management clients.

¹⁰ The company serves private individuals, affluent clients as well as small and medium sized corporate clients with banking products.

¹¹ The company holds the majority stake in Deutsche Postbank AG (the remainder is held by Deutsche Bank AG) and is the parent company of DWS Group SE (formerly Deutsche Asset Management Holding SE).

¹² The business activities of this company comprise retail banking, business with corporate customers, money and capital markets activities as well as home savings loans.

¹³ Effective from February 6, 2018, Deutsche Asset Management Holding SE has been renamed to DWS Group SE. The business purpose of the company is the acquisition, the maintenance and administration, the usage and exploitation of participations of any kind, in particular of asset management companies, as well as all necessary kinds of associated business. In March 2017, Deutsche Bank AG announced its plan to separate its asset management division into a new subsidiary and list the shares of this subsidiary on the stock exchange. DWS Group SE was established to act as the parent company of the separated Deutsche Bank Asset Management business. All Deutsche Bank Group Asset Management related operations will be transferred to DWS Group SE and its subsidiaries. These transfers were carried out in stages, but not all of them were completed in 2017.

Property and Equipment

As of December 31, 2017, we operated in 60 countries out of 2,425 branches around the world, of which 65 % were in Germany. We lease a majority of our offices and branches under long-term agreements.

We continue to review our property requirements worldwide taking into account cost containment measures as well as growth initiatives in selected businesses. Please see Note 23 "Property and Equipment" to the consolidated financial statements for further information.

Information Required by Industry Guide 3

Please see pages S-1 through S-13 of the Supplemental Financial Information, which pages are incorporated by reference herein, for information required by SEC Industry Guide 3.

Item 4A: Unresolved Staff Comments

We have not received written comments from the Securities and Exchange Commission regarding our periodic reports under the Exchange Act, as of any day 180 days or more before the end of the fiscal year to which this annual report relates, which remain unresolved.

Item 5: Operating and Financial Review and Prospects

Overview

The following discussion and analysis should be read in conjunction with the consolidated financial statements and the related notes to them included in “Item 18: Financial Statements” of this document, on which we have based this discussion and analysis.

We have prepared our consolidated financial statements in accordance with IFRS as issued by the International Accounting Standards Board (“IASB”) and as endorsed by the European Union (“EU”).

Significant Accounting Policies and Critical Accounting Estimates

Our significant accounting policies are essential to understanding our reported results of operations and financial condition. Certain of these accounting policies require critical accounting estimates that involve complex and subjective judgments and the use of assumptions, some of which may be for matters that are inherently uncertain and susceptible to change. Such critical accounting estimates could change from period to period and have a material impact on our financial condition, changes in financial condition or results of operations. Critical accounting estimates could also involve estimates where management could have reasonably used another estimate in the current accounting period. Actual results may differ from these estimates if conditions or underlying circumstances were to change. See Note 1 “Significant Accounting Policies and Critical Accounting Estimates” to the consolidated financial statements for a discussion on our significant accounting policies and critical accounting estimates.

We have identified the following significant accounting policies that involve critical accounting estimates:

- the impairment of associates
- the impairment of financial assets available for sale
- the determination of fair value
- the recognition of trade date profit
- the impairment of loans and provisions for off-balance sheet positions
- the impairment of goodwill and other intangibles
- the recognition and measurement of deferred tax assets
- the accounting for legal and regulatory contingencies and uncertain tax positions

Recently Adopted Accounting Pronouncements and New Accounting Pronouncements

See Note 2 “Recently Adopted and New Accounting Pronouncements” to the consolidated financial statements for a discussion on our recently adopted and new accounting pronouncements.

Operating Results

You should read the following discussion and analysis in conjunction with our consolidated financial statements.

Executive Summary

Please see “Management Report: Operating and Financial Review: Executive Summary” in the Annual Report 2017.

Trends and Uncertainties

For insight into the trends impacting our performance please see the “Management Report: Operating and Financial Review” section of the Annual Report 2017. Key risks and uncertainties for the Bank are discussed in “Item 3: Key Information – Risk Factors”.

The Bank’s future performance and the implementation of our strategic goals could be influenced by a number of uncertainties. Challenges may arise from sustained market volatility, increasing competitive pressures, weakness of global, regional and national economic conditions and political instability in key markets.

In addition, regulatory, tax and supervisory requirements continue to evolve. Regulatory changes have and may continue to increase our costs, restrict our operations, or require structural change, which could put pressure on our capital position. In addition, we are involved in litigation, tax examinations, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, especially in the U.S. Such matters are subject to many uncertainties.

While we seek to achieve efficiencies in our operations, the results of our operational restructuring and the realization of planned savings are dependent on the successful and timely implementation of our updated strategy measures. The benefits, costs and timeframe of the implementation of our strategy could be adversely affected by unforeseen difficulties in the implementation process as well as factors beyond our control, such as negative market developments.

In accordance with our strategy update announced in March 2017, we reorganized our business operations under a new divisional structure comprising the divisions Corporate & Investment Bank (CIB), Private & Commercial Bank (PCB), and Deutsche Asset Management (Deutsche AM) in the second quarter of 2017.

Risks to CIB outlook include the impact of the implementation of MiFID 2 in 2018, potential impacts on our business model from Brexit, the future impact of the Basel III framework agreement and of tax reform in the U.S. Uncertainty around central bank policies and ongoing regulatory developments also pose a risk, while challenges such as event risks and levels of client activity may also impact financial markets. Despite this, we believe that continued execution on the announced strategic priorities will position us favourably to capitalize on future opportunities.

Uncertainties that could affect PCB’s earnings situation in 2018 include slower economic growth in our main operating countries, a further decline in global interest rates and higher-than-expected volatility in the equity and credit markets, which could have a negative impact on our clients’ investment activities. The implementation of extended regulatory requirements such as the European Financial Markets Directive (MiFID 2) and the revised Payment Services Directive (PSD II) as well as possible delays in the implementation of our strategic projects could have a negative impact on our revenue and cost base.

Risks to Deutsche AM outlook include the pace of global net flows growth, equity market development, currency movement, interest rates, exposure to global macroeconomic growth and political developments including Brexit, and continued political uncertainty worldwide. In addition, unforeseen regulatory costs and possible delays in the implementation of our efficiency measures due to jurisdictional restrictions could have an adverse impact on our cost base.

Performance in Consolidation & Adjustments is primarily impacted by valuation and timing differences from different accounting methods used for management reporting and IFRS, plus unallocated items. We still expect volatility from these items in our future results.

Our effective tax rate was impacted primarily by a one-time charge resulting from the U.S. tax reform. The effective tax rate in future periods may be influenced by other changes in tax laws or interpretative guidance, the occurrence of non-tax deductible goodwill impairment and litigation charges, or the resolution of tax examinations and investigations.

Results of Operations

Please see “Management Report: Operating and Financial Review: Results of Operations” in the Annual Report 2017 and our discussion of non-GAAP financial measures in the “Supplementary Financial Information”.

Financial Position

Please see “Management Report: Operating and Financial Review: Financial Position” in the Annual Report 2017.

Liquidity and Capital Resources

For a detailed discussion of our liquidity risk management, see “Management Report: Risk Report: Liquidity Risk Management” in the Annual Report 2017.

For a detailed discussion of our capital management, see “Management Report: Risk Report: Capital Management” in the Annual Report 2017.

Post-Employment Benefit Plans

Please see “Management Report: Employees: Post-Employment Benefit Plans” in the Annual Report 2017.

Off-Balance Sheet Arrangements

For information on the nature, purpose and extent of our off-balance sheet arrangements, please see Note 40 “Structured Entities” to the consolidated financial statements. For further information on off-balance sheet arrangements, including allowances for off-balance sheet positions, please refer to “Management Report: Risk Report: Asset Quality: Allowance for Credit Losses” in the Annual Report 2017 and Note 20 “Allowance for Credit Losses” to the consolidated financial statements. For information on irrevocable lending commitments and contingent liabilities with respect to third parties, please see Note 30 “Credit related Commitments” to the consolidated financial statements.

Tabular Disclosure of Contractual Obligations

Please see “Management Report: Operating and Financial Review: Tabular Disclosure of Contractual Obligations” in the Annual Report 2017.

Research and Development, Patents and Licenses

Not applicable.

Item 6: Directors, Senior Management and Employees

Directors and Senior Management

In accordance with the German Stock Corporation Act (Aktiengesetz), we have a Management Board (Vorstand) and a Supervisory Board (Aufsichtsrat). The German Stock Corporation Act prohibits simultaneous membership on both the Management Board and the Supervisory Board. The members of the Management Board are the executive officers of our company. The Management Board is responsible for managing our company and representing us in dealings with third parties. The Supervisory Board oversees the Management Board, appoints and removes its members and determines their remuneration and other compensation components, including pension benefits. According to German law, our Supervisory Board represents us in dealings with members of the Management Board. Therefore, no members of the Management Board may enter into any agreement with us without the prior consent of our Supervisory Board.

German law does not require the members of the Management Board nor the members of the Supervisory Board to own any of our shares to be qualified. In addition, German law has no requirement that members of the Management Board retire based on an age limit. However, age limits for members of the Management Board are defined contractually. Age limits also exist for the members of the Supervisory Board according to the Terms of Reference (Geschäftsordnung) for our Supervisory Board. There is a maximum age limit of 70 years for members of the Supervisory Board. In exceptional cases, a Supervisory Board member can be elected or appointed for a period that extends at the latest until the end of the fourth Ordinary General Meeting that takes place after he/she has turned the age of 70.

The Supervisory Board may not make management decisions. However, German law and our Articles of Association (Satzung) require the Management Board to obtain the approval of the Supervisory Board for certain actions. The most important of these actions are:

- granting general powers of attorney (Generalvollmachten). A general power of attorney authorizes its holder to represent the company in substantially all legal matters without limitation to the affairs of a specific office;
- acquisitions and disposals (including transactions carried out by a dependent company) of real estate in so far as the object involves more than € 500,000;
- granting of credits and the acquisition of participations in other companies, where the German Banking Act (Kreditwesengesetz) requires approval by the Supervisory Board. In particular, the German Banking Act requires the approval of the Supervisory Board if we grant a loan (to the extent legally permissible) to a member of the Management Board or the Supervisory Board or one of our employees who holds a procuration (Prokura) or general power of attorney; and
- acquisitions and disposals (including transactions carried out by a dependent company) of other participations, insofar as the object involves more than € 1 billion. The Supervisory Board must be informed without delay of any acquisition or disposal of such participations involving more than € 500,000.

The Management Board must submit regular reports or ad-hoc reports, as the case may be, to the Supervisory Board on our current operations and future business planning as well as on our risk situation. The Supervisory Board may also request special reports from the Management Board at any time.

With respect to voting powers, a member of the Supervisory Board or the Management Board may not vote on resolutions open to a vote at a board meeting if the proposed resolution concerns:

- a legal transaction between us and the member; or
- commencement, settlement or completion of legal proceedings between us and the member.

A member of the Supervisory Board or the Management Board may not directly or indirectly exercise voting rights on resolutions open to a vote at a shareholders' meeting (Hauptversammlung, which we refer to as the General Meeting) if the proposed resolution concerns:

- ratification of the member's acts;
- a discharge of liability of the member; or
- enforcement of a claim against the member by us.

Supervisory Board and Management Board

In carrying out their duties, members of both the Management Board and Supervisory Board must exercise the standard of care of a prudent and diligent business person, and they are liable to us for damages if they fail to do so.

The liability of the members of the Management Board or the Supervisory Board under the German Stock Corporation Act for breach of their fiduciary duties is to the company rather than individual shareholders. However, individual shareholders that hold at least 1 % or € 100,000 of the subscribed capital and are granted standing by the court may also invoke such liability to the company. The underlying concept is that all shareholders should benefit equally from amounts received under this liability by adding such amounts to the company's assets rather than disbursing them to plaintiff shareholders. We may waive the right to claim damages or settle these claims if at least three years have passed since the alleged breach and if the shareholders approve the waiver or settlement at the General Meeting with a simple majority of the votes cast, and provided that opposing shareholders do not hold, in the aggregate, one tenth or more of our share capital and do not have their opposition formally noted in the minutes maintained by a German notary.

Supervisory Board

Our Articles of Association require our Supervisory Board to have twenty members. In the event that the number of members on our Supervisory Board falls below twenty and remains below twenty for more than three months or falls below ten, upon application to a competent court, the court must appoint replacement members to serve on the board until official appointments are made.

The German Co-Determination Act of 1976 (Mitbestimmungsgesetz) requires that the shareholders elect half of the members of the supervisory board of large German companies, such as Deutsche Bank, and that employees in Germany elect the other half. None of the current members of either of our boards were selected pursuant to any arrangement or understandings with major shareholders, customers or others.

Each member of the Supervisory Board generally serves for a fixed term of approximately five years. For the election of shareholder representatives, the General Meeting may establish that the terms of office of up to five members may begin or end on differing dates. Pursuant to German law, the term expires at the latest at the end of the Annual General Meeting that approves and ratifies such member's actions in the fourth fiscal year after the year in which the Supervisory Board member was elected. Supervisory Board members may also be re-elected. The shareholders may, by a majority of the votes cast in a General Meeting, remove any member of the Supervisory Board they have elected in a General Meeting. The employees may remove any member they have elected by a vote of three-quarters of the employee votes cast.

The members of the Supervisory Board elect the chairperson and the deputy chairperson of the Supervisory Board. Traditionally, the chairperson is a representative of the shareholders, and the deputy chairperson is a representative of the employees. At least half of the members of the Supervisory Board must be present at a meeting or must have submitted their vote in writing to constitute a quorum. In general, approval by a simple majority of the members of the Supervisory Board present and voting is required to pass a resolution. In the case of a deadlock, the resolution is put to a second vote. In the case of a second deadlock, the chairperson has the deciding vote.

For additional information on our Supervisory Board, including a table providing the names of and biographical information for the current members, see "Corporate Governance Statement/Corporate Governance Report: Management Board and Supervisory Board: Supervisory Board" in the Annual Report 2017.

Standing Committees

For information on the standing committees of our Supervisory Board, please see "Corporate Governance Statement/Corporate Governance Report: Management Board and Supervisory Board: Standing Committees" in the Annual Report 2017.

The business address of the members of the Supervisory Board is the same as our business address, Taunusanlage 12, 60325 Frankfurt am Main, Germany.

Management Board

Our Articles of Association require the Management Board to have at least three members. Our Management Board currently has twelve members. The Supervisory Board has also appointed a Chairman (CEO) and two Deputy Chairmen (Presidents) of the Management Board.

The Supervisory Board appoints the members of the Management Board for a maximum term of five years and oversees them. They may be re-appointed or have their term extended for one or more terms of up to a maximum of five years each. The Supervisory Board may remove a member of the Management Board prior to the expiration of his or her term for good cause.

Pursuant to our Articles of Association, two members of the Management Board, or one member of the Management Board together with a holder of procuration, may represent us for legal purposes. A holder of procuration is an attorney-in-fact who holds a legally defined power under German law, which cannot be restricted with respect to third parties. However, pursuant to German law, the Management Board itself must resolve on certain matters as a whole and may not delegate the decision to one or more individual members. In particular, it may not delegate the determination of our business and risk strategies, and the coordinating or controlling responsibilities. The Management Board is required to ensure that shareholders are treated on an equal basis and receive equal information. The Management Board is also responsible for ensuring our proper business organization, which includes appropriate and effective risk management as well as compliance with legal requirements and internal guidelines, and for taking the necessary measures to ensure that adequate internal guidelines are developed and implemented.

Other selected responsibilities of the Management Board in accordance with the Terms of Reference for the Management Board and/or German law are:

- appointing key personnel at the level directly below the Management Board, in particular, appointing the Global Key Function Holders employed by us;
- making decisions regarding significant credit exposures or other risks which have not been delegated to individual risk management units;
- acquisition and disposal of equity investments, including capital measures in all cases in which (i) the law or our Articles of Association require approval by the Supervisory Board, or (ii) the equivalent of € 100 million is exceeded;
- acquisition and disposal of real estate – directly or by separate legal entities – in all cases in which: (i) the law or our Articles of Association require approval by the Supervisory Board, or (ii) the real estate's equivalent exceeds € 100 million;
- individual vendor or intra Group-outsourcings (or material changes to those outsourcings) in all cases in which the equivalent of € 100 million is exceeded on an annual basis or include the delegation of core organizational duties of the Management Board;
- calling shareholders' meetings;
- filing petitions to set aside shareholders' resolutions;
- preparing and executing shareholders' resolutions; and
- reporting to the Supervisory Board.

For additional information on our Management Board, including the names of and biographical information for the current members, see "Corporate Governance Statement/Corporate Governance Report: Management Board and Supervisory Board: Management Board" in the Annual Report 2017. The Terms of Reference of the Management Board are published on our website www.db.com/ir/en/documents.htm.

Board Practices of the Management Board

The Terms of Reference for the Management Board are in accordance with the Supervisory Board resolution of March 16, 2017. These Terms of Reference provide that the members of the Management Board have the collective responsibility for managing Deutsche Bank. Notwithstanding this principle, the allocation of functional responsibilities to the individual members of the Management Board and their substitution (in case of temporary absence) are set out in the business allocation plan for the Management Board in accordance with the Supervisory Board resolution of February 1, 2018. The allocation of functional responsibilities does not exempt any member of the Management Board from collective responsibility for the management of the business. The members of the Management Board have primary responsibility for the proper performance and/or delegation of their duties and the clear allocation of accountabilities and responsibilities within the area of own functional responsibility (so-called "*Ressort*").

Members of the Management Board are bound to the corporate interest of Deutsche Bank. No member of the Management Board may pursue personal interests in his/her decisions or use business opportunities intended for the company for himself/herself. As permitted by German law, individual members of the Management Board may exercise Deutsche Bank Group-external mandates, honorary offices or special assignments. In order to effectively prevent any conflicts of interest, the members of the Management Board may accept such activities only upon the approval of the other members of the Management Board and the Chairman's Committee of the Supervisory Board. Management Board members generally do not accept the chair of supervisory boards of Group-external companies.

Section 161 of the German Stock Corporation Act requires that the management board and supervisory board of any German stock exchange-listed company declare annually that the company complies with the recommendations of the German Corporate Governance Code or, if not, which recommendations the company does not comply with (so-called "comply or explain"-principle). These recommendations go beyond the requirements of the German Stock Corporation Act. The Management Board and Supervisory Board issued a new Declaration of Conformity in accordance with Section 161 of the German Stock Corporation Act on October 26, 2017, which is available on our internet website at www.db.com/ir/en/documents.htm under the heading "Declaration of Conformity pursuant to § 161 German Stock Corporation Act (AktG), Oct 2017".

For information on the Management Board's terms of office, please see "Corporate Governance Statement/Corporate Governance Report: Management Board and Supervisory Board: Management Board" in the Annual Report 2017. For details of the Management Board's service contracts providing benefits upon termination, please see "Compensation Report: Pension and Transitional Benefits" and "Compensation Report: Other Benefits upon Premature Termination" in the Management Report of the Annual Report 2017.

Compensation

For information on the compensation of the members of our Management Board, see "Management Report: Compensation Report: Management Board Compensation Report" in the Annual Report 2017.

For information on the compensation of the members of our Employees, see "Management Report: Compensation Report: Employee Compensation Report" in the Annual Report 2017.

For information on the compensation of the members of our Supervisory Board, see "Management Report: Compensation Report: Compensation System for Supervisory Board Members" in the Annual Report 2017.

Employees

For information on our employees, see "Management Report: Employees" in the Annual Report 2017.

Share Ownership

For the share ownership of the Management Board, see "Management Report: Compensation Report: Management Board Share Ownership" in the Annual Report 2017.

For the share ownership of the members of the Supervisory Board, see "Corporate Governance Statement/Corporate Governance Report: Reporting and Transparency: Directors' Share Ownership" in the Annual Report 2017.

For a description of our employee share programs, please see Note 35 "Employee Benefits" to the consolidated financial statements.

Item 7: Major Shareholders and Related Party Transactions

Major Shareholders

On December 31, 2017, our issued share capital amounted to € 5,290,939,215 divided into 2,066,773,131 no par value ordinary registered shares.

On December 31, 2017, we had 592,977 registered shareholders. 1,095,022,305 of our shares were registered in the names of 581,751 shareholders resident in Germany, representing 52.73 % of our share capital. 323,273,946 of our shares were registered in the names of 735 shareholders resident in the United States, representing 15.57 % of our share capital.

The German Securities Trading Act (Wertpapierhandelsgesetz) requires investors in publicly-traded corporations whose investments reach certain thresholds to notify both the corporation and the BaFin of such change within four trading days. The minimum disclosure threshold is 3 % of the corporation's issued voting share capital.

BlackRock, Inc., Wilmington, DE, has notified us that as of February 23, 2018 it held 6.55 % of our shares. It had previously notified us that as of March 1, 2017, it held 5.95 % of our shares. We have received no further notification by BlackRock, Inc., Wilmington, DE, through March 1, 2018.

C-QUADRAT Special Situations Dedicated Fund, Cayman Islands ("C-QUADRAT"), has notified us that as of February 13, 2018 it held 3.50 % of our shares (total percentage of voting rights: 9.06 % (voting rights attached to shares: 3.50 %, voting rights through financial instruments: 5.56 %)). A number of persons have beneficial ownership of the Deutsche Bank shares held by C-QUADRAT because of their relationship with C-QUADRAT, including BL Capital Holdings Limited (BVI) and HNA Innovation Finance Group Co. Limited, who are investors in C-QUADRAT. Such investors are controlled by Hainan Jiaoguan Holding Co., Ltd., City of Haikou, which had previously notified us that as of February 15, 2017 it held 3.04 % of our shares. We have received no further notification by C-QUADRAT Special Situations Dedicated Fund, Cayman Islands, through March 1, 2018.

Stephen A. Feinberg (Cerberus), has notified us that as of November 14, 2017 he held 3.001 % of our shares. We have received no further notification by Stephen A. Feinberg (Cerberus), through March 1, 2018.

Paramount Services Holdings Ltd., British Virgin Islands, has notified us that as of August 20, 2015 it held 3.05 % of our shares. We have received no further notification by Paramount Services Holdings Ltd., British Virgin Islands, through March 1, 2018.

Supreme Universal Holdings Ltd., Cayman Islands, has notified us that as of August 20, 2015 it held 3.05 % of our shares. We have received no further notification by Supreme Universal Holdings Ltd., Cayman Islands, through March 1, 2018.

We are neither directly nor indirectly owned nor controlled by any other corporation, by any government or by any other natural or legal person severally or jointly.

Pursuant to German law and our Articles of Association, to the extent that we may have major shareholders at any time, we may not give them different voting rights from any of our other shareholders.

We are aware of no arrangements which may at a subsequent date result in a change in control of our company.

Related Party Transactions

We have business relationships with a number of the companies in which we own significant equity interests. We also have business relationships with a number of companies where members of our Management Board also hold positions on boards of directors. Our business relationships with these companies cover many of the financial services we provide to our clients generally. For more detailed information, refer to Note 38 "Related Party Transactions" to the consolidated financial statements.

We conduct our business with these companies on terms equivalent to those that would prevail if we did not have equity holdings in them or management members in common, and we have conducted business with these companies on that basis in 2017 and prior years. None of these transactions is or was material to us.

Among our business with related party companies in 2017, there have been and currently are loans, guarantees and commitments, which totaled € 313 million (including loans amounting to € 213 million) as of December 31, 2017, compared to € 364 million (including loans amounting to € 212 million) as of December 31, 2016.

All these credit exposures

- were made in the ordinary course of business,
- were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons, and
- did not involve more than the normal risk of collectability or present other unfavorable features compared to loans to non-related parties at their initiation.

Related Party Impaired Loans

In addition to our other shareholdings, we hold acquired equity interests in some of our clients arising from our efforts to protect our then-outstanding lending exposures to them.

Impaired loans to related parties which may exhibit more than normal risk of collectability or present other unfavorable features compared to performing loans to related parties increased by € 6 million to € 6 million, from December 31, 2016. The following table presents an overview of the impaired loans we hold of some of our related parties as of December 31, 2017.

in € m.	Amount outstanding as of Decem- ber 31, 2017	Largest amount outstanding January 1, to December 31, 2017	Provision for loan losses in 2017 ¹	Allowance for loan losses as of Decem- ber 31, 2017 ¹	Nature of the loan and transaction in which incurred
Customer A	10	39	(4) ²	4	Company was put into a court-supervised debt moratorium process in 2016. This triggered a debt to equity swap for 70% of our loans and a € 25 million write-off in 2017. Received shares are currently not valued due to debt moratorium and 1-year trading lock-up period.
Total	10	39	(4)	4	

¹ The allowance for loan losses is calculated by subtracting the net present value of future expected cash flows from the current outstanding. The year-end balance of the loan loss allowance is in most cases lower than the amount of provision for credit losses required for the recognition due to unwinding effects based upon passage of time which are recognized in interest income.

² Including FX effect of € (4) million, not including write-offs (€ 25 million).

In the above table, customer A is a company in which we hold a minority share and which is not consolidated at equity.

We have not disclosed the name of the related party customer described above because we have concluded that such disclosure would violate applicable privacy laws, such as customer confidentiality and data protection laws, and this customer has not waived application of these privacy laws. A legal opinion regarding the applicable privacy laws is filed as Exhibit 14.1 hereto.

Interests of Experts and Counsel

Not required because this document is filed as an annual report.

Item 8: Financial Information

Consolidated Statements and Other Financial Information

Consolidated Financial Statements

The Financial Statements of this Annual Report on Form 20-F consist of the Consolidated Financial Statements including Notes 1 to 44 thereto, which are set forth as Part 2 of the Annual Report 2017, and, as described in Note 1 "Significant Accounting Policies and Critical Accounting Estimates" thereto in the third paragraph under "Basis of Accounting", certain parts of the Management Report set forth as Part 1 of the Annual Report 2017. Such Consolidated Financial Statements have been audited by KPMG AG Wirtschaftsprüfungsgesellschaft, as described in their "Report of Independent Registered Public Accounting Firm" included in the Annual Report 2017.

Legal Proceedings

General. We and our subsidiaries operate in a legal and regulatory environment that exposes us to significant litigation risks. As a result, we are involved in litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, including the United States. Please refer to Note 29 "Provisions" to the Consolidated Financial Statements for descriptions of certain significant legal proceedings. Additional legal proceedings that may have, or have had in the recent past, significant effects on our financial position or profitability are described below.

Bank Bill Swap Rate Claims. On August 16, 2016, a putative class action was filed in the U.S. District Court for the Southern District of New York against Deutsche Bank and other defendants, bringing claims based on alleged collusion and manipulation in connection with the Australian Bank Bill Swap Rate ("BBSW"). The complaint alleges that the defendants, among other things, engaged in money market transactions intended to influence the BBSW fixing, made false BBSW submissions, and used their control over BBSW rules to further the alleged misconduct. Plaintiffs bring suit on behalf of persons and entities that engaged in U.S.-based transactions in BBSW-linked financial instruments from 2003 through the present. An amended complaint was filed on December 16, 2016, and is the subject of fully briefed motions to dismiss. The court held argument on January 23, 2018. On February 23, 2018, defendants filed a renewed motion to dismiss on certain grounds that had been previously raised.

Canadian Dealer Offered Rate Matter. On January 12, 2018, the Fire & Police Pension Association of Colorado filed a putative class action lawsuit in the U.S. District Court for the Southern District of New York relating to the Canadian Dealer Offered Rate ("CDOR"), a Canadian dollar-denominated interest rate benchmark, against numerous financial institutions including Deutsche Bank and its subsidiaries Deutsche Bank Securities Inc. and Deutsche Bank Securities Limited. The complaint alleges that the defendants, members of the panel of banks that provided CDOR submissions and their affiliates, suppressed their CDOR submissions from at latest August 9, 2007 through at earliest June 30, 2014 in order to benefit their positions in CDOR-referencing financial instruments. The complaint asserts claims under the U.S. Sherman Act, U.S. Commodity Exchange Act, and the U.S. Racketeer Influenced and Corrupt Organizations Act, as well as state common law contract and unjust enrichment claims.

Contestation of the General Meeting's Resolution Not to Pay a Dividend for the 2015 Fiscal Year. In May 2016, Deutsche Bank AG's General Meeting resolved that no dividend was to be paid to Deutsche Bank's shareholders for the 2015 fiscal year. Some shareholders filed a lawsuit with the Frankfurt am Main District Court (Landgericht), contesting (among other things) the resolution on the grounds that Deutsche Bank was required by law to pay a minimum dividend in an amount equal to 4 % of Deutsche Bank's share capital. In December 2016, the district court ruled in favor of the plaintiffs. Deutsche Bank initially appealed the court's decision. However, consistent with Deutsche Bank's updated strategy, Deutsche Bank withdrew the appeal, as this decision is concerned, prior to Deutsche Bank's 2017 General Meeting, whereupon the contested resolution became void. Deutsche Bank's General Meeting in May 2017 resolved the payment of a dividend of approximately € 400 million from Deutsche Bank's distributable profit for 2016 which amount contains a component reflecting the distributable profit carried forward from 2015 of approximately € 165 million. Such dividend was paid to the shareholders shortly after the annual General Meeting. The decision meanwhile was contested at court, again, claiming that the way the decision was taken was not correct. On January 18 2018, the Frankfurt am Main District Court dismissed the shareholder actions as regards the dividend resolution taken in May 2017. The plaintiffs have appealed the decision to the Higher Regional Court Frankfurt am Main.

CO2 Emission Rights. The Frankfurt am Main Office of Public Prosecution (the "OPP") is investigating alleged value-added tax (VAT) fraud in connection with the trading of CO2 emission rights by certain trading firms, some of which also engaged in trading activity with Deutsche Bank. The OPP alleges that certain employees of Deutsche Bank knew that their counterparties were part of a fraudulent scheme to avoid VAT on transactions in CO2 emission rights, and it searched Deutsche Bank in April 2010 and December 2012. On June 13, 2016, the Frankfurt am Main District Court sentenced seven former Deutsche Bank employees for VAT evasion and for aiding and abetting VAT evasion in connection with their involvement in CO2 emissions trading.

Appeals are pending with respect to some of such former employees. Investigations by the OPP with respect to other employees are ongoing.

The insolvency administrators of three German traders who sold emission certificates to Deutsche Bank in 2009/2010 were trying to refute the transactions as a voidable preference under German insolvency law and, in some cases, started civil litigation. In mid-2015, the Frankfurt am Main District Court dismissed the insolvency administrator's claim in full in one of the cases. An appeal was filed against the decision. In July 2017, a settlement was agreed with the three insolvency administrators.

In 2015, five insolvent English companies, which are alleged to have been involved in VAT fraud in connection with trading CO2 emission rights in the UK, and their respective liquidators, started civil proceedings in London against four defendants including Deutsche Bank AG claiming that the defendants dishonestly assisted directors of the insolvent companies in breaching duties, and alternatively that the defendants were party to carrying on the companies' business with fraudulent intent (giving rise to a claim under Section 213 of the Insolvency Act 1986). On September 29, 2017, Deutsche Bank agreed a settlement with the claimants.

Deutsche Bank Shareholder Litigation. Deutsche Bank and certain of its current and former officers and management board members are the subject of a purported class action, filed in the U.S. District Court for the Southern District of New York, asserting claims under Sections 10(b) and 20(a) of the U.S. Securities Exchange Act of 1934 on behalf of persons who purchased or otherwise acquired securities of Deutsche Bank on a United States exchange or pursuant to other transactions within the United States between January 31, 2013 and July 26, 2016. Plaintiffs allege that Deutsche Bank's SEC Annual Reports on Form 20-F for the years 2012, 2013, 2014 and 2015 were materially false and misleading in failing to disclose (i) serious and systemic failings in controls against financing terrorism, money laundering, aiding organizations subject to international sanctions and committing financial crime and (ii) that the Bank's internal control over financial reporting and its disclosure controls and procedures were not effective. On February 21, 2017, Deutsche Bank and the individual defendants served at the time with the summons and complaint moved to dismiss the consolidated amended complaint. On June 28, 2017, the court granted the motion to dismiss as to all defendants, without leave to replead. On June 30, 2017, the court entered judgment dismissing the lawsuit. On July 14, 2017, plaintiffs moved to alter or amend the court's order and judgment, and for leave to file an amended complaint. On August 16, 2017, the court denied plaintiffs' motion. Plaintiffs filed a notice of appeal and the appeal has been fully briefed as of January 22, 2018.

ISDAFIX. On February 1, 2018, the Bank entered into a settlement with the U.S. Commodity Futures Trading Commission (CFTC) to resolve the CFTC's investigation concerning the Bank's involvement in the setting of U.S. dollar ISDAFIX benchmark. The Bank agreed to pay a civil monetary penalty of U.S.\$ 70 million and to remedial undertakings, including maintaining systems and controls reasonably designed to prevent potential manipulation of interest rate swaps benchmarks.

In addition, the Bank has been named as a defendant in five putative class actions that were consolidated in the U.S. District Court for the Southern District of New York asserting antitrust, fraud, and other claims relating to an alleged conspiracy to manipulate the U.S. dollar ISDAFIX benchmark. On April 8, 2016, Deutsche Bank settled the class actions for U.S.\$ 50 million, which is subject to final court approval. The settlement was preliminarily approved by the court on May 11, 2016.

Life Settlements Investigation. On May 2, 2017, the U.S. Attorney's Office for the Southern District of New York notified the Bank that it has closed its investigation of the Bank's historical life settlements business, which included the origination and purchase of investments in life insurance assets during the 2005 to 2008 period. As is customary, the U.S. Attorney's Office further informed the Bank that the it may reopen its investigation if it obtains additional information or evidence.

Monte Dei Paschi. In February 2013, Banca Monte Dei Paschi Di Siena ("MPS") issued civil proceedings in Italy against Deutsche Bank alleging that Deutsche Bank assisted former MPS senior management in an accounting fraud on MPS, by undertaking repo transactions with MPS and "Santorini", a wholly owned special-purpose vehicle of MPS, which helped MPS defer losses on a previous transaction undertaken with Deutsche Bank. Subsequently, in July 2013, the Fondazione Monte Dei Paschi, MPS' largest shareholder, also commenced civil proceedings in Italy for damages based on substantially the same facts. In December 2013, Deutsche Bank reached an agreement with MPS to settle the civil proceedings and the transactions were unwound. The civil proceedings by the Fondazione Monte Dei Paschi, in which damages of between € 220 million and € 381 million are claimed, remain pending. The Fondazione's separate claim filed in July 2014 against their former administrators and a syndicate of 12 banks including Deutsche Bank S.p.A. for € 286 million has resumed before the Florence Court.

A criminal investigation was launched by the Siena Public Prosecutor into the transactions and certain unrelated transactions entered into by MPS with other parties. Such investigation was moved in summer 2014 from Siena to the Milan Public Prosecutors as a result of a change in the alleged charges being investigated. On February 16, 2016, the Milan Public Prosecutors issued a request of committal to trial against Deutsche Bank AG and six current and former employees. The committal process concluded with a hearing on October 1, 2016, during which the Milan court committed all defendants in the criminal proceedings to trial. Deutsche Bank's potential exposure is for administrative liability under Italian Legislative Decree n. 231/2001 and for civil vicarious liability as an employer of current and former Deutsche Bank employees who are being criminally prosecuted. Trial commenced on December 15, 2016 and is ongoing. Deutsche Bank continues to cooperate and update its regulators.

Parmalat Litigation. Following the bankruptcy of the Italian company Parmalat, prosecutors in Parma conducted a criminal investigation against various bank employees, including employees of Deutsche Bank, and brought charges of fraudulent bankruptcy and usury against a number of Deutsche Bank employees and others. The trial commenced in September 2009 and a verdict was recently delivered in July 2017. The Deutsche Bank employees were acquitted and, as a result thereof, Deutsche Bank will not be held to have vicarious liability in connection with the actions of the bank employees. The court published its reasoning in January 2018, and the matter currently remains open to the prosecutors to consider the possibility of an appeal.

Pas-de-Calais Habitat. On May 31, 2012, Pas-de-Calais Habitat ("PDCH"), a public housing office, initiated proceedings before the Paris Commercial Court against Deutsche Bank in relation to four swap contracts entered into in 2006, restructured on March 19, 2007 and January 18, 2008 and subsequently restructured in 2009 and on June 15, 2010. PDCH asks the Court to declare the March 19, 2007 and January 18, 2008 swap contracts null and void, or terminated, or to grant damages to PDCH in an amount of approximately € 170 million on the grounds, *inter alia*, that Deutsche Bank committed fraudulent and deceitful acts, manipulated the LIBOR and EURIBOR rates which are used as a basis for calculating the sums due by PDCH under the swap contracts and breached its obligations to warn, advise and inform PDCH. A decision on the merits is not expected until the second quarter of 2018 at the earliest.

Pension Plan Assets. The Group sponsors a number of post-employment benefit plans on behalf of its employees. In Germany, the pension assets that fund the obligations under these pension plans are held by Benefit Trust GmbH. The German tax authorities are challenging the tax treatment of certain income received by Benefit Trust GmbH in the years 2010 to 2013 with respect to its pension plan assets. For the year 2010 Benefit Trust GmbH paid the amount of tax and interest assessed of € 160 million to the tax authorities and is seeking a refund of the amounts paid in litigation. For 2011 to 2013 the matter is stayed pending the outcome of the 2010 tax litigation. The amount of tax and interest under dispute for years 2011 to 2013, which also has been paid to the tax authorities, amounts to € 456 million. In March 2017, the lower fiscal court ruled in favor of Benefit Trust GmbH and in September 2017 the tax authorities appealed the decision to the German supreme fiscal court (Bundesfinanzhof). A decision by the supreme fiscal court is not expected for a number of years.

Precious Metals Investigations and Litigations. Deutsche Bank has received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to investigations of precious metals trading and related conduct. Deutsche Bank is cooperating with these investigations, and engaging with relevant authorities, as appropriate. On January 29, 2018, the Bank entered into a U.S.\$ 30 million settlement with the CFTC to resolve the CFTC's investigation concerning spoofing, manipulation and attempted manipulation in precious metals futures, as well as the manipulation and attempted manipulation of stop loss orders. The order requires that the Bank, among other things, maintain systems and controls reasonably designed to detect spoofing, and maintain training regarding spoofing, manipulation and attempted manipulation. The Order also requires the Bank to continue to cooperate with the CFTC.

Deutsche Bank is a defendant in two consolidated class action lawsuits pending in the U.S. District Court for the Southern District of New York. The suits allege violations of U.S. antitrust law, the U.S. Commodity Exchange Act and related state law arising out of the alleged manipulation of gold and silver prices through participation in the Gold and Silver Fixes, but do not specify the damages sought. Deutsche Bank has reached agreements to settle the Gold action for U.S.\$ 60 million and the Silver action for U.S. \$ 38 million. The agreements remain subject to final court approval.

In addition, Deutsche Bank is a defendant in Canadian class action proceedings in the provinces of Ontario and Quebec concerning gold and silver. Each of the proceedings seeks damages for alleged violations of the Canadian Competition Act and other causes of action.

Sebastian Holdings Litigation. Litigation with Sebastian Holdings Inc. ("SHI") in respect of claims arising from FX trading activities concluded in the UK Commercial Court in November 2013 when the court awarded Deutsche Bank approximately U.S.\$ 236 million plus interest and dismissed all of SHI's claims. On January 27, 2016, a New York court dismissed substantially similar claims by SHI against Deutsche Bank when it granted Deutsche Bank's motion for summary judgment based on the UK Commercial Court's judgment. The New York court also denied SHI's motion for leave to file an amended complaint. The New York court's decisions were affirmed on appeal on February 28, 2017. The New York State Court of Appeals denied SHI's motion for leave to appeal on June 6, 2017. The time for SHI to seek review by the U.S. Supreme Court has expired, and the decision is now final.

Vestia. In December 2016, Stichting Vestia, a Dutch housing association, commenced proceedings against Deutsche Bank in England. The proceedings relate to derivatives entered into between Stichting Vestia and Deutsche Bank between 2005 and 2012. Stichting Vestia alleges that certain of the transactions entered into by it with Deutsche Bank should be set aside on the grounds that they were not within its capacity and/or were induced by the bribery of Vestia's treasurer by an intermediary involved in those transactions. The sums claimed by Stichting Vestia are made up of different elements, some of which have not yet been quantified. The quantum of the claims as articulated at this stage ranges between € 717 million and € 834 million, plus compound interest. Deutsche Bank is defending the claim.

Dividend Policy

For 2017, the Management Board will propose to the General Meeting to pay a dividend of € 0.11 per share. In 2015, we did not pay a dividend. In 2016, we paid a dividend of € 0.19 in the aggregate out of the distributable profit for 2016, reflecting the payout of € 0.08 per share eligible for a dividend for the 2015 financial year out of the distributable profit carried forward from 2015 of approximately € 165 million and a dividend of € 0.11 per share eligible for a dividend for the 2016 financial year from the remaining distributable profit for 2016. Historically, however, we have paid dividends at higher levels, including dividends per share of € 0.75 for 2014, and we intend to pay competitive dividends beginning in 2018 (paid after the annual General Meeting in 2019). However, we cannot assure investors that we will pay dividends as for 2014 or previous years, or at any other level, or at all, in any future period. If the company is not profitable, we may not pay dividends at all.

Furthermore, if Deutsche Bank AG fails to meet the regulatory capital adequacy requirements under CRR/CRD 4 (including individually imposed capital requirements (so-called “Pillar 2” requirements) and the combined buffer requirement), it may be prohibited from making, and the ECB or the BaFin may suspend or limit, the payment of dividends. In addition, the ECB expects banks to meet “Pillar 2” guidance. If Deutsche Bank AG operates or expects to operate below “Pillar 2” guidance, the ECB will review the reasons why the Bank’s capital level has fallen or is expected to fall and may take appropriate and proportionate measures in connection with such shortfall. Any such measures might have an impact on Deutsche Bank AG’s willingness or ability to pay dividends. For further information on regulatory capital adequacy requirements and the powers of Deutsche Bank AG’s regulators to suspend dividend payments, see “Item 4: Information on the Company – Regulation and Supervision – Capital Adequacy Requirements” and “– Investigative and Enforcement Powers.”

Under German law, Deutsche Bank AG’s dividends are based on the unconsolidated results of Deutsche Bank AG as prepared in accordance with German accounting rules. Deutsche Bank AG’s Management Board, which prepares the annual financial statements of Deutsche Bank AG on an unconsolidated basis, and its Supervisory Board, which reviews them, first allocate part of Deutsche Bank AG’s annual surplus (if any) to Deutsche Bank AG’s statutory reserves and to any losses carried forward, as it is legally required to do. They then allocate the remainder between other revenue reserves (or retained earnings) and balance sheet profit. They may allocate up to one-half of this remainder to other revenue reserves, and must allocate at least one-half to balance sheet profit. A profit distribution from balance sheet profit is only permitted to the extent that the balance sheet profit plus distributable earnings exceeds potential dividend blocking items, which consist of deferred tax assets, self-developed software and unrealized gains on plan assets, all net of respective deferred tax liabilities.

Deutsche Bank AG then distributes up to the full amount of the balance sheet profit not subject to dividend blocking of Deutsche Bank AG if the annual General Meeting so resolves. The annual General Meeting may resolve a non-cash distribution instead of, or in addition to, a cash dividend. However, Deutsche Bank AG is not legally required to distribute its balance sheet profit to its shareholders to the extent that it has issued participatory rights (Genussrechte) or granted a silent participation (stille Gesellschaft) that accord their holders the right to a portion of Deutsche Bank AG’s distributable profit.

German corporate law provided that, should the annual General Meeting resolve to carry forward profits or to allocate profits to the reserves, shareholders may contest the resolution of the General Meeting if such carrying forward or allocation is not, on the basis of a reasonable commercial assessment, deemed necessary to ensure the viability or economic resilience of the company and the shareholders do not receive a minimum dividend in the amount equal to 4 % of the share capital. On these grounds, shareholders challenged the resolution of the 2016 annual General Meeting not to pay a dividend for 2015. Meanwhile, according to Section 10 (5) of the German Banking Act (“Kreditwesengesetz”) as amended in July 2017, this provision of German corporate law is no longer applicable to credit institutions subject to the CRR, i.e. the minimum dividend requirement no longer applies to Deutsche Bank AG.

Deutsche Bank AG declares dividends by resolution of the annual General Meeting and pays them (if any) once a year. Dividends approved at a General Meeting are payable on the third business day after that meeting, unless a later date has been determined at that meeting or by the Articles of Association. In accordance with the German Stock Corporation Act, the record date for determining which holders of Deutsche Bank AG’s ordinary shares are entitled to the payment of dividends, if any, or other distributions whether cash, stock or property, is the date of the General Meeting at which such dividends or other distributions are declared.

Significant Changes

Except as otherwise stated in this document, there have been no significant changes subsequent to December 31, 2017.

Item 9: The Offer and Listing

Offer and Listing Details and Markets

Our share capital consists of ordinary shares issued in registered form without par value. Under German law, shares without par value are deemed to have a “nominal” value equal to the total amount of share capital divided by the number of shares. Our shares have a nominal value in this sense of € 2.56 per share.

The principal trading market for our shares is the Frankfurt Stock Exchange. Our shares are also traded on the six other German stock exchanges (Berlin, Duesseldorf, Hamburg, Hanover, Munich and Stuttgart), on the Eurex and the New York Stock Exchange.

We maintain a share register in Frankfurt am Main and, for the purposes of trading our shares on the New York Stock Exchange, a share register in New York.

All shares on German stock exchanges trade in euros, and all shares on the New York Stock Exchange trade in U.S. dollars. The following table sets forth, for the calendar periods indicated, high, low and period-end prices for our shares as reported by the Frankfurt Stock Exchange and the New York Stock Exchange.

	Price per share (Xetra) ¹			Price per share (NYSE) ²		
	High (in €)	Low (in €)	Period-end (in €)	High (in U.S.\$)	Low (in U.S.\$)	Period-end (in U.S.\$)
Monthly 2018:						
February	15.04	12.37	13.20	18.65	15.07	15.94
January	16.46	14.78	14.79	19.98	17.97	18.34
Monthly 2017:						
December	17.13	15.66	15.88	20.23	18.47	19.03
November	16.44	13.83	15.86	19.23	16.26	18.86
October	14.82	13.93	13.95	17.35	16.20	16.27
September	14.64	13.11	14.63	17.29	15.59	17.28
Quarterly 2017:						
Fourth Quarter	17.13	13.83	15.88	20.23	16.20	19.03
Third Quarter	16.91	13.11	14.63	19.34	15.59	17.28
Second Quarter	17.69	14.70	15.53	19.48	15.79	17.79
First Quarter	17.82	15.12	16.15	20.93	16.46	17.16
Quarterly 2016:						
Fourth Quarter	16.63	10.22	15.40	19.30	12.60	18.10
Third Quarter	12.35	8.83	10.33	15.43	11.19	13.09
Second Quarter	15.66	10.76	11.00	19.70	13.40	13.73
First Quarter	19.72	11.63	13.34	23.62	14.79	16.94
Annual:						
2017	17.82	13.11	15.88	20.93	15.59	19.03
2016	19.72	8.83	15.40	23.62	11.19	18.10
2015	29.83	18.46	20.10	36.20	22.83	24.15
2014	34.05	20.22	22.30	54.48	29.35	30.02
2013	32.97	25.04	29.52	52.92	38.18	48.24

Note: Data is based on Bloomberg.

¹ Historical share prices have been adjusted on June 5, 2014 with retroactive effect to reflect a capital increase by multiplying a correcting factor of 0.9538 and on March 20, 2017 with retroactive effect to reflect a capital increase by multiplying a correcting factor of 0.8925.

² Historical share prices are not adjusted for the capital increase in June 2014.

For a discussion of the possible effects of fluctuations in the exchange rate between the euro and the U.S. dollar on the price of our shares, see “Item 3: Key Information – Exchange Rate and Currency Information.”

You should not rely on our past share performance as a guide to our future share performance.

Plan of Distribution

Not required because this document is filed as an annual report.

Selling Shareholders

Not required because this document is filed as an annual report.

Dilution

Not required because this document is filed as an annual report.

Expenses of the Issue

Not required because this document is filed as an annual report.

Item 10: Additional Information

Share Capital

Not required because this document is filed as an annual report.

Memorandum and Articles of Association

The following is a summary of certain information relating to certain provisions of our Articles of Association, our share capital and German law. This summary is not complete and is qualified by reference to our Articles of Association and German law in effect at the date of this filing. Copies of our Articles of Association are publicly available at the Commercial Register (Handregister) in Frankfurt am Main, and an English translation is filed as Exhibit 1.1 to this Annual Report.

Our Business Objectives

Section 2 of our Articles of Association sets out the objectives of our business:

- to transact all aspects of banking business;
- to provide financial and other services; and
- to promote international economic relations.

Our Articles of Association permit us to pursue these objectives directly or through subsidiaries and affiliated companies.

Our Articles of Association also provide that, to the extent permitted by law, we may transact all business and take all steps that appear likely to promote our business objectives. In particular, we may:

- acquire and dispose of real estate;
- establish branches in Germany and abroad;
- acquire, administer and dispose of participations in other enterprises; and
- conclude intercompany agreements (Unternehmensverträge).

Supervisory Board and Management Board

For more information on our Supervisory Board and Management Board, see “Item 6: Directors, Senior Management and Employees.”

Voting Rights and Shareholders' Meetings

Each of our shares entitles its registered holder to one vote at our General Meeting. Our Annual General Meeting takes place within the first eight months of our fiscal year. Pursuant to our Articles of Association, we may hold the meeting in Frankfurt am Main, Düsseldorf or any other German city with over 500,000 inhabitants. Unless a shorter period is permitted by law, we must give the notice convening the General Meeting at least 30 days before the last day on which shareholders can register their attendance of the General Meeting (which is the fifth day immediately preceding that General Meeting). Shorter periods apply if the General Meeting is called to adopt a resolution on a capital increase in the context of early intervention measures pursuant to the Act on the Recovery and Resolution of Institutions and Financial Groups (Gesetz zur Sanierung und Abwicklung von Instituten und Finanzgruppen). We are required to include details regarding the shareholder attendance registration process and the issuance of admission cards in our invitation to the General Meeting.

The Management Board or the Supervisory Board may also call an extraordinary General Meeting. Shareholders holding in the aggregate at least 5 % of the nominal value of our share capital may also request that such a meeting be called.

According to our Articles of Association our shares are issued in the form of registered shares. For purposes of registration in the share register, all shareholders are required to notify us of the number of shares they hold and, in the case of natural persons, of their name, address and date of birth and, in the case of legal persons, of their registered name, business address and registered domicile. Both being registered in our share register and the timely registration for attendance of the General Meeting constitute prerequisite conditions for any shareholder's attendance and exercise of voting rights at the General Meeting. Shareholders may register their attendance of a General Meeting with the Management Board (or as otherwise designated in the invitation) by written notice or electronically, no later than the fifth day immediately preceding the date of that General Meeting. Any shareholders who have failed to comply with certain notification requirements summarized under "Notification Requirements" below are precluded from exercising any rights attached to their shares, including voting rights.

Under German law, upon our request a registered shareholder must inform us whether that shareholder owns the shares registered in its name or whether that shareholder holds the shares for any other person as a nominee shareholder. Both the nominee shareholder and the person for whom the shares are held have an obligation to provide the same personal data as required for registration in the share register with respect to the person for whom the shares are held. For so long as a registered shareholder does not provide the requested information as to its holding of the shares or, in the case of nominee shareholding, the required information about the person for whom the shares are held has not been provided, the shares held by the registered shareholder carry no voting rights.

Shareholders may appoint proxies to represent them at General Meetings. As a matter of German law, a proxy relating to voting rights granted by shares may be revoked at any time.

As a foreign private issuer, we are not required to file a proxy statement under U.S. securities law. The proxy voting process for our shareholders in the United States is substantially similar to the process for publicly held companies incorporated in the United States.

The Annual General Meeting normally adopts resolutions on the following matters:

- appropriation of distributable balance sheet profits (Bilanzgewinn) from the preceding fiscal year;
- formal ratification of the acts (Entlastung) of the members of the Management Board and the members of the Supervisory Board in the preceding fiscal year; and
- appointment of independent auditors for the current fiscal year.

A simple majority of votes cast is generally sufficient to approve a measure, except in cases where a greater majority is otherwise required by our Articles of Association or by law. Under the German Stock Corporation Act and the German Transformation Act (Umwandlungsgesetz), certain resolutions of fundamental importance require a majority of at least 75 % of the share capital represented at the General Meeting adopting the resolution, in addition to a majority of the votes cast. Such resolutions include the following matters, among others:

- amendments to our Articles of Association changing our business objectives;
- capital increases that exclude subscription rights;
- capital reductions;
- creation of authorized or conditional capital;
- our dissolution;
- "transformations" under the German Transformation Act such as mergers, spin-offs and changes in our legal form;
- transfer of all our assets;
- integration of another company; and
- intercompany agreements (in particular, domination and profit-transfer agreements).

Under certain circumstances, such as when a resolution violates our Articles of Association or the German Stock Corporation Act, shareholders may file a shareholder action with the appropriate Regional Court (Landgericht) in Germany to set aside resolutions adopted at the General Meeting.

Under German law, the rights of shareholders as a group can be changed by amendment of the company's articles of association. Any amendment of our Articles of Association requires a resolution of the General Meeting. The authority to amend our Articles of Association, insofar as such amendments merely relate to the wording, such as changes of the share capital as a result of the issuance of shares from authorized capital, has been assigned to our Supervisory Board by our Articles of Association. Pursuant to our Articles of Association, the resolutions of the General Meeting are taken by a simple majority of votes and, insofar as a majority of capital stock is required, by a simple majority of capital stock, except where law or our Articles of Association determine otherwise. The rights of individual shareholders can only be changed with their consent. Amendments to the Articles of Association become effective upon their registration in the Commercial Register.

Share Register

We maintain a share register with Link Market Services GmbH and our New York transfer agent, pursuant to an agency agreement between us and Link Market Services GmbH and a sub-agency agreement between Link Market Services GmbH and the New York transfer agent.

Our share register will be open for inspection by shareholders during normal business hours at our offices at Taunusanlage 12, 60325 Frankfurt am Main, Germany. The share register generally contains each shareholder's surname, first name, date of birth, address and the number or the quantity of our shares held. Shareholders may prevent their personal information from appearing in the share register by holding their securities through a bank or custodian. Although the shareholder would remain the beneficial owner of the securities, only the bank's or custodian's name would appear in the share register.

Dividend Rights

For a summary of our dividend policy and legal basis for dividends under German law, see "Item 8: Financial Information – Dividend Policy."

Increases in Share Capital

German law and our Articles of Association permit us to increase our share capital in any of three ways:

- Resolution by our General Meeting authorizing the issuance of new shares.
- Resolution by our General Meeting authorizing the Management Board, subject to the approval of the Supervisory Board, to issue new shares up to a specified amount (no more than 50 % of existing share capital) within a specified period, which may not exceed five years. This is referred to as authorized capital (*genehmigtes Kapital*).
- Resolution by our General Meeting authorizing the issuance of new shares up to a specified amount (no more than 50 % of existing share capital) for specific purposes, such as for employee stock options, for use as consideration in a merger or to issue to holders of convertible bonds or other convertible securities. This is referred to as conditional capital (*bedingtes Kapital*).

The issuance of new ordinary shares by resolution of the General Meeting requires the simple majority of the votes cast and of the share capital represented at the General Meeting. Resolutions of the General Meeting concerning the creation of authorized or conditional capital require the simple majority of the votes cast and a majority of at least 75 % of the share capital represented at the General Meeting.

Liquidation Rights

The German Stock Corporation Act requires that if we are liquidated, any liquidation proceeds remaining after the payment of all our liabilities will be distributed to our shareholders in proportion to their shareholdings.

Preemptive Rights

In principle, holders of our shares have preemptive rights allowing them to subscribe any shares, bonds convertible into, or attached warrants to subscribe for, our shares or participatory certificates we issue. Such preemptive rights exist in proportion to the number of shares currently held by the shareholder. Preemptive rights of shareholders may be excluded with respect to any capital increase, however, as part of the resolution by the General Meeting on such capital increase. Such a resolution by the General Meeting on a capital increase that excludes the shareholders' preemptive rights with respect thereto requires both a majority of the votes cast and a majority of at least 75 % of the share capital represented at the General Meeting. A resolution to exclude preemptive rights requires that the proposed exclusion is expressly disclosed in the agenda to the General Meeting and that the Management Board presents the reasons for the exclusion to the shareholders in a written report. Under the German Stock Corporation Act, preemptive rights may in particular be excluded with respect to capital increases not exceeding 10 % of the existing share capital with an issue price payable in cash not significantly below the stock exchange price at the time of issuance. In addition, shareholders may, in a resolution by the General Meeting on authorized capital, authorize the Management Board to exclude the preemptive rights with respect to newly issued shares from authorized capital in specific circumstances set forth in the resolution.

Shareholders are generally permitted to transfer their preemptive rights. Preemptive rights may be traded on one or more German stock exchanges for a limited number of days prior to the final day the preemptive rights can be exercised.

Notices and Reports

We publish notices pertaining to our shares and the General Meeting in the electronic German Federal Gazette (Bundesanzeiger) and, when so required, in at least one national newspaper designated for exchange notices.

We send our New York transfer agent, through publication or otherwise, a copy of each of our notices pertaining to any General Meeting, any adjourned General Meeting or our actions with respect to any cash or other distributions or the offering of any rights. We provide such notices in the form given or to be given to our shareholders. Our New York transfer agent is requested to arrange for the mailing of such notices to all shareholders registered in the New York registry.

We will make all notices we send to shareholders available at our principal office for inspection by shareholders. Link Market Services GmbH and our New York transfer agent will send copies of all notices pertaining to General Meetings to all registered shareholders. Link Market Services GmbH and our New York transfer agent will send copies of other notices or information material, such as quarterly reports or shareholder letters, to those registered shareholders who have requested to receive such notices or information material.

Charges of Transfer Agents

We pay Link Market Services GmbH and our New York transfer agent customary fees for their services as transfer agents and registrars. Our shareholders will not be required to pay Link Market Services GmbH or our New York transfer agent any fees or charges in connection with their transfers of shares in the share register. Our shareholders will also not be required to pay any fees in connection with the conversion of dividends from euros to U.S. dollars.

Liability of Transfer Agents

Neither Link Market Services GmbH nor our New York transfer agent will be liable to shareholders if prevented or delayed by law, or any circumstances beyond their control, from performing their obligations as transfer agents and registrars.

Notification Requirements

Disclosure of Interests in a Listed Stock Corporation

Disclosure Obligations under the German Securities Trading Act

Deutsche Bank AG, as a listed company, and its shareholders are subject to the shareholding disclosure obligations under the German Securities Trading Act (Wertpapierhandelsgesetz). Pursuant to the German Securities Trading Act, any shareholder whose voting interest in a listed company like Deutsche Bank AG, through acquisition, sale or by other means, reaches, exceeds or falls below a 3 %, 5 %, 10 %, 15 %, 20 %, 25 %, 30 %, 50 % or 75 % threshold must notify us and the BaFin of its current aggregate voting interest in writing and without undue delay, but at the latest within four trading days. In connection with this requirement, the German Securities Trading Act contains various provisions regarding the attribution of voting rights to the person who actually controls the voting rights attached to the shares.

Furthermore, the voting rights attached to a third party's shares are attributed to a shareholder if the shareholder coordinates its conduct concerning the listed company with the third party (so-called "acting in concert") either through an agreement or other means. Acting in concert is deemed to exist if the parties coordinate their voting at the listed company's general meeting or, outside the general meeting, coordinate their actions with the goal of significantly and permanently modifying the listed company's corporate strategy. Each party's voting rights are attributed to each of the other parties acting in concert.

Shareholders failing to comply with their notification obligations are prevented from exercising any rights attached to their shares (including voting rights and the right to receive dividends) until they have complied with the notification requirements. If the failure to comply with the notification obligations specifically relates to the size of the voting interest in the Deutsche Bank AG and is the result of willful or grossly negligent conduct, the suspension of shareholder rights is – subject to certain exceptions in case of an incorrect notification deviating no more than 10 % from the actual percentage of voting rights – extended by a six-month period commencing upon the submission of the required notification.

Except for the 3 % threshold, similar notification obligations exist for reaching, exceeding or falling below the thresholds described above when a person holds, directly or indirectly, certain instruments other than shares. This applies to instruments which grant upon maturity an unconditional right to acquire existing voting shares of Deutsche Bank AG, a discretionary right to acquire such shares, as well as to instruments that refer to such shares and have an economic effect similar to that of the aforementioned instruments, irrespective of whether such instruments are physically or cash-settled. These instruments include,

for example, transferable securities, options, futures contracts and swaps. Voting rights to be attributed to a person based on any such instrument will generally be aggregated with the person's other voting rights deriving from shares or other instruments.

Notice must be given without undue delay, but within four trading days at the latest. The notice period commences as soon as the person obliged to notify knows, or, under the circumstances should know, that his or her voting rights reach, exceed or fall below any of the abovementioned relevant thresholds, but in any event no later than two trading days after reaching, exceeding or falling below the threshold. Only in case that the voting rights reach, exceed or fall below any of the thresholds as a result of an event affecting all voting rights, the notice period might commence at a later stage. Deutsche Bank AG must publish the foregoing notifications without undue delay, but no later than within three trading days after their receipt, and report such publication to the BaFin. Furthermore, the Deutsche Bank AG must publish a notification in case of any increase or decrease of the total number of voting rights without undue delay, but within two trading days at the latest, and such notification must be reported to the BaFin and forwarded to the German Company Register (Unternehmensregister). An exception applies where the increase of the total number of voting rights is due to the issue of new shares from conditional capital. In this case, Deutsche Bank AG must publish the increase at the end of the month in which it occurred. However, such increase must also be notified without undue delay, but within two trading days at the latest, where any other increase or decrease of the total number of voting rights triggers the aforementioned notification requirement.

Non-compliance with the disclosure requirements regarding shareholdings and holdings of other instruments may result in a significant fine imposed by the BaFin. In addition, the BaFin publishes, on its website, sanctions imposed and measures taken indicating the person or entity responsible and the nature of the breach (so-called "naming and shaming").

Shareholders whose voting rights reach or exceed thresholds of 10 % of the voting rights in a listed company, or higher thresholds, are obliged to inform the company within 20 trading days of the purpose of their investment and the origin of the funds used for such investment, unless the articles of association of the listed company provide otherwise. Our Articles of Association do not contain such a provision.

Disclosure Obligations under the German Securities Acquisition and Takeover Act

Pursuant to the German Securities Acquisition and Takeover Act (Wertpapiererwerbs- und Übernahmegesetz), any person whose voting interest reaches or exceeds 30 % of the voting shares of a listed stock corporation must, within seven calendar days, publish this fact (including the percentage of its voting rights) on the Internet and by means of an electronically operated financial information dissemination system. In addition, the person must subsequently make a mandatory public tender offer within four weeks to all shareholders of the listed company unless an exemption has been granted. The German Securities Acquisition and Takeover Act contains a number of provisions intended to ensure that shareholdings are attributed to those persons who actually control the voting rights attached to the shares. The provisions regarding coordinated conduct as part of the German Securities Acquisition and Takeover Act (so-called "acting in concert") and the rules on the attribution of voting rights attached to shares of third parties are the same as the statutory securities trading provisions described above under "Disclosure Obligations under the German Securities Trading Act" except with respect to voting rights of shares underlying instruments whose holders are vested with the right to unilaterally acquire existing voting shares of the listed company or voting rights which may be acquired on the basis of instruments with similar economic effect. If a shareholder fails to provide notice on reaching or exceeding the 30 % threshold, or fails to make a public tender offer, the shareholder will be precluded from exercising any rights associated with its shares (including voting and dividend rights) until it has complied with the requirements under the German Securities Acquisition and Takeover Act. In addition, non-compliance with the disclosure requirement may result in a fine.

Other Disclosure Obligations

Notification requirements to the competent regulatory authority exist with respect to regulated subsidiaries where the local laws applicable to the subsidiary deem the acquisition of shares in Deutsche Bank AG as the indirect acquisition of a stake in the subsidiary and the applicable threshold under local law is reached or exceeded. This applies in particular to subsidiaries in a member state of the European Economic Area where the CRR provides for a threshold of 10 %. Other jurisdictions may apply lower thresholds. For example, because we control Deutsche Bank (Malaysia) Berhad, Section 87(1) of Malaysian Financial Services Act 2013 requires approval of Bank Negara Malaysia (the Malaysian central bank) of any acquisition of 5 % or more. Also, because Deutsche Bank AG controls bank subsidiaries in the United States, including Deutsche Bank Trust Company Americas, and has securities registered under the U.S. Securities Exchange Act of 1934, the U.S. Change in Bank Control Act requires approval of the Federal Reserve Board and other U.S. regulators for a person or persons acting in concert to control 10 % or more of our ordinary shares.

Disclosure of Participations in a Credit Institution

The German Banking Act (Kreditwesengesetz) requires any person intending to acquire, alone or acting in concert with another person, a qualifying holding (bedeutende Beteiligung) in a credit or financial services institution to notify the BaFin and the Bundesbank without undue delay and in writing of the intended acquisition. A qualifying holding is a direct or indirect holding in an undertaking which represents 10 % or more of the capital or voting rights or which makes it possible to exercise a significant influence over the management of such undertaking. The required notice must contain information demonstrating, among other things, the reliability of the person or, in the case of a corporation or other legal entity, the reliability of its directors and officers.

A person holding a qualifying holding shall also notify the BaFin and the Bundesbank without undue delay and in writing if he intends to increase the amount of the qualifying holding up to or beyond the thresholds of 20 %, 30 % or 50 % of the voting rights or capital or in such way that the institution comes under such person's control or if such person intends to reduce the participation below 10 % or below one of the other thresholds described above.

The BaFin will have to confirm the receipt of a complete notification within two working days in writing to the proposed acquirer. Within a period of 60 working days from the BaFin's written confirmation that a complete notification has been received (assessment period), the BaFin will review and, in accordance with Council Regulation (EU) No 1024/2013 of October 15, 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions, forward the notification and a proposal for a decision whether or not to object to the acquisition to the ECB. The ECB will decide whether or not to object to the acquisition on the basis of the applicable assessment criteria. Within the assessment period the ECB may prohibit the intended acquisition in particular if there appears to be reason to assume that the acquirer or its directors and officers are not reliable or that the acquirer is not financially sound, that the participation would impair the effective supervision of the relevant credit institution, that a prospective managing director (Geschäftsleiter) is not reliable or not qualified, that money laundering or financing of terrorism has occurred or been attempted in connection with the intended acquisition, or that there would be an increased risk of such illegal acts as a result of the intended acquisition. During the assessment period the BaFin may request further information necessary for its or the ECB's assessment. Generally, such a request delays the expiration of the assessment period by up to 30 business days. If the information submitted is incomplete or incorrect the ECB may prohibit the intended acquisition.

If a person acquires a qualifying holding despite such prohibition or without making the required notification, the competent authority may prohibit the person from exercising the voting rights attached to the shares. In addition, non-compliance with the disclosure requirement may result in the imposition of a fine in accordance with statutory provisions. Moreover, the competent authority may order that any disposition of the shares requires its approval and may ultimately appoint a trustee to exercise the voting rights attached to the shares or to sell the shares to the extent they constitute a qualifying holding.

Review of Acquisition of 25 % or more by the German Federal Ministry of Economics and Technology

Pursuant to the German Foreign Trade Act (Außenwirtschaftsgesetz) and the German Foreign Trade Regulation (Außenwirtschaftsverordnung), the direct or indirect acquisition of 25 % or more of the voting rights in a German company by investors from outside the European Union and the European Free Trade Association (Iceland, Liechtenstein, Norway and Switzerland) or by entities which are owned by 25 % or more by investors from outside the aforementioned region may be reviewed by the German Federal Ministry of Economics and Technology. If the Ministry determines that the acquisition poses a threat to the public policy or public security of Germany, it may impose conditions on or suspend the acquisition or require that it is unwound. The conclusion of an acquisition contract for critical infrastructure and security-related technologies has to be notified to the German Federal Ministry of Economics and Technology in writing. The decision to review an acquisition must be made within three months following the Ministry's knowledge of the conclusion of the contract, of the publication of the decision to launch a take-over bid or of the publication of the acquisition of control. The review must be completed within four months following receipt of the complete acquisition documents. A review is precluded if more than 5 years have passed since the acquisition. The acquirer may seek pre-clearance of a proposed acquisition from the Federal Ministry of Economics and Technology.

EU Short Selling Regulation (ban on naked short selling)

Regulation (EU) No 236/2012 of the European Parliament and of the Council of March 14, 2012 on short selling and certain aspects of credit default swaps (the "EU Short Selling Regulation") came into force on November 1, 2012. The EU Short Selling Regulation, the regulations adopted by the EU Commission implementing it, and the German act implementing the EU Short Selling Regulation replace the previously applicable German federal provisions governing the ban on naked short selling of shares and certain debt securities. (Short sales are sales of securities that the seller does not own, with the intention of buying back an identical security at a later point in time in order to be able to deliver the security. A short sale is "naked" when the seller has not borrowed the securities at the time of the short sale, or ensured they can be borrowed.) Under the EU Short Selling Regulation, short sales of shares are permitted only under certain conditions. Significant net short positions in shares must be reported to the BaFin and, if a certain threshold is exceeded, they must also be publicly disclosed. Net short positions are calculated by netting the long and short positions held by a natural or legal person in the issued capital of the company concerned. The details are set forth in the EU Short Selling Regulation and the regulations adopted by the EU Commission implementing it. In certain situations described in greater detail in the EU Short Selling Regulation, the BaFin is permitted to limit short selling and comparable transactions.

Disclosure of Transactions of Managers

Art. 19 of Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014 on market abuse (the "EU Market Abuse Regulation") requires persons with management responsibilities ("Managers") in a listed company like Deutsche Bank AG to notify the company and the BaFin of their own transactions in shares or debt instruments of the company or financial instruments based thereon, in particular derivatives. Such notifications must be made promptly and no later than three business days after the date of the transaction. The notification obligation also applies to persons who are closely associated with a Manager. The obligation does not apply if the aggregate annual transactions by a Manager or persons with whom he or she is closely associated do not, individually, exceed an amount of € 5,000.00 through the end of a calendar year. The BaFin may decide to increase this threshold up to € 20,000.00.

Deutsche Bank AG is required to promptly publish any notification received but in any case no later than three business days after the transaction. The publication must be made in a manner which enables fast access to this information on a non-discriminatory basis in accordance with the implementing standards published by the European Securities and Markets Authority. Furthermore, Deutsche Bank AG must without undue delay notify the BaFin and forward the notification to the Company Register (Unternehmensregister). For the purposes of the EU Market Abuse Regulation, the following persons are deemed to be a Manager: members of management, administrative or supervisory bodies of Deutsche Bank AG as well as senior executives who are not such members but who have regular access to inside information relating directly or indirectly to the Company and who have power to take managerial decisions affecting the future developments and business prospects of the Company. The following persons are deemed to be closely associated with a Manager: spouses, registered civil partners (eingetragene Lebenspartner), dependent children and other relatives who at the time of the transaction requiring notification have lived in the same household with the Manager for at least one year. Legal entities for which the aforementioned persons have management responsibilities are also subject to the notification requirement. The aforementioned provisions also apply to legal entities, companies and institutions directly or indirectly controlled by a Manager or by a person closely associated with a Manager, which have been founded to the benefit of such a person, or whose economic interests correspond to a considerable extent to those of such a person. Non-compliance with the notification requirements may result in a fine.

Material Contracts

In the usual course of our business, we enter into numerous contracts with various other entities. We have not, however, entered into any material contracts outside the ordinary course of our business within the past two years.

Exchange Controls

As in other member states of the European Union, regulations issued by the competent European Union authorities to comply with United Nations resolutions have caused freeze orders on assets of certain legal and natural persons designated in such regulations. In addition, the European Union maintained a wide range of autonomous economic and financial sanctions on Iran. While all nuclear-related economic and financial EU sanctions against Iran were repealed on January 16, 2016, some restrictions remain in force.

With some exceptions, corporations or individuals residing in Germany are required to report to the Bundesbank any payment received from, or made to or for the account of, a nonresident corporation or individual that exceeds € 12,500 (or the equivalent in a foreign currency). This reporting requirement is for statistical purposes.

Subject to the above-mentioned exceptions, there are currently no German laws, decrees or regulations that would prevent the transfer of capital or remittance of dividends or other payments to our shareholders who are not residents or citizens of Germany.

There are also no restrictions under German law or our Articles of Association concerning the right of nonresident or foreign shareholders to hold our shares or to exercise any applicable voting rights. Where the investment reaches or exceeds certain thresholds, however, certain reporting obligations apply and the investment may become subject to review by the BaFin, the European Central Bank and other competent authorities. For more information see "Item 10: Additional Information – Notification Requirements".

Taxation

The following is a general summary of material German and United States federal income tax consequences of the ownership and disposition of shares for a resident of the United States for purposes of the income tax convention between the United States and Germany (the "Treaty") who is fully eligible for benefits under the Treaty. A U.S. resident will generally be entitled to Treaty benefits if it is:

- the beneficial owner of shares (and of the dividends paid with respect to the shares);
- an individual resident of the United States, a U.S. corporation, or a partnership, estate or trust to the extent its income is subject to taxation in the United States in its hands or in the hands of its partners or beneficiaries;
- not also a resident of Germany for German tax purposes; and
- not subject to "anti-treaty shopping" articles under German domestic law or the Treaty that apply in limited circumstances.

The Treaty benefits discussed below generally are not available to shareholders who hold shares in connection with the conduct of business through a permanent establishment in Germany. The summary does not discuss the treatment of those shareholders.

The summary does not purport to be a comprehensive description of all of the tax considerations that may be relevant to any particular shareholder, including tax considerations that arise from rules of general application or that are generally assumed to be known by shareholders. In particular, the summary deals only with shareholders that will hold shares as capital assets and does not address the tax treatment of shareholders that are subject to special rules, such as fiduciaries of pension, profit-sharing or other employee benefit plans, banks, insurance companies, dealers in securities or currencies, persons that hold shares as a position in a straddle, conversion transaction, synthetic security or other integrated financial transaction, persons that elect mark-to-market treatment, persons that own, directly or indirectly, 10 % or more of our stock, measured by vote or value, persons that hold shares through a partnership or hybrid entity and persons whose "functional currency" is not the U.S. dollar. The summary is based on German and U.S. laws, treaties and regulatory interpretations, including in the United States current and proposed U.S. Treasury regulations as of the date hereof, all of which are subject to change (possibly with retroactive effect).

On December 22, 2017, the U.S. enacted significant changes to the U.S. tax system (the "Act"). Shareholders should consult their own advisors regarding the tax consequences of the ownership and disposition of shares in light of their particular circumstances, including under the Act, as well as the effect of any state, local or other national laws.

Taxation of Dividends

Dividends that we pay are subject to German withholding tax at an aggregate rate of 26.375 % (consisting of a 25 % withholding tax and a 1.375 % surcharge). Under the Treaty, a U.S. resident will be entitled to receive a refund from the German tax authorities of 11.375 in respect of a declared dividend of 100. For example, for a declared dividend of 100, a U.S. resident initially will receive 73.625 and may claim a refund from the German tax authorities of 11.375 and, therefore, receive a total cash payment of 85 (i.e., 85 % of the declared dividend). For U.S. tax purposes, a U.S. resident will be deemed to have re-

ceived total dividends of 100. The gross amount of dividends that a U.S. resident receives (which includes amounts withheld in respect of German withholding tax) generally will be subject to U.S. federal income taxation as foreign source dividend income, and will not be eligible for the dividends received deduction generally allowed to U.S. corporations. German withholding tax at the 15 % rate provided under the Treaty will be treated as a foreign income tax that, subject to generally applicable limitations under U.S. tax law, is eligible for credit against a U.S. resident's U.S. federal income tax liability or, at its election, may be deducted in computing taxable income. Thus, for a declared dividend of 100, a U.S. resident will be deemed to have paid German taxes of 15. A U.S. resident cannot claim credits for German taxes that would have been refunded to it if it had filed a claim for refund. Foreign tax credits will not be allowed for withholding taxes imposed in respect of certain short-term or hedged positions. The creditability of foreign withholding taxes may be limited in certain situations, including where the burden of foreign taxes is separated inappropriately from the related foreign income.

Subject to certain exceptions for short-term and hedged positions, "qualified dividends" received by certain non-corporate U.S. shareholders will generally be subject to taxation in the United States at a lower rate than other ordinary income. Dividends received will be qualified dividends if we (i) are eligible for the benefits of a comprehensive income tax treaty with the United States that the U.S. Internal Revenue Service ("IRS") has approved for purposes of the qualified dividend rules and (ii) were not, in the year prior to the year in which the dividend was paid, and are not, in the year in which the dividend is paid, a passive foreign investment company ("PFIC"). The Treaty has been approved for purposes of the qualified dividend rules, and we believe we qualify for benefits under the Treaty. The determination of whether we are a PFIC must be made annually and is dependent on the particular facts and circumstances at the time. It requires an analysis of our income and valuation of our assets, including goodwill and other intangible assets. Based on our audited financial statements and relevant market and shareholder data, we believe that we were not a PFIC for U.S. federal income tax purposes with respect to our taxable years ended December 31, 2015 or December 31, 2016. In addition, based on our current expectations regarding the value and nature of our assets, the sources and nature of our income, and relevant market and shareholder data, we do not currently anticipate becoming a PFIC for our taxable year ending December 31, 2017, or for the foreseeable future. However, the PFIC rules are complex and their application to financial services companies is unclear. Each U.S. shareholder should consult its own tax advisor regarding the potential applicability of the PFIC regime to us and its implications for their particular circumstances.

If a U.S. resident receives a dividend paid in euros, it will recognize income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the date of receipt, regardless of whether the payment is in fact converted into U.S. dollars. If dividends are converted into U.S. dollars on the date of receipt, a U.S. resident generally should not be required to recognize foreign currency gain or loss in respect of the dividend income but may be required to recognize foreign currency gain or loss on the receipt of a refund in respect of German withholding tax to the extent the U.S. dollar value of the refund differs from the U.S. dollar equivalent of that amount on the date of receipt of the underlying dividend.

Refund Procedures

To claim a refund, a U.S. resident must submit, within four years from the end of the calendar year in which the dividend is received, a claim for refund to the German tax authorities together with the original bank voucher (or certified copy thereof) issued by the paying entity documenting the tax withheld. For dividends received after 2011, the claim for refund must be accompanied by a withholding tax certificate (Kapitalertragsteuerbescheinigung) on an officially prescribed form and issued by the institution that withheld the tax.

Claims for refunds are made on a special German claim for refund form (Form E-USA), which must be filed with the German tax authorities: Bundeszentralamt für Steuern, An der Kuppe 1, D-53225 Bonn, Germany. The German claim for refund forms may be obtained inter alia from the German tax authorities at the same address where the applications are filed or can be downloaded from the homepage of the Bundeszentralamt für Steuern (www.bzst.bund.de). A U.S. resident must also submit to the German tax authorities a certification (on IRS Form 6166) with respect to its last filed U.S. federal income tax return. Requests for IRS Form 6166 are made on IRS Form 8802, which requires payment of a user fee. IRS Form 8802 and its instructions can be obtained from the IRS website at www.irs.gov. Instead of the individual refund procedure described above, a U.S. resident may use an IT-supported quick-refund procedure ("Datenträgerverfahren – DTV"/"Data Medium Procedure – DMP"). If the U.S. resident's bank or broker elects to participate in the DMP, it will perform administrative functions necessary to claim the Treaty refund for the beneficiaries. The refund beneficiaries must provide specified information to the DMP participant and confirm to the DMP participant that they meet the conditions of the Treaty provisions and that they authorize the DMP participant to file applications and receive notices and payments on their behalf.

The refund beneficiaries also must provide a "certification of filing a tax return" on IRS Form 6166 with the DMP participant. In addition, if the individual refund procedure requires a withholding tax certificate (see above), such certificate is generally also necessary under the DMP.

The German tax authorities reserve the right to audit the entitlement to tax refunds for several years following their payment pursuant to the Treaty in individual cases. The DMP participant must assist with the audit by providing the necessary details or by forwarding the queries to the respective refund beneficiaries/shareholders.

- The German tax authorities will issue refunds denominated in euros. In the case of shares held through banks or brokers participating in the Depository Trust Company, the refunds will be issued to the Depository Trust Company, which will convert the refunds to U.S. dollars. The resulting amounts will be paid to banks or brokers for the account of holders.

If a U.S. resident holds its shares through a bank or broker who elects to participate in the DMP, it could take at least three weeks for it to receive a refund after a combined claim for refund has been filed with the German tax authorities. If a U.S. resident files a claim for refund directly with the German tax authorities, it could take at least eight months for it to receive a refund. The length of time between filing a claim for refund and receipt of that refund is uncertain and we can give no assurances as to when any refund will be received.

Taxation of Capital Gains

Under the Treaty, a U.S. resident will not be subject to German capital gains tax in respect of a sale or other disposition of shares. For U.S. federal income tax purposes, a U.S. holder will recognize capital gain or loss on the sale or other disposition of shares in an amount equal to the difference between such holder's tax basis in the shares and the U.S. dollar value of the amount realized from their sale or other disposition. Such gain or loss will be capital gain or loss and will be long-term capital gain or loss if the shares were held for more than one year. The net amount of long-term capital gain realized by an individual generally is subject to taxation at a lower rate than ordinary income. Any such gain generally would be treated as income arising from sources within the United States; any such loss would generally be allocated against U.S. source income. The ability to offset capital losses against ordinary income is subject to limitations.

Shareholders whose shares are held in an account with a German bank or financial services institution (including a German branch of a non-German bank or financial services institution) are urged to consult their own advisors. This summary does not discuss their particular tax situation.

United States Information Reporting and Backup Withholding

Dividends and payments of the proceeds on a sale of shares, paid within the United States or through certain U.S.-related financial intermediaries are subject to information reporting and may be subject to backup withholding unless the U.S. resident (i) is a corporation (other than an S corporation) or other exempt recipient or (ii) provides a taxpayer identification number and certifies (on IRS Form W-9) that no loss of exemption from backup withholding has occurred. Shareholders that are not U.S. persons generally are not subject to information reporting or backup withholding.

However, a non-U.S. person may be required to provide a certification (generally on IRS Form W-8BEN or W-8BEN-E) of its non-U.S. status in connection with payments received in the United States or through a U.S.-related financial intermediary.

Backup withholding tax is not an additional tax, and any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a holder's U.S. federal income tax liability, provided the required information is furnished to the IRS.

Shareholders may be subject to other U.S. information reporting requirements. Shareholders should consult their own advisors regarding the application of U.S. information reporting rules in light of their particular circumstances.

German Gift and Inheritance Taxes

Under the current estate, inheritance and gift tax treaty between the United States and Germany (the "Estate Tax Treaty"), a transfer of shares generally will not be subject to German gift or inheritance tax so long as the donor or decedent, and the heir, donee or other beneficiary, were not domiciled in Germany for purposes of the Estate Tax Treaty at the time the gift was made, or at the time of the decedent's death, and the shares were not held in connection with a permanent establishment or fixed base in Germany.

The Estate Tax Treaty provides a credit against U.S. federal estate and gift tax liability for the amount of inheritance and gift tax paid in Germany, subject to certain limitations, where shares are subject to German inheritance or gift tax and United States federal estate or gift tax.

Other German Taxes

There are currently no German net wealth, transfer, stamp or other similar taxes that would apply to a U.S. resident as a result of the receipt, purchase, ownership or sale of shares.

Dividends and Paying Agents

Not required because this document is filed as an annual report.

Statement by Experts

Not required because this document is filed as an annual report.

Documents on Display

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file reports and other information with the Securities and Exchange Commission. You may inspect and copy these materials, including this document and its exhibits, at the Commission's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of the materials from the Public Reference Room at prescribed rates. You may obtain information on the operation of the Commission's Public Reference Room by calling the Commission in the United States at 1-800-SEC-0330. Our Securities and Exchange Commission filings are also available over the Internet at the Securities and Exchange Commission's website at www.sec.gov under File Number 001-15242.

Subsidiary Information

Not applicable.

Item 11: Quantitative and Qualitative Disclosures about Credit, Market and Other Risk

For Quantitative and Qualitative Disclosures about Credit, Market and Other Risk, please see "Management Report: Risk Report" in the Annual Report 2017.

Please see pages S-1 through S-13 of the Supplemental Financial Information, which pages are incorporated by reference herein, for information required by SEC Industry Guide 3.

Item 12: Description of Securities other than Equity Securities

Not required because this document is filed as an annual report and our ordinary shares are not represented by American Depositary Receipts.

PART II

Item 13: Defaults, Dividend Arrearages and Delinquencies

Not applicable.

Item 14: Material Modifications to the Rights of Security Holders and Use of Proceeds

As described in “Item 4: Information on the Company – Regulation and Supervision – Recovery and Resolution Planning, Restructuring Powers”, with effect from January 1, 2017, the German Banking Act – as amended by the German Resolution Mechanism Act – subordinates non-structured senior unsecured debt instruments issued by German banks (such as bank bonds), including debt instruments issued prior to January 1, 2017 (“statutory subordination”). The non-structured senior debt instruments issued under our SEC registration statements would generally be subject to this statutory subordination, even if issued prior to January 1, 2017. These “senior non-preferred” debt instruments rank junior to a bank’s other unsubordinated liabilities (including deposits, derivatives, money market instruments and debt instruments that are “structured” as defined in the German Banking Act), but in priority to the bank’s contractually subordinated liabilities, such as those qualifying as Tier 2 instruments. Thus, in the event of insolvency or resolution proceedings affecting Deutsche Bank AG, senior non-preferred debt instruments would bear losses after the Bank’s contractually subordinated liabilities but before the Bank’s other unsubordinated liabilities.

In December 2016, Delaware Trust Company succeeded to the corporate trust business of Law Debenture Trust Company of New York (“Law Debenture”) and became the successor trustee to Law Debenture under the Bank’s Senior Indenture, dated as of November 22, 2006, as amended and supplemented, with respect to all existing and outstanding securities issued thereunder. Delaware Trust Company’s address is 2711 Centerville Road, Wilmington, DE 19808, Attn: Corporate Trust Administration.

Item 15: Controls and Procedures

Disclosure Controls and Procedures

An evaluation was carried out under the supervision and with the participation of our management, including our Chairman and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of December 31, 2017. There are, as described below, inherent limitations to the effectiveness of any control system, including disclosure controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives. Based upon such evaluation, our Chairman and Chief Financial Officer concluded that the design and operation of our disclosure controls and procedures were effective as of December 31, 2017.

Management's Annual Report on Internal Control over Financial Reporting

Management of Deutsche Bank Aktiengesellschaft, together with its consolidated subsidiaries, is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of our principal executive officer and our principal financial officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the firm's financial statements for external reporting purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and as endorsed by the European Union. As of December 31, 2017, management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the assessment performed, management has determined that our internal control over financial reporting as of December 31, 2017 was effective based on the COSO framework (2013).

KPMG AG Wirtschaftsprüfungsgesellschaft, the registered public accounting firm that audited the financial statements included in this document, has issued a report on our internal control over financial reporting, which is set forth below.

Report of Independent Registered Public Accounting Firm

To the Supervisory Board of Deutsche Bank Aktiengesellschaft:

Opinion on Internal Control over Financial Reporting

We have audited Deutsche Bank Aktiengesellschaft's and subsidiaries' (the "Company" or "Deutsche Bank") internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2017 and 2016, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes, and the specific disclosures described in Note 1 to the consolidated financial statements as being part of the financial statements (collectively, the "consolidated financial statements") and our report dated March 12, 2018 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying 'Management's Annual Report on Internal Control over Financial Reporting'. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Frankfurt am Main, Germany
March 12, 2018

KPMG AG
Wirtschaftsprüfungsgesellschaft

Change in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation referred to above that occurred during the year ended December 31, 2017 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. As such, disclosure controls and procedures or systems for internal control over financial reporting may not prevent all error and all fraud. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and any design may not succeed in achieving its stated goals under all potential future conditions; over time, control may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 16A: Audit Committee Financial Expert

Please see “Corporate Governance Statement/Corporate Governance Report: Auditing and Controlling: Audit Committee Financial Expert” in the Annual Report 2017.

Item 16B: Code of Ethics

Please see “Corporate Governance Statement/Corporate Governance Report: Values and Leadership Principles of Deutsche Bank AG and Deutsche Bank Group: Code of Business Conduct and Ethics” in the Annual Report 2017.

Item 16C: Principal Accountant Fees and Services

Please see “Management Report: Corporate Governance Statement/Corporate Governance Report: Auditing and Controlling: Principal Accountant Fees and Services” in the Annual Report 2017.

Item 16D: Exemptions from the Listing Standards for Audit Committees

Our common shares are listed on the New York Stock Exchange, the corporate governance rules of which require a foreign private issuer such as us to have an audit committee that satisfies the requirements of Rule 10A-3 under the U.S. Securities Exchange Act of 1934. These requirements include a requirement that the audit committee be composed of members that are “independent” of the issuer, as defined in the Rule, subject to certain exemptions, including an exemption for employees who are not executive officers of the issuer if the employees are elected or named to the board of directors or audit committee pursuant to the issuer’s governing law or documents, an employee collective bargaining or similar agreement or other home country legal or listing requirements. The German Co-Determination Act of 1976 (Mitbestimmungsgesetz) requires that the shareholders elect half of the members of the supervisory board of large German companies, such as us, and that employees in Germany elect the other half. Employee-elected members are typically themselves employees or representatives of labor unions representing employees. Pursuant to law and practice, committees of the Supervisory Board are typically composed of both shareholder- and employee-elected members. Of the current members of our Audit Committee, three – Henriette Mark, Gabriele Platscher and Bernd Rose – are current employees of Deutsche Bank who have been elected as Supervisory Board members by the employees. None of them is an executive officer. Accordingly, their service on the Audit Committee is permissible pursuant to the exemption from the independence requirements provided for by paragraph (b)(1)(iv)(C) of the Rule. We do not believe the reliance on such exemption would materially adversely affect the ability of the Audit Committee to act independently and to satisfy the other requirements of the Rule.

Item 16E: Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In 2017, we repurchased a total of 28,000,000 shares of which 4,614,358 via derivatives, for group purposes pursuant to share buybacks authorized by the General Meeting. During the period from January 1, 2017 until the 2017 Annual General Meeting on May 18, 2017, we repurchased 13,912,002, of which 240,000 via derivatives, of our ordinary shares pursuant to the authorization granted by the Annual General Meeting on May 19, 2016, at an average price of € 16.88 and for a total consideration of € 235 million. This authorization was replaced by a new authorization to buy back shares approved by the Annual General Meeting on May 18, 2017. Under the new authorization, up to 206,677,313 shares may be repurchased through April 30, 2022. Of these, 103,338,656 shares may be purchased by using derivatives. During the period from the 2017 Annual General Meeting until December 31, 2017, we repurchased 14,087,998 shares at an average price of € 14.71 and for a total consideration of € 207 million (excluding option premium). At December 31, 2017, the number of shares held in Treasury from buybacks totalled 103,000 shares. This figure stems from 0 shares at the beginning of the year, plus 28 million shares from buybacks in 2017, less 27.9 million shares which were used to fulfill delivery obligations in the course of share-based compensation of employees. We did not cancel any shares in 2017.

In addition to these share buybacks for group purposes, pursuant to a shareholder authorization approved at our 2013 Annual General Meeting, we are authorized to buy and sell, for the purpose of securities trading, our ordinary shares through April 30, 2018, provided that the net number of shares held for this purpose at the close of any trading day may not exceed 5 % of our share capital on that day. A new authorization until April 30, 2022 was approved by the Annual General Meeting on May 18, 2017. The gross volume of these securities trading transactions is often large, and even the net amount of such repurchases or sales may, in a given month, be large, though over longer periods of time such transactions tend to offset and are in any event constrained by the 5 % of share capital limit. These securities trading transactions consist predominantly of transactions on major non-U.S. securities exchanges. We also enter into derivative contracts with respect to our shares.

The following table sets forth, for each month in 2017 and for the year as a whole, the total gross number of our shares repurchased by us and our affiliated purchasers (pursuant to both activities described above), the total gross number of shares sold, the net number of shares purchased or sold, the average price paid per share (based on the gross shares repurchased), the number of shares that were purchased for group purposes mentioned above and the maximum number of shares that at that date remained eligible for purchase under such programs.

Issuer Purchases of Equity Securities in 2017

Month	Total number of shares purchased	Total number of shares sold	Net number of shares purchased or (sold)	Average price paid per share (in €)	Number of shares purchased for group purposes (incl. derivatives)	Maximum number of shares that may yet be purchased under plans or programs
January	13,342,267	13,335,219	7,048	18.32	0	137,050,659
February	22,254,609	22,123,554	131,055	18.37	3,415,000	133,635,659
March	42,490,194	38,215,790	4,274,404	17.44	4,223,132	129,412,527
April	86,317,986	89,514,812	(3,196,826)	16.28	6,273,870	123,138,657
May	111,474,291	111,511,282	(36,991)	17.12	0	206,677,313
June	51,833,275	51,844,885	(11,610)	15.34	0	206,677,313
July	16,106,932	14,179,123	1,927,809	15.89	1,971,185	204,706,128
August	54,543,508	52,234,635	2,308,873	14.59	11,842,813	192,863,315
September	42,451,074	47,468,391	(5,017,317)	13.65	274,000	192,589,315
October	13,519,534	13,545,311	(25,777)	14.36	0	192,589,315
November	12,933,972	13,175,034	(241,062)	15.39	0	192,589,315
December	23,422,716	23,374,674	48,042	16.39	0	192,589,315
Total 2017	490,690,358	490,522,710	167,648	16.12	28,000,000	192,589,315

At December 31, 2017, the number of shares held by us in treasury totalled 371,090. This figure stems from 203,442 shares at the beginning of the year, plus 167,648 net shares purchased in 2017. At December 31, 2017, our issued share capital consisted of 2,066,773,131 ordinary shares, of which 2,066,402,041 were outstanding.

On April 7, 2017, Deutsche Bank AG completed a capital increase from authorized capital against cash contributions through a public offering with subscription rights. In total, 687.5 million new common shares were issued, resulting in total proceeds of € 8.0 billion. The new shares were issued with the same dividend rights as the existing shares. 98.92 % of the subscription rights were exercised and thus 680.1 million new shares were issued at the subscription price of € 11.65 per share. The remaining 7.4 million new shares were sold in the market at an average price of € 15.50 per share.

Item 16F: Change in Registrant's Certifying Accountant

Not applicable.

Item 16G: Corporate Governance

Our common shares are listed on the New York Stock Exchange, as well as on all seven German stock exchanges. Set forth below is a description of the significant ways in which our corporate governance practices differ from those applicable to U.S. domestic companies under the New York Stock Exchange's listing standards as set forth in its Listed Company Manual (the "NYSE Manual").

The Legal Framework. Corporate governance principles for German stock corporations (Aktiengesellschaften) are set forth in the German Stock Corporation Act (Aktiengesetz), the German Co-Determination Act of 1976 (Mitbestimmungsgesetz) and the German Corporate Governance Code (Deutscher Corporate Governance Kodex, referred to as the Code).

The Two-Tier Board System of a German Stock Corporation. The German Stock Corporation Act provides for a clear separation of management and oversight functions. It therefore requires German stock corporations to have both a supervisory board (Aufsichtsrat) and a management board (Vorstand). These boards are separate; no individual may be a member of both. Both the members of the management board and the members of the supervisory board must exercise the standard of care of a diligent business person to the company. In complying with this standard of care they are required to take into account a broad range of considerations, including the interests of the company and those of its shareholders, employees and creditors.

The management board is responsible for managing the company and representing the company in its dealings with third parties. The management board is also required to ensure appropriate risk management within the corporation and to establish an internal monitoring system. The members of the management board, including its chairperson or speaker, are regarded as peers and share a collective responsibility for all management decisions.

The supervisory board appoints and removes the members of the management board. It also may appoint a chairman (CEO) and one or more deputy chairmen ("Presidents") of the management board. Although it is not permitted to make management decisions, the supervisory board has comprehensive monitoring functions with respect to the activities of the management board, including advising the management board and participating in decisions of fundamental importance to the company. To ensure that these monitoring functions are carried out properly, the management board must, among other things, regularly report to the supervisory board with regard to current business operations and business planning, including any deviation of actual developments from concrete and material targets previously presented to the supervisory board. The supervisory board may also request special reports from the management board at any time. Transactions of fundamental importance to the company, such as major strategic decisions or other actions that may have a fundamental impact on the company's assets and liabilities, financial condition or results of operations, may be subject to the consent of the supervisory board. Pursuant to our Articles of Association (Satzung), such transactions include the granting of powers of attorney without limitation to the affairs of a specific office, major acquisitions or disposals of real estate or participations in companies and granting of loans and acquiring participations if the German Banking Act (Kreditwesengesetz) requires approval by the Supervisory Board.

Pursuant to the German Co-Determination Act, our Supervisory Board consists of representatives elected by the shareholders and representatives elected by the employees in Germany. Based on the total number of Deutsche Bank employees in Germany these employees have the right to elect one-half of the total of twenty Supervisory Board members. The chairperson of the Supervisory Board of Deutsche Bank is a shareholder representative who has the deciding vote in the event of a tie.

This two-tier board system contrasts with the unitary board of directors envisaged by the relevant laws of all U.S. states and the New York Stock Exchange listing standards for U.S. companies.

German companies which have their shares listed on a stock exchange must report each year on the company's corporate governance in their annual report to shareholders.

The Recommendations of the Code. The Code was issued in 2002 by a commission composed of German corporate governance experts appointed by the German Federal Ministry of Justice in 2001. The Code was last amended in February 2017 and, as a general rule, will be reviewed annually and amended if necessary to reflect international corporate governance developments. The Code describes and summarizes the basic mandatory statutory corporate governance principles found in the provisions of German law. In addition, it contains supplemental recommendations and suggestions for standards on responsible corporate governance intended to reflect generally accepted best practice.

The Code addresses six core areas of corporate governance. These are (1) shareholders and the general meeting, (2) the cooperation between the management board and the supervisory board, (3) the management board, (4) the supervisory board, (5) transparency and (6) financial reporting and auditing.

The Code contains three types of provisions. First, the Code describes and summarizes the existing statutory, i.e., legally binding, corporate governance framework set forth in the German Stock Corporation Act and in other German laws. Those laws – and not the incomplete and abbreviated summaries of them reflected in the Code – must be complied with. The second type of provisions is recommendations. While these are not legally binding, Section 161 of the German Stock Corporation Act requires that any German exchange-listed company declare annually that the company complies with the recommendations of the Code or, if not, which recommendations the company does not comply with (“comply or explain”). The third type of Code provisions comprises suggestions which companies may choose not to comply with without disclosure. The Code contains a significant number of such suggestions, covering almost all of the core areas of corporate governance it addresses.

In their last Declaration of Conformity of October 26, 2017, the Management Board and the Supervisory Board of Deutsche Bank stated that, since the last Declaration of Conformity issued on October 27, 2016, they have acted and will act in the future in conformity with the recommendations of the Code, with certain specified exceptions. The Declaration of Conformity is available on Deutsche Bank’s internet website at www.db.com/ir/en/documents.htm.

Supervisory Board Committees. The supervisory board may form committees. The German Co-Determination Act requires that the supervisory board form a mediation committee to propose candidates for the management board in the event that the two-thirds majority of the members of the supervisory board needed to appoint members of the management board is not met.

The German Stock Corporation Act specifically mentions the possibility to establish an “audit committee” to handle issues of accounting and risk management, compliance, auditor independence, the engagement and compensation of outside auditors appointed by the shareholders’ meeting and the determination of auditing focal points. The Code recommends establishing such an “audit committee”. The Code also recommends establishing a “nomination committee” comprised only of shareholder-elected supervisory board members to prepare the supervisory board’s proposals for the election or appointment of new shareholder representatives to the supervisory board. The Code also includes suggestions on the subjects that may be handled by supervisory board committees, including corporate strategy, compensation of the members of the management board, investments and financing. Under the German Stock Corporation Act, any supervisory board committee must regularly report to the supervisory board. Sections 25d (7) to (12) of the German Banking Act require, depending on size and complexity of the respective credit institution, the establishment of supervisory board committees with specific tasks to be performed as follows: risk committee, audit committee, nomination committee (with different tasks and composition requirements than under the Code) and compensation control committee.

The Supervisory Board of Deutsche Bank has established a Chairman’s Committee (Präsidialausschuss) which is responsible for conclusion, amendment and termination of employment and pension contracts in consideration of the plenary Supervisory Board’s sole authority to decide on the remuneration of the members of the Management Board, a Nomination Committee (Nominierungsausschuss), an Audit Committee (Prüfungsausschuss), a Risk Committee (Risikoausschuss), an Integrity Committee (Integritätsausschuss), a Compensation Control Committee (Vergütungskontrollausschuss) and the required Mediation Committee (Vermittlungsausschuss). The functions of a nominating/corporate governance committee and of a compensation committee required by the NYSE Manual for U.S. companies listed on the NYSE are therefore performed by the Supervisory Board or one of its committees, in particular the Chairman’s Committee, the Compensation Control Committee and the Mediation Committee.

Independent Board Members. The NYSE Manual requires that a majority of the members of the board of directors of a NYSE listed U.S. company and each member of its nominating/corporate governance, compensation and audit committees be “independent” according to strict criteria and that the board of directors determines that such member has no material direct or indirect relationship with the company.

As a foreign private issuer, Deutsche Bank is not subject to these requirements. However, its audit committee must meet the more lenient independence requirement of Rule 10A-3 under the Securities Exchange Act of 1934. German corporate law does not require an affirmative independence determination, meaning that the Supervisory Board need not make affirmative findings that audit committee members are independent. However, the German Stock Corporation Act requires that at least one member of the supervisory board or, if an audit committee is established, such audit committee, must be independent and have expertise in accounting and audit matters. Moreover, both the German Stock Corporation Act and the Code contain several rules, recommendations and suggestions to ensure the supervisory board’s independent advice to, and supervision of, the management board. As noted above, no member of the management board may serve on the supervisory board (and vice versa). Supervisory board members will not be bound by directions or instructions from third parties. Any advisory, service or similar contract between a member of the supervisory board and the company is subject to the supervisory board’s approval. A similar requirement applies to loans granted by the company to a supervisory board member or other persons, such as certain members of a supervisory board member’s family. In addition, the German Stock Corporation Act prohibits a person who within the last two years was a member of the management board from becoming a member of the supervisory board of the same company unless he or she is elected upon the proposal of shareholders holding more than 25 % of the voting rights of the company.

The Code also recommends that each member of the supervisory board inform the supervisory board of any conflicts of interest which may result from a consulting or directorship function with clients, suppliers, lenders or other business partners of the stock corporation. In the case of material conflicts of interest or ongoing conflicts, the Code recommends that the mandate of the Supervisory Board member be removed by the shareholders' meeting. The Code further recommends that any conflicts of interest that have occurred be reported by the supervisory board at the annual general meeting, together with the action taken, and that potential conflicts of interest also be taken into account in the nomination process for the election of supervisory board members.

Audit Committee Procedures. Pursuant to the NYSE Manual the audit committee of a U.S. company listed on the NYSE must have a written charter addressing its purpose, an annual performance evaluation, and the review of an auditor's report describing internal quality control issues and procedures and all relationships between the auditor and the company. The Audit Committee of Deutsche Bank operates under written terms of reference and reviews the efficiency of its activities regularly.

Disclosure of Corporate Governance Guidelines. Deutsche Bank discloses its Articles of Association, the Terms of Reference of its Management Board, its Supervisory Board, the Chairman's Committee, the Audit Committee, the Risk Committee, the Integrity Committee, the Compensation Control Committee and the Nomination Committee, its Declaration of Conformity under the Code and other documents pertaining to its corporate governance on its internet website at www.db.com/ir/en/documents.htm.

Item 16H: Mine Safety Disclosure

Not applicable.

Disclosures Under Iran Threat Reduction and Syria Human Rights Act of 2012

Under Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012, which added Section 13(r) of the U.S. Securities Exchange Act of 1934, as amended, an issuer of securities registered under the Securities Exchange Act of 1934 is required to disclose in its periodic reports filed under the Securities Exchange Act of 1934 certain of its activities and those of its affiliates relating to Iran and to other persons sanctioned by the U.S. under programs relating to terrorism and proliferation of weapons of mass destruction that occurred during the period covered by the report. We describe below a number of potentially disclosable activities of Deutsche Bank AG and its affiliates. Disclosure is generally required regardless of whether the activities, transactions or dealings were conducted in compliance with applicable law. Under the Joint Comprehensive Plan of Action (JCPOA) which has been concluded on July 14, 2015 between the permanent members of the UN Security Council and Germany on the one hand and Iran on the other, Implementation Day has occurred on January 16, 2016. Any changes starting from Implementation Day have no consequences for the reporting obligations that apply for Deutsche Bank. Deutsche Bank will also report transactions in which other Iranian persons or entities listed on OFAC sanctions lists were involved, whether or not they are directly or indirectly owned or controlled by the Iranian government.

Legacy Financing Arrangements. Despite having ceased entering into new business in or with Iran in 2007, we continue to be engaged as lender, sponsoring bank and/or facility agent or arranger in several long-term financing agreements relating to the construction or acquisition of plant or equipment for the petroleum and petrochemical industries, under which Iranian entities were the direct or indirect borrowers. Before 2007, as part of banking consortia, we entered into a number of financing arrangements, one of which remained outstanding as of December 31, 2017, with the National Petrochemical Company (NPC). Another of these commitments was fully repaid in 2017, but an undrawn commitment of as of December 31, 2017 of approximately € 1.3 million remains. Due to the export credit agency coverage, this remainder cannot be cancelled without German government approval, for which we have applied but which we have not yet received. We do not intend to make further disbursements upon this undrawn commitment.

The latest final maturity under these loan facilities is in 2019. These loan facilities were guaranteed by national export credit agencies representing two European governments. In principle, the obligations of the borrowers under these loan facilities are secured by assignments of receivables from oil and oil products exported by NPC and/or its trading subsidiaries to buyers, mostly in Asia. These delivery obligations, however, were waived for the period covered by this report, because of the sanctions environment at that time. For these arrangements, we act as escrow agent, holding escrow accounts for the Iranian borrowers mentioned above, into which receivables are, in principle, paid by the buyers of the oil and oil products. During the period covered by this report, no such receivables were paid to the said escrow accounts. Such accounts are pledged in favor of the relevant banking consortium. We have no involvement in the contractual arrangements related to, or in the physical settlement of, the oil and oil product exports mentioned above. Until Implementation Day, Iranian entities in whose names the escrow

accounts have been held were not permitted to draw on such accounts, either because they were sanctioned parties or, where this was not the case, because of our business decision to not allow access to such accounts in light of the overall sanctions environment in the past. Following Implementation Day, such accounts were no longer blocked.

As a remainder from a previously existing financing related to National Iranian Oil Company (NIOC), which was fully paid back in 2012, we still held an account for NIOC (which was previously used as an escrow account in the context of the respective financing) with a balance in EUR. That escrow account was closed on January 30, 2017 and the balance of approximately € 125.0 million paid to NIOC.

During 2017, approximately € 26.0 million was paid into accounts of the borrower. We, in our role as agent, distributed to the participants in the banking consortia approximately € 98.0 million including portions attributable to us totalling approximately € 9.8 million.

We generated revenues in 2017 of approximately € 0.28 million in respect of these financing arrangements, of which approximately € 0.23 million consisted of escrow account revenues, € 0.04 million consisted of loan interest revenues and € 0.01 million consisted of fee revenues. The net profits were less than these amounts.

In one additional financing arrangement, we are not ourselves a lender but act rather as agent for a lender, a state-owned development bank. In this capacity, we received fees from the Iranian borrower of approximately € 3,400.

Our portion of the outstanding principal amount of the remaining loan facilities amounted to approximately € 0.7 million as of December 31, 2017. We intend to continue pursuing repayment and fulfilling our administrative role under these agreements, but we currently do not intend to engage in any new extensions of credit to these or other Iranian entities.

Legacy Contractual Obligations Related to Guarantees and Letters of Credit. Prior to 2007, we provided guarantees to a number of Iranian entities. In almost all of these cases, we issued counter-indemnities in support of guarantees issued by Iranian banks because the Iranian beneficiaries of the guarantees required that they be backed directly by Iranian banks. In 2007, we made a decision to discontinue issuing new guarantees to Iranian or Iran-related beneficiaries. The pre-existing guarantees stipulate that they must be either extended or honored if we receive such a demand and we are legally not able to terminate these guarantees. In 2017, in order not to pay under the guarantees, we extended two guarantees for a total amount of approximately € 3.8 million for which we paid guarantee commission amounting to approximately € 44,000. Furthermore, we paid guarantee commission amounting to approximately € 25,000 relating to three guarantees. Even though we exited, where possible, many of these guarantees, guarantees with an aggregate face amount of approximately € 7.0 million are still outstanding as of year-end 2017. The gross revenues from this business in 2017 were approximately € 31,000 and the net profit we derived from these activities was less than this amount.

We also have outstanding legacy guarantees in relation to a Syrian bank sanctioned by the U.S. under its non-proliferation program. The aggregate face amount of these legacy guarantees was approximately € 9.1 million as of December 31, 2017, the gross revenues received from non-Syrian parties for these guarantees were approximately € 66,000 in 2017 and the net profit we derived from these activities was less than this amount.

We still intend to exit these guarantee arrangements.

Payments Executed. After the Implementation Day of the JCPoA on January 16, 2016, Deutsche Bank reviewed its existing approach regarding the processing of payments related to Iran in particular with a view to the reconnection of certain Iranian banks in the EU to the European Payment System Target2 and the expectation expressed by the Bundesbank to allow the execution of payments. As a result, Deutsche Bank introduced the following process for payments related to the Iran starting in April 2016:

In principle, the overall restrictive policy of the Bank on Iran remains unchanged. As a limited exception, transactions can be executed if the following provisions are met simultaneously:

- The Bank executes incoming and outgoing payments on behalf of its own clients only (financial institutions are not included).
- Payments must be denominated in Euros.
- Clients need to submit to the bank a specific client declaration.
- Incoming payments need generally to come through Iranian banks not sanctioned by the EU.
- Outgoing payments need to go through Iranian banks connected to Target2 and not sanctioned by the EU.
- All relevant transactions will be subject to enhanced due diligence.

Incoming Payments. In 2017, we received less than 1,800 payments adding up to approximately € 381 million in favor of non-Iranian clients of which some payments ultimately originated from Iranian persons and entities and others were merely channelled through Iranian intermediary banks not subject to EU sanctions or U.S. secondary sanctions since Implementation Day of the JCPoA. Revenues for these incoming payments were less than € 13,000. These figures include relevant payments in favor of clients of our subsidiary Postbank as well as transactions by order of Iranian Embassy-related offices and in favor of our non-Iranian clients.

We expect that we will continue to execute such transactions in the future.

Outgoing Payments. In 2017, we executed less than 210 payments adding up to approximately € 591 million; again, some payments were executed in favor of Iranian persons and entities and others were merely channelled through Iranian intermediary banks that are not subject to EU sanctions or U.S. secondary sanctions. Revenues for these outgoing payments were less than € 1,700. These figures include relevant payments originated by clients of our subsidiary Postbank as well as transactions in favor of Iranian Embassy-related offices.

We expect that we will continue to execute such transactions in the future.

Operations of Iranian Bank Branches and Subsidiaries in Germany and/or France. Several Iranian banks, including Bank Melli Iran, Bank Saderat, Bank Tejarat and Europäisch-Iranische Handelsbank, have branches or offices in Germany and/or France, even though their funds and other economic resources had been frozen earlier under European law. As part of the payment clearing system in Germany and other European countries, when these branches or offices needed to make payments in Germany or Europe to cover their day-to-day operations such as rent, taxes, insurance premia and salaries for their remaining staff, or for any other kind of banking-related operations necessary to wind down their legacy trade business, the German Bundesbank and French banks had accepted fund transfers from these Iranian banks and disbursed them to the applicable payees holding accounts with us. Until the reconnection of the relevant Iranian banks to Target2, German payments were processed via the agreed procedure with the Bundesbank. Afterwards, the relevant Iranian banks could process these payments related to operations via Target2 directly.

In 2017, we received approximately € 5.2 million in such disbursements in approximately 1,000 transactions, and the gross revenues derived from these payments were less than € 5,000. Relevant transactions of our subsidiary Postbank are included in these figures.

We expect that we will continue to execute such transactions in the future.

Maintaining of Accounts for Iranian Consulates and Embassies. In 2017, Iranian embassies and consulates in Germany held accounts with us as well as with Postbank. The purpose of these accounts is the funding of day-to-day operational costs of the embassies and consulates, such as salaries, rent and electricity. In 2017, the total volume of outgoing payments from these accounts was approximately € 9.2 million. From these activities, we derived gross revenues of approximately € 32,000 and net profits which were less than this amount. The relevant German Government has requested that we provide these services to enable the Government of Iran to conduct its diplomatic relations.

Activities of Entities in Which We Have Interests. Section 13(r) requires us to provide the specified disclosure with respect to ourselves and our “affiliates,” as defined in Exchange Act Rule 12b-2. Although we have minority equity interests in certain entities that could arguably result in these entities being deemed “affiliates,” we do not have the authority or the legal ability to acquire in every instance the information from these entities that would be necessary to determine whether they are engaged in any disclosable activities under Section 13(r). In some cases, legally independent entities are not permitted to disclose the details of their activities to us because of German privacy and data protection laws or the applicable banking laws and regulations. In such cases, voluntary disclosure of such details could violate such legal and/or regulatory requirements and subject the relevant entities to criminal prosecution or regulatory investigations.

PART III

Item 17: Financial Statements

Not applicable.

Item 18: Financial Statements

The Financial Statements of this Annual Report on Form 20-F consist of the Consolidated Financial Statements including Notes 1 to 44 thereto, which are set forth as Part 2 of the Annual Report 2017, and, as described in Note 1 “Significant Accounting Policies and Critical Accounting Estimates” thereto in the third paragraph under “Basis of Accounting”, certain parts of the Management Report set forth as Part 1 of the Annual Report 2017. Such Consolidated Financial Statements have been audited by KPMG AG Wirtschaftsprüfungsgesellschaft, as described in their “Report of Independent Registered Public Accounting Firm” included in the Annual Report 2017.

Item 19: Exhibits

We have filed the following documents as exhibits to this document.

Exhibit number	Description of Exhibit
1.1	English translation of the Articles of Association of Deutsche Bank AG, furnished as Exhibit 3.2 to our Report on Form 6-K dated December 1, 2017 and incorporated by reference herein.
2.1	The total amount of long-term debt securities of us or our subsidiaries authorized under any instrument does not exceed 10 percent of the total assets of our Group on a consolidated basis. We hereby agree to furnish to the Commission, upon its request, a copy of any instrument defining the rights of holders of long-term debt of us or of our subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.
4.1	Equity Plan Rules 2014, furnished as Exhibit 4.5 to our 2013 Annual Report on Form 20-F and incorporated by reference herein.
4.2	Equity Plan Rules 2015, furnished as Exhibit 4.5 to our 2014 Annual Report on Form 20-F and incorporated by reference herein.
4.3	Equity Plan Rules 2016, furnished as Exhibit 4.6 to our 2015 Annual Report on Form 20-F and incorporated by reference herein.
4.4	Equity Plan Rules 2017, furnished as Exhibit 4.6 to our 2016 Annual Report on Form 20-F and incorporated by reference herein.
4.5	Key Retention Plan Equity Plan Rules 2017, furnished as Exhibit 4.7 to our 2016 Annual Report on Form 20-F and incorporated by reference herein.
4.6	Equity Plan Rules 2018, furnished as Exhibit 4.6 to our Registration Statement on Form S-8 No. 333-223301 and incorporated by reference herein.
4.7	Restricted Share Plan Rules 2018, furnished as Exhibit 4.8 to our Registration Statement on Form S-8 No. 333-223301 and incorporated by reference herein.
7.1	Statement re Computation of Ratio of Earnings to Fixed Charges of Deutsche Bank AG for the periods ended December 31, 2017, 2016, 2015, 2014 and 2013 (also incorporated as Exhibit 12.21 to Registration Statement No. 333-206013 of Deutsche Bank AG and as Exhibit 12.7 to Registration Statement No. 333-218897 of Deutsche Bank AG).
8.1	List of Subsidiaries.
12.1	Principal Executive Officer Certifications Required by 17 C.F.R. 240.13a-14(a).
12.2	Principal Financial Officer Certifications Required by 17 C.F.R. 240.13a-14(a).
13.1	Chief Executive Officer Certification Required by 18 U.S.C. Section 1350.
13.2	Chief Financial Officer Certification Required by 18 U.S.C. Section 1350.
14.1	Legal Opinion regarding confidentiality of related party customers.
15.1	Consent of KPMG AG Wirtschaftsprüfungsgesellschaft.
101.1	Interactive Data File

Signatures

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and has duly caused and authorized the undersigned to sign this annual report on its behalf.

Date: March 16, 2018
Deutsche Bank Aktiengesellschaft

/s/ _____ JOHN CRYAN

John Cryan
Chairman of the Management Board

/s/ _____ JAMES VON MOLTKE

James von Moltke
Member of the Management Board
Chief Financial Officer

Deutsche Bank



Annual Report 2017

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Operating and Financial Review

The following discussion and analysis should be read in conjunction with the consolidated financial statements and the related notes to them. Our Operating and Financial Review includes qualitative and quantitative disclosures on Segmental Results of Operations and Entity Wide disclosures on Net Revenue Components as required by International Financial Reporting Standard (IFRS) 8, "Operating Segments". This information, which forms part of and is incorporated by reference into the financial statements of this report, is marked by a bracket in the margins throughout this Operating and Financial Review. For additional Business Segment disclosure under IFRS 8 please refer to Note 4 "Business Segments and Related Information" of the Consolidated Financial Statements. Forward-looking statements are disclosed in our Outlook section and elsewhere in this report.

Executive Summary

The Global Economy

Economic growth (in %) ¹	2017 ²	2016	Main driver
Global Economy	3.8	3.2	Global economic growth and global trade with strong momentum. The global economy surprised to the upside despite gradual tightening of monetary policy.
Thereof:			
Industrialized countries	2.2	1.6	The global momentum plus market-friendly results of European elections pushed growth in industrialized countries.
Emerging markets	4.9	4.3	Emerging markets benefitted from higher crude oil prices and the strong Asian economies.
Eurozone Economy	2.5	1.8	Results of European elections impacted markets positively. Both consumption and investment activity lifted economic growth, in particular in the second half of the year.
Thereof: German economy	2.2	1.9	The German economy also surprised to the upside, almost solely driven by the domestic economy. A very tight labor market, an expansionary monetary policy and additional fiscal stimuli led to growth above trend.
U.S. Economy	2.3	1.5	The U.S. economy performed almost as expected. The key driver of the U.S. economy remains consumer spending backed by a well-functioning labour market.
Japanese Economy	1.8	0.9	The Japanese economy had a balanced growth mix, where both the domestic and foreign sector contributed to GDP growth.
Asian Economy ³	6.1	6.2	Strengthening intra-Asian trade is a key driver of the growth. Emerging markets Asia remains the global powerhouse in terms of GDP growth.
Thereof: Chinese Economy	6.9	6.7	The Chinese economy expanded slightly stronger than expected. Risks from the over-valued real estate sector did not materialize.

¹ Annual Real GDP Growth (% YoY). Sources: National Authorities unless stated otherwise.

² Sources: Deutsche Bank Research.

³ Including China, India, Indonesia, Republic of Korea, and Taiwan, ex Japan.

The Banking Industry

Lending to the private sector in the eurozone saw greater divergence in 2017. On the one hand, the outstanding corporate lending volumes continued to stagnate, as they have since summer of 2014, with increased purchases of distressed debt portfolios and further robust issuance of corporate bonds also playing a role. On the other hand, lending to households rose for a third consecutive year to reach 3.4 % year on year, its highest level since 2011. The outstanding volume set a new record of € 5.6 trillion. In particular, consumer lending gained pace significantly as the year progressed. The high growth in deposits, up 4.1 % year on year, continued more or less unabated despite zero interest rates. The loan-to-deposit ratio in the private sector business declined further over the course of the year, dropping from 107 % to 105 %. Corporate deposits expanded by 6.6 %, twice the rate of household deposits of 3.3 % in 2017.

Contrasting with developments in the eurozone as a whole, corporate lending activity in Germany saw another strong upswing in the past year. After stagnating as recently as two years ago, the growth rate doubled to 4.7 % year on year in 2017. There was simultaneously a considerable decline in corporate bond issuance. Lending to households again expanded at a quicker pace, accelerating to 3.4 %, with the mortgage sector remaining the primary growth driver (+4.3 %). On the funding side, the banks once again saw a significant rise in deposits (+4.4 %) despite further cuts in interest rates, which were negative for corporates and effectively zero for households – both record lows. Growth in corporate deposits outpaced that of retail deposits, as has been the case for many years. The ratio of corporate deposits to overall private sector deposits has increased from 14.5 % to over 20 % in the last 15 years.

In the U.S., lending activity stabilized at a low level following the dramatic slowdown at the end of 2016/ beginning of 2017. The outstanding corporate lending volume rose by 3.6 % compared to 8.4 % in 2016, while lending to private households saw growth of 3.1 %, in 2016 4.7 %. For corporate lending, the decisive factor was commercial real estate lending with 5.8 % year on year, while traditional corporate loans in the narrower sense saw growth of just 1.5 %. Where lending to private households is concerned, growth in consumer loans of 5.1 % outpaced that of mortgage lending of 3.8 %, while there were declines in home equity loans of 6.8 %. On the deposit side, the rate of expansion slowed moderately to 4.2 % in 2017, almost exactly level with the overall growth in lending activity. As a result, there was no net change in the U.S. banks' sizable excess of liabilities.

In Japan, the rate of growth in the deposit business slowed considerably in 2017 to 3.6 % year on year, although the figure remained slightly ahead of growth in the lending business which was up 2.5 % as against 2016.

In China, lending to households began to slow somewhat recently following extraordinary growth in the past year-and-a-half. Growth for the full year amounted to 21 % compared to 23 % in 2016. By contrast, the rate of expansion in corporate lending rose from 8 % to 12 % year on year. Since the growth in deposits slowed considerably to less than 8 % and could no longer keep pace with the increase in lending activity, the loan-to-deposit ratio continued to edge toward the 100 % mark (climbing from 86 % to 92.5 % over the course of the year). Overall, at almost 150 % of GDP, bank lending to the private sector in China has reached an extraordinarily high level. By means of comparison, the figure for Germany is roughly half this.

Deutsche Bank Performance

In 2017, Deutsche Bank generated income before income taxes of € 1.2 billion. The result reflects lower noninterest expenses compared to 2016 and was impacted by significant revenue headwinds. A one-time tax charge of € 1.4 billion as a result of the U.S. tax reform led to a net loss of € 0.7 billion. During the year, we successfully resolved a number of legacy litigation matters and continued to invest in control improvements. We made tangible progress in executing on technology and business strategic initiatives. In addition, we maintained a high level of liquidity and capital which was supported by a successfully executed capital raise in April 2017 and by prudent balance sheet management.

Group Key Performance Indicators

Group Key Performance Indicators	Status end of 2017	Status end of 2016
Net revenues	€ 26.4 bn	€ 30.0 bn
Income (loss) before income taxes	€ 1.2 bn	€ (0.8) bn
Net income (loss)	€ (0.7) bn	€ (1.4) bn
Post-tax return on average tangible shareholders' equity ¹	(1.4) %	(2.7) %
Post-tax return on average shareholders' equity ¹	(1.2) %	(2.3) %
Adjusted costs ²	€ 23.9 bn	€ 24.7 bn
Cost/income ratio ³	93.4 %	98.1 %
Risk-weighted assets (RWA) ⁴	€ 344.2 bn	€ 357.5 bn
CRR/CRD 4 fully loaded Common Equity Tier 1 ratio ⁵	14.0 %	11.8 %
Fully loaded CRR/CRD 4 leverage ratio ⁶	3.8 %	3.5 %

¹ Based on Net Income attributable to Deutsche Bank shareholders and additional equity components. For further information, please refer to "Supplementary Information: Non-GAAP Financial Measures" of this report.

² Total noninterest expenses excluding impairment of goodwill and other intangible assets, litigation, policyholder benefits and claims and restructuring and severances. For further information, please refer to "Supplementary Information: Non-GAAP Financial Measures" of the report.

³ Total noninterest expenses as a percentage of total net interest income before provision for credit losses plus noninterest income.

⁴ Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

⁵ The CRR/CRD 4 fully loaded Common Equity Tier 1 ratio represents our calculation of our Common Equity Tier 1 ratio without taking into account the transitional provisions of CRR/CRD 4. Further detail on the calculation of this ratio is provided in the Risk Report.

⁶ Further detail on the calculation of this ratio is provided in the Risk Report.

Net revenues in 2017 were € 26.4 billion, a decline of € 3.6 billion, or 12 % from 2016. The decline principally reflected the impact of challenging market conditions and strategic business disposals. It included the negative impact of € 348 million from Debt Valuation Adjustments (DVA), € 213 million from Currency Translation Adjustment (CTA) realisation on disposals, € 164 million related to the tightening of our own credit spreads and € 157 million related to a partial sale of the retail business in Poland in 2017. Additionally, revenues in 2017 declined as 2016 included a revenue contribution of € 618 million from Hua Xia Bank Co. Ltd., € 161 million from Private Client Services (PCS) as well as € 537 million from Abbey Life, which were sold in 2016. Excluding these effects, our net revenues were lower by 5 %, as compared to 2016. Revenues in Corporate & Investment Bank (CIB) were impacted by higher funding costs, a consistently low level of volatility, subdued client activity, as well as client and perimeter adjustments in Global Transaction Banking (GTB). Revenues in Private & Commercial Bank (PCB) declined, primarily from the impact of business disposals and pressure on deposit revenues from the low interest rate environment. The decline was partly offset by growth in revenues from loans and investment products and positive impacts from workout activities in Sal. Oppenheim. Revenues in Deutsche Asset Management (Deutsche AM) decreased significantly as compared to 2016, primarily related to the non-recurrence of revenues from Abbey Life which was sold at the end of 2016, proceeds on the sale of Deutsche AM India and a write-up related to Heta Asset Resolution AG (HETA), both recorded in 2016.

Noninterest expenses in 2017 were € 24.7 billion, a decrease of € 4.8 billion or 16 %, from 2016. The reduction was mainly driven by lower litigation expenses, lower impairment of goodwill and other intangible assets and the absence of policy-holder benefits and claims related to Abbey Life. Partly offsetting were higher accruals for variable compensation due to a return to a normalized variable compensation framework in 2017.

Adjusted costs in 2017 were € 23.9 billion as compared to € 24.7 billion in 2016, a decrease of € 843 million or 3%. The improvement was primarily driven by lower legal fees, reduced costs for external advice and the wind-down of NCOU, partly offset by the aforementioned higher accruals for variable compensation.

Income before income taxes was € 1.2 billion in 2017 compared to a loss before income taxes of € 810 million in 2016. The improvement of € 2.0 billion was mainly driven by significantly lower impairment of goodwill and other intangible assets as well as significantly lower litigation charges.

Income tax expense was € 2.0 billion in 2017, including the aforementioned one-time tax charge of € 1.4 billion attributable to the re-measurement of U.S. Deferred Tax Assets as a result of the U.S. tax reform.

We reported a net loss of € 735 million in 2017, driven by the aforementioned one-time tax charge, as compared to a net loss of € 1.4 billion in 2016.

Our CRR/CRD 4 fully loaded Common Equity Tier 1 (CET1) ratio was 14.0 % at the end of 2017, up from 11.8 % at the end of 2016, resulting from proceeds of the capital raise in April 2017. The phase-in CET 1 ratio at the year-end 2017 was 14.8 %.

Deutsche Bank Group

Deutsche Bank: Our Organization

Headquartered in Frankfurt am Main, Germany, we are the largest bank in Germany and one of the largest financial institutions in Europe and the world, as measured by total assets of € 1,475 billion as of December 31, 2017. As of that date, we employed 97,535 people on a full-time equivalent basis and operated in 60 countries out of 2,425 branches worldwide, of which 65 % were in Germany. We offer a wide variety of investment, financial and related products and services to private individuals, corporate entities and institutional clients around the world.

As of December 31, 2017 we were organized into the following three corporate divisions:

- Corporate & Investment Bank (CIB)
- Private & Commercial Bank (PCB)
- Deutsche Asset Management (Deutsche AM)

The three corporate divisions are supported by infrastructure functions. In addition, we have a regional management function that covers regional responsibilities worldwide. Prior periods presented throughout this report have been restated in order to reflect our new segmental structure that was announced on March 5, 2017. In line with our targets originally announced, from 2017 onwards, Non-Core Operations Unit (NCOU) ceased to exist as a separate corporate division of the Group.

We have operations or dealings with existing or potential customers in most countries in the world. These operations and dealings include working through:

- subsidiaries and branches in many countries;
- representative offices in many other countries; and
- one or more representatives assigned to serve customers in a large number of additional countries.

We have made the following significant capital expenditures or divestitures since January 1, 2015, that are not allocated to the capital expenditures or divestitures of corporate divisions below:

On October 26, 2016, Deutsche Bank entered into an agreement to sell its Mexican bank and broker dealer subsidiaries to InvestaBank S.A., Institución de Banca Múltiple. The transaction is a part of our targets originally announced in October 2015 and the Group's plan to rationalize its global footprint. Closing of the transaction is expected in the first half of 2018, subject to regulatory approvals and other customary conditions.

In August 2016, Deutsche Bank Group entered into an agreement to sell Deutsche Bank S.A., its subsidiary in Argentina, to Banco Comafi S.A. The transaction is part of the Group's plan to rationalize its global footprint. In June 2017, the transaction was successfully completed.

Management Structure

The Management Board has structured the Group as a matrix organization, comprising (i) Corporate Divisions, (ii) Infrastructure Functions and (iii) Regions.

Pursuant to the German Stock Corporation Act, the Management Board is responsible for the executive management of Deutsche Bank. Its members are appointed and removed by the Supervisory Board, which is a separate corporate body. Our Management Board focuses on, among other topics, strategic management, corporate governance, financial accounting and reporting, resource allocation, control and risk management, and is assisted by functional committees.

Within each corporate division and region, coordination and management functions are handled by operating committees and executive committees, which help ensure that the implementation of the strategy of individual business divisions and the plans for the development of infrastructure areas are aligned to our global business objectives.

Corporate & Investment Bank (CIB)

Corporate Division Overview

Our Corporate & Investment Bank division (CIB) comprises our FIC Sales & Trading, Equity Sales & Trading, Financing, Origination & Advisory and Global Transaction Banking businesses. The integrated division brings together the wholesale banking expertise, coverage, risk management, and infrastructure across Deutsche Bank into one division. This enables CIB to align resourcing and capital across our client and product perimeter to better serve the Bank's priority clients.

In CIB, we made the following significant capital divestitures since January 1, 2015:

In early October 2017, Deutsche Bank Group signed a binding agreement to sell its Alternative Fund Services business, a unit of the Global Transaction Banking division, to Apex Group Limited. The transaction supports the Group's announced strategic priorities and is expected to close in 2018.

In June 2015, Markit Ltd. a provider of financial information services conducted a secondary public offering. As part of this offering, Markit also re-purchased own shares from a number of selling shareholders including Deutsche Bank. We offered and sold approximately 4 million of the 5.8 million shares (2.7 %) we held in Markit.

Products and Services

The FIC Sales & Trading and Equity Sales & Trading businesses combines sales, trading and structuring of a wide range of financial market products, including bonds, equities and equity-linked products, exchange-traded and over-the-counter derivatives, foreign exchange, money market instruments, and structured products. Coverage of institutional clients is provided by the Institutional Client Group and Equity Sales, while Research provides analysis of markets, products and trading strategies for clients.

All our trading activities are covered by our risk management procedures and controls which are described in detail in the Risk Report.

Corporate Finance is responsible for mergers and acquisitions (M&A) as well as debt and equity advisory and origination. Regional and industry-focused coverage teams ensure the delivery of the entire range of financial products and services to our corporate and institutional clients.

Global Transaction Banking (GTB) is a global provider of cash management, trade finance and securities services, delivering the full range of commercial banking products and services for both corporate clients and financial institutions worldwide.

Distribution Channels and Marketing

As part of our strategy, we are re-focusing and optimizing our client coverage model to the benefit of our core clients. We are exiting client relationships where we consider returns to be too low or risks to be too high while also strengthening our client onboarding and know-your-client (KYC) procedures.

Growth in corporate client activity is also expected to create opportunities in the institutional client segment. Overall, Deutsche Bank expects the majority of growth to come primarily from enhancing the returns on the existing resources by more selectively deploying capital to priority clients.

Private & Commercial Bank (PCB)

Corporate Division Overview

The Private & Commercial Bank (PCB) Corporate Division consists of the four business units: Postbank, Private & Commercial Clients Germany, Private & Commercial Clients International and Wealth Management. We serve personal and private clients, small and medium-sized enterprises as well as wealthy private clients. Our product range includes payment and account services, credit and deposit products as well as investment advice. In these products, we offer our customers both the coverage of all basic financial needs and individual, tailor-made solutions. We pursue an omni-channel approach and our customers can flexibly choose between different possibilities to access to our services and products (branches, advisory centers, mobile networks of independent consultants and online/mobile banking).

Our Corporate Division comprises the following units:

The Postbank business unit focuses on retail banking and corporate banking (transaction banking and financing) in Germany, providing standardized banking and financial services for retail, business and corporate clients. In cooperation with Deutsche Post DHL AG, we also offer postal and parcel services in the branches.

In our Private & Commercial Clients Germany (PCC Germany) business unit, we also focus on private and commercial clients in Germany and provide a wide range of financial services including complex advisory solutions for our private clients. For small and medium-sized corporate clients, we offer an integrated commercial banking coverage model in collaboration with experts in the Corporate & Investment Bank.

The Private & Commercial Clients International (PCC International) business unit provides banking and other financial services to private, commercial and corporate clients in Europe and India. In Europe, we operate in five major banking markets: Italy, Spain, Belgium, Portugal and Poland. In December 2017, we entered into an agreement to sell a significant portion of our retail business in Poland in order to sharpen PCB's focus and to reduce complexity. We will continue to serve foreign currency mortgage retail borrowers in Poland and will also remain present with the Corporate & Investment Bank operations, including Global Transaction Banking.

The Wealth Management (WM) business unit serves wealthy, high-net-worth (HNW) and ultra-high-net-worth (UHNW) individuals and families. We support our clients in planning, managing and investing their wealth, financing their personal and business interests and servicing their institutional and corporate needs. We also provide institutional-like services for sophisticated clients and complement our offerings by closely collaborating with experts in the Corporate & Investment Bank and in Deutsche Asset Management.

PCB made the following significant capital expenditures or divestitures since January 1, 2015:

In December 2017, Deutsche Bank Group entered into an agreement to partially sell its PCC business in Poland. While the finalization of the transaction is planned for the fourth quarter 2018, the transaction remains subject to required approvals from regulators, corporate consents and other conditions.

In March 2017, Deutsche Bank Group signed a definitive agreement to sell its share in Concardis GmbH, a leading German payment service provider established in form of a joint venture of the German banking sector, to a consortium of Advent International and Bain Capital Private Equity. In July 2017, the transaction was successfully completed.

On December 28, 2015, we agreed to sell our entire 19.99 % stake in Hua Xia Bank Company Limited ("Hua Xia") to PICC Property and Casualty Company Limited ("PICC Property & Casualty"). The share transfer was completed in the fourth quarter 2016 and all remaining closing formalities were completed in the first quarter of 2017.

In the fourth quarter 2015 we announced that we had entered into a definitive asset purchase agreement to sell our U.S. Private Client Services (PCS) unit to Raymond James Financial, Inc. In September 2016 the transaction was completed successfully.

In November 2015, Visa Inc. announced a definitive agreement to acquire Visa Europe Limited. As part of this acquisition Visa Europe Limited requested all its shareholders, which included several Deutsche Bank Group entities, to return their shares against consideration. We returned our shares in Visa Europe Limited in January 2016 and received the cash and preferred shares consideration at closing on June 21, 2016 as well as an entitlement to a deferred cash payment including interest upon the third anniversary of the closing date.

Products and Services

In our home market Germany and internationally, we offer our clients a wide range of financial services from standardized as well as comprehensive services for retail clients, to solutions for demanding clients in Private Banking and Wealth Management, to business and commercial client coverage.

Our Postbank, PCC Germany and PCC International business units provide banking and other financial services to private and commercial clients in Germany, Europe and Asia with some variations in the product offering among countries that are driven by local market, regulatory and customer requirements. Products for our retail and private clients are designed to meet all basic financial needs and to provide them with advisory services. We offer payment and current account services, credit and financing products as well as deposit, investment and insurance products. The product range also includes postal services, which we offer through Postbank, and further non-banking services. Products for our small and medium-sized clients also include specific financing solutions (ranging from start-up financing to structured finance) and midcap related products provided by the Corporate & Investment Bank.

In the WM business unit, we support our clients in preserving their wealth by offering wealth structuring, wealth transfer and philanthropy services. We offer customized wealth management and investment solutions including discretionary portfolio management, investment advice as well as currency and deposit services. Furthermore, we provide financing solutions, e.g. real estate, single-stock and aircraft financing. For the client's institutional and corporate needs we offer M&A, pre-IPO, private placements and institutional-like access to structured lending, private and public investment opportunities, trading and hedging in close collaboration with experts in the Corporate & Investment Bank.

Distribution Channels and Marketing

We follow an omni-channel approach to optimize accessibility and availability of services for our customers. The expansion of digital capabilities remains a strong focus across all our businesses.

PCC Germany, PCC International and Postbank have similar distribution channels:

- Branches: Within branches, the PCC and Postbank business units generally offer the entire range of products and advice. The branch network is supported by Customer Contact Centers, Call Centers and Self-service Terminals. Additionally, Postbank uses around 4,500 Deutsche Post DHL AG partner retail outlets, where customers can access selected Postbank financial services. In Germany, PCC and Postbank offer cash services at more than 10,000 cash points.
- Advisory Centers: The Advisory Centers in PCC Germany represent a connection between the branches and our digital offerings to ensure a holistic service and advice for our private and commercial clients independent of branch opening hours.
- Online and Mobile Banking: Websites of the PCC and Postbank business units offer clients a broad variety of relevant product information and services including interactive tools, tutorials as well as rich media content. We also provide a high performing transaction platform for banking, brokerage and self-services, combined with a highly frequented multi-mobile offering for smartphones and tablets. Moreover, we further invest in improvements in seamless client friendly end-to-end process automation.
- Financial Agents / Third party distributors: The PCC and Postbank business units additionally provide banking products and services through self-employed financial agents as well as through third-party distributors.

Wealth Management has a distinct client coverage:

- Global Coverage/Advisory teams: Our relationship manager / senior advisor teams manage client relationships, provide advice and assist clients in accessing dedicated WM services and open-architecture products. To ensure holistic service and advice, all wealth management clients have a single point of access, with dedicated teams serving specific client groups.
- Key Client Partners (KCP) / Corporate Finance Partnership (CFP): For qualified ultra-high-net-worth clients, Key Client Partners (KCP) provide institutionalized access to market views and trade ideas with bespoke trading, risk management and hedging solutions from our Global Markets platform as well as innovative non-recourse lending solutions. Corporate Finance Partnership (CFP) acts as trusted partner and strategic advisor for selected group of sophisticated investors / family offices providing seamless access to our global corporate finance franchise.
- Deutsche Oppenheim Family Offices AG (DOAG): Multi-family offices services including discretionary portfolio management, strategic asset allocation, "Family Office Strategy" funds, family office consulting, third-party manager selection, reporting & controlling as well as real estate and private equity investments.

Deutsche Asset Management (Deutsche AM)

Corporate Division Overview

With over € 700 billion of invested assets as of December 31, 2017, Deutsche AM is one of the world's leading investment management organizations, bringing access to the world's financial markets and delivering solutions to clients around the globe. Deutsche AM aims to provide sustainable financial solutions for all its clients: individual investors and the institutions that serve them.

Deutsche AM remains a core business for Deutsche Bank. Since the announcement in March 2017 that we intend to pursue a partial initial public offering of Deutsche AM, we have made considerable progress towards this goal, including the announcement of our intention to float DWS shares on the Frankfurt Stock Exchange. The rationale for the partial IPO is to unlock the potential of the business by fostering greater autonomy. As a standalone asset manager, we will introduce the DWS brand for our global business, which is expected to enhance our external profile. The integration of our infrastructure partners is expected to enable us to achieve further operating efficiencies across the platform, including process improvements to reduce costs and enhance the client experience.

Products and Services

Deutsche AM's investment capabilities span both active and passive strategies across a diverse array of asset classes and liquidity spectrum including equities, fixed income, liquidity, real estate, infrastructure, private equity and sustainable investments. We offer these capabilities through a variety of wrappers including ETFs, Mutual Funds, and Separately Managed Accounts. Deutsche AM delivers alpha and beta solutions to address the longevity, liability and liquidity needs of clients, leveraging intelligence and technology.

Distribution Channels and Marketing

Coverage/Advisory teams manage client relationships, provide advice and assist clients to access Deutsche AM's products and services. Deutsche AM also markets and distributes its offerings through other business divisions of Deutsche Bank Group, notably PCB for retail customers, as well as through third-party distributors. To ensure effective service and advice, all clients have a single point of access to Deutsche AM, with dedicated teams serving specific client groups.

Non-Core Operations Unit Corporate Division (NCOU)

In the second half of 2012, the Non-Core Operations Unit (NCOU) was established with the aim to help the Bank reduce risks associated with capital-intensive assets that are not core to the strategy, thereby reducing capital demand. As set out in our previous strategy announcements, our objectives in setting up the NCOU were to improve external transparency of our non-core positions; to increase management focus on the core operating businesses by separating the non-core activities; and to facilitate targeted accelerated de-risking.

NCOU successfully executed its de-risking target and reduced the portfolio in size to achieve the 2016 year-end target to less than € 10 billion RWA. In carrying out this mandate, NCOU actively focused on initiatives which delivered efficient capital contribution and de-leveraging results, thereby enabling the Bank to strengthen its fully loaded Common Equity Tier 1 ratio. As a result, the NCOU ceased to exist as a standalone division from 2017 onwards.

The remaining legacy assets with balance sheet value of approximately € 6 billion as of December 31, 2016 were transferred to the corresponding core operating segments, predominately Corporate & Investment Bank and Private & Commercial Bank.

The NCOU division made the following significant divestitures since January 1, 2015 :

In November 2016, Deutsche Bank sold its remaining 16.9 % stake in Red Rock Resorts after an IPO in April 2016 where Deutsche Bank sold around 3 %.

In April 2016, Deutsche Bank reached an agreement to sell 100% Maher Terminals USA LLC in Port Elizabeth, New Jersey to Macquarie Infrastructure Partners III, a fund managed by Macquarie Infrastructure and Real Assets. Following receipt of all regulatory approvals, we completed the sale in November 2016 for U.S.\$ 739 million.

In April 2015, Deutsche Bank reached an agreement to sell the Fairview Container Terminal in Port of Prince Rupert, Canada (a segment of Maher Terminals) to DP World (a Dubai-based marine terminal operator) for CAD 580 million, subject to regulatory approvals. Following the receipt of all regulatory approvals, we completed the sale in August 2015.

Infrastructure

The infrastructure functions perform control and service functions and, in particular, tasks relating to Group-wide, supra-divisional resource-planning, steering and control, as well as tasks relating to risk, liquidity and capital management.

The infrastructure functions are organized into the following areas of responsibility of our senior management:

- Chairman: Management Board, Communications, Corporate Social Responsibility, Group Audit, Corporate Strategy and Group Incident & Investigation Management
- Chief Financial Officer: Group and Regional Finance including Cost Operations, Group Tax, Group Treasury, Investor Relations, Corporate M&A and Investments, Group Management Consulting, Planning and Performance Management and Finance Change & Administration.
- Chief Risk Officer: Credit Risk, Market Risk, Liquidity Risk, Enterprise Risk, Business aligned Risk management, Regional Risk management, Non Financial Risk and Corporate Insurance
- Chief Regulatory Officer: Group Regulatory Affairs, Government and Public Affairs, Compliance and Anti-Financial Crime
- Chief Administrative Officer: Legal including Data Protection, Global Governance and Human Resources including Corporate Executive Matters
- Chief Operating Officer: Chief Information Officer, Technology and Operations, Digital Transformation, Corporate Services, Chief Security Officer and Chief Data Officer

All expenses and revenues incurred within the infrastructure functions and areas are fully allocated to our three corporate divisions.

From 2018 onwards, Infrastructure expenses associated with shareholder activities as defined in the OECD Transfer Pricing Guidelines will no longer be allocated to corporate divisions, but will be kept centrally and reported under Consolidation & Adjustments (C&A), which in this context will be renamed to “Corporate & Other”.

The bank decided in 2017 to move certain infrastructure employees to the divisions they provide service for in order to increase overall effectiveness and collaboration. This helped to increase the business divisions’ responsibility and autonomy with respect to their organisational and process-related decisions and led to a significant increase of the number of employees associated with the business divisions compared to 2016 – in particular in the Corporate & Investment Bank as well as in Deutsche Asset Management. Independent Control Functions generally remained in central areas.

Significant Capital Expenditures and Divestitures

Information on each Corporate Division’s significant capital expenditures and divestitures from the last three financial years has been included in the above descriptions of the Corporate Divisions.

Since January 1, 2017, there have been no public takeover offers by third parties with respect to our shares and we have not made any public takeover offers for our own account in respect of any other company’s shares.

Results of Operations

Consolidated Results of Operations

You should read the following discussion and analysis in conjunction with the consolidated financial statements.

Condensed Consolidated Statement of Income

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Net interest income	12,378	14,707	15,881	(2,329)	(16)	(1,174)	(7)
Provision for credit losses	525	1,383	956	(857)	(62)	427	45
Net interest income after provision for credit losses	11,853	13,324	14,925	(1,472)	(11)	(1,601)	(11)
Commissions and fee income ¹	11,002	11,744	12,765	(742)	(6)	(1,021)	(8)
Net gains (losses) on financial assets/liabilities at fair value through profit or loss ¹	2,926	1,401	3,842	1,524	109	(2,440)	(64)
Net gains (losses) on financial assets available for sale	479	653	203	(174)	(27)	450	N/M
Net income (loss) from equity method investments	137	455	164	(318)	(70)	291	177
Other income (loss)	(475)	1,053	669	(1,528)	N/M	385	58
Total noninterest income	14,070	15,307	17,644	(1,238)	(8)	(2,336)	(13)
Total net revenues²	25,922	28,632	32,569	(2,709)	(9)	(3,937)	(12)
Compensation and benefits	12,253	11,874	13,293	380	3	(1,419)	(11)
General and administrative expenses	11,973	15,454	18,632	(3,481)	(23)	(3,178)	(17)
Policyholder benefits and claims	0	374	256	(374)	(100)	117	46
Impairment of goodwill and other intangible assets	21	1,256	5,776	(1,235)	(98)	(4,520)	(78)
Restructuring activities	447	484	710	(37)	(8)	(226)	(32)
Total noninterest expenses	24,695	29,442	38,667	(4,747)	(16)	(9,225)	(24)
Income (loss) before income taxes	1,228	(810)	(6,097)	2,038	N/M	5,287	(87)
Income tax expense (benefit)	1,963	546	675	1,417	N/M	(129)	(19)
Net income (loss)	(735)	(1,356)	(6,772)	621	(46)	5,416	(80)
Net income attributable to noncontrolling interests	15	45	21	(30)	(66)	24	112
Net income (loss) attributable to Deutsche Bank shareholders and additional equity components	(751)	(1,402)	(6,794)	651	(46)	5,392	(79)

N/M – Not meaningful

¹ For further detail please refer to Note 1 "Significant Accounting Policies and Critical Accounting Estimates" of this report.

² After provision for credit losses.

Net Interest Income

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Total interest and similar income	24,092	25,636	25,967	(1,544)	(6)	(331)	(1)
Total interest expenses	11,714	10,929	10,086	785	7	843	8
Net interest income	12,378	14,707	15,881	(2,329)	(16)	(1,174)	(7)
Average interest-earning assets ¹	1,021,697	1,033,172	1,031,827	(11,475)	(1)	1,345	0
Average interest-bearing liabilities ¹	790,488	812,578	816,793	(22,090)	(3)	(4,215)	(1)
Gross interest yield ²	2.24 %	2.39 %	2.52 %	(0.15) ppt	(6)	(0.13) ppt	(5)
Gross interest rate paid ³	1.32 %	1.23 %	1.23 %	0.09 ppt	7	0.00 ppt	0
Net interest spread ⁴	0.91 %	1.16 %	1.28 %	(0.25) ppt	(22)	(0.12) ppt	(9)
Net interest margin ⁵	1.21 %	1.42 %	1.54 %	(0.21) ppt	(15)	(0.12) ppt	(8)

ppt – Percentage points

¹ Average balances for each year are calculated in general based upon month-end balances.

² Gross interest yield is the average interest rate earned on our average interest-earning assets.

³ Gross interest rate paid is the average interest rate paid on our average interest-bearing liabilities.

⁴ Net interest spread is the difference between the average interest rate earned on average interest-earning assets and the average interest rate paid on average interest-bearing liabilities.

⁵ Net interest margin is net interest income expressed as a percentage of average interest-earning assets.

2017

Net interest income was € 12.4 billion in 2017 compared to € 14.7 billion in 2016, a decrease of € 2.3 billion, or 16 %. The main drivers for decline in net interest income were perimeter changes including the sale of Abbey Life, PCS and the disposal of assets within the Non-Core Operations Unit (NCOU) in 2016, as well as higher funding costs and overall portfolio effects resulting in a shift towards lower interest yielding asset classes, mainly euro deposits with central banks. These effects were partially offset by interest income of € 116 million related to government grants under the Targeted Longer-Term Refinancing Operations II (TLTRO II) program. Overall, our net interest margin declined by 21 basis points in 2017 as compared to the prior year.

2016

Net interest income was € 14.7 billion in 2016 compared to € 15.9 billion in 2015, a decrease of € 1.2 billion, or 7 %. The decrease in net interest income was mainly driven by margin compression, the low interest rate environment, depressed trade volumes, reduced client balances and strategic perimeter decisions as well as higher funding costs. Both the net interest spread and the net interest margin declined by 12 basis points in 2016 as compared to prior year.

Net Gains (Losses) on Financial Assets/Liabilities at Fair Value through Profit or Loss

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Total trading income	3,374	547	3,874	2,827	N/M	(3,327)	(86)
Total net gains (losses) on financial assets/liabilities designated at fair value through profit or loss	(448)	854	(32)	(1,302)	N/M	886	N/M
Total net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,926	1,401	3,842	1,524	109	(2,440)	(64)

2017

Net gains on financial assets/liabilities at fair value through profit or loss were € 2.9 billion in 2017 compared to € 1.4 billion in 2016, an increase of € 1.5 billion or 109 %. The increase was primarily driven by trading income, which improved by € 2.8 billion, mainly due to the nonrecurrence of de-risking losses within the NCOU in 2016. Mark-to-market losses on issuances designated at fair value through profit or loss were the main contributor to a loss of € 448 million on financial assets/liabilities designated at fair value through profit or loss in 2017 compared to a gain of € 854 million in 2016. This loss was largely offset by mark-to-market gains in trading income related to financial instruments used as hedges for those issuances.

2016

Net gains (losses) on financial assets/liabilities at fair value through profit or loss was € 1.4 billion in 2016, a decrease of € 2.4 billion as compared to € 3.8 billion in 2015. The decrease was primarily driven by Trading income, which reduced by € 3.3 billion year-on-year from the impact of unfavorable foreign exchange rates and interest rates on the fair value of derivatives. The decline included a loss of € 0.9 billion occurred due to an un-winding of long-dated derivative exposures and related assets. In addition, Trading income was impacted by € 0.9 billion related to net losses on derivatives held by Group Treasury in respect of debt issuance. The corresponding gains were reported in the ClB division. Total net gains (losses) on financial assets/liabilities designated at fair value through profit or loss increased by € 886 million compared to 2015.

Net Interest Income and Net Gains (Losses) on Financial Assets/Liabilities at Fair Value through Profit or Loss

Our trading and risk management businesses include significant activities in interest rate instruments and related derivatives. Under IFRS, interest and similar income earned from trading instruments and financial instruments designated at fair value through profit or loss (i.e., coupon and dividend income) and the costs of funding net trading positions are part of net interest income. Our trading activities can periodically shift income between net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss depending on a variety of factors, including risk management strategies.

In order to provide a more business-focused discussion, the following table presents net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss by corporate division.

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Net interest income	12,378	14,707	15,881	(2,329)	(16)	(1,174)	(7)
Total net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,926	1,401	3,842	1,524	109	(2,440)	(64)
Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss	15,304	16,108	19,723	(805)	(5)	(3,615)	(18)
Breakdown by Corporate Division:¹							
Corporate & Investment Bank	9,078	10,773	12,348	(1,695)	(16)	(1,576)	(13)
Private & Commercial Bank	6,158	6,420	6,573	(262)	(4)	(153)	(2)
Deutsche Asset Management	30	365	255	(335)	(92)	110	43
Non-Core Operations Unit	0	(1,307)	(362)	1,307	N/M	(944)	N/M
Consolidation & Adjustments	37	(143)	910	180	N/M	(1,052)	N/M
Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss	15,304	16,108	19,723	(805)	(5)	(3,615)	(18)

N/M – Not meaningful

¹ This breakdown reflects net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss only. For a discussion of the corporate divisions' total revenues by product please refer to Note 4 "Business Segments and Related Information".

2017

Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss were € 15.3 billion in 2017, compared to € 16.1 billion in 2016, a decrease of € 805 million, or 5 %. The decrease was primarily driven by CIB, where total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss were € 9.0 billion in 2017, a decrease of € 1.7 billion, or 16 %, compared to 2016. In Sales & Trading (FIC), revenues were lower by € 503 million in 2017, a decrease of 10 % compared to 2016. The decline was primarily due to low volatility environment, reducing client demand and lack of major market demand and higher funding cost. In Sales & Trading (equity), revenues were lower by € 342 million in 2017, a decrease of 18 % compared to 2016 mainly due to in-creased U.S. funding costs, lower average balances and reduced spreads in Prime Finance. Revenues in other CIB products were € 2.8 billion, represented a decline of € 850 million or 23 % compared to 2016. The decline was mainly due to losses of € 348 million in DVA from tightening of credit spreads and decrease in derivative liability exposures. Additionally revenues were also impacted by unfavorable exchange rate movements. In addition, Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss decreased in Deutsche AM, mainly due to nonrecurring revenues from Abbey Life which was sold at the end of 2016 and the absence of a write-up of our exposure to HETA; and in PCB, mainly impacted by the persistent low interest rate environment and loan book reductions. Partly offsetting these decreases was NCOU, which ceased to exist from 2017 onwards and reported negative € 1.3 billion of Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss in 2016, including the aforementioned de-risking losses.

2016

Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss were € 16.1 billion, a decrease by € 3.6 billion, or 18 %, versus € 19.7 billion in 2015. CIB contributed € 1.6 billion to the decrease, with Sales & Trading (FIC) revenues being lower by € 777 million in 2016, a decrease of 13 % compared to 2015. This decline was driven by a challenging market environment and country exits as part of our targets originally announced in October 2015. Lower revenues in Emerging Markets and Foreign Exchange were partly offset by higher Core Rates revenues. In Sales & Trading (equity), revenues were lower by € 904 million in 2016, a decrease of 32 % compared to 2015. This decline was felt across all equity businesses as a result of lower overall client activity in a challenging market environment. Prime Finance revenues were also impacted by higher funding costs due to a widening of our own credit spreads following negative market perceptions concerning Deutsche Bank. Interest revenues in Trade Finance were lower due to margin compression and the impact from negative interest rates. Revenues in other CIB products improved by € 106 million, or 3 % compared to 2015. In PCB, total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss declined by € 153 million. This includes the impact of a low interest rate environment in Europe and was partly offset by positive transaction related effects relating to PCB's stake in Hua Xia Bank Co. Ltd. In Deutsche AM, Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss increased by € 110 million, mainly due to a write up of our exposure to HETA during 2016, favorable mark-to-market movements on policyholder positions in Abbey Life and positive effects related to the sale of Deutsche AM India. In NCOU, Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss declined by € 944 million, predominantly driven by the resolution of long-dated derivative exposures, various bond sales and further un-winds across the portfolio. In C&A, the decrease by € 1.1 billion was primarily due to interest rate increases in the long end of the curve in USD and EUR during the fourth quarter of 2016. The offsetting mark to market movements were reported in other lines of the income statement.

Provision for Credit Losses

2017

Provision for credit losses was € 525 million in 2017, a decrease of € 857 million, or 62 %, compared to 2016 as a result of significantly lower charges and higher releases in all divisions. In CIB, the improvement reflected better performance of all portfolios including shipping. Despite the year-over-year reduction, shipping continued to be the main driver of provision for credit losses in 2017, in part related to the re-evaluation of the respective impairment method during the year. In PCB, provision for credit losses improved, reflecting the good portfolio quality and the continued benign environment along with a significant release in Postbank.

2016

Provision for credit losses was € 1.4 billion in 2016, an increase of € 427 million, or 45 %, compared to 2015. This mainly resulted from higher provisions in CIB driven by exposures related to the shipping, metals and mining and oil and gas industry sectors. Further increases in NCOU were driven by IAS 39 reclassified assets within our European mortgage portfolios. These increases were partly offset by lower provisions in PCB reflecting the quality of the retail loan portfolio and the benign economic environment.

Remaining Noninterest Income

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Commissions and fee income ¹	11,002	11,744	12,765	(742)	(6)	(1,021)	(8)
Net gains (losses) on financial assets available for sale	479	653	203	(174)	(27)	450	N/M
Net income (loss) from equity method investments	137	455	164	(318)	(70)	291	177
Other income (loss)	(475)	1,053	669	(1,528)	N/M	385	58
Total remaining noninterest income	11,144	13,906	13,802	(2,762)	(20)	104	1
¹ includes:							
Commissions and fees from fiduciary activities:							
Commissions for administration	338	401	432	(63)	(16)	(31)	(7)
Commissions for assets under management	3,603	3,507	3,666	96	3	(159)	(4)
Commissions for other securities business	379	380	382	(1)	(0)	(3)	(1)
Total	4,320	4,287	4,480	33	1	(193)	(4)
Commissions, broker's fees, mark-ups on securities underwriting and other securities activities:							
Underwriting and advisory fees	1,825	1,871	2,388	(46)	(2)	(517)	(22)
Brokerage fees	1,160	1,434	1,746	(274)	(19)	(312)	(18)
Total	2,985	3,305	4,134	(320)	(10)	(829)	(20)
Fees for other customer services	3,698	4,152	4,151	(454)	(11)	1	0
Total commissions and fee income	11,002	11,744	12,765	(742)	(6)	(1,021)	(8)

N/M – Not meaningful

Commissions and fee income

2017

Total Commission and fee income was € 11.0 billion in 2017, a decrease of € 742 million, or 6%, as compared to 2016. The decrease was mainly driven by lower fee income in CIB, due to the reduced perimeter and lower volumes in GTB as well as reduced volumes in Equities. Fee income in PCB declined due to the reduction in perimeter from the sale of the PCS business. Partly offsetting these negative effects were higher fund management fees in Deutsche AM mainly due to favorable market conditions.

2016

Total Commissions and fee income decreased from € 12.8 billion in 2015 by € 1.0 billion, or 8 %, to € 11.7 billion in 2016. In PCB, commission and fee income declined due to the difficult market environment and reduced client activities. CIB revenues were impacted primarily by a decline in deal volumes and issuance, resulting from worldwide political uncertainty and anticipation of interest rate hikes as well as from lower market volumes.

Net gains (losses) on financial assets available for sale

2017

Net gains on financial assets available for sale were € 479 million in 2017 compared to € 653 million in 2016, a decrease of € 174 million or 27 %. The decrease was primarily due to the nonrecurrence of gains related to de-risking activities in NCOU and a gain on sale of stake in Visa Europe Limited, both in 2016. This was partly offset by a gain on sale of shares in Concardis GmbH in 2017.

2016

Net gains on financial assets available for sale were € 653 million in 2016 compared to € 203 million in 2015, an increase of € 450 million. The increase resulted from the sale of a holding in Visa Europe Limited and from the sale of sovereign bonds in Postbank, as well as from de-risking activities in NCOU.

Net income (loss) from equity method investments

2017

Net gains from equity investments were € 137 million in 2017 compared to € 455 million in 2016, a decrease of € 318 million, or 70 %, primarily due to the non-recurrence of a gain from the IPO of Red Rock Resorts in NCOU.

2016

Net gains from equity investments were € 455 million in 2016 compared to € 164 million in 2015, an increase of € 291 million, or 177 %, primarily in NCOU due to a gain from the IPO of Red Rock Resorts.

Other income (loss)

2017

Other income (loss) was a loss of € 475 million in 2017 compared to a gain of € 1.1 billion in 2016. The decline was primarily driven by the absence of a positive realization in Other comprehensive income from the sale of stake in Hua Xia Bank Co. Ltd. The decline also included a negative impact from the agreement to sell a significant portion of the retail business in Poland as well as a one-off loss due to termination of a legacy trust preferred security.

2016

Other income increased by € 385 million or 58 %, from € 669 million in 2015 to € 1.1 billion in 2016. The increase in 2016 was primarily driven by a realization in Other comprehensive income from the sale of stake in Hua Xia Bank Co. Ltd. and was partly offset by de-risking losses due to the sale of IAS 39 assets in NCOU, the nonrecurrence of a specific litigation recovery and gain on sale of Maher Prince Rupert in 2015.

Noninterest Expenses

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Compensation and benefits	12,253	11,874	13,293	380	3	(1,419)	(11)
General and administrative expenses ¹	11,973	15,454	18,632	(3,481)	(23)	(3,178)	(17)
Policyholder benefits and claims	0	374	256	(374)	(100)	117	46
Impairment of goodwill and other intangible assets	21	1,256	5,776	(1,235)	(98)	(4,520)	(78)
Restructuring activities	447	484	710	(37)	(8)	(226)	(32)
Total noninterest expenses	24,695	29,442	38,667	(4,747)	(16)	(9,225)	(24)
N/M – Not meaningful							
¹ includes:							
IT costs	3,798	3,872	3,664	(74)	(2)	208	6
Occupancy, furniture and equipment expenses	1,849	1,972	1,944	(123)	(6)	28	1
Professional service fees	1,769	2,305	2,283	(536)	(23)	22	1
Communication and data services	686	761	807	(75)	(10)	(46)	(6)
Travel and representation expenses	405	450	505	(45)	(10)	(56)	(11)
Banking and transaction charges	744	664	598	80	12	66	11
Marketing expenses	309	285	294	24	8	(9)	(3)
Consolidated investments	0	334	406	(334)	N/M	(72)	(18)
Other expenses ²	2,414	4,812	8,129	(2,398)	(50)	(3,317)	(41)
Total general and administrative expenses	11,973	15,454	18,632	(3,481)	(23)	(3,178)	(17)

² Includes litigation related expenses of € 0.2 billion in 2017, € 2.4 billion in 2016 and € 5.2 billion in 2015.

Compensation and benefits

2017

Compensation and benefits increased by € 380 million, or 3 %, to € 12.3 billion in 2017 compared to € 11.9 billion in 2016. The increase was primarily driven by higher variable compensation, reflecting the return to normal compensation programs in 2017. This increase was partly offset by a decrease in salaries, due to lower headcount and favorable foreign exchange movements, by reduced cost for amortization of prior years' deferrals and by lower severance expense.

2016

Compensation and benefits decreased by € 1.4 billion, or 11 %, to € 11.9 billion in 2016 compared to € 13.3 billion in 2015, primarily due to significantly limited 2016 variable compensation.

General and administrative expenses

2017

General and administrative expenses decreased by € 3.5 billion, or 23 %, to € 12.0 billion in 2017 compared to € 15.5 billion in 2016. The decrease was mainly due to a € 2.2 billion reduction in litigation charges compared to 2016. Professional service fees declined by € 536 million driven by lower legal fees and reduced business consulting cost.

2016

General and administrative expenses decreased by € 3.2 billion, or 17 %, to € 15.5 billion in 2016 compared to € 18.6 billion in 2015. The decrease was mainly due to a € 2.8 billion reduction in litigation charges compared to 2015. Effects from favorable foreign exchange rate movements as well as reductions in various expense positions were partially offset by higher IT cost, including higher depreciation for self-developed software.

Policyholder benefits and claims

2017

No policyholder benefits and claims were reported for 2017 following the sale of Abbey Life business at the end of 2016.

2016

Policyholder benefits and claims increased by € 117 million, or 46 %, from € 256 million in 2015 to € 374 million in 2016 and were solely driven by higher policyholder benefits and claims recorded in the Abbey Life business. These charges were offset by net gains on financial assets/liabilities at fair value through profit or loss on policyholder benefits and claims.

Impairment of goodwill and other intangible assets

2017

Impairment charges on goodwill and other intangible assets decreased from € 1.3 billion in 2016 to € 21 million in 2017, primarily due to the non-recurrence of prior year charges. The 2016 charge reflected an impairment of € 1.0 billion in Deutsche AM, triggered by the sale of Abbey Life and an impairment of € 285 million in CIB following the transfer of certain businesses from Deutsche AM.

2016

Impairment charges on goodwill and other intangible assets decreased by € 4.5 billion, or 78 %, to € 1.3 billion in 2016, from € 5.8 billion in 2015. The decline as compared to 2015 was primarily due to the absence of 2015 charges, notably € 3.6 billion in PCB and € 2.2 billion in CIB.

Restructuring

2017

Restructuring expenses amounted to € 447 million in 2017 compared to € 484 million in 2016. Restructuring charges for 2017 are primarily related to the planned merger of Private and Commercial Clients Germany and Postbank.

2016

Restructuring expenses were € 484 million in 2016 compared to € 710 million in 2015 due to execution of strategic measures.

Income Tax Expense

2017

Income tax expense in 2017 was € 2.0 billion (2016: € 546 million). The effective tax rate of 160 % (2016: negative 67 %) was mainly impacted by a one-time charge of € 1.4 billion resulting from the U.S. tax reform and other changes in the recognition and measurement of deferred tax assets.

2016

Income tax expense in 2016 was € 546 million (2015: € 675 million). The effective tax rate of negative 67 % (2015: negative 11 %) was mainly impacted by non-tax deductible goodwill impairment and litigation charges.

Net income (loss)

2017

The 2017 result was a net loss of € 735 million, driven by the aforementioned one-time tax charge attributable to the re-measurement of U.S. Deferred Tax Assets as a result of the U.S. tax reform, compared to a net loss of € 1.4 billion in 2016.

2016

The 2016 result was a net loss of € 1.4 billion as compared to a net loss of € 6.8 billion in 2015.

Segment Results of Operations

The following is a discussion of the results of our business segments. See Note 4 “Business Segments and Related Information” to the consolidated financial statements for information regarding:

- changes in the format of our segment disclosure and
- the framework of our management reporting systems.

The criterion for segmentation into divisions is our organizational structure as it existed at December 31, 2017. Prior period comparables were restated due to changes in the divisional structure. Segment results were prepared in accordance with our management reporting systems.

	2017					
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consoli- dation & Adjust- ments	Total Consolidated
Net revenues¹	14,226	10,178	2,532	–	(488)	26,447
Provision for credit losses	213	313	(1)	–	(0)	525
Noninterest expenses						
Compensation and benefits	4,273	3,979	778	–	3,223	12,253
General and administrative expenses	8,782	5,166	1,025	–	(3,000)	11,973
Policyholder benefits and claims	0	0	0	–	0	0
Impairment of goodwill and other intangible assets	6	12	3	–	0	21
Restructuring activities	82	360	6	–	(0)	447
Total noninterest expenses	13,143	9,518	1,811	–	223	24,695
Noncontrolling interests	26	(12)	1	–	(16)	0
Income (loss) before income taxes	843	359	720	–	(695)	1,228
Cost/income ratio	92 %	94 %	72 %	–	N/M	93 %
Assets²	1,127,028	333,069	8,050	–	6,586	1,474,732
Additions to non-current assets	125	551	60	–	1,067	1,803
Risk-weighted assets ³	231,574	87,472	8,432	–	16,734	344,212
CRD 4 leverage exposure measure (spot value at reporting date)	1,029,946	344,087	2,870	–	17,983	1,394,886
Average shareholders' equity	44,169	14,934	4,725	–	99	63,926
Post-tax return on average tangible shareholders' equity ⁴	1 %	2 %	54 %	–	N/M	(1) %
Post-tax return on average shareholders' equity ⁴	1 %	2 %	10 %	–	N/M	(1) %
¹ includes:						
Net interest income	4,532	5,876	(19)	–	1,989	12,378
Net income (loss) from equity method investments	81	3	44	–	9	137
² includes:						
Equity method investments	553	91	211	–	10	866

N/M – Not meaningful

³ Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

⁴ The post-tax return on average tangible shareholders' equity and average shareholders' equity at the Group level reflects the reported effective tax rate for the Group, which was 160 % for the year ended December 31, 2017. For the post-tax return on average tangible shareholders' equity and average shareholders' equity of the segments, the Group effective tax rate was adjusted to exclude the impact of permanent differences not attributed to the segments, so that the segment tax rates were 33 % for the year ended December 31, 2017.

	2016					
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consoli- dation & Adjust- ments	Total Consolidated
Net revenues¹	16,763	11,090	3,015	(382)	(471)	30,014
Provision for credit losses	816	439	1	128	(0)	1,383
Noninterest expenses						
Compensation and benefits	3,955	4,042	708	68	3,101	11,874
General and administrative expenses	9,655	5,029	1,071	2,678	(2,979)	15,454
Policyholder benefits and claims	0	0	374	0	0	374
Impairment of goodwill and other intangible assets	285	0	1,021	(49)	(0)	1,256
Restructuring activities	299	141	47	4	(7)	484
Total noninterest expenses	14,193	9,212	3,220	2,701	116	29,442
Noncontrolling interests	49	0	0	(4)	(46)	0
Income (loss) before income taxes	1,705	1,439	(206)	(3,207)	(541)	(810)
Cost/income ratio	85 %	83 %	107 %	N/M	N/M	98 %
Assets ²	1,201,894	329,869	12,300	5,523	40,959	1,590,546
Additions to non-current assets	22	480	1	0	1,517	2,019
Risk-weighted assets ³	237,596	86,082	8,960	9,174	15,706	357,518
CRD 4 leverage exposure measure (spot value at reporting date)	954,203	342,424	3,126	7,882	40,018	1,347,653
Average shareholders' equity	40,518	15,018	4,864	1,682	0	62,082
Post-tax return on average tangible shareholders' equity ⁴	3 %	7 %	N/M	N/M	N/M	(3) %
Post-tax return on average shareholders' equity ⁴	3 %	6 %	(3) %	N/M	N/M	(2) %
¹ includes:						
Net interest income	6,314	6,201	326	142	1,724	14,707
Net income (loss) from equity method investments	138	5	44	269	(1)	455
² includes:						
Equity method investments	698	23	203	98	4	1,027

N/M – Not meaningful

³ Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

⁴ The post-tax return on average tangible shareholders' equity and average shareholders' equity at the Group level reflects the reported effective tax rate for the Group, which was (67) % for the year ended December 31, 2016. For the post-tax return on average tangible shareholders' equity and average shareholders' equity of the segments, the Group effective tax rate was adjusted to exclude the impact of permanent differences not attributed to the segments, so that the segment tax rates were 35 % for the year ended December 31, 2016.

	2015					
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consoli- dation & Adjust- ments	Total Consolidated
Net revenues¹	18,899	10,637	3,016	794	179	33,525
Provision for credit losses	393	511	1	51	(0)	956
Noninterest expenses						
Compensation and benefits	4,897	4,161	870	86	3,279	13,293
General and administrative expenses	11,662	5,139	1,209	2,921	(2,299)	18,632
Policyholder benefits and claims	0	0	256	0	0	256
Impairment of goodwill and other intangible assets	2,168	3,608	0	0	0	5,776
Restructuring activities	129	586	(2)	(1)	(3)	710
Total noninterest expenses	18,856	13,495	2,334	3,006	976	38,667
Noncontrolling interests	26	0	(0)	1	(27)	0
Income (loss) before income taxes	(376)	(3,370)	682	(2,264)	(770)	(6,097)
Cost/income ratio	100 %	127 %	77 %	N/M	N/M	115 %
Assets ²	1,236,770	312,732	30,316	23,007	26,305	1,629,130
Additions to non-current assets	3	280	2	3	1,251	1,539
Risk-weighted assets ³	247,423	92,857	10,757	32,896	12,780	396,714
CRD 4 leverage exposure measure (spot value at reporting date)	1,007,791	329,902	5,354	36,553	15,587	1,395,188
Average shareholders' equity	39,258	14,333	5,352	3,735	6,377	69,055
Post-tax return on average tangible shareholders' equity ⁴	(1) %	(17) %	145 %	N/M	N/M	(12) %
Post-tax return on average shareholders' equity ⁴	(1) %	(15) %	8 %	N/M	N/M	(10) %
¹ includes:						
Net interest income	7,498	6,415	449	272	1,248	15,881
Net income (loss) from equity method investments	68	40	34	20	2	164
² includes:						
Equity method investments	650	21	182	166	(6)	1,013

N/M – Not meaningful

³ Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

⁴ The post-tax return on average tangible shareholders' equity and average shareholders' equity at the Group level reflects the reported effective tax rate for the Group, which was (11) % for the year ended December 31, 2015. For the post-tax return on average tangible shareholders' equity and average shareholders' equity of the segments, the Group effective tax rate was adjusted to exclude the impact of permanent differences not attributed to the segments, so that the segment tax rates were 35 % for the year ended December 31, 2015.

Corporate & Investment Bank

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Net revenues							
Global Transaction Banking	3,942	4,421	4,609	(478)	(11)	(188)	(4)
Equity Origination	396	405	658	(8)	(2)	(253)	(38)
Debt Origination	1,327	1,393	1,481	(66)	(5)	(88)	(6)
Advisory	508	495	575	13	3	(80)	(14)
Origination and Advisory	2,231	2,292	2,714	(61)	(3)	(422)	(16)
Financing	2,231	2,375	2,127	(144)	(6)	248	12
Sales & Trading (Equity)	2,085	2,571	3,416	(486)	(19)	(845)	(25)
Sales & Trading (FIC)	4,380	5,087	6,083	(707)	(14)	(996)	(16)
Sales & Trading	6,465	7,658	9,499	(1,193)	(16)	(1,841)	(19)
Other	(644)	17	(51)	(661)	N/M	68	N/M
Total net revenues	14,226	16,763	18,899	(2,537)	(15)	(2,136)	(11)
Provision for credit losses	213	816	393	(603)	(74)	423	108
Noninterest expenses							
Compensation and benefits	4,273	3,955	4,897	318	8	(942)	(19)
General and administrative expenses	8,782	9,655	11,662	(872)	(9)	(2,007)	(17)
Policyholder benefits and claims	0	0	0	0	N/M	0	N/M
Impairment of goodwill and other intangible assets	6	285	2,168	(279)	(98)	(1,883)	(87)
Restructuring activities	82	299	129	(217)	(73)	169	131
Total noninterest expenses	13,143	14,193	18,856	(1,050)	(7)	(4,663)	(25)
Noncontrolling interests	26	49	26	(23)	(46)	23	89
Income (loss) before income taxes	843	1,705	(376)	(861)	(51)	2,080	N/M
Cost/income ratio	92 %	85 %	100 %	N/M	8 ppt	N/M	(15) ppt
Assets ¹	1,127,028	1,201,894	1,236,770	(74,866)	(6)	(34,876)	(3)
Risk-weighted assets ²	231,574	237,596	247,423	(6,022)	(3)	(9,827)	(4)
Average shareholders' equity ³	44,169	40,518	39,258	3,651	9	1,260	3
Post-tax return on average tangible shareholders' equity	1 %	3 %	(1) %	N/M	(2) ppt	N/M	4 ppt
Post-tax return on average shareholders' equity	1 %	3 %	(1) %	N/M	(2) ppt	N/M	3 ppt

N/M – Not meaningful

¹ Segment assets represent consolidated view, i.e., the amounts do not include intersegment balances.

² Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

³ See Note 4 "Business Segments and Related Information" to the consolidated financial statements for a description of how average shareholders' equity is allocated to the divisions.

2017

CIB net revenues for the full year 2017 were € 14.2 billion, a decrease of € 2.5 billion, or 15 % year-on-year. The division was impacted by higher funding charges and by a particularly challenging environment for Sales and Trading, with consistently low levels of volatility and subdued client activity from the second quarter through to year end. Global Transaction Banking was also impacted by client and perimeter adjustments initiated in 2016 and margin pressure. Origination and Advisory performance was essentially flat to the prior year.

Global Transaction Banking net revenues were € 3.9 billion, a decrease of € 478 million, or 11 %. Cash Management revenues were slightly lower, as interest rate increases in the U.S. partly offset the negative impact of client and product perimeter reductions initiated in 2016. Trade revenues were lower, driven by active balance sheet management efforts and continued margin pressure. Trust, Agency and Securities Services revenues were essentially flat, as lower transaction volumes due to client and country exits were offset by interest rate increases in the U.S. In addition, GTB revenues were negatively impacted by a change in funding charges allocation methodology in 2017.

Origination and Advisory revenues were € 2.2 billion, a € 61 million, or 3 % decrease compared to the prior year. Equity Origination revenues decreased by € 8 million or 2 %, essentially flat to the prior year. Debt Origination revenues were € 66 million or 5 % lower, with a strong first quarter of 2017 supported by high inflows into the Leveraged Loan market, offset by slightly lower revenues during the remainder of 2017 amid lower client activity and Deutsche Bank's reduced risk appetite in the U.S. Advisory revenues were € 13 million or 3 % higher driven by a robust market and strong deal participation.

Financing net revenues were € 2.2 billion, a decrease of € 144 million, or 6% mainly driven by lower revenues from investment grade lending which was impacted by higher funding charges.

Sales & Trading (FIC) net revenues were € 4.4 billion, a decrease of € 707 million, or 14 %. Credit revenues were essentially flat supported by strong performance in distressed products in the first half of 2017, offset by less favourable trading conditions for flow businesses in the second half of 2017. Rates revenues were higher with solid performance in Europe, partly offset by a weaker performance in the U.S. Foreign Exchange revenues were lower as a persistently low volatility environment impacted client flows. Asia Pacific Foreign Exchange and Rates revenues decreased with a strong first quarter of 2017 offset by lower client activity during the remainder of the year. Emerging Markets revenues were significantly lower due to subdued client flow and specific developments in Venezuela, South Africa and Turkey towards the end of the year.

Sales & Trading (Equity) generated net revenues of € 2.1 billion, a decrease of € 486 million, or 19 %. Revenues in Prime Finance were lower reflecting lower average balances during the year, reduced margins and higher funding cost. Equity Derivatives revenues were lower with a challenging trading environment particularly in the second half of 2017. Cash Equities revenues were essentially flat with volumes remaining challenged.

Other revenues incurred a loss of € 644 million, compared to a gain of € 17 million in 2016. 2017 included a loss of € 348 million (2016: a gain of € 27 million) relating to the impact of DVA on certain derivative liabilities. € 136 million of this loss was driven by a change in the creditor hierarchy in the event of a bank insolvency which was introduced by the German Resolution Mechanism Act (Abwicklungsmechanismusgesetz), effective January 1, 2017. This hierarchy change results in derivative counterparties receiving greater protection as they would be satisfied prior to senior unsecured debt holders in the creditor waterfall structure. This greater protection increases the value of the derivative assets for the counterparty, thereby increasing the value of derivative liabilities on our balance sheet, resulting in the loss. Revenues associated with assets identified as not consistent with CIB's strategy are reported under 'Other' as of the second quarter of 2017, including a negative impact related to the valuation of the legacy RMBS portfolio.

Provisions for credit losses of € 213 million were down 74% year-on-year. The decrease resulted primarily from reductions across all portfolios, including shipping. Despite the year-over-year reduction, shipping continued to be the main driver of provision for credit losses in 2017.

Noninterest expenses of € 13.1 billion, were € 1.1 billion, or 7 % lower than in 2016. Reduced litigation provisions, materially lower goodwill impairment and lower severance and restructuring all positively impacted the comparison versus the prior year. Compensation costs increased due to the normalization of variable compensation payments in 2017, though this was partially mitigated by reduced noncompensation direct costs. The year-on-year development of noninterest expenses also benefitted from foreign exchange rate movements.

Income before income taxes of € 843 million was € 861 million or 51 % lower than in the previous year. The period-over-period reduction in revenues was only partially offset by reduced noninterest expenses and lower credit loss provisions.

2016

Revenues in the Corporate & Investment Bank of € 16.8 billion declined € 2.1 billion, or 11% in 2016 compared to the prior year. The division was impacted by a particularly challenging environment for Equities, negative market perceptions concerning Deutsche Bank and the impact of strategy execution in line with our targets announced in October 2015. In Corporate Finance, the industry-wide slowdown in client activity and primary market issuances seen in the fourth quarter of 2015 continued through the first half of 2016, while Transaction Banking revenues also decreased slightly, driven by a number of macro-economic headwinds.

Global Transaction Banking net revenues were € 4.4 billion, a decrease of € 188 million, or 4 %. Cash Management revenues were essentially flat and were impacted by low interest rates within the Eurozone area and client perimeter rationalization as part of our targets announced in October 2015. Trade revenues were lower driven by active balance sheet and risk management efforts and margin pressure. Trust, Agency and Securities Services revenues were slightly lower, with the business also affected by lower interest rates in Europe, coupled with lower global IPO activity, though these were partly offset by interest rate increases in the U.S.

Origination and Advisory revenues were € 2.3 billion, a € 422 million, or 16 % decrease compared to the prior year. Equity Origination revenues were down € 253 million or 38 % for the year reflecting an industry wide reduction in issuance levels. Debt Origination was lower by € 88 million or 6 % for the full year, driven by a weak first quarter. Advisory revenues decreased € 80 million or 14 %, as market activity decreased compared to 2015.

Financing net revenues were € 2.4 billion, an increase of € 248 million, or 12% driven by strong performance in asset based financing and Commercial Real Estate, specifically in the U.S.

Sales & Trading (FIC) net revenues were € 5.1 billion, a decrease of € 996 million, or 16 %. Revenues in Foreign Exchange were in line with a strong prior year. Revenues in Rates were essentially flat, as good performance in Europe was partly offset by a weaker performance in the U.S. Credit revenues were lower and included the impact of de-risking in Securitised Trading as part of our targets announced in October 2015. Underperformance was seen in both Credit Flow and Securitised Trading.

Emerging Market revenues were significantly lower in 2016 driven by the impact of country exits, specifically Russia, as part of the implementation of our targets announced in October 2015, lower client flow and macro uncertainty. Asia Pacific Foreign Exchange and Rates revenues were significantly lower as a result of unfavorable market conditions in the first half of the year and subdued market activity negatively impacting client flow.

Sales & Trading (Equity) net revenues were € 2.6 billion, a decrease of € 845 million, or 25 %. Prime Finance revenues were lower reflecting a decline in client balances and trading activity as well as increased cost of funding. Equity Derivatives revenues were significantly lower due to lower client activity. Cash Equity revenues were significantly lower in 2016 as a result of a challenging market environment and lower client volumes.

Other revenues were positive € 17 million, compared to negative € 51 million in 2015. The impact of DVA during the year was a gain of € 27 million (€ 48 million in 2015).

Provisions for credit losses of € 816 million were up € 423 million, or 108 % compared to 2015. The increase was primarily driven by the deterioration in credit quality of the shipping sector where the industry suffered from persistent structural challenges; such as oversupply and redundancy of certain types of ships. As a consequence this severe industry weakness also triggered more borrowers to fall into the defaulted category valued under a liquidation scenario.

Noninterest expenses of € 14.2 billion were € 4.7 billion, or 25 % lower than in 2015. Materially lower goodwill impairment and reduced litigation charges positively impacted the comparison versus the prior year and more than offset an increase in restructuring costs. Compensation costs in 2016 were lower as a result of reduced performance related compensation and a reduction in headcount as part of strategic initiatives.

Income before income taxes of € 1.7 billion was € 2.1 billion higher than in the previous year. The substantial reduction in noninterest expenses more than offset lower revenues and a significant increase in credit loss provisions.

Private & Commercial Bank

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Net revenues:							
Private & Commercial Clients	5,013	5,225	5,603	(213)	(4)	(377)	(7)
Postbank	3,124	3,366	3,112	(242)	(7)	254	8
Wealth Management	2,041	1,880	2,097	161	9	(217)	(10)
Hua Xia	0	618	(175)	(618)	(100)	793	N/M
Total net revenues	10,178	11,090	10,637	(912)	(8)	453	4
thereof:							
Net interest income	5,876	6,201	6,415	(325)	(5)	(214)	(3)
Commissions and fee income	3,367	3,395	3,816	(28)	(1)	(421)	(11)
Remaining income	935	1,494	406	(559)	(37)	1,088	N/M
Provision for credit losses	313	439	511	(126)	(29)	(73)	(14)
Noninterest expenses:							
Compensation and benefits	3,979	4,042	4,161	(63)	(2)	(119)	(3)
General and administrative expenses	5,166	5,029	5,139	138	3	(110)	(2)
Policyholder benefits and claims	0	0	0	0	N/M	0	N/M
Impairment of goodwill and other intangible assets	12	0	3,608	12	N/M	(3,608)	N/M
Restructuring activities	360	141	586	219	155	(445)	(76)
Total noninterest expenses	9,518	9,212	13,495	306	3	(4,283)	(32)
Noncontrolling interests	(12)	0	0	(12)	N/M	0	3
Income (loss) before income taxes	359	1,439	(3,370)	(1,080)	(75)	4,809	N/M
Cost/income ratio	94 %	83 %	127 %	N/M	10 ppt	N/M	(44) ppt
Assets ¹	333,069	329,869	312,731	3,200	1	17,138	5
Risk-weighted assets ²	87,472	86,082	92,857	1,390	2	(6,776)	(7)
Average shareholders' equity ³	14,934	15,018	14,333	(84)	(1)	685	5
Post-tax return on average tangible shareholders' equity	2 %	7 %	(17) %	N/M	(5) ppt	N/M	25 ppt
Post-tax return on average shareholders' equity	2 %	6 %	(15) %	N/M	(5) ppt	N/M	22 ppt

N/M – Not meaningful

¹ Segment assets represent consolidated view, i.e., the amounts do not include intersegment balances.

² Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

³ See Note 4 "Business Segments and Related Information" to the consolidated financial statements for a description of how average shareholders' equity is allocated to the divisions.

Additional information

in € bn. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € bn.	in %	in € bn.	in %
Assets under management ¹	506	501	583	5	1	(83)	(14)
Net flows	4	(42)	3	47	N/M	(46)	N/M

N/M – Not meaningful

¹ We define assets under management as (a) assets we hold on behalf of customers for investment purposes and/or (b) client assets that are managed by us. We manage assets under management on a discretionary or advisory basis, or these assets are deposited with us. Deposits are considered assets under management if they serve investment purposes. In our Private and Commercial Clients and Postbank businesses, this includes all time deposits and savings deposits. In Wealth Management, we assume that all customer deposits are held with us primarily for investment purposes.

2017

PCB's results in 2017 were significantly impacted by strategy-related items, which included restructuring provisions related to the planned merger of Private & Commercial Clients Germany and Postbank as well as a negative revenue impact subsequent to the agreement related to the sale of a significant portion of the retail business in Poland. In contrast, results in 2016 benefited from a gain related to the sale of the stake in Hua Xia Bank Co. Ltd. These specific factors explain most of the year-on-year decline in PCB's income before income taxes.

Net revenues of € 10.2 billion decreased by € 912 million, or 8 %, compared to the prior year. This decline was primarily attributable to business disposals in both years. 2016 included a € 618 million revenue contribution from Hua Xia Bank Co. Ltd. as well as a € 140 million higher revenue contribution from the Private Client Services (PCS) unit in the U.S. prior to its sale. In contrast, net revenues in 2017 were negatively impacted by € 157 million related to the agreement to sell a significant portion of the retail business in Poland. Excluding these effects, net revenues remained essentially flat year-on-year. Positive impacts from workout activities in Sal. Oppenheim compensated for negative impacts from lower gains from asset sales and the termination of a legacy trust preferred security. The decrease in deposit revenues in the ongoing low interest rate environment was largely mitigated by growth in loan revenues and by higher commission and fee income from account and investment products.

In the Private & Commercial Client (PCC) businesses, revenues decreased by € 213 million, or 4 %, compared to the prior year, mainly attributable to a negative impact of € 157 million from the agreement to sell a significant portion of the retail business in Poland reflected in remaining income. Additionally, both periods included gains from asset sales on a comparable level (2017 included a gain of € 95 million from the sale of shares in Concardis GmbH, 2016 included a gain of € 98 million from the sale of shares in VISA Europe Limited). Net interest income decreased slightly compared to 2016, which was attributable to the ongoing low interest rate environment. Commission and fee income remained essentially flat year-on-year with improved revenues from investment products.

Revenues in the Postbank businesses decreased by € 242 million, or 7 %, compared to the prior year, primarily driven by a negative impact of € 118 million from the termination of a legacy trust preferred security in 2017 whereas revenues in 2016 benefited from gains from certain asset sales including € 104 million related to the sale of shares in VISA Europe Limited. Postbank's net interest income declined slightly year-on-year. The impact of the low interest rate environment on deposit revenues was partly mitigated by higher loan revenues as a result of growth in lending volumes. Commission and fee income increased mainly reflecting the introduction of a new pricing model for current accounts and an enhanced advisory model for investment products.

Revenues in the Wealth Management (WM) businesses increased by € 161 million, or 9 %, mainly caused by positive impacts of approximately € 400 million from workout activities in the Sal. Oppenheim franchise, which more than compensated for the lower revenue contribution in 2017 after the disposal of the Private Client Services (PCS) unit in September 2016. Workout gains were primarily driven by favourable legal outcomes positively impacting the valuation of loans, which were reduced in their carrying amount as part of the acquisition. Excluding these effects, net revenues decreased compared to the previous year reflecting foreign exchange rate movements as well as a decline in net interest revenues driven by loan book reductions mainly in the Americas. Commission and fee income was slightly below the prior year, reflecting lower client activities and a lower asset base in the Americas and EMEA partly compensated by good growth momentum in Asia Pacific.

Provision for credit losses of € 313 million decreased by € 126 million, or 29 %, year-on-year benefiting from a provision release in Postbank as well as a good portfolio quality in a continued benign economic environment. Both periods included positive impacts from selective portfolio sales.

Noninterest expenses of € 9.5 billion increased by € 306 million, or 3 %, compared to the last year. As mentioned above, the current year was impacted by net restructuring charges of € 360 million (versus € 141 million in 2016) related to strategic items including the reorganisation and integration measures in Germany. Noninterest expenses also increased due to higher variable compensation and higher investment spending. These effects were partially compensated by savings from executed reorganization measures and a reduced cost base after the disposal of the PCS unit.

Income before income taxes of € 359 million decreased by € 1.1 billion compared to 2016. The decrease was mainly attributable to the aforementioned specific factors and the continued difficult interest rate environment.

PCB's Assets under Management of € 506 billion increased by € 5 billion compared to December 31, 2016. Negative impacts from foreign exchange rate movements were more than compensated by market appreciation and by net inflows of € 4 billion (primarily in the PCC businesses). Net inflows mainly occurred in deposit products, in part reflecting the successful win-back of mandates after outflows in the third and fourth quarter of 2016. In Wealth Management net inflows were partly impacted by strategic business decisions and continued de-risking.

2016

During 2016, PCB made substantial progress in the execution of strategic measures including the streamlining of distribution models and the further expansion of digital offerings. Also as part of our targets originally announced in October 2015, PCB completed the disposals of the Private Client Services (PCS) unit in the U.S. and the Hua Xia Bank Co. Ltd. stake in China. The latter transaction resulted in a significant gain on sale. Additionally, PCB benefited from the sale of its shares in VISA Europe Limited. PCB's prior year results were negatively impacted by Hua Xia-related valuation effects, impairment charges of € 3.6 billion and significant expenses for restructuring activities.

Net revenues in PCB of € 11.1 billion increased by € 453 million, or 4 %, compared to the prior year period. This increase was driven by a higher contribution from Hua Xia Bank Co. Ltd. with revenues of € 618 million in 2016 including the aforementioned positive impact from the sale transaction. 2015 included net negative revenues of € 175 million related to Hua Xia Bank Co. Ltd. Excluding the impacts from the disposals of Hua Xia Bank Co. Ltd. and PCS, net revenues declined compared to the prior year period.

In the Private & Commercial Client (PCC) businesses, revenues decreased by € 377 million, or 7 %. Net interest income declined slightly driven by the lower interest rate environment in Europe resulting in reduced Deposit revenues. Commission and fee income declined year-on-year as the ongoing turbulent market environment with reduced client activity, resulted in lower revenues from Investment & insurance products. PCC's remaining income increased significantly, including a € 98 million gain attributable to the sale of the shares in VISA Europe Limited.

Revenues in the Postbank businesses increased by € 254 million, or 8 %, compared to 2015 primarily driven by gains from certain asset sales including a € 104 million gain from aforementioned sale of shares in VISA Europe Limited reflected in remaining income. Net interest income remained essentially flat. Lower revenues from deposit products following the continued low interest rate environment in Europe were compensated by a discontinued revenue burden from the adjustment of home loan savings interest provisions in 2015. Beyond that, net interest income from credit products increased driven by volume growth. Net commission and fee income remained essentially flat compared to the prior year period.

Revenues in the Wealth Management (WM) businesses decreased by € 217 million, or 10 %, in part due to a deconsolidation impact after the disposal of the PCS unit in September 2016. Apart from this effect, WM's net interest income remained essentially flat, while net commission and fee income in WM was also impacted by the difficult market environment with reduced client activity, strategic de-risking initiatives and the negative market perceptions associated with Deutsche Bank in the second half of 2016.

Provision for credit losses of € 439 million decreased by € 73 million, or 14 %, compared to prior year reflecting the continued good quality of the loan portfolio and the benign economic environment. Provision for credit losses also benefited from selective portfolio sales with similar impacts in 2015 and 2016.

Noninterest expenses of € 9.2 billion in 2016 decreased by € 4.3 billion, or 32 %, compared to the prior year period. 2015 included € 3.6 billion impairments, € 475 million higher charges for restructuring and severance and a € 131 million partial write-off of software, whereas noninterest expenses in 2016 benefited from a reduced cost base after the disposal of the PCS unit in September. Excluding these effects, noninterest expenses were at comparable levels in 2015 and 2016. The impact of higher investments in digitalization and further spending related to strategic measures was offset by lower compensation expenses and strict cost discipline.

Income before income taxes of € 1.4 billion increased by € 4.8 billion compared to 2015. The increase was attributable to the aforementioned impairment items and higher charges for restructuring and severance in 2015 combined with the positive impact from the disposal of the Hua Xia Bank Co. Ltd. stake in 2016. Excluding these factors, income before income taxes declined in 2016 compared to 2015 reflecting the impact of the continued low interest rate environment and the volatile market environment on revenues in the WM, PCC and Postbank businesses.

Assets under management of € 501 billion decreased by € 83 billion compared to December 31, 2015. The decline was mainly attributable to a deconsolidation effect of € 38 billion subsequent to the disposal of the PCS unit and net outflows of € 42 billion (€ 32 billion in WM, € 7 billion in PCC businesses, € 3 billion in Postbank) mainly occurring subsequent to the negative market perceptions associated with Deutsche Bank in the second half of 2016. In WM, net outflows during 2016 also reflected continued deleveraging activities of the clients as well as efforts to optimize risk management practices and to improve efficiencies such as cross-border servicing.

Deutsche Asset Management

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Net revenues							
Management Fees	2,215	2,161	2,299	53	2	(138)	(6)
Performance and transaction fees	199	219	246	(20)	(9)	(28)	(11)
Other revenues	118	239	213	(121)	(51)	25	12
Mark-to-market movements on policyholder positions in Abbey Life	0	396	258	(396)	N/M	139	54
Total net revenues	2,532	3,015	3,016	(483)	(16)	(1)	(0)
Provision for credit losses	(1)	1	1	(1)	N/M	(0)	(4)
Noninterest expenses							
Compensation and benefits	778	708	870	70	10	(163)	(19)
General and administrative expenses	1,025	1,071	1,209	(47)	(4)	(138)	(11)
Policyholder benefits and claims	0	374	256	(374)	(100)	117	46
Impairment of goodwill and other intangible assets	3	1,021	0	(1,018)	(100)	1,021	N/M
Restructuring activities	6	47	(2)	(41)	(88)	49	N/M
Total noninterest expenses	1,811	3,220	2,334	(1,409)	(44)	886	38
Noncontrolling interests	1	0	(0)	1	N/M	1	N/M
Income (loss) before income taxes	720	(206)	682	926	N/M	(888)	N/M
Cost/income ratio	72 %	107%	77%	N/M	(35) ppt	N/M	29 ppt
Assets ¹	8,050	12,300	30,316	(4,250)	(35)	(18,016)	(59)
Risk-weighted assets ²	8,432	8,960	10,757	(528)	(6)	(1,797)	(17)
Average shareholders' equity ³	4,725	4,864	5,352	(139)	(3)	(489)	(9)
Post-tax return on average tangible shareholders' equity	55%	N/M	145%	N/M	N/M	N/M	N/M
Post-tax return on average shareholders' equity	10%	(3)%	8%	N/M	13 ppt	N/M	(11) ppt

N/M – Not meaningful

¹ Segment assets represent consolidated view, i.e., the amounts do not include intersegment balances.

² Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

³ See Note 4 "Business Segments and Related Information" to the consolidated financial statements for a description of how average shareholders' equity is allocated to the divisions.

2017

In 2017, Deutsche AM reported significantly higher income before income taxes compared to 2016. Excluding Abbey Life, which was disposed in the fourth quarter of 2016, Deutsche AM results in 2017 were in line with those in 2016, driven by higher revenues, offset by higher expenses. 2017 saw a positive turnaround with € 16 billion net inflows compared to the net outflows reported in the prior year.

Net revenues were € 2.5 billion, a decrease of € 483 million or 16%. Excluding Abbey Life in 2016, net revenues were up by € 54 million, or 2%, compared to the prior year. Management fees increased slightly by € 53 million, or 2%, mainly in Active driven by favorable market movements. Performance and transaction fees were lower by € 20 million or 9%, primarily driven by lower fund performance fees, from one of the Active funds, compared to the prior year. Other revenues were significantly lower by € 121 million or 51% compared to the prior year. The decline was primarily due to non-recurring revenues from Abbey Life excluding mark-to-market revenues, proceeds on sale of Deutsche AM India and a write-up relating to HETA exposure which was exited in 2016. These drivers in other revenues were partly offset by a non-recurring recovery in the current year relating to a real-estate fund legal matter, unfavourable impact from the sale of Luxembourg-based Sal. Oppenheim asset servicing business and prior year negative fair value related to guaranteed products. Following the sale of Abbey Life in 2016, no mark-to-market movements on policyholder positions were recorded in 2017, compared to € 396 million reported in the prior year.

Noninterest expenses of € 1.8 billion decreased significantly by € 1.4 billion, or 44%, due to non-recurrence of costs relating to Abbey Life and lower restructuring expenses. Compensation and benefits were higher due to increased variable compensation costs, General and administrative expenses were slightly lower compared to prior year, driven by the aforementioned non-recurrence of costs relating to Abbey Life, partly offset by an operational loss provision taken in 2015 and released in 2016, coupled with 2017 costs relating to the Asset Management separation.

Income before income taxes of € 720 million significantly increased by € 926 million, driven by the impairment of goodwill and other intangible assets related to Abbey Life in 2016. These items were partly offset by lower revenues due to several non-recurring items in the prior year including Abbey Life, the sale of Deutsche AM India and the write-up relating to HETA.

Assets under Management (AuM) were € 702 billion, a decrease of € 4 billion versus December 31, 2016, driven by € 36 billion unfavourable foreign exchange rate movements and € 13 billion negative Other adjustments mainly relating to disposals of the Luxembourg-based Sal. Oppenheim asset servicing business and U.S. Private Clients business, partly offset by € 30 billion favourable market performance and € 16 billion net inflows led by Europe ETF, multi asset and liquidity product inflows, partly offset by insurance asset outflows.

The following table provides a development of AuM during 2017, broken down by product type as well as the respective management fee margins:

in € bn.	Active Equity	Active Fixed Income	Active Multi Asset	Active SQL	Active Cash	Passive	Alternatives	Assets under Management
Balance as of December 31, 2016	92	264	54	53	63	98	82	706
Inflows ¹	20	68	23	15	9	36	16	187
Outflows ¹	(22)	(71)	(12)	(17)	(9)	(25)	(16)	(172)
Net Flows	(2)	(3)	11	(3)	1	11	0	16
FX impact	(3)	(17)	(1)	(0)	(3)	(7)	(5)	(36)
Performance	9	5	1	2	(1)	11	3	30
Other	(1)	(2)	(5)	0	0	1	(6)	(13)
Balance as of December 31, 2017	96	247	60	52	59	115	73	702
Management fee margin (in bps)	76	14	38	29	9	24	55	31

¹ Inflows and Outflows as reported include the AuM shifts between asset classes.

2016

In 2016, Deutsche AM performance was impacted by the sale of Abbey Life resulting in € 1.0 billion impairment of goodwill and other intangible assets and net outflows, driven by market concerns about Deutsche Bank. Despite less favourable market conditions reflecting ongoing uncertainty from sustained low global growth, excluding Abbey Life, Deutsche AM achieved an income before income taxes of € 731 million, an increase of 16% from € 632 million in 2015.

Net revenues for full year 2016 were € 3.0 billion, and were in line with prior year. Net revenues excluding Abbey Life were € 2.5 billion, a decrease of 6% from € 2.7 billion in 2015. Management fees decreased slightly by € 138 million, or 6%, due to lower AuM and unfavourable market conditions impacting the Passive and Active businesses. Performance and transaction fees decreased by € 28 million, or 11%, compared to a strong prior year period in Alternatives. Other revenues increased by € 25 million, or 12%, due to a prior year write down relating to HETA and the 2016 sale of Abbey Life and Deutsche AM India, partly offset by negative fair value of guaranteed products and lower dividend income in Alternatives. Mark-to-market movements on policyholder positions in Abbey Life increased significantly by € 139 million, or 54%, following higher market gains.

Noninterest expenses of € 3.2 billion were significantly higher by € 886 million, or 38%, due to impairments of goodwill and other intangible assets predominantly related to the sale of Abbey Life and an increase in policyholder benefits and claims which offsets with revenues. Excluding Abbey Life, noninterest expenses of € 1.7 billion decreased by € 251 million compared to 2015, mainly due to lower compensation costs and the reversal of an operational loss provision taken in 2015.

Loss before income taxes was € 206 million, significantly lower by € 888 million compared to 2015, primarily driven by the aforementioned impacts related to the sale of Abbey Life.

AuM were € 706 billion as of December 31, 2016, a decrease of € 39 billion versus December 31, 2015, driven by challenging market conditions exacerbated by the negative market perceptions concerning Deutsche Bank, market rumours surrounding the future of Deutsche AM and changes in Deutsche AM's management. Net outflows of € 41 billion were driven by the Americas region, where outflows in cash were the main source of the results, driven by money market reform. Exchange-traded funds were another area with sizeable outflows as the currency-hedged category experienced outflows across the industry. The decrease was also driven by disposals of € 18 billion mainly relating to Abbey Life and Deutsche AM India. Partly offsetting the outflows was the effect from favourable Equity and Fixed Income market performance of € 16 billion, and favourable foreign exchange rate movements of € 4 billion. Deutsche AM also experienced positive inflows of € 2 billion in Asia Pacific in 2016.

The following table provides a development of AuM during 2016, broken down by product type as well as the respective management fee margins:

in € bn.	Active Equity	Active Fixed Income	Active Multi Asset	Active SQI	Active Cash	Passive	Alternatives	Assets under Management
Balance as of December 31, 2015	102	276	54	54	75	101	82	745
Inflows ¹	20	56	14	19	9	24	15	158
Outflows ¹	(25)	(73)	(14)	(23)	(18)	(32)	(15)	(199)
Net Flows	(5)	(17)	(0)	(4)	(9)	(7)	0	(41)
FX impact	(1)	2	(0)	0	1	1	1	4
Performance	4	6	1	2	(1)	3	2	16
Other	(9)	(3)	0	(0)	(2)	0	(3)	(18)
Balance as of December 31, 2016	92	264	54	53	63	98	82	706
Management fee margin (in bps)	68	15	37	29	8	27	53	30

¹ Inflows and Outflows as reported include the AuM shifts between asset classes.

Non-Core Operations Unit

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Net revenues	–	(382)	794	382	N/M	(1,176)	N/M
thereof:							
Net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss	–	(1,307)	(362)	1,307	N/M	(944)	N/M
Provision for credit losses	–	128	51	(128)	N/M	76	148
Noninterest expenses							
Compensation and benefits	–	68	86	(68)	N/M	(18)	(20)
General and administrative expenses	–	2,678	2,921	(2,678)	N/M	(243)	(8)
Policyholder benefits and claims	–	0	0	0	N/M	0	N/M
Impairment of goodwill and other intangible assets	–	(49)	0	49	N/M	(49)	N/M
Restructuring activities	–	4	(1)	(4)	N/M	5	N/M
Total noninterest expenses	–	2,701	3,006	(2,701)	N/M	(304)	(10)
Noncontrolling interests	–	(4)	1	4	N/M	(5)	N/M
Income (loss) before income taxes	–	(3,207)	(2,264)	3,207	N/M	(943)	42
Assets ¹	–	5,523	23,007	(5,523)	N/M	(17,485)	(76)
Risk-weighted assets ²	–	9,174	32,896	(9,174)	N/M	(23,722)	(72)
Average shareholders' equity ³	–	1,682	3,735	(1,682)	N/M	(2,052)	(55)

N/M – Not meaningful

¹ Segment assets represent consolidated view, i.e., the amounts do not include intersegment balances.

² Risk-weighted assets and capital ratios are based upon CRR/CRD 4 fully-loaded.

³ See Note 4 "Business Segments and Related Information" to the consolidated financial statements for a description of how average shareholders' equity is allocated to the divisions.

2017

From 2017 onwards, Non-Core Operations Unit (NCOU) ceased to exist as a standalone division. The remaining legacy assets as of December 31, 2016 are now managed by the corresponding operating segments, predominately Corporate & Investment Bank and Private & Commercial Bank.

2016

During 2016, NCOU successfully executed its de-risking strategy and reduced its portfolio in size to achieve its year-end closure target. Activity focused on initiatives aimed at delivering efficient capital contribution and de-leveraging results, which took place across a number of portfolios. These included the resolution of long-dated derivative exposures as well as various bond sales and further unwinds across the correlation and negative basis portfolios. The sale of our stakes in Maher Port Elizabeth and Red Rock Resorts were also completed in the period.

Net revenues for NCOU in the reporting period were negative € 382 million versus positive € 794 million in the prior year. This was predominately driven by de-risking losses of € 821 million, mainly from an unwind of long dated derivative exposures and related assets, partially offset by a gain of € 368 million in relation to Red Rock Resorts. In addition portfolio revenues declined following asset sales including Maher Prince Rupert, which was partially offset by lower valuation adjustments and mark-to-market impacts. Net revenues in 2015 included € 219 million from a specific litigation recovery and a gain of € 195 million on the sale of Maher Prince Rupert.

Provisions for credit losses increased by € 76 million, in comparison to 2015. This was predominantly driven by higher provisions taken against the European residential mortgages and commercial loans which included IAS 39 reclassified assets.

Noninterest expenses decreased by € 304 million, or 10 %, in comparison to 2015 predominately due to lower litigation related expenses. Costs excluding litigation charges were 18 % lower year-on-year, driven by asset sales including Maher Prince Rupert in 2015.

The loss before income taxes increased by € 943 million to € 3.2 billion, compared to 2015. The increase was primarily driven by losses from de-risking activity, while noninterest expenses were lower.

Consolidation & Adjustments

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Net revenues¹	(488)	(471)	179	(16)	3	(650)	N/M
Provision for credit losses	(0)	(0)	(0)	0	(19)	(0)	N/M
Noninterest expenses							
Compensation and benefits	3,223	3,101	3,279	122	4	(178)	(5)
General and administrative expenses	(3,000)	(2,979)	(2,299)	(21)	1	(679)	30
Policyholder benefits and claims	0	0	0	0	N/M	0	N/M
Impairment of goodwill and other intangible assets	0	(0)	0	0	N/M	(0)	N/M
Restructuring activities	(0)	(7)	(3)	6	(98)	(3)	99
Total noninterest expenses	223	116	976	107	93	(860)	(88)
Noncontrolling interests	(16)	(46)	(27)	30	(65)	(19)	70
Income (loss) before income taxes	(695)	(541)	(770)	(153)	28	229	(30)
Assets²	6,586	40,959	26,305	(34,373)	(84)	14,654	56
Risk-weighted assets³	16,734	15,706	12,780	1,028	7	2,926	23
Average shareholders' equity⁴	99	0	6,377	99	N/M	(6,377)	N/M

N/M – Not meaningful

¹ Net interest income and noninterest income.

² Assets in C&A reflect residual Treasury assets not allocated to the business segments as well as Corporate assets, such as deferred tax assets and central clearing accounts, outside the management responsibility of the business segments.

³ Risk weighted assets are based upon CRR/CRD 4 fully-loaded. Risk-weighted assets in C&A reflect Treasury and Corporate assets outside the management responsibility of the business segments, primarily the Group's deferred tax assets.

⁴ Average shareholders' equity in December 2015 represents the difference between the spot values of the segments for the period end and the average Group amount.

2017

Loss before income taxes in C&A was € 695 million in 2017 compared to a loss of € 541 million in the prior year period, an increase of € 153 million, or 28 %. 2017 was impacted by € 213 million of currency translation adjustment realization and losses on sale from the disposal of non-strategic subsidiaries including in Argentina and Uruguay. Maintaining funding and liquidity buffers in excess of business-based liquidity requirements resulted in negative € 114 million (2016: negative € 42 million). Foreign exchange revaluation of proceeds from GBP denominated AT1 issuance was negative € 26 million (2016: negative € 127 million). Valuation and timing differences included a negative € 164 million in the debt issuance portfolio related to the tightening of our own credit spread. This was offset by a positive impact of € 104 million from interest rate related items, primarily driven by adjustments related to Group cash flow hedging programs. In 2016, valuation and timing differences included negative € 252 million from the Treasury portfolio, mainly driven by movement of interest rates and cross-currency basis spreads. Litigation costs amounted to € 112 million in 2017, an increase of € 130 million compared to prior year. 2016 litigation costs benefitted from a € 73 million insurance recovery.

2016

Loss before income taxes was € 541 million in 2016 compared to a loss of € 770 million in 2015, a decrease of € 229 million, or 30%, primarily as fourth quarter 2015 included a negative impact of € 358 million from litigation costs related to infrastructure functions reallocated from the Corporate & Investment Bank to C&A. Additionally, 2015 included negative € 146 million valuation and timing differences driven by a narrowing of our credit spreads as well as negative € 130 million resulting from the Post-bank squeeze out. In 2016, valuation and timing differences included negative € 252 million from the Treasury portfolio, mainly driven by movement of interest rates and cross-currency basis spreads. Net revenues also included negative € 127 million related to the foreign exchange revaluation of proceeds from GBP-denominated AT1 issuance (2015: € 50 million).

Financial Position

in € m.	Dec 31, 2017	Dec 31, 2016	2017 increase (decrease) from 2016	
			in € m.	in %
Cash and central bank balances	225,655	181,364	44,291	24
Interbank balances (w/o central banks)	9,265	11,606	(2,341)	(20)
Central bank funds sold, securities purchased under resale agreements and securities borrowed	26,703	36,368	(9,665)	(27)
Trading assets	184,661	171,044	13,617	8
Positive market values from derivative financial instruments	361,032	485,150	(124,118)	(26)
Financial assets designated at fair value through profit or loss	91,276	87,587	3,690	4
thereof:				
Securities purchased under resale agreements	57,843	47,404	10,439	22
Securities borrowed	20,254	21,136	(882)	(4)
Loans	401,699	408,909	(7,210)	(2)
Securities held to maturity	3,170	3,206	(36)	(1)
Brokerage and securities related receivables	83,015	105,100	(22,085)	(21)
Remaining assets	88,256	100,213	(11,957)	(12)
Total assets	1,474,732	1,590,546	(115,814)	(7)
Deposits	580,812	550,204	30,608	6
Central bank funds purchased, securities sold under repurchase agreements and securities loaned	24,793	29,338	(4,545)	(15)
Trading liabilities	71,462	57,029	14,433	25
Negative market values from derivative financial instruments	342,726	463,858	(121,132)	(26)
Financial liabilities designated at fair value through profit or loss	63,874	60,492	3,382	6
thereof:				
Securities sold under repurchase agreements	53,840	50,397	3,442	7
Securities loaned	1,040	1,298	(258)	(20)
Other short-term borrowings	18,411	17,295	1,116	6
Long-term debt	159,715	172,316	(12,601)	(7)
Brokerage and securities related payables	106,742	122,019	(15,276)	(13)
Remaining liabilities	38,098	53,176	(15,079)	(28)
Total liabilities	1,406,633	1,525,727	(119,094)	(8)
Total equity	68,099	64,819	3,280	5

Movements in Assets

As of December 31, 2017, total assets decreased by € 115.8 billion (or 7 %) compared to year-end 2016.

The overall decrease was primarily driven by a € 124.1 billion reduction in positive market values from derivative financial instruments, mainly attributable to interest rate products as changes in interest rate curves were inversely correlated to changes in the mark-to-market values, as well as foreign exchange rate products primarily driven by lower volatility and decline in customer flows.

Brokerage and securities related receivables decreased by € 22.1 billion primarily driven by lower cash/margin receivables in line with lower collateral requirements corresponding to the decrease in negative market values from derivative financial instruments and lower receivables from unsettled regular way trades.

Loan volume decreased by € 7.2 billion mainly driven by foreign exchange rate movements, in particular the strengthening of the Euro versus the US Dollar.

These decreases were partly offset by an increase in cash and central bank balances by € 44.3 billion, mostly driven by deposits and proceeds from our capital raise as well as a result of our liquidity management activities.

Trading assets increased by € 13.6 billion primarily driven by our debt securities portfolio due to increased client activity and increased bond positions in EU and US rates businesses.

The overall movement of the balance sheet included a decrease of € 77.8 billion due to foreign exchange rate movements mainly driven by strengthening of the Euro versus the U.S. Dollar. The effects from foreign exchange rate movements are also reflected in the development of the balance sheet line items discussed in this section.

Movements in Liabilities

As of December 31, 2017, total liabilities decreased by € 119.1 billion (or 8 %) compared to year-end 2016.

The overall reduction was primarily driven by a € 121.1 billion decrease in negative market values from derivative financial instruments primarily due to the same factors as the movements in positive market values from derivative financial instruments as discussed above.

A € 15.3 billion decrease in brokerage and securities related payables also contributed to the overall reduction, primarily due to the same factors as the movements in brokerage and securities related receivables as discussed above.

Long-term debt decreased by € 12.6 billion primarily due to higher outflows compared to new issuances in aggregate.

The overall decreases were partly offset by a € 30.6 billion increase in deposits during the period, due to increased customer inflows as a result of campaigns in our Private and Commercial Bank as well as cash management initiatives in our transaction banking business. In addition, we saw a recovery in deposit balances during 2017 as we regained client deposits following outflows in the second half of 2016.

Trading liabilities increased by € 14.4 billion, mainly attributable to increased trading activities in EU and US rates businesses.

Similar to total assets, the impact of foreign exchange rate movements during the period is already embedded in the overall movements in liabilities as discussed in this section.

Liquidity

Liquidity reserves amounted to € 280 billion as of December 31, 2017 (compared to € 219 billion as of December 31, 2016). We maintained a positive liquidity stress result as of December 31, 2017 (under the combined scenario).

Equity

Total Equity as of December 31, 2017 increased by € 3.3 billion compared to December 31, 2016. The main factor contributing to the increase was a capital increase of € 8.0 billion from the issuance of 687.5 million new common shares in April 2017. The effect of the capital increase was partly offset by the following items: a net loss from exchange rate changes of € 2.6 billion (related especially to the U.S. dollar), the net loss attributable to Deutsche Bank shareholders and additional equity components of € 751 million, cash dividends paid to Deutsche Bank shareholders of € 392 million, the reduction of unrealized gains (losses) of both financial assets available for sale and derivatives hedging the variability of cash flows, net of tax of € 348 million, coupons paid on additional equity components of € 298 million as well as costs of the capital increase, net of tax of € 135 million.

Regulatory Capital

Our Common Equity Tier 1 (CET 1) capital according to CRR/CRD 4 as of December 31, 2017 increased by € 3.0 billion to € 50.8 billion, compared to € 47.8 billion as of December 31, 2016. Risk-weighted assets (RWA) according to CRR/CRD 4 decreased by € 12.9 billion to € 343.3 billion as of December 31, 2017, compared to € 356.2 billion as of December 31, 2016. Due to the increase in CET 1 capital and decrease in RWA, the CRR/CRD 4 CET 1 capital ratio as of December 31, 2017 increased to 14.8 % compared to 13.4 % as of December 31, 2016.

Our fully loaded CRR/CRD 4 CET 1 capital as of December 31, 2017 amounted to € 48.3 billion, € 6.0 billion higher compared to € 42.3 billion as of December 31, 2016. Fully loaded CRR/CRD 4 RWA were € 344.2 billion, € 13.3 billion lower compared to € 357.5 billion as of December 31, 2016. This resulted in the fully loaded CRR/CRD 4 CET 1 capital ratio as of December 31, 2017 increasing to 14.0 % compared to 11.8 % as of December 31, 2016. For details of the development please refer to "Management Report: Risk and Capital Performance: Capital and Leverage Ratio".

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Tabular Disclosure of Contractual Obligations

Cash payment requirements outstanding as of December 31, 2017.

Contractual obligations in € m.	Total	Payment due by period			
		Less than 1 year	1–3 years	3–5 years	More than 5 years
Long-term debt obligations ¹	173,571	48,981	41,227	36,373	46,990
Trust preferred securities ¹	5,726	5,038	677	11	0
Long-term financial liabilities designated at fair value through profit or loss ²	6,753	1,967	1,020	650	3,116
Finance lease obligations	98	8	11	10	70
Operating lease obligations	4,564	684	1,140	838	1,901
Purchase obligations	1,836	266	680	111	779
Long-term deposits ¹	30,843	0	13,587	5,105	12,151
Other long-term liabilities	1,293	405	605	66	218
Total	224,683	57,349	58,946	43,164	65,224

¹ Includes interest payments.

² Long-term debt and long-term deposits designated at fair value through profit or loss.

Figures above do not include the future revenues of non-cancellable sublease rentals of € 58 million on operating leases. Purchase obligations for goods and services include future payments for, among other things, information technology services and facility management. Some figures above for purchase obligations represent minimum contractual payments and actual future payments may be higher. Long-term deposits exclude contracts with a remaining maturity of less than one year. Under certain conditions future payments for some long-term financial liabilities designated at fair value through profit or loss may occur earlier. See the following notes to the consolidated financial statements for further information: Note 5 “Net Interest Income and Net Gains (Losses) on Financial Assets/Liabilities at Fair Value through Profit or Loss”, Note 24 “Leases”, Note 28 “Deposits” and Note 32 “Long-Term Debt and Trust Preferred Securities”.

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Risk Report

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Introduction

Disclosures in line with IFRS 7 and IAS 1

The following Risk Report provides qualitative and quantitative disclosures about credit, market and other risks in line with the requirements of International Financial Reporting Standard 7 (IFRS 7) Financial Instruments: Disclosures, and capital disclosures required by International Accounting Standard 1 (IAS 1) Presentation of Financial Statements. Information which forms part of and is incorporated by reference into the financial statements of this report is marked by a bracket in the margins throughout this Risk Report.

Disclosures according to Pillar 3 of the Basel 3 Capital Framework

Most disclosures according to Pillar 3 of the Basel 3 Capital Framework, which are implemented in the European Union by the CRR and supported by EBA Implementing Technical Standards or the EBA Guideline “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*) are published in our additional Pillar 3 report, which can be found on our website. In cases where disclosures in this Risk Report also support Pillar 3 disclosure requirements these are highlighted by references from the Pillar 3 Report into the Risk Report.

Disclosures according to principles and recommendations of the Enhanced Disclosure Task Force (EDTF)

In 2012 the Enhanced Disclosure Task Force (“EDTF”) was established as a private sector initiative under the auspices of the Financial Stability Board, with the primary objective to develop fundamental principles for enhanced risk disclosures and to recommend improvements to existing risk disclosures. As a member of the EDTF we adhered to the disclosure recommendations in this Risk Report and also in our additional Pillar 3 Report.

Risk and Capital Overview

Key Risk Metrics

The following selected key risk ratios and corresponding metrics form part of our holistic risk management across individual risk types. The Common Equity Tier 1 Ratio (CET 1), Internal Capital Adequacy Ratio (ICA), Leverage Ratio (LR), Liquidity Coverage Ratio (LCR), and Stressed Net Liquidity Position (SNLP) serve as high level metrics and are fully integrated across strategic planning, risk appetite framework, stress testing (except LCR), and recovery and resolution planning practices, which are reviewed and approved by our Management Board at least annually. The CET 1, LR, Leverage Exposure, LCR and Risk-Weighted-Assets ratios and metrics, which are regulatory defined, are based on the fully loaded rules under the Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms (Capital Requirements Regulation or "CRR") and the directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms (Capital Requirements Directive 4 or "CRD 4"). ICA, Economic Capital and SNLP are Deutsche Bank specific internal risk metrics in addition to the above described regulatory metrics.

Common Equity Tier 1 Ratio		Total Risk-Weighted Assets	
31.12.2017	14.0 %	31.12.2017	€ 344.2 bn
31.12.2016	11.8 %	31.12.2016	€ 357.5 bn
Internal Capital Adequacy Ratio¹		Total Economic Capital	
31.12.2017	192 %	31.12.2017	€ 27.1 bn
31.12.2016	162 %	31.12.2016	€ 35.4 bn
Leverage Ratio		Leverage Exposure	
31.12.2017	3.8 %	31.12.2017	€ 1,395 bn
31.12.2016	3.5 %	31.12.2016	€ 1,348 bn
Liquidity Coverage Ratio		Stressed Net Liquidity Position (sNLP)	
31.12.2017	140 %	31.12.2017	€ 32.6 bn
31.12.2016	128 %	31.12.2016	€ 36.1 bn

¹ The definition of capital supply for the purpose of calculating the internal capital adequacy ratio has been changed to take a perspective that aims at maintaining the viability of Deutsche Bank on an ongoing basis. More information is provided in section "Internal Capital Adequacy".

² The quantile used to measure the economic capital demand has been changed from 99.98% to 99.9% to take a perspective that aims at maintaining the viability of Deutsche Bank on an ongoing basis in alignment with the change of the definition of capital supply. More information is provided in section "Internal Capital Adequacy". An overview of the quantitative impact of the quantile change on the economic capital is provided in section "Risk Profile".

For further details please refer to sections "Risk Appetite and Capacity", "Recovery and Resolution Planning", "Stress Testing", "Risk Profile", "Internal Capital Adequacy Assessment Process", "Capital Instruments", "Development of Regulatory Capital" (for phase-in and fully loaded CET 1 and risk-weighted-assets figures), "Development of Risk Weighted Assets", "Leverage Ratio" (for phase-in and fully loaded leverage ratio), "Liquidity Coverage Ratio", and "Stress Testing and Scenario Analysis".

Overall Risk Assessment

Key risk categories include 1) financial risks such as credit risk (including default, migration, transaction, settlement, exposure, country, mitigation and concentration risks), market risk (including interest rate, foreign exchange, equity, credit spread, commodity and other cross-asset risks), liquidity risk, business risk (including tax and strategic risk), and 2) non-financial risks (NFRs) including reputational risk and operational risk (with important sub-categories compliance risk, legal risk, model risk, information security risks, fraud risks, and money laundering risks). We manage the identification, assessment and mitigation of top and emerging risks through an internal governance process and the use of risk management tools and processes. Our approach to identification and impact assessment aims to ensure that we mitigate the impact of these risks on our financial results, long-term strategic goals and reputation. Please refer to the section "Risk and Capital Management" for detailed information on the management of our material risks.

As part of our regular analysis, sensitivities of the key portfolio risks are reviewed using a bottom-up risk assessment, complemented by a top-down macro-economic and political scenario analysis. This two-pronged approach allows us to capture both those risk drivers that have an impact across our risk inventories and business divisions as well as those relevant only to specific portfolios.

Against an improving global economic backdrop, particularly in the Eurozone, key downside risks are focused on monetary policy and (geo) political risks. The Federal Reserve is expected to continue to raise rates in 2018, while the ECB's quantitative easing program may terminate by the end of the year. Higher than expected inflation could drive more rapid policy tightening, in turn disrupting financial markets (where valuations are stretched across several asset classes) as well as driving financial instability in sectors where leverage is high. The political agenda in Europe remains busy with the Italy election in March, Brexit negotiations ongoing and the Catalonia situation unresolved. On the geopolitical risk front tensions between the United States and its allies and North Korea remain in focus.

The assessment of the potential impacts of these risks is integrated into our group-wide stress tests which assess our ability to absorb these events should they occur. The results of these tests showed that the currently available capital and liquidity reserves, in combination with available mitigation measures, would allow us to absorb the impact of these risks if they were to materialize in line with the tests' parameters. Information about risk and capital positions for our portfolios can be found in the "Risk and Capital Performance" section.

With the Basel Committee's revisions to the modelling approaches for RWA finalised at the end of 2017 (commonly referred to as Basel 4), the focus in 2018 is expected to shift to implementation of rules and enhancement of supervision. We remain focused on identifying potential political and regulatory changes and assessing the possible impact on our business model and processes.

The overall focus of risk and capital management throughout 2017 was on maintaining our risk profile in line with our risk strategy, increasing our capital base and supporting our strategic management initiatives with a focus on balance sheet optimization. This approach is reflected across the different risk metrics summarized below.

Risk Profile

The table below shows our overall risk position as measured by the economic capital usage calculated for credit, market, operational and business risk for the dates specified. To determine our overall (economic capital) risk position, we generally consider diversification benefits across risk types.

Overall risk position as measured by economic capital usage by risk type

in € m. (unless stated otherwise)	Dec 31, 2017	Dec 31, 2016	2017 increase (decrease) from 2016	
			in € m.	in %
Credit risk	10,769	13,105	(2,336)	(18)
Market risk	10,428	14,593	(4,165)	(29)
Trading market risk	3,800	4,229	(429)	(10)
Nontrading market risk	6,628	10,364	(3,736)	(36)
Operational risk	7,329	10,488	(3,159)	(30)
Business risk	5,677	5,098	579	11
Diversification benefit ¹	(7,074)	(7,846)	772	(10)
Total economic capital usage	27,129	35,438	(8,309)	(23)

¹ Diversification benefit across credit, market, operational and strategic risk (largest part of business risk).

As of December 31, 2017, our economic capital usage amounted to € 27.1 billion, which was € 8.3 billion or 23 %, below the € 35.4 billion economic capital usage as of December 31, 2016. The decrease was mainly driven by the change in the quantile from 99.98% to 99.9%. The quantile change is due to our revised internal capital adequacy perspective from a “gone-concern” to a perspective aimed at maintaining the viability of Deutsche Bank, including a revised capital supply as further explained in the section “Internal Capital Adequacy”.

The economic capital usage for credit risk was € 2.3 billion or 18 % lower as of December 31, 2017 compared to year-end 2016 mainly due to quantile change which led a decrease in credit risk economic capital as of November 2017 by € 3.66 billion, partly offset by a higher counterparty risk component.

The economic capital usage for trading market risk decreased to € 3.8 billion as of December 31, 2017, compared to € 4.2 billion at year-end 2016. The decrease was primarily driven by the change of the quantile, which led to a reduction in trading market risk by € 0.6 billion, partially offset by an increase in traded default risk component exposure. The nontrading market risk economic capital usage decreased by € 3.7 billion or 36 % compared to December 31, 2016, mainly driven by a considerable decrease in the guaranteed funds risk from the application of a new methodology and due to lower structural foreign exchange risk exposure. The quantile change led to a decrease in nontrading market risk economic capital as of November 2017 by € 1.8 billion.

The operational risk economic capital usage totaled € 7.3 billion, as of December 31, 2017, which is € 3.2 billion or 30 % lower than the € 10.5 billion economic capital usage as of December 31, 2016. The decrease was almost exclusively driven by the impact from the change in the reference confidence level, which was only marginally offset by the effects that also led to the small increase in regulatory capital for operational risk as outlined in the section “Operational Risk Management”

Our business risk economic capital methodology captures strategic risk, which also implicitly includes elements of non-standard risks including refinancing and reputational risk, a tax risk component and a capital charge for IFRS deferred tax assets on temporary differences. The business risk increased by € 578 million compared to December 31, 2016, to € 5.7 billion as of December 31, 2017. This increase reflected a higher economic capital usage for the tax risk component by € 267 million and a deferred tax capital charge of € 686 million partially offset by the lower economic capital quantile used since November 2017 by € 791 million. Further details can be found in the section “Internal Capital Adequacy”.

The inter-risk diversification effect of the economic capital usage across credit, market, operational and strategic risk decreased by € 772 million mainly due to quantile change and due to an overall lower economic capital usage.

Our mix of business activities results in diverse risk taking by our business divisions. We also measure the key risks inherent in their respective business models through the undiversified economic capital demand (EC) metric, which mirrors each business division’s risk profile before taking into account cross-risk effects at the Group level.

Risk profile of our business divisions as measured by economic capital

Dec 31, 2017							
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consolidation & Adjustments	Total	Total (in %)
Credit Risk	6,519	3,596	62	-	591	10,769	40
Market Risk	4,679	1,386	310	-	4,054	10,428	38
Operational Risk	5,995	932	402	-	0	7,329	27
Business Risk	4,435	10	99	-	1,133	5,677	21
Diversification Benefit ¹	(5,450)	(950)	(264)	-	(410)	(7,074)	(26)
Total EC	16,178	4,974	609	-	5,368	27,129	100
Total EC in %	60	18	2	-	20	100	N/M

N/M – Not meaningful

¹ Diversification benefit across credit, market, operational and strategic risk (largest part of business risk).

Dec 31, 2016 ¹							
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consolidation & Adjustments	Total	Total (in %)
Credit Risk	8,185	4,308	62	108	442	13,105	37
Market Risk	5,341	1,712	2,197	332	5,010	14,593	41
Operational Risk	8,330	1,437	561	160	0	10,488	30
Business Risk	4,753	32	100	245	(32)	5,098	14
Diversification Benefit ²	(6,008)	(1,039)	(441)	(110)	(248)	(7,846)	(22)
Total EC	20,602	6,449	2,480	735	5,172	35,438	100
Total EC in %	58	18	7	2	15	100	N/M

N/M – Not meaningful

¹ Amounts allocated to the business segments have been restated to reflect comparatives according to the structure as of December 31, 2016.

² Diversification benefit across credit, market, operational and strategic risk (largest part of business risk).

Corporate & Investment Bank's (CIB) risk profile is dominated by its trading in support of origination, structuring and market making activities, which gives rise to market risk and credit risk. The vast majority of its credit risk relates to trade finance activities in Global Transaction Banking and corporate finance activities in Financing and Origination & Advisory. The share of the operational risk in CIB's risk profile reflects a high loss profile in the industry combined with internal losses and has increased compared to the year-end 2016. The remainder of CIB's risk profile is derived from business risk reflecting earnings volatility risk. The economic capital usage for business risk increased compared to year-end 2016 mainly due to a higher economic capital usage for the strategic risk component. The quantile change led to a decrease of economic capital in CIB by € 6.3 billion.

Private & Commercial Bank's (PCB) risk profile comprises credit risk from retail, small and medium-sized enterprises lending and wealth management activities as well as nontrading market risk from investment risk, modelling of client deposits and credit spread risk. The economic capital usage for market risk decreased compared to the year-end 2016 mainly due to a lower non-trading market risk component. The quantile change led to a decrease of economic capital in PCB by € 1.8 billion.

The main risk driver of Deutsche Asset Management's (Deutsche AM) business are guarantees on investment funds, which we report as nontrading market risk. Otherwise Deutsche AM's advisory and commission focused business attracts primarily operational risk. The economic capital usage for market risk decreased compared to the year-end 2016 mainly due to a lower non-trading market risk component resulting from the application of a new methodology to measure guaranteed funds risk. The quantile change led to a decrease of economic capital in Deutsche AM by € 469 million.

The Non-Core Operations Unit (NCOU) portfolio included activities that are non-core to the Bank's future strategy; assets earmarked for de-risking; assets suitable for separation; assets with significant capital absorption but low returns; and assets exposed to legal risks. NCOU's risk profile covered risks across the entire range of our operations. The economic capital usage across all risk types decreased throughout 2016 mainly due to general wind-down of non-strategic assets. The NCOU was dissolved as of the beginning of 2017 and its assets were reallocated to the other segments.

Consolidation & Adjustments mainly comprises nontrading market risk for structural foreign exchange risk, pension risk and equity compensation risk. The economic capital usage for market risk and tax risk as part of business risk increased compared to the year-end 2016. The quantile change led to a decrease of economic capital in Consolidation & Adjustments by € 1.8 billion.

Risk and Capital Framework

Risk Management Principles

The diversity of our business model requires us to identify, assess, measure, aggregate and manage our risks, and to allocate our capital among our businesses. Our aim is to help reinforce our resilience by encouraging a holistic approach to the management of risk and return throughout our organization as well as the effective management of our risk, capital and reputational profile. We actively take risks in connection with our business and as such the following principles underpin our risk management framework:

- Risk is taken within a defined risk appetite;
- Every risk taken needs to be approved within the risk management framework;
- Risk taken needs to be adequately compensated; and
- Risk should be continuously monitored and managed.

Risk and capital are managed via a framework of principles, organizational structures and measurement and monitoring processes that are closely aligned with the activities of the divisions and business units:

- Core risk management responsibilities are embedded in the Management Board and delegated to senior risk managers and senior risk management committees responsible for execution and oversight.
- We operate a Three Lines of Defense ("3LoD") risk management model, in which risk, control and reporting responsibilities are defined.
 - The 1st Line of Defense ("1st LoD") refers to those roles in the Bank whose activities generate risks, whether financial or non-financial.
 - The 2nd Line of Defense ("2nd LoD") refers to the risk type controller roles in the Bank who facilitate the implementation of a sound risk management framework throughout the organisation. The 2nd LoD defines the risk appetite and risk management and control standards for their risk type, and independently oversees and challenges the risk taking and risk management activities of the 1st LoD.
 - The 3rd Line of Defense ("3rd LoD") is Group Audit, which is accountable for providing independent and objective assurance on the adequacy of the design and effectiveness of the systems of internal control and risk management.

- The risk strategy is approved by the Management Board on an annual basis and is defined based on the Group Risk Appetite and the Strategic and Capital Plan in order to align risk, capital and performance targets.
- Cross-risk analysis reviews are conducted across the Group to validate that sound risk management practices and a holistic awareness of risk exist.
- All material risk types, including credit risk, market risk, operational risk, liquidity risk, business risk and reputational risk, are managed via risk management processes. Modeling and measurement approaches for quantifying risk and capital demand are implemented across the material risk types. For more details, refer to section “Risk and Capital Management” for the management processes of our material risks.
- Monitoring, stress testing tools and escalation processes are in place for key capital and liquidity thresholds and metrics.
- Systems, processes and policies are critical components of our risk management capability.
- Recovery and contingency planning provides the escalation path for crisis management and supplies senior management with a set of actions designed to improve the capital and liquidity positions in a stress event.
- Resolution planning is the responsibility of our resolution authority, the Single Resolution Board. It provides a strategy to manage Deutsche Bank in case of default. It is designed to prevent major disruptions to the financial system or the wider economy through maintaining critical services.
- We apply an integrated risk management approach that aims at Group-wide consistency in risk management standards, while allowing for adaptation to local or legal entity specific requirements.

We promote a strong risk culture where employees at all levels are responsible for the management and escalation of risks. We expect employees to exhibit behaviors that support a strong risk culture in line with our Code of Business Conduct and Ethics. To promote this, our policies require that risk-related behavior is taken into account during our performance assessment and compensation processes. In addition, our Management Board members and senior management frequently communicate the importance of a strong risk culture to support a consistent tone from the top.

In 2017, we also introduced a principles-based assessment of risk culture, in particular focusing on risk awareness, risk ownership and management of risk within risk appetite. Assessment results are incorporated into existing risk reporting, reinforcing the message that risk culture is an integral part of effective day-to-day risk management.

Risk Governance

Our operations throughout the world are regulated and supervised by relevant authorities in each of the jurisdictions in which we conduct business. Such regulation focuses on licensing, capital adequacy, liquidity, risk concentration, conduct of business as well as organizational and reporting requirements. The European Central Bank (the “ECB”) in connection with the competent authorities of EU countries which joined the Single Supervisory Mechanism via the Joint Supervisory Team act in cooperation as our primary supervisors to monitor our compliance with the German Banking Act and other applicable laws and regulations as well as the CRR/CRD 4 framework and respective implementations into German law.

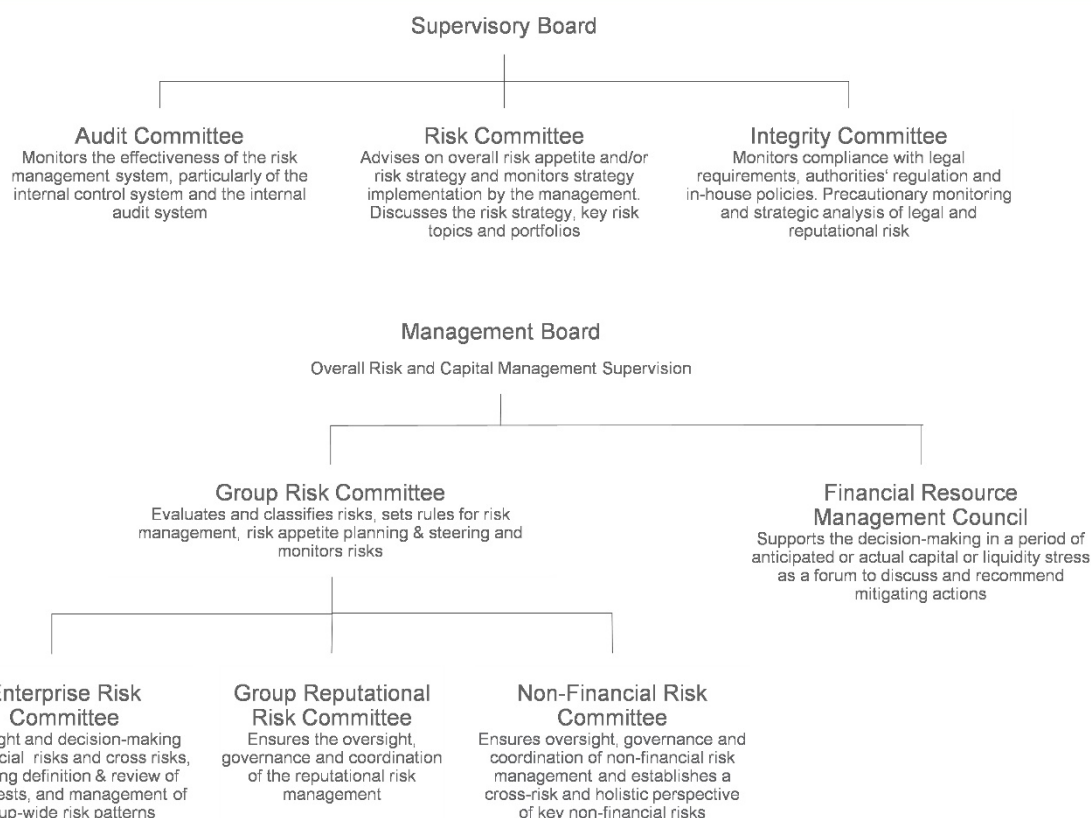
European banking regulators assess our capacity to assume risk in several ways, which are described in more detail in the section “Regulatory Capital” of this report.

Several layers of management provide cohesive risk governance:

- The Supervisory Board is informed regularly on our risk situation, risk management and risk controlling, as well as on our reputation and material litigation cases. It has formed various committees to handle specific tasks (for a detailed description of these committees, please see the “Corporate Governance Report” under “Management Board and Supervisory Board”, “Standing Committees”).
 - At the meetings of the Risk Committee, the Management Board reports on key risk portfolios, on risk strategy and on matters of special importance due to the risks they entail. It also reports on loans requiring a Supervisory Board resolution pursuant to law or the Articles of Association. The Risk Committee deliberates with the Management Board on issues of the overall risk appetite, aggregate risk position and the risk strategy and supports the Supervisory Board in monitoring the implementation of this strategy.
 - The Integrity Committee, among other responsibilities, monitors the Management Board’s measures that promote the company’s compliance with legal requirements, authorities’ regulations and the company’s own in-house policies. It also reviews the Bank’s Code of Business Conduct and Ethics, and, upon request, supports the Risk Committee in monitoring and analyzing the Bank’s legal and reputational risks.
 - The Audit Committee, among other matters, monitors the effectiveness of the risk management system, particularly the internal control system and the internal audit system.
- The Management Board is responsible for managing Deutsche Bank Group in accordance with the law, the Articles of Association and its Terms of Reference with the objective of creating sustainable value in the interest of the company, thus taking into consideration the interests of the shareholders, employees and other stakeholders. The Management Board is responsible for establishing a proper business organization, encompassing appropriate and effective risk management. The

Management Board established the Group Risk Committee (“GRC”) as the central forum for review and decision on material risk and capital-related topics. The GRC generally meets once a week. It has delegated some of its duties to individuals and sub-committees. The GRC and its sub-committees are described in more detail below.

Risk Management Governance Structure of the Deutsche Bank Group



The following functional committees are central to the management of risk at Deutsche Bank:

- The **Group Risk Committee (GRC)** has various duties and dedicated authority, including approval of new or materially changed risk and capital models, review of risk exposure developments and internal and regulatory Group-wide stress testing results, and monitoring of risk culture across the Group. The GRC also reviews risk resources available to the business divisions and high-level risk portfolios (for example on a country or industry level) and sets related risk appetite targets, for example in the form of limits or thresholds. In addition, the GRC reviews and recommends items for Management Board approval, such as key risk management principles, the Group Recovery Plan and the Contingency Funding Plan, over-arching risk appetite parameters, and recovery and escalation indicators. The GRC also supports the Management Board during Group-wide risk and capital planning processes.
- The **Non-Financial Risk Committee (NFRC)** oversees, governs and coordinates the management of non-financial risks in Deutsche Bank Group and establishes a cross-risk and holistic perspective of the key non-financial risks of the Group. It is tasked to define the non-financial risk appetite tolerance framework, to monitor and control the non-financial risk operating model and interdependencies between business divisions and control functions and different risk type control functions.
- The **Group Reputational Risk Committee (GRRC)** is responsible for the oversight, governance and coordination of reputational risk management and provides for an appropriate look-back and a lessons learnt process. It reviews and decides all reputational risk issues escalated by the Regional Reputational Risk Committees (“RRRCs”) and RRRC decisions which have been appealed by the business divisions, infrastructure functions or regional management. It provides guidance on Group-wide reputational risk matters, including communication of sensitive topics, to the appropriate levels of Deutsche Bank Group. The RRRCs which are sub-committees of the GRRC, are responsible for the oversight, governance and coordination of the management of reputational risk in the respective regions on behalf of the Management Board.
- The **Enterprise Risk Committee (ERC)** has been established with a mandate to focus on enterprise-wide risk trends, events and cross-risk portfolios, bringing together risk experts from various risk disciplines. As part of its mandate, the ERC approves the annual country risk portfolio overviews and specified country risk thresholds, establishes product thresholds, reviews risk portfolio concentrations across the Group, monitors group-wide stress tests used for managing the Group’s risk appetite, and reviews topics with enterprise-wide risk implications like risk culture.

- The Financial Resource Management Council (FRMC) is an ad-hoc governance body to support the decision-making in a period of anticipated or actual capital or liquidity stress. It is a forum to discuss and recommend mitigating actions, thereby bringing together in one forum the tasks of the former Liquidity Management Committee and the crisis-related tasks previously assigned to the GRC. Specifically, the FRMC is tasked with analysing the bank's capital and liquidity situation, advising on the capital and liquidity strategy, and making recommendations on specific business level capital and liquidity targets and/or countermeasures that are necessary to successfully execute the strategy. This includes the recommendation whether or not to invoke the Contingency Funding Plan and the right to oversee the execution of related decisions.

Our Chief Risk Officer ("CRO"), who is a member of the Management Board, has Group-wide, supra-divisional responsibility for the management of all credit, market, liquidity and operational risks as well as for the continuing development and enhancement of methods for risk measurement. In addition, the CRO is responsible for monitoring, analyzing and reporting risk on a comprehensive basis.

The CRO has direct management responsibility for the Risk function. Risk management & control duties in the Risk function are generally assigned to specialized risk management units focusing on the management of

- Specific risk types
- Risks within a specific business
- Risks in a specific region.

These specialized risk management units generally handle the following core tasks:

- Foster consistency with the risk appetite set by the GRC within a framework established by the Management Board and applied to Business Divisions;
- Determine and implement risk and capital management policies, procedures and methodologies that are appropriate to the businesses within each division;
- Establish and approve risk limits;
- Conduct periodic portfolio reviews to keep the portfolio of risks within acceptable parameters; and
- Develop and implement risk and capital management infrastructures and systems that are appropriate for each division.

Additionally, Business Aligned Risk Management (BRM) represents the Risk function vis-à-vis specific business areas. The CROs for each business division manage their respective risk portfolio, taking a holistic view of each division to challenge and influence the division's strategy and risk ownership and implement risk appetite.

The specialized risk management functions are complemented by our Enterprise Risk Management (ERM) function, which sets a bank-wide risk management framework seeking to ensure that all risks at the Group and Divisional level are identified, owned and controlled by the functional risk teams within the agreed risk appetite and risk management principles. ERM is responsible for aggregating and analysing enterprise-wide risk information and reviewing the risk/return profile of portfolios to enable informed strategic decision-making on the Bank's resources. ERM has the mandate to:

- Manage enterprise risk appetite and allocation across businesses and legal entities;
- Integrate and aggregate risks to provide greater enterprise risk transparency to support decision making;
- Commission forward-looking stress tests, and manage Group recovery and resolution plans; and
- Govern and improve the effectiveness of the risk management framework.

The specialized risk management functions and ERM have a reporting line to the CRO.

While operating independently from each other and the business divisions, our Finance and Risk functions have the joint responsibility to quantify and verify the risk that we assume.

The integration of the risk management of our subsidiary Deutsche Postbank AG is promoted through harmonized processes for identifying, assessing, managing, monitoring, and communicating risk, the strategies and procedures for determining and safeguarding risk-bearing capacity, and corresponding internal control procedures. Key features of the joint governance are:

- Functional reporting lines from Postbank Risk Management to Deutsche Bank Risk;
- Participation of voting members from Deutsche Bank from the respective risk functions in Postbank's key risk committees and vice versa for selected key committees; and
- Alignment to key Group risk policies.

The key risk management committees of Postbank are:

- The Bank Risk Committee, which advises Postbank's Management Board with respect to the determination of overall risk appetite and risk and capital allocation;

- The Credit Risk Committee, which is responsible for limit allocation and the definition of an appropriate limit framework;
- The Market Risk Committee, which decides on limit allocations as well as strategic positioning of Postbank's banking and trading book and the management of liquidity risk;
- The Operational Risk Management Committee, which defines the appropriate risk framework as well as the limit allocation for the individual business areas; and
- The Model and Validation Risk Committee, which monitors validation of all rating systems and risk management models.

The Chief Risk Officer of Postbank or senior risk managers of Deutsche Bank are voting members of the committees listed above.

Following the announcement in March 2017 to merge Postbank with the German Private and Business Clients business and as part of the overarching integration project, the Risk division has also commenced the analyses and work on establishing an appropriate Risk function for the planned merged legal entity which will remain connected into to the Group as described above.

Risk Appetite and Capacity

Risk appetite expresses the aggregate level of risk that we are willing to assume to achieve our strategic objectives, as defined by a set of minimum quantitative metrics and qualitative statements. Risk capacity is defined as the maximum level of risk we can assume given our capital and liquidity base, risk management and control capabilities, and our regulatory constraints.

Risk appetite is an integral element in our business planning processes via our risk plan and strategy, to promote the appropriate alignment of risk, capital and performance targets, while at the same time considering risk capacity and appetite constraints from both financial and non-financial risks. Compliance of the plan with our risk appetite and capacity is also tested under stressed market conditions. Top-down risk appetite serves as the limit for risk-taking for the bottom-up planning from the business functions.

The Management Board reviews and approves our risk appetite and capacity on an annual basis, or more frequently in the event of unexpected changes to the risk environment, with the aim of ensuring that they are consistent with our Group's strategy, business and regulatory environment and stakeholders' requirements.

In order to determine our risk appetite and capacity, we set different group level triggers and thresholds on a forward looking basis and define the escalation requirements for further action. We assign risk metrics that are sensitive to the material risks to which we are exposed and which are able to function as key indicators of financial health. In addition to that, we link our risk and recovery management governance framework with the risk appetite framework. In detail, we assess a suite of metrics under stress (Common Equity Tier 1 ("CET 1") Ratio, Leverage Ratio ("LR"), Internal Capital Adequacy ("ICA") Ratio, and Stressed Net Liquidity Position ("SNLP")) within the regularly performed group-wide stress tests.

Reports relating to our risk profile as compared to our risk appetite and strategy and our monitoring thereof are presented regularly up to the Management Board. In the event that our desired risk appetite is breached, a predefined escalation governance matrix is applied so these breaches are highlighted to the respective committees. Amendments to the risk appetite and capacity must be approved by the Group Risk Committee or the full Management Board, depending on their significance.

Risk and Capital Plan

Strategic and Capital Plan

We conduct annually an integrated strategic planning process which lays out the development of our future strategic direction for us as a Group and for our business areas. The strategic plan aims to create a holistic perspective on capital, funding and risk under risk-return considerations. This process translates our long-term strategic targets into measurable short- to medium-term financial targets and enables intra-year performance monitoring and management. Thereby we aim to identify growth options by considering the risks involved and the allocation of available capital resources to drive sustainable performance. Risk-specific portfolio strategies complement this framework and allow for an in-depth implementation of the risk strategy on portfolio level, addressing risk specifics including risk concentrations.

The strategic planning process consists of two phases: a top-down target setting and a bottom-up substantiation.

In a first phase – the top-down target setting – our key targets for profit and loss (including revenues and costs), capital supply, capital demand as well as leverage, funding and liquidity are discussed for the group and the key business areas. In this process, the targets for the next five years are based on our global macro-economic outlook and the expected regulatory framework. Subsequently, the targets are approved by the Management Board.

In a second phase, the top-down objectives are substantiated bottom-up by detailed business unit plans, which for the first year consist of a month by month operative plan; years two and three are planned per quarter and years four and five are annual plans. The proposed bottom-up plans are reviewed and challenged by Finance and Risk and are discussed individually with the business heads. Thereby, the specifics of the business are considered and concrete targets decided in line with our strategic direction. The bottom-up plans include targets for key legal entities to review local risk and capitalization levels. Stress tests complement the strategic plan to also consider stressed market conditions.

The resulting Strategic and Capital Plan is presented to the Management Board for discussion and approval. The final plan is presented to the Supervisory Board.

The Strategic and Capital Plan is designed to support our vision of being a leading European bank with a global reach supported by a strong home base in Germany and aims to ensure:

- Balanced risk adjusted performance across business areas and units;
- High risk management standards with focus on risk concentrations;
- Compliance with regulatory requirements;
- Strong capital and liquidity position; and
- Stable funding and liquidity strategy allowing for business planning within the liquidity risk appetite and regulatory requirements.

The Strategic and Capital Planning process allows us to:

- Set earnings and key risk and capital adequacy targets considering the bank's strategic focus and business plans;
- Assess our risk-bearing capacity with regard to internal and external requirements (i.e., economic capital and regulatory capital); and
- Apply an appropriate stress test to assess the impact on capital demand, capital supply and liquidity.

The specific limits e.g. for regulatory capital demand, economic capital, and leverage exposures are derived from the Strategic and Capital Plan to align risk, capital and performance targets at all relevant levels of the organization.

All externally communicated financial targets are monitored on an ongoing basis in appropriate management committees. Any projected shortfall from targets is discussed together with potential mitigating strategies to ensure that we remain on track to achieve our targets. Amendments to the strategic and capital plan must be approved by the Management Board. Achieving our externally communicated solvency targets ensures that we also comply with the Group Supervisory Review and Evaluation Process (“SREP”) requirements as articulated by our home supervisor. On December 19, 2017, Deutsche Bank was informed by the ECB of its decision regarding prudential minimum capital requirements for 2018, following the results of the 2017 SREP. The decision requires Deutsche Bank to maintain a phase-in CET 1 ratio of at least 10.65 % on a consolidated basis, beginning on January 1, 2018. This CET 1 capital requirement comprises the Pillar 1 minimum capital requirement of 4.50 %, the Pillar 2 requirement (SREP Add-on) of 2.75 %, the phase-in capital conservation buffer of 1.88 %, the countercyclical buffer (currently 0.02%) and the phase-in G-SII buffer following Deutsche Bank’s designation as a global systemically important institution (“G-SII”) of 1.50 %. The new CET 1 capital requirement of 10.65 % for 2018 is higher than the CET 1 capital requirement of 9.51 %, which was applicable to Deutsche Bank in 2017. Correspondingly, 2018 requirements for Deutsche Bank’s Tier 1 capital ratio are at 12.15 % and for its total capital ratio at 14.15 %. Also following the results of the 2017 SREP, the ECB communicated to us an individual expectation to hold a further “Pillar 2” CET 1 capital add-on, commonly referred to as the “Pillar 2” guidance’. The capital add-on pursuant to the “Pillar 2” guidance is separate from and in addition to the Pillar 2 requirement. The ECB has stated that it expects banks to meet the “Pillar 2” guidance although it is not legally binding, and failure to meet the “Pillar 2” guidance does not automatically trigger legal action.

Internal Capital Adequacy Assessment Process

Deutsche Bank’s internal capital adequacy assessment process (“ICAAP”) consists of several well-established components which ensure that Deutsche Bank maintains sufficient capital to cover the risks to which the bank is exposed on an ongoing basis:

- Risk identification and assessment: The risk identification process forms the basis of the ICAAP and results in an inventory of risks for the Group. All risks identified are assessed for their materiality. Further details can be found in under section “Risk Identification and Assessment”.
- Capital demand/risk measurement: Risk measurement methodologies and models are applied to quantify the capital demand which is required to cover all material risks except for those which cannot be adequately limited by capital e.g. liquidity risk. Further details can be found in sections “Risk Profile” and “Capital and Leverage Ratio”.
- Capital supply: Capital supply quantification refers to the definition of available capital resources to absorb unexpected losses quantified as part of the capital demand. Further details can be found in section “Capital and Leverage Ratio”.
- Risk appetite: Deutsche Bank has established Group risk appetite thresholds which express the level of risk that we are willing to assume to achieve our strategic objectives. Threshold breaches are subject to a dedicated governance framework triggering management actions aimed to safeguard capital adequacy. Further details can be found in sections “Risk Appetite and Capacity” and “Key Risk Metrics”.
- Capital planning: The Group risk appetite thresholds for capital adequacy metrics constitute boundaries which have to be met to safeguard capital adequacy on a forward-looking basis. Further details can be found in section “Strategic and Capital Plan”.
- Stress testing: Capital plan figures are also considered under various stress test scenarios to prove resilience and overall viability of the bank. Capital adequacy metrics are also subject to regular stress tests throughout the year to constantly evaluate Deutsche Bank’s capital position in hypothetical stress scenarios and to detect any vulnerabilities under stress. Further details can be found in section “Stress Testing”.
- Capital adequacy assessment: Although capital adequacy is constantly monitored throughout the year, the ICAAP concludes with a dedicated annual capital adequacy assessment (CAS). The assessment consists of a Management Board statement about Deutsche Bank’s capital adequacy, which is linked to specific conclusions and management actions to be taken to safeguard capital adequacy on a forward-looking basis.

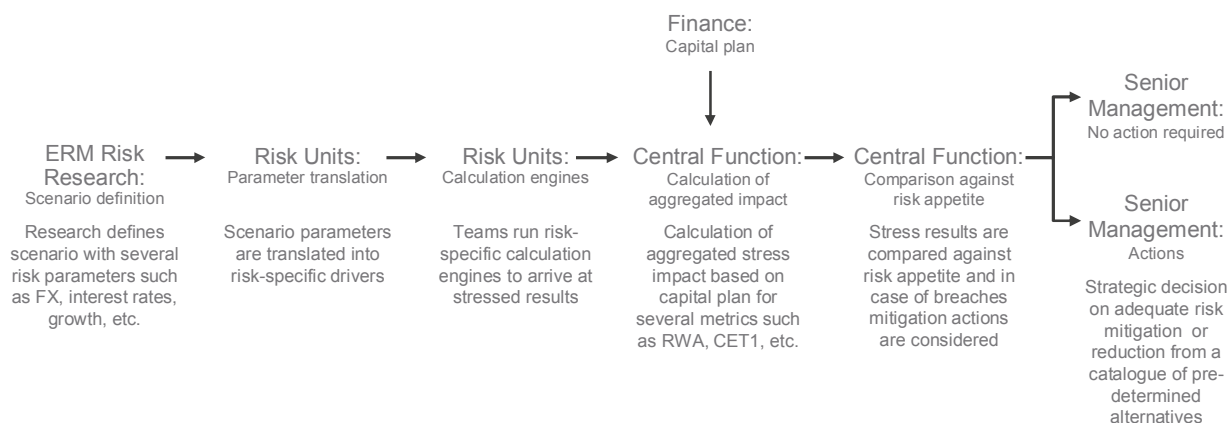
As part of its ICAAP, Deutsche Bank distinguishes between a normative and economic internal perspective. The normative internal perspective refers to an internal process aimed at the fulfilment of all capital-related legal requirements and supervisory demands on an ongoing basis (primarily measured via the CET1 and leverage ratio). The economic internal perspective (measured via the internal capital adequacy ratio) refers to an internal process aimed at capital adequacy using internal economic capital demand models and an internal economic capital supply definition. Both perspectives focus on maintaining the viability of Deutsche Bank on an ongoing basis.

Stress testing

We have a strong commitment to stress testing performed on a regular basis in order to assess the impact of a severe economic downturn on our risk profile and financial position. These exercises complement traditional risk measures and represent an integral part of our strategic and capital planning process. Our stress testing framework comprises regular Group-wide stress tests based on internally defined "Downside Planning" and more severe macroeconomic global downturn scenarios. We include all material risk types into our stress testing exercises. The time-horizon of internal stress tests is generally one year and can be extended to multi-year, if required by the scenario assumptions. Our methodologies undergo regular scrutiny from Deutsche Bank's internal validation team (Global Model Validation and Governance - GMVG) whether they correctly capture the impact of a given stress scenario. These analyses are complemented by portfolio- and country-specific stress tests as well as regulatory requirements, such as annual reverse stress tests and additional stress tests requested by our regulators on group or legal entity level. An example of a regulatory stress test performed in 2017 is the CCAR stress test for the U.S. entity. In 2018, Deutsche Bank will take part in the biannual EBA stress test. Moreover, capital plan stress testing is performed to assess the viability of our capital plan in adverse circumstances and to demonstrate a clear link between risk appetite, business strategy, capital plan and stress testing. An integrated procedure allows us to assess the impact of ad-hoc scenarios that simulate potential imminent financial or geopolitical shocks.

The initial phase of our internal stress tests consists of defining a macroeconomic downturn scenario by ERM Risk Research in cooperation with business specialists. ERM Risk Research monitors the political and economic development around the world and maintains a macro-economic heat map that identifies potentially harmful scenarios. Based on quantitative models and expert judgments, economic parameters such as foreign exchange rates, interest rates, GDP growth or unemployment rates are set accordingly to reflect the impact on our business. The scenario parameters are translated into specific risk drivers by subject matter experts in the risk units. Based on our internal models framework for stress testing, the following major metrics are calculated under stress: risk-weighted assets, impacts on profit and loss and economic capital by risk type. These results are aggregated at the Group level, and key metrics such as the CET 1 ratio, ECA ratio, Leverage Ratio and the Net Liquidity Position under stress are derived. Prior to the impact assessment the scenarios are discussed and approved by the Enterprise Risk Committee (ERC) which also reviews the final stress results. After comparing these results against our defined risk appetite, the ERC also discusses specific mitigation actions to remediate the stress impact in alignment with the overall strategic and capital plan if certain limits are breached. The results also feed into the recovery planning which is crucial for the recoverability of the Bank in times of crisis. The outcome is presented to senior management up to the Management Board to raise awareness on the highest level as it provides key insights into specific business vulnerabilities and contributes to the overall risk profile assessment of the bank. The group wide stress tests performed in 2017 indicated that the bank's capitalization together with available mitigation measures allow it to reach the internally set stress exit level being well above regulatory early intervention levels. A reverse stress test is performed annually in order to challenge our business model to determine the severity of scenarios that would cause us to become unviable. Such a reverse stress test is based on a hypothetical macroeconomic scenario and takes into account severe impacts of major risks on our results. Comparing the hypothetical scenario that would be necessary to result in our non-viability according to the reverse stress, to the current economic environment, we consider the probability of occurrence of such a hypothetical macroeconomic scenario as extremely low. Given the extremely low probability of the reverse stress test scenario, we do not believe that our business continuity is at risk.

Stress Testing Framework of Deutsche Bank Group



Risk Reporting and Measurement Systems

Our risk measurement systems support regulatory reporting and external disclosures, as well as internal management reporting across credit, market, liquidity, cross, business, operational and reputational risks. The risk infrastructure incorporates the relevant legal entities and business divisions and provides the basis for reporting on risk positions, capital adequacy and limit, threshold or target utilization to the relevant functions on a regular and ad-hoc basis. Established units within Finance and Risk assume responsibility for measurement, analysis and reporting of risk while promoting sufficient quality and integrity of risk-related data. Our risk management systems are reviewed by Group Audit following a risk-based audit approach.

Deutsche Bank's reporting is an integral part of Deutsche Bank's risk management approach and as such aligns with the organisational setup delivering consistent information on Group level and for material legal entities as well as breakdowns by risk types, business division and material business units.

The following principles guide Deutsche Bank's "risk reporting and monitoring" practices:

- Deutsche Bank monitors risks taken against the risk appetite and risk-reward considerations on various levels across the Group, e.g. Group, business divisions, material business units, material legal entities, risk types, portfolio and counterparty levels.
- Risk reporting is required to be accurate, clear, useful and complete and must convey reconciled and validated risk data to communicate information in a concise manner to permit, across material Financial and Non-Financial Risks, the bank's risk profile is easily and well understood.
- Senior risk committees, such as the Enterprise Risk Committee (ERC) and the Group Risk Committee (GRC), as well as the Management Board who are responsible for risk and capital management receive regular reporting (as well as ad-hoc reporting as required).
- Dedicated teams within Deutsche Bank proactively manage material Financial- and Non-Financial Risks and must ensure that required management information is in place to enable proactive identification and management of risks and avoid undue concentrations within a specific Risk Type and across Risks (Cross-Risk view).

In applying the previously mentioned principles, Deutsche Bank maintains a common basis for all risk reports and aims to minimize individual separate reporting efforts to allow Deutsche Bank to provide consistent information, which only differentiates by granularity and audience focus.

The Bank identifies a large number of metrics within our risk measurement systems which support regulatory reporting and external disclosures, as well as internal management reporting across risks and for material risk types. Deutsche Bank designates a subset of those as "Key Risk Metrics" that represent the most critical ones for which the Bank places an appetite, limit, threshold or target at Group level and / or are reported routinely to senior management for discussion or decision making. The identified Key Risk Metrics include Capital Adequacy and Liquidity metrics; further details can be found in the section "Key Risk Metrics".

While a large number of reports are used across the Bank, Deutsche Bank designates a subset of these as "Key Risk Reports" that are critical to support Deutsche Bank's Risk Management Framework through the provision of risk information to senior management and therefore enable the relevant governing bodies to monitor, steer and control the Bank's risk taking activities effectively.

The main reports on risk and capital management that are used to provide the central governance bodies with information relating to the Group risk profile are the following:

- The monthly Risk and Capital Profile (RCP) report is a Cross-Risk report and provides a comprehensive view of Deutsche Bank's risk profile and is used to inform the ERC, the GRC as well as the Management Board and subsequently the Risk Committee of the Supervisory Board, whereby the level of granularity is customized to the audiences' requirements. The RCP includes risk type specific, business aligned overviews and enterprise-wide risk topics. It also includes updates on Key Group Risk Appetite metrics and other Risk Type Control Metrics as well as Risk development updates on areas of particular interest.
- Overviews of our liquidity and solvency/leverage position are typically presented to the GRC by Group Capital Management and the Group Treasurer on a monthly basis. It comprises information on key metrics including CRR/CRD 4 Common Equity Tier 1 ratio and the CRR/CRD 4 leverage ratio, as well as an overview of our current funding, liquidity status and the liquidity stress test results.
- Group-wide macroeconomic stress tests are typically performed twice per quarter (or more frequently if required). They are reported to and discussed in the ERC and escalated to the GRC if deemed necessary. The stressed key performance indicators are benchmarked against the Group Risk Appetite thresholds.

While the above reports are used at a Group level to monitor and review the risk profile of Deutsche Bank holistically, there are other, supplementing standard and ad-hoc management reports that Risk Type or Business Aligned Risk Management functions use to monitor and control the risk profile.

Recovery and Resolution Planning

The 2007/2008 financial crisis exposed banks and the broader financial market to unprecedented pressures. These pressures led to certain banks seeking significant support from their governments and to large-scale interventions by central banks. The crisis also forced many financial institutions to significantly restructure their businesses and strengthen their capital, liquidity and funding bases. This crisis revealed that many financial institutions were insufficiently prepared for a fast-evolving systemic crisis and thus were unable to act and respond in a way that would avoid potential failure and prevent material adverse impacts on the financial system and ultimately the economy and society.

In response to the crisis, a number of jurisdictions (such as the member states of the European Union, including Germany and the UK as well as the U.S.) have enacted new regulations requiring banks or competent regulatory authorities to develop recovery and resolution plans. The Group recovery plan ("Recovery Plan") is updated and submitted to our regulators at least annually to reflect changes in the business and the regulatory requirements. The Recovery Plan prepares us to restore our financial strength and viability during an extreme stress situation. The Recovery Plan's more specific purpose is to outline how we can respond to a financial stress situation that would significantly impact our capital or liquidity position. Therefore it lays out a set of defined actions aimed to protect us, our customers and the markets and prevent a potential resolution event. In line with regulatory guidance, we have identified a wide range of countermeasures that will mitigate different types of stress scenarios. These scenarios originate from both idiosyncratic and market-wide events, which would lead to severe capital and liquidity impacts as well as impacts on our performance and balance sheet. The Recovery Plan is intended to enable us to effectively monitor, escalate, plan and execute actions in the event of a crisis situation.

The Management Board oversees the development of the Recovery Plan and has set up a dedicated contingent governance process to manage financial stress events.

As set out in the Bank Recovery and Resolution Directive ("BRRD"), the German Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz, "SAG") transforming the BRRD into German national legislation, and the Single Resolution Mechanism Regulation (the "SRM Regulation"), the Group resolution plan is prepared by the resolution authorities, rather than by the bank itself. We work closely with the Single Resolution Board ("SRB") and the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin") who establish the group resolution plan for Deutsche Bank which is currently based on a single point of entry ("SPE") bail-in as the preferred resolution strategy. Under the SPE strategy, the parent entity Deutsche Bank AG would be recapitalized through a direct bail-in (write-down and/or conversion to equity of capital instruments (Common Equity Tier1, Additional Tier1, Tier2) and other liabilities eligible for bail-in) to stabilise the group. Within one month after the application of the bail-in tool to recapitalise an institution, the BRRD (as implemented in the SAG) requires such institution to establish a business reorganisation plan addressing the causes of failure and aiming to restore the institution's long-term viability.

The BRRD requires banks in EU member states to maintain minimum requirements for own funds and eligible liabilities ("MREL") to make resolution credible by establishing sufficient loss absorption and recapitalisation capacity. Apart from MREL requirements, Deutsche Bank AG, as a global systemically important bank, will be subject to global minimum standards for Total Loss-Absorbing Capacity ("TLAC"), which sets out strict requirements for the amount and eligibility of instruments to be maintained for bail-in purposes. In particular, TLAC instruments must be subordinated to other senior liabilities. From January 1, 2017, non-structured senior debt instruments issued by Deutsche Bank AG meet the TLAC subordination requirement, since Germany adopted legislation to adjust the creditor hierarchy in insolvency for banks in the German Banking Act. This ensures that a bail-in would be applied first to equity and TLAC instruments, which must be exhausted before a bail-in may affect other senior liabilities such as deposits, derivatives, debt instruments that are "structured" and money market instruments.

In addition, Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") and the implementing regulations issued by the Federal Reserve Board and the Federal Deposit Insurance Corporation ("FDIC") require each bank holding company with assets of U.S.\$ 50 billion or more, including Deutsche Bank AG, to prepare and submit annually a plan for the orderly resolution of subsidiaries and operations in the event of future material financial distress or failure (the "U.S. Resolution Plan"). For foreign-based companies subject to these resolution planning requirements such as Deutsche Bank AG, the U.S. Resolution Plan relates only to subsidiaries, branches, agencies and businesses that are domiciled in or whose activities are carried out in whole or in material part in the United States. Deutsche Bank AG filed its last U.S. Resolution Plan in July 2015 and was not required to file a U.S. Resolution Plan in 2016 or 2017. Our next U.S. Resolution Plan is due on July 1, 2018.

The core elements of the U.S. Resolution Plan are Material Entities (“MEs”), Core Business Lines (“CBLs”), and Critical Operations (“COs”). The U.S. Resolution Plan lays out the resolution strategy for each ME, defined as those entities significant to the activities of a CO or CBL, and demonstrates how each ME, CBL and CO, as applicable, can be resolved in a rapid and orderly manner and without systemic impact on U.S. financial stability. The U.S. Resolution Plan also discusses the strategy for continuing Critical Services in resolution. Key factors addressed in the U.S. Resolution Plan include how to ensure:

- Continued access to services from other U.S. and non-U.S. legal entities as well as from third parties such as payment servicers, exchanges and key vendors;
- Availability of funding from both external and internal sources;
- Retention of key employees during resolution; and
- Efficient and coordinated close-out of cross-border contracts.

The U.S. Resolution Plan is drafted in coordination with the U.S. businesses and infrastructure groups so that it accurately reflects the business, critical infrastructure and key interconnections.

MREL and TLAC

Under the Single Resolution Mechanism (“SRM”) Regulation, the Bank Recovery and Resolution Directive (“BRRD”) and the German Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz, “SAG”) banks in the European Union (“EU”) are required to meet at all times a robust minimum requirement for own funds and eligible liabilities (“MREL”) which is determined on a case-by-case basis by the competent resolution authority.

The Single Resolution Board (“SRB”) intends to set binding MREL targets for the majority of the largest and most complex banking groups in its remit as part of the 2017 resolution planning cycle and to communicate the MREL decision to them (via National Resolution Authorities) in the first quarter 2018.

In addition, on November 9, 2015, the Financial Stability Board (“FSB”) published a standard that will require, when implemented as law, global systemically important banks (“G-SIBs”) to meet a new firm-specific minimum requirement for total loss-absorbing capacity (“TLAC”) starting on January 1, 2019.

On July 6, 2017, the FSB published guiding principles on internal TLAC, i.e., the loss absorbing capacity that a resolution entity has committed to material sub-groups so that losses and recapitalization needs of material sub-groups may be passed with legal certainty to the resolution entity of a G-SIB resolution group without subsidiaries within the material sub-groups entering into resolution.

Both the TLAC and MREL requirements are specifically designed to require banks to maintain a sufficient amount of instruments which are eligible to absorb losses in resolution with the aim of ensuring that failing banks can be resolved without recourse to taxpayers’ money.

On November 23, 2016, the European Commission (“EC”) proposed a revision of the Capital Requirement Regulation (“CRR”) to implement TLAC into EU legislation. In addition, it proposed amendments to the BRRD and the SRM Regulation. Under the Commission’s CRR revision proposal, the loss absorbency regime for EU global systemically important institutions (“G-SIIs”) would be closely aligned with the international TLAC term sheet. The instruments which qualify under TLAC are Common Equity Tier 1 instruments, Additional Tier 1 instruments, Tier 2 instruments and certain eligible unsecured liabilities. The TLAC term sheet introduces a minimum requirement of 16% of Risk Weighted Assets (“RWAs”) or 6% of leverage exposure by January 1, 2019; and 18% of RWAs and 6.75% of leverage exposure by 2022. The resolution authority would be able to request a firm-specific add-on if deemed necessary. For non-G-SIIs banks, the MREL would still be set on a case-by-case basis.

Furthermore, under the German Banking Act, as amended by the German Resolution Mechanism Act, which was published in November 2015, senior bonds rank junior to other senior liabilities, without constituting subordinated debt, in insolvency proceedings opened on or after January 1, 2017. On December 27, 2017, an EU Directive amending the ranking of unsecured debt instruments in the insolvency hierarchy for the purpose of banks’ resolution and insolvency proceedings has been published which introduces a common EU approach to banks’ creditor hierarchy, thereby enhancing legal certainty in the event of resolution. The Directive introduces non-preferred senior debt instruments as a separate category of senior debt. These new instruments will rank junior to all other senior liabilities but will be senior to subordinated debt provided they have an original contractual maturity of at least one year, do not contain embedded derivatives or be derivatives themselves and the contractual documentation explicitly refers to their lower ranking under normal insolvency proceedings. Member States are required to transpose the amending Directive into national law by December 29, 2018. The new provisions will apply to unsecured debt instruments issued on or after the date of when the respective national law enters into force. Any senior bonds that rank junior to other senior liabilities in accordance with the German Banking Act provisions published in November 2015 will be grandfathered and represent non-preferred senior debt instruments according to the EU Directive published on December 27, 2017.

Risk and Capital Management

Capital Management

Our Treasury function manages solvency, capital adequacy and leverage ratios at Group level and locally in each region. Treasury implements our capital strategy, which itself is developed by the Group Risk Committee and approved by the Management Board, including issuance and repurchase of shares and capital instruments, hedging of capital ratios against foreign exchange swings, limit setting for key financial resources, design of shareholders' equity allocation, and regional capital planning. We are fully committed to maintaining our sound capitalization both from an economic and regulatory perspective. We continuously monitor and adjust our overall capital demand and supply in an effort to achieve an appropriate balance of the economic and regulatory considerations at all times and from all perspectives. These perspectives include book equity based on IFRS accounting standards, regulatory and economic capital as well as specific capital requirements from rating agencies.

Treasury manages the issuance and repurchase of capital instruments, namely Common Equity Tier 1, Additional Tier 1 and Tier 2 capital instruments. Treasury constantly monitors the market for liability management trades. Such trades represent a countercyclical opportunity to create Common Equity Tier 1 capital by buying back our issuances below par.

Our core currencies are Euro, US Dollar and Pound Sterling. Treasury manages the sensitivity of our capital ratios against swings in core currencies. The capital invested into our foreign subsidiaries and branches in the other non-core currencies is largely hedged against foreign exchange swings. Treasury determines which currencies are to be hedged, develops suitable hedging strategies in close cooperation with Risk Management and finally executes these hedges.

In connection with MREL and TLAC requirements, we review our issuance portfolio of senior bonds to make them eligible under bail-in rules. We intend to comply with potential requirements as they become effective.

Resource Limit Setting

Usage of key financial resources is influenced through the following governance processes and incentives.

Target resource capacities are reviewed in our annual strategic plan in line with our CET 1 and Leverage Ratio ambitions. In a quarterly process, the Group Risk Committee approves divisional resource limits for Total Capital Demand and leverage exposure that are based on the strategic plan but adjusted for market conditions and the short-term outlook. Limits are enforced through a close monitoring process and an excess charging mechanism.

Overall regulatory capital requirements are driven by either our CET 1 ratio (solvency) or leverage ratio (leverage) requirements, which ever is the more binding constraint. For the internal capital allocation, the combined contribution of each segment to the Group's Common Equity Tier 1 ratio, the Group's Leverage ratio and the Group's Capital Loss under Stress are weighted to reflect their relative importance and level of constraint to the Group. Contributions to the Common Equity Tier 1 ratio and the Leverage ratio are measured through Risk-Weighted Assets (RWA) and Leverage Ratio Exposure (LRE) assuming full implementation of CRR/CRD 4 rules. The Group's Capital Loss under Stress is a measure of the Group's overall economic risk exposure under a defined stress scenario. In our performance measurement, our methodology also applies different rates for the cost of equity for each of the business segments, reflecting in a more differentiated way the earnings volatility of the individual business models. This enables improved performance management and investment decisions.

Regional capital plans covering the capital needs of our branches and subsidiaries across the globe are prepared on an annual basis and presented to the Group Investment Committee. Most of our subsidiaries are subject to legal and regulatory capital requirements. In developing, implementing and testing our capital and liquidity, we fully take such legal and regulatory requirements into account.

Further, Treasury is represented on the Investment Committee of the largest Deutsche Bank pension fund which sets the investment guidelines. This representation is intended to ensure that pension assets are aligned with pension liabilities, thus protecting our capital base.

Risk Identification and Assessment

We face a variety of risks as a result of our business activities; these risks include credit risk, market risk, business risk, liquidity risk, operational risk and reputational risk as described in the following sections below. Our risk identification and assessment processes utilize our three lines of defense (3LoD) operating model with the first line identifying the key risks and the second line complementing and aggregating identified risks into our global risk type taxonomy and assessing identified risks for their materiality. Operating processes are in place across the organization to capture relevant measures and indicators. The core aim of all processes is to provide adequate transparency and understanding of existing and emerging risk issues, and to ensure a holistic cross-risk perspective. We update the risk inventory at least once a year or at other times if needed, by running a risk identification and materiality assessment process.

We categorize our material risks into financial risks and non-financial risks. Financial risks comprise credit risk (including default, migration, transaction, settlement, exposure, country, mitigation and concentration risks), market risk (including interest-rate, foreign exchange, equity, credit-spread, commodity and other cross asset risks), liquidity risk and business (strategic) risk. Non-financial risks comprise operational risks and reputational risks (with important sub-categories compliance risk, legal risk, model risk and information security risk captured in our operational risk framework). For all material risks common risk management standards apply including having a dedicated risk management function, defining a risk type specific risk appetite and the decision on the amount of capital to be held.

Credit risk, market risk and operational risk attract regulatory capital. As part of our internal capital adequacy assessment process, we calculate the amount of economic capital for credit, market, operational and business risk to cover risks generated from our business activities taking into account diversification effects across those risk types. Furthermore, our economic capital framework embeds additional risks, e.g. reputational risk and refinancing risk, for which no dedicated economic capital models exist. We exclude liquidity risk from economic capital.

Credit Risk Management

Credit Risk Framework

Credit risk arises from all transactions where actual, contingent or potential claims against any counterparty, borrower, obligor or issuer (which we refer to collectively as “counterparties”) exist, including those claims that we plan to distribute. These transactions are typically part of our non-trading lending activities (such as loans and contingent liabilities) as well as our direct trading activity with clients (such as OTC derivatives). These also include traded bonds and debt securities. Carrying values of equity investments are also disclosed in our Credit Risk section. We manage the respective positions within our market risk and credit risk frameworks.

Based on the annual risk identification and materiality assessment, Credit Risk is grouped into five categories, namely default/migration risk, country risk, transaction/ settlement risk (exposure risk), mitigation (failure) risk and concentration risk.

- **Default/Migration Risk** is the risk that a counterparty defaults on its payment obligations or experiences material credit quality deterioration increasing the likelihood of a default.
- **Country Risk** is the risk that otherwise solvent and willing counterparties are unable to meet their obligations due to direct sovereign intervention or policies.
- **Transaction/Settlement Risk (Exposure Risk)** is the risk that arises from any existing, contingent or potential future positive exposure.
- **Mitigation Risk** is the risk of higher losses due to risk mitigation measures not performing as anticipated.
- **Concentration Risk** is the risk of an adverse development in a specific single counterparty, country, industry or product leading to a disproportionate deterioration in the risk profile of Deutsche Bank’s credit exposures to that counterparty, country, industry or product.

We measure, manage/mitigate and report/monitor our credit risk using the following philosophy and principles:

- Our credit risk management function is independent from our business divisions and in each of our divisions, credit decision standards, processes and principles are consistently applied.
- A key principle of credit risk management is client credit due diligence. Our client selection is achieved in collaboration with our business division counterparts who stand as a first line of defense.

- We aim to prevent undue concentration and tail-risks (large unexpected losses) by maintaining a diversified credit portfolio. Client, industry, country and product-specific concentrations are assessed and managed against our risk appetite.
- We maintain underwriting standards aiming to avoid large undue credit risk on a counterparty and portfolio level. In this regard we assume unsecured cash positions and actively use hedging for risk mitigation purposes. Additionally, we strive to secure our derivative portfolio through collateral agreements and may additionally hedge concentration risks to further mitigate credit risks from underlying market movements.
- Every new credit facility and every extension or material change of an existing credit facility (such as its tenor, collateral structure or major covenants) to any counterparty requires credit approval at the appropriate authority level. We assign credit approval authorities to individuals according to their qualifications, experience and training, and we review these periodically.
- We measure and consolidate all our credit exposures to each obligor across our consolidated Group on a global basis, in line with regulatory requirements.
- We manage credit exposures on the basis of the “one obligor principle” (as required under CRR Article 4(1)(39)), under which all facilities to a group of borrowers which are linked to each other (for example by one entity holding a majority of the voting rights or capital of another) are consolidated under one group.
- We have established within Credit Risk Management – where appropriate – specialized teams for deriving internal client ratings, analyzing and approving transactions, monitoring the portfolio or covering workout clients.
- Where required, we have established processes to report credit exposures at legal entity level.

Measuring Credit Risk

Credit risk is measured by credit rating, regulatory and internal capital demand and key credit metrics mentioned below.

The credit rating is an essential part of the Bank’s underwriting and credit process and builds the basis for risk appetite determination on a counterparty and portfolio level, credit decision and transaction pricing as well the determination of credit risk regulatory capital. Each counterparty must be rated and each rating has to be reviewed at least annually. Ongoing monitoring of counterparties helps keep ratings up-to-date. There must be no credit limit without a credit rating. For each credit rating the appropriate rating approach has to be applied and the derived credit rating has to be established in the relevant systems. Different rating approaches have been established to best reflect the specific characteristics of exposure classes, including central governments and central banks, institutions, corporates and retail.

Counterparties in our non-homogenous portfolios are rated by our independent Credit Risk Management function. Country risk related ratings are provided by ERM Risk Research.

Our rating analysis is based on a combination of qualitative and quantitative factors. When rating a counterparty we apply in-house assessment methodologies, scorecards and our 21-grade rating scale for evaluating the credit-worthiness of our counterparties.

Changes to existing credit models and introduction of new models are approved by the Regulatory Credit Risk Model Committee (RCRMC) chaired by the Head of CRM, as well as by the Head of the Model Risk Function or delegate, where appropriate, before the methodologies are used for credit decisions and capital calculation for the first time or before they are significantly changed. Proposals with high impact are recommended for approval to the Management Board. Additionally, the Risk Committee of the Supervisory Board has to be informed regularly about all model changes that have been brought to the attention of the Management Board. Regulatory approval may also be required. The methodology validation is performed independently of model development by Global Model Validation and Governance. The results of the regular validation processes as stipulated by internal policies have to be brought to the attention of the Regulatory Credit Risk Model Forum (RCRMF), even if the validation results do not lead to a change. The validation plan for rating methodologies is presented to RCRMF at the beginning of the calendar year and a status update is given on a quarterly basis.

For Postbank, responsibility for implementation, validation and monitoring of internal rating systems effectiveness is with Postbank’s Group Risk Controlling function and overseen by the model and validation committee, chaired by Postbank’s Head of Group Risk Controlling. An independent model risk and validation function has been established in 2016 in addition to the model risk development unit. All rating systems are subject to approval by Postbank’s Bank Risk Committee chaired by the Chief Risk Officer. Effectiveness of rating systems and rating results are reported to the Postbank Management Board on a regular basis. Joint governance is ensured via a cross committee membership of Deutsche Bank senior managers joining Postbank committees and vice versa.

We measure risk-weighted assets to determine the regulatory capital demand for credit risk using “advanced”, “foundation” and “standard” approaches of which advanced and foundation are approved by our regulator.

The advanced Internal Ratings Based Approach ("IRBA") is the most sophisticated approach available under the regulatory framework for credit risk and allows us to make use of our internal credit rating methodologies as well as internal estimates of specific further risk parameters. These methods and parameters represent long-used key components of the internal risk measurement and management process supporting the credit approval process, the economic capital and expected loss calculation and the internal monitoring and reporting of credit risk. The relevant parameters include the probability of default ("PD"), the loss given default ("LGD") and the maturity ("M") driving the regulatory risk-weight and the credit conversion factor ("CCF") as part of the regulatory exposure at default ("EAD") estimation. For the majority of derivative counterparty exposures as well as securities financing transactions ("SFT"), we make use of the internal model method ("IMM") in accordance with CRR and SolvV to calculate EAD. For most of our internal rating systems more than seven years of historical information is available to assess these parameters. Our internal rating methodologies aim at point-in-time rather than a through-the-cycle rating, but in line with regulatory solvency requirements, they are calibrated based on long-term averages of observed default rates.

We apply the foundation IRBA to the majority of our remaining foundation IRBA eligible credit portfolios at Postbank. The foundation IRBA is an approach available under the regulatory framework for credit risk allowing institutions to make use of their internal rating methodologies while using pre-defined regulatory values for all other risk parameters. Parameters subject to internal estimates include the probability of default ("PD") while the loss given default ("LGD") and the credit conversion factor ("CCF") are defined in the regulatory framework.

We apply the standardized approach to a subset of our credit risk exposures. The standardized approach measures credit risk either pursuant to fixed risk weights, which are predefined by the regulator, or through the application of external ratings. We assign certain credit exposures permanently to the standardized approach in accordance with Article 150 CRR. These are predominantly exposures to the Federal Republic of Germany and other German public sector entities as well as exposures to central governments of other European Member States that meet the required conditions. These exposures make up the majority of the exposures carried in the standardized approach and receive predominantly a risk weight of zero percent. For internal purposes, however, these exposures are subject to an internal credit assessment and fully integrated in the risk management and economic capital processes.

In addition to the above described regulatory capital demand, we determine the internal capital demand for credit risk via an economic capital model.

We calculate economic capital for the default risk, country risk and settlement risk as elements of credit risk. In line with our economic capital framework, economic capital for credit risk is set at a level to absorb with a probability of 99.9 % very severe aggregate unexpected losses within one year. Our economic capital for credit risk is derived from the loss distribution of a portfolio via Monte Carlo Simulation of correlated rating migrations. The loss distribution is modeled in two steps. First, individual credit exposures are specified based on parameters for the probability of default, exposure at default and loss given default. In a second step, the probability of joint defaults is modeled through the introduction of economic factors, which correspond to geographic regions and industries. The simulation of portfolio losses is then performed by an internally developed model, which takes rating migration and maturity effects into account. Effects due to wrong-way derivatives risk (i.e., the credit exposure of a derivative in the default case is higher than in non-default scenarios) are modeled by applying our own alpha factor when deriving the exposure at default for derivatives and securities financing transactions under the CRR. We allocate expected losses and economic capital derived from loss distributions down to transaction level to enable management on transaction, customer and business level.

Besides the credit rating which is the key credit risk metric we apply for managing our credit portfolio, including transaction approval and the setting of risk appetite, we establish internal limits and credit exposures under these limits. Credit limits set forth maximum credit exposures we are willing to assume over specified periods. In determining the credit limit for a counterparty, we consider the counterparty's credit quality by reference to our internal credit rating. Credit limits and credit exposures are both measured on a gross and net basis where net is derived by deducting hedges and certain collateral from respective gross figures. For derivatives, we look at current market values and the potential future exposure over the relevant time horizon which is based upon our legal agreements with the counterparty. We generally also take into consideration the risk-return characteristics of individual transactions and portfolios. Risk-Return metrics explain the development of client revenues as well as capital consumption. In this regard we also look at the client revenues in relation to the balance sheet consumption.

Managing and Mitigation of Credit Risk

Managing Credit Risk on Counterparty Level

Credit-related counterparties are principally allocated to credit officers within credit teams which are aligned to types of counterparty (such as financial institutions, corporates or private individuals) or economic area (e.g., emerging markets) and dedicated rating analyst teams. The individual credit officers have the relevant expertise and experience to manage the credit risks associated with these counterparties and their associated credit related transactions. For retail clients, credit decision making and credit monitoring is highly automated for efficiency reasons. Credit Risk Management has full oversight of the respective processes and tools used in the retail credit process. It is the responsibility of each credit officer to undertake ongoing credit monitoring for their allocated portfolio of counterparties. We also have procedures in place intended to identify at an early stage credit exposures for which there may be an increased risk of loss.

In instances where we have identified counterparties where there is a concern that the credit quality has deteriorated or appears likely to deteriorate to the point where they present a heightened risk of loss in default, the respective exposure is generally placed on a "watch list". We aim to identify counterparties that, on the basis of the application of our risk management tools, demonstrate the likelihood of problems well in advance in order to effectively manage the credit exposure and maximize the recovery. The objective of this early warning system is to address potential problems while adequate options for action are still available. This early risk detection is a tenet of our credit culture and is intended to ensure that greater attention is paid to such exposures.

Credit limits are established by the Credit Risk Management function via the execution of assigned credit authorities. This also applies to settlement risk that must fall within limits pre-approved by Credit Risk Management considering risk appetite and in a manner that reflects expected settlement patterns for the subject counterparty. Credit approvals are documented by the signing of the credit report by the respective credit authority holders and retained for future reference.

Credit authority is generally assigned to individuals as personal credit authority according to the individual's professional qualification, experience and training. All assigned credit authorities are reviewed on a periodic basis to help ensure that they are commensurate with the individual performance of the authority holder.

Where an individual's personal authority is insufficient to establish required credit limits, the transaction is referred to a higher credit authority holder or where necessary to an appropriate credit committee. Where personal and committee authorities are insufficient to establish appropriate limits, the case is referred to the Management Board for approval.

Mitigation of Credit Risk on Counterparty Level

In addition to determining counterparty credit quality and our risk appetite, we also use various credit risk mitigation techniques to optimize credit exposure and reduce potential credit losses. Credit risk mitigants are applied in the following forms:

- Comprehensive and enforceable credit documentation with adequate terms and conditions.
- Collateral held as security to reduce losses by increasing the recovery of obligations.
- Risk transfers, which shift the loss arising from the probability of default risk of an obligor to a third party including hedging executed by our Credit Portfolio Strategies Group.
- Netting and collateral arrangements which reduce the credit exposure from derivatives and securities financing transactions (e.g. repo transactions).

Collateral

We regularly agree on collateral to be received from or to be provided to customers in contracts that are subject to credit risk. Collateral is security in the form of an asset or third-party obligation that serves to mitigate the inherent risk of credit loss in an exposure, by either substituting the counterparty default risk or improving recoveries in the event of a default. While collateral can be an alternative source of repayment, it does not replace the necessity of high quality underwriting standards and a thorough assessment of the debt service ability of the counterparty in line with CRR Article 194 (9).

We segregate collateral received into the following two types:

- Financial and other collateral, which enables us to recover all or part of the outstanding exposure by liquidating the collateral asset provided, in cases where the counterparty is unable or unwilling to fulfill its primary obligations. Cash collateral, securities (equity, bonds), collateral assignments of other claims or inventory, equipment (i.e., plant, machinery and aircraft) and real estate typically fall into this category. All financial collateral is regularly, mostly daily, revalued and measured against the respective credit exposure. The value of other collateral, including real estate, is monitored based upon established processes that includes regular revaluations by internal and/or external experts.
- Guarantee collateral, which complements the counterparty's ability to fulfill its obligation under the legal contract and as such is provided by third parties. Letters of credit, insurance contracts, export credit insurance, guarantees, credit derivatives and risk participations typically fall into this category. Guarantee collateral with a non-investment grade rating of the guarantor is limited.

Our processes seek to ensure that the collateral we accept for risk mitigation purposes is of high quality. This includes seeking to have in place legally effective and enforceable documentation for realizable and measureable collateral assets which are evaluated regularly by dedicated teams. The assessment of the suitability of collateral for a specific transaction is part of the credit decision and must be undertaken in a conservative way, including collateral haircuts that are applied. We have collateral type specific haircuts in place which are regularly reviewed and approved. In this regard, we strive to avoid "wrong-way" risk characteristics where the counterparty's risk is positively correlated with the risk of deterioration in the collateral value. For guarantee collateral, the process for the analysis of the guarantor's creditworthiness is aligned to the credit assessment process for counterparties.

Risk Transfers

Risk transfers to third parties form a key part of our overall risk management process and are executed in various forms, including outright sales, single name and portfolio hedging, and securitizations. Risk transfers are conducted by the respective business units and by our Credit Portfolio Strategies Group (CPSG), in accordance with specifically approved mandates.

CPSG manages the residual credit risk of loans and lending-related commitments of the institutional and corporate credit portfolio, the leveraged portfolio and the medium-sized German companies' portfolio within our CIB Division.

Acting as a central pricing reference, CPSG provides the businesses with an observed or derived capital market rate for loan applications; however, the decision of whether or not the business can enter into the credit risk remains exclusively with Credit Risk Management.

CPSG is concentrating on two primary objectives within the credit risk framework to enhance risk management discipline, improve returns and use capital more efficiently:

- to reduce single-name credit risk concentrations within the credit portfolio and
- to manage credit exposures by utilizing techniques including loan sales, securitization via collateralized loan obligations, sub-participations and single-name and portfolio credit default swaps.

Netting and Collateral Arrangements for Derivatives and Securities Financing Transactions

Netting is applicable to both exchange traded derivatives and OTC derivatives. Netting is also applied to securities financing transactions (e.g. repurchase, securities lending and margin lending transactions) as far as documentation, structure and nature of the risk mitigation allow netting with the underlying credit risk.

All exchange traded derivatives are cleared through central counterparties ("CCPs"), which interpose themselves between the trading entities by becoming the counterparty to each of the entities. Where legally required or where available and to the extent agreed with our counterparties, we also use CCP clearing for our OTC derivative transactions.

The Dodd-Frank Act ("DFA") and related Commodity Futures Trading Commission ("CFTC") rules introduced in 2013 mandatory CCP clearing in the United States for certain standardized OTC derivative transactions, including certain interest rate swaps and index credit default swaps. Additionally, the CFTC adopted final rules in 2016 that require additional interest rate swaps to be cleared on a phased implementation schedule ending in October 2018. The European Regulation (EU) No 648/2012 on OTC Derivatives, Central Counterparties and Trade Repositories ("EMIR") and the Commission Delegated Regulations (EU) 2015/2205, (EU) 2015/592 and (EU) 2016/1178 based thereupon introduced mandatory CCP clearing in the EU clearing for certain standardized OTC derivatives transactions. Mandatory CCP clearing in the EU began for certain interest rate derivatives on June 21, 2016 and for certain iTraxx-based credit derivatives and additional interest rate derivatives on February 9, 2017. Article 4 (2) of EMIR authorizes competent authorities to exempt intragroup transactions from mandatory CCP clearing, provided certain requirements, such as full consolidation of the intragroup transactions and the application of an appropriate centralized risk evaluation, measurement and control procedure are met. The Bank successfully applied for the clearing exemption for most of its regulatory-consolidated subsidiaries with intragroup derivatives, including e.g., Deutsche Bank Securities Inc. and Deutsche Bank Luxembourg S.A. As of December 31, 2017, the Bank has obtained intragroup exemptions from the EMIR

clearing obligation for 70 bilateral intragroup relationships. The extent of the exemptions differs as not all entities enter into relevant transaction types subject to the clearing obligation. Of the 70 intragroup relationships, 17 are relationships where both entities are established in the Union (EU) for which a full exemption has been granted, and 53 are relationships where one is established in a third country ("Third Country Relationship"). Third Country Relationships currently require repeat applications for each new asset class being subject to the clearing obligation. Such repeat applications have been filed for 39 of the Third Country Relationships.

The rules and regulations of CCPs typically provide for the bilateral set off of all amounts payable on the same day and in the same currency ("payment netting") thereby reducing our settlement risk. Depending on the business model applied by the CCP, this payment netting applies either to all of our derivatives cleared by the CCP or at least to those that form part of the same class of derivatives. Many CCP rules and regulations also provide for the termination, close-out and netting of all cleared transactions upon the CCP's default ("close-out netting"), which reduced our credit risk. In our risk measurement and risk assessment processes we apply close-out netting only to the extent we have satisfied ourselves of the legal validity and enforceability of the relevant CCP's close-out netting provisions.

In order to reduce the credit risk resulting from OTC derivative transactions, where CCP clearing is not available, we regularly seek the execution of standard master agreements (such as master agreements for derivatives published by the International Swaps and Derivatives Association, Inc. (ISDA) or the German Master Agreement for Financial Derivative Transactions) with our counterparties. A master agreement allows for the close-out netting of rights and obligations arising under derivative transactions that have been entered into under such a master agreement upon the counterparty's default, resulting in a single net claim owed by or to the counterparty. For parts of the derivatives business (e.g., foreign exchange transactions) we also enter into master agreements under which payment netting applies in respect to transactions covered by such master agreements, reducing our settlement risk. In our risk measurement and risk assessment processes we apply close-out netting only to the extent we have satisfied ourselves of the legal validity and enforceability of the master agreement in all relevant jurisdictions.

Also, we enter into credit support annexes ("CSA") to master agreements in order to further reduce our derivatives-related credit risk. These annexes generally provide risk mitigation through periodic, usually daily, margining of the covered exposure. The CSAs also provide for the right to terminate the related derivative transactions upon the counterparty's failure to honor a margin call. As with netting, when we believe the annex is enforceable, we reflect this in our exposure measurement.

The Dodd-Frank Act and CFTC rules thereunder, including CFTC rules § 23.504 and § 23.158, as well as EMIR and Commission Delegated Regulation based thereupon, namely Commission Delegated Regulation (EU) 2016/2251, introduced the mandatory use of master agreements and related CSAs, which must be executed prior to or contemporaneously with entering into an uncleared OTC derivative transaction. Under U.S. margin rules adopted by U.S. prudential regulators (the Federal Reserve, the FDIC, the Office of the Comptroller of the Currency, the Farm Credit Administration and Federal Housing Finance Agency) and the CFTC, we are required to post and collect initial margin and variation margin for our derivatives exposures with other derivatives dealers, as well as with our counterparties that (a) are "financial end users," as that term is defined in the U.S. margin rules, and (b) have an average daily aggregate notional amount of uncleared swaps, uncleared security-based swaps, foreign exchange forwards and foreign exchange swaps exceeding U.S.\$ 8 billion in June, July and August of the previous calendar year. The U.S. margin rules additionally require us to post and collect variation margin for our derivatives with other financial end user counterparties. These margin requirements are subject to a U.S.\$ 50 million threshold for initial margin and a zero threshold for variation margin, with a combined U.S.\$ 500,000 minimum transfer amount. The U.S. margin requirements have been in effect for large banks since September 2016, with additional variation margin requirements having come into effect March 1, 2017 and additional initial margin requirements phased in on an annual basis from September 2017 through September 2020.

Under EMIR the CSA must provide for daily valuation and daily variation margining based on a zero threshold and a minimum transfer amount of not more than € 500,000. For large derivative exposures exceeding € 8 billion, initial margin has to be posted as well. The variation margin requirements under EMIR apply as of March 1, 2017; the initial margin requirements will be subject to a staged phase-in until September 1, 2020. Pursuant to Article 11 (5) to (10) of EMIR competent authorities are authorized to exempt intragroup transactions from the margining obligation, provided certain requirements are met. While some of those requirements are the same as for the EMIR clearing exemptions (see above), there are additional requirements such as the absence of any current or foreseen practical or legal impediment to the prompt transfer of funds or repayment of liabilities between intragroup counterparties. The Bank plans to make use of this exemption. The Bank has successfully applied for the collateral exemption for some of its regulatory-consolidated subsidiaries with intragroup derivatives, including, e.g., Deutsche Bank Securities Inc. and Deutsche Bank Luxembourg S.A. As of December 31, 2017, the Bank has obtained intragroup exemptions from the EMIR collateral obligation for 13 bilateral intragroup relationships, and one application is still pending.

Certain CSAs to master agreements provide for rating-dependent triggers, where additional collateral must be pledged if a party's rating is downgraded. We also enter into master agreements that provide for an additional termination event upon a party's rating downgrade. These downgrade provisions in CSAs and master agreements usually apply to both parties but in some agreements may apply to us only. We analyze and monitor our potential contingent payment obligations resulting from a rating downgrade in our stress testing approach for liquidity risk on an ongoing basis. For an assessment of the quantitative impact of a downgrading of our credit rating please refer to table "Stress Testing Results" in the section "Liquidity Risk".

Concentrations within Credit Risk Mitigation

Concentrations within credit risk mitigations taken may occur if a number of guarantors and credit derivative providers with similar economic characteristics are engaged in comparable activities with changes in economic or industry conditions affecting their ability to meet contractual obligations. We use a range of tools and metrics to monitor our credit risk mitigating activities.

For more qualitative and quantitative details in relation to the application of credit risk mitigation and potential concentration effects please refer to the section "Maximum Exposure to Credit Risk".

Managing Credit Risk on Portfolio Level

On a portfolio level, significant concentrations of credit risk could result from having material exposures to a number of counterparties with similar economic characteristics, or who are engaged in comparable activities, where these similarities may cause their ability to meet contractual obligations to be affected in the same manner by changes in economic or industry conditions.

Our portfolio management framework supports a comprehensive assessment of concentrations within our credit risk portfolio in order to keep concentrations within acceptable levels.

Industry Risk Management

To manage industry risk, we have grouped our corporate and financial institutions counterparties into various industry sub-portfolios. For each of these portfolios an "Industry Strategy Document" is prepared, usually on an annual basis. This report highlights industry developments and risks to our credit portfolio, reviews cross-risk concentration risks, analyses the risk/reward profile of the portfolio and incorporates an economic downside stress test. Finally, this analysis is used to define the credit strategies for the portfolio in question.

Beyond credit risk, our Industry Risk Framework comprises of Market Risk thresholds for Traded Credit Positions while key non-financial risks are closely monitored.

The Industry Strategy Documents have been presented to the Enterprise Risk Committee. In addition to these analyses, the development of the industry portfolios is regularly monitored during the year and is compared with the approved portfolio strategies. Regular overviews are prepared for the Enterprise Risk Committee to discuss recent developments and to agree on actions where necessary.

Country Risk Management

Avoiding undue concentrations from a regional perspective is also an integral part of our credit risk management framework. In order to achieve this, country risk limits are applied to Emerging Markets as well as selected Developed Markets countries (based on internal country risk ratings). Emerging Markets are grouped into regions and for each region, as well as for the Higher Risk Developed Markets, a "Country Strategy Document" is prepared, usually on an annual basis. These reports assess key macroeconomic developments and outlook, review portfolio composition and cross-risk concentration risks and analyze the risk/reward profile of the portfolio. Based on this, thresholds and strategies are set for countries and, where relevant, for the region as a whole. Country risk thresholds are approved by our Enterprise Risk Committee and by the Management Board at Postbank for respective portfolios.

In our Country Limit framework, thresholds are established for counterparty credit risk exposures in a given country to manage the aggregated credit risk subject to country-specific economic and political events. These thresholds include exposures to entities incorporated locally as well as subsidiaries of foreign multinational corporations. Also, gap risk thresholds are set to control the risk of loss due to intra-country wrong-way risk exposure.

Beyond credit risk, our Country Risk Framework comprises Market Risk thresholds for trading positions in emerging markets that are based on the P&L impact of potential stressed market events on these positions. Furthermore we take into consideration treasury risk comprising thresholds for capital positions and intra-group funding exposure of Deutsche Bank entities in above countries given the transfer risk inherent in these cross-border positions. Key non-financial risks are closely monitored.

Our country risk ratings represent a key tool in our management of country risk. They are established by the independent ERM Risk Research function within Deutsche Bank and include:

- **Sovereign rating:** A measure of the probability of the sovereign defaulting on its foreign or local currency obligations.
- **Transfer risk rating:** A measure of the probability of a “transfer risk event”, i.e., the risk that an otherwise solvent debtor is unable to meet its obligations due to inability to obtain foreign currency or to transfer assets as a result of direct sovereign intervention.
- **Event risk rating:** A measure of the probability of major disruptions in the market risk factors relating to a country (interest rates, credit spreads, etc.). Event risks are measured as part of our event risk scenarios, as described in the section “Market Risk Measurement” of this report.

All sovereign and transfer risk ratings are reviewed, at least on an annual basis.

Product/Asset Class specific Risk Management

Complementary to our counterparty, industry and country risk approach, we focus on product/asset class specific risk concentrations and selectively set limits, thresholds or indicators where required for risk management purposes. Specific risk limits are set in particular if a concentration of transactions of a specific type might lead to significant losses under certain cases. In this respect, correlated losses might result from disruptions of the functioning of financial markets, significant moves in market parameters to which the respective product is sensitive, macroeconomic default scenarios or other factors. Specific focus is put on concentrations of transactions with underwriting risks where we underwrite commitments with the intention to sell down or distribute part of the risk to third parties. These commitments include the undertaking to fund bank loans and to provide bridge loans for the issuance of public bonds. The risk is that we may not be successful in the distribution of the facilities, meaning that we would have to hold more of the underlying risk for longer periods of time than originally intended. These underwriting commitments are additionally exposed to market risk in the form of widening credit spreads. We dynamically hedge this credit spread risk to be within the approved market risk limit framework.

In addition to underwriting risk, we also focus on concentration of transactions with specific risk dynamics (including risk to commercial real estate and risk from securitization positions).

Furthermore, in our PCC businesses, we apply product-specific strategies setting our risk appetite for sufficiently homogeneous portfolios where tailored client analysis is secondary, such as the retail portfolios of mortgages and business and consumer finance products. In Wealth Management, target levels are set for global concentrations along products as well as based on type and liquidity of collateral.

Market Risk Management

Market Risk Framework

The vast majority of our businesses are subject to market risk, defined as the potential for change in the market value of our trading and invested positions. Risk can arise from changes in interest rates, credit spreads, foreign exchange rates, equity prices, commodity prices and other relevant parameters, such as market volatility and market implied default probabilities.

One of the primary objectives of Market Risk Management, a part of our independent Risk function, is to ensure that our business units' risk exposure is within the approved appetite commensurate with its defined strategy. To achieve this objective, Market Risk Management works closely together with risk takers (“the business units”) and other control and support groups.

We distinguish between three substantially different types of market risk:

- Trading market risk arises primarily through the market-making and client facilitation activities of the Corporate & Investment Bank Corporate Division. This involves taking positions in debt, equity, foreign exchange, other securities and commodities as well as in equivalent derivatives.
- Traded default risk arising from defaults and rating migrations relating to trading instruments.
- Nontrading market risk arises from market movements, primarily outside the activities of our trading units, in our banking book and from off-balance sheet items. This includes interest rate risk, credit spread risk, investment risk and foreign exchange risk as well as market risk arising from our pension schemes, guaranteed funds and equity compensation. Non-trading market risk also includes risk from the modeling of client deposits as well as savings and loan products.

Market Risk Management governance is designed and established to promote oversight of all market risks, effective decision-making and timely escalation to senior management.

Market Risk Management defines and implements a framework to systematically identify, assess, monitor and report our market risk. Market risk managers identify market risks through active portfolio analysis and engagement with the business areas.

Market Risk Measurement

We aim to accurately measure all types of market risks by a comprehensive set of risk metrics embedding accounting, economic and regulatory considerations.

We measure market risks by several internally developed key risk metrics and regulatory defined market risk approaches.

Trading Market Risk

Our primary mechanism to manage trading market risk is the application of our Risk Appetite framework of which the limit framework is a key component. Our Management Board, supported by Market Risk Management, sets group-wide value-at-risk, economic capital and portfolio stress testing limits for market risk in the trading book. Market Risk Management allocates this overall appetite to our Corporate Divisions and individual business units within them based on established and agreed business plans. We also have business aligned heads within Market Risk Management who establish business limits, by allocating the limit down to individual portfolios, geographical regions and types of market risks.

Value-at-risk, economic capital and Portfolio Stress Testing limits are used for managing all types of market risk at an overall portfolio level. As an additional and important complementary tool for managing certain portfolios or risk types, Market Risk Management performs risk analysis and business specific stress testing. Limits are also set on sensitivity and concentration/liquidity, exposure, business-level stress testing and event risk scenarios, taking into consideration business plans and the risk vs return assessment.

Business units are responsible for adhering to the limits against which exposures are monitored and reported. The market risk limits set by Market Risk Management are monitored on a daily, weekly and monthly basis, dependent on the risk management tool being used.

Internally developed Market Risk Models

Value-at-Risk (VaR)

VaR is a quantitative measure of the potential loss (in value) of Fair Value positions due to market movements that will not be exceeded in a defined period of time and with a defined confidence level.

Our value-at-risk for the trading businesses is based on our own internal model. In October 1998, the German Banking Supervisory Authority (now the BaFin) approved our internal model for calculating the regulatory market risk capital for our general and specific market risks. Since then the model has been continually refined and approval has been maintained.

We calculate VaR using a 99 % confidence level and a one day holding period. This means we estimate there is a 1 in 100 chance that a mark-to-market loss from our trading positions will be at least as large as the reported VaR. For regulatory purposes, which include the calculation of our risk-weighted assets, the holding period is ten days.

We use one year of historical market data as input to calculate VaR. The calculation employs a Monte Carlo Simulation technique, and we assume that changes in risk factors follow a well-defined distribution, e.g. normal or non-normal (t, skew-t, Skew-Normal). To determine our aggregated VaR, we use observed correlations between the risk factors during this one year period.

Our VaR model is designed to take into account a comprehensive set of risk factors across all asset classes. Key risk factors are swap/government curves, index and issuer-specific credit curves, funding spreads, single equity and index prices, foreign exchange rates, commodity prices as well as their implied volatilities. To help ensure completeness in the risk coverage, second order risk factors, e.g. CDS index vs. constituent basis, money market basis, implied dividends, option-adjusted spreads and precious metals lease rates are considered in the VaR calculation.

For each business unit a separate VaR is calculated for each risk type, e.g. interest rate risk, credit spread risk, equity risk, foreign exchange risk and commodity risk. For each risk type this is achieved by deriving the sensitivities to the relevant risk type and then simulating changes in the associated risk drivers. "Diversification effect" reflects the fact that the total VaR on a given day will be lower than the sum of the VaR relating to the individual risk types. Simply adding the VaR figures of the individual risk types to arrive at an aggregate VaR would imply the assumption that the losses in all risk types occur simultaneously.

The model incorporates both linear and, especially for derivatives, nonlinear effects through a combination of sensitivity-based and revaluation approaches.

The VaR measure enables us to apply a consistent measure across all of our fair value businesses and products. It allows a comparison of risk in different businesses, and also provides a means of aggregating and netting positions within a portfolio to reflect correlations and offsets between different asset classes. Furthermore, it facilitates comparisons of our market risk both over time and against our daily trading results.

When using VaR estimates a number of considerations should be taken into account. These include:

- The use of historical market data may not be a good indicator of potential future events, particularly those that are extreme in nature. This “backward-looking” limitation can cause VaR to understate future potential losses (as in 2008), but can also cause it to be overstated.
- Assumptions concerning the distribution of changes in risk factors, and the correlation between different risk factors, may not hold true, particularly during market events that are extreme in nature. The one day holding period does not fully capture the market risk arising during periods of illiquidity, when positions cannot be closed out or hedged within one day.
- VaR does not indicate the potential loss beyond the 99th quantile.
- Intra-day risk is not reflected in the end of day VaR calculation.
- There may be risks in the trading or banking book that are partially or not captured by the VaR model.

We are committed to the ongoing development of our internal risk models, and we allocate substantial resources to reviewing, validating and improving them. Additionally, we have further developed and improved our process of systematically capturing and evaluating risks currently not captured in our value-at-risk model. An assessment is made to determine the level of materiality of these risks and material risks are prioritized for inclusion in our internal model. Risks not in value-at-risk are monitored and assessed on a regular basis through our Risk Not In VaR (RNIV) framework.

Stressed Value-at-Risk

Stressed Value-at-Risk calculates a stressed value-at-risk measure based on a one year period of significant market stress. We calculate a stressed value-at-risk measure using a 99 % confidence level. The holding period is one day for internal purposes and ten days for regulatory purposes. Our stressed value-at-risk calculation utilizes the same systems, trade information and processes as those used for the calculation of value-at-risk. The only difference is that historical market data and observed correlations from a period of significant financial stress (i.e., characterized by high volatilities) is used as an input for the Monte Carlo Simulation.

The time window selection process for the stressed value-at-risk calculation is based on the identification of a time window characterized by high levels of volatility in the top value-at-risk contributors. The identified window is then further validated by comparing the SVaR results to neighboring windows using the complete Group portfolio.

Incremental Risk Charge

Incremental Risk Charge captures default and credit rating migration risks for credit-sensitive positions in the trading book. It applies to credit products over a one-year capital horizon at a 99.9 % confidence level, employing a constant position approach. We use a Monte Carlo Simulation for calculating incremental risk charge as the 99.9 % quantile of the portfolio loss distribution and for allocating contributory incremental risk charge to individual positions.

The model captures the default and migration risk in an accurate and consistent quantitative approach for all portfolios. Important parameters for the incremental risk charge calculation are exposures, recovery rates, maturity ratings with corresponding default and migration probabilities and parameters specifying issuer correlations.

Comprehensive Risk Measure

Comprehensive Risk Measure captures incremental risk for the corporate correlation trading portfolio calculated using an internal model subject to qualitative minimum requirements as well as stress testing requirements. The comprehensive risk measure for the correlation trading portfolio is based on our own internal model.

We calculate the comprehensive risk measure based on a Monte Carlo Simulation technique to a 99.9 % confidence level and a capital horizon of one year. Our model is applied to the eligible corporate correlation trading positions where typical products include collateralized debt obligations, nth-to-default credit default swaps, and commonly traded index- and single-name credit default swaps used to risk manage these corporate correlation products.

Trades subject to the comprehensive risk measure have to meet minimum liquidity standards to be eligible. The model incorporates concentrations of the portfolio and nonlinear effects via a full revaluation approach.

For regulatory reporting purposes, the comprehensive risk measure represents the higher of the internal model spot value at the reporting dates, their preceding 12-week average calculation, and the floor, where the floor is equal to 8 % of the equivalent capital charge under the standardized approach securitization framework. Since the first quarter of 2016, the CRM RWA calculations include two regulatory-prescribed add-ons which cater for (a) stressing the implied correlation within nth-to-default baskets and (b) any stress test loss in excess of the internal model spot value.

Market Risk Standardized Approach

Market Risk Management monitors exposures and concentrations for certain exposures under the specific Market Risk Standardized Approach ("MRSA"). We use the MRSA to determine the regulatory capital charge for the specific market risk of trading book securitizations which fall outside the scope of the regulatory correlation trading portfolio.

We also use the MRSA to determine the regulatory capital charge for longevity risk as set out in CRR/CRD 4 regulations. Longevity risk is the risk of adverse changes in life expectancies resulting in a loss in value on longevity linked policies and transactions. For risk management purposes, stress testing and economic capital allocations are also used to monitor and manage longevity risk. Furthermore, certain types of investment funds require a capital charge under the MRSA. For risk management purposes, these positions are also included in our internal reporting framework.

Market Risk Stress Testing

Stress testing is a key risk management technique, which evaluates the potential effects of extreme market events and movements in individual risk factors. It is one of the core quantitative tools used to assess the market risk of Deutsche Bank's positions and complements VaR and Economic Capital. Market Risk Management performs several types of stress testing to capture the variety of risks (Portfolio Stress Testing, individual specific stress tests and Event Risk Scenarios) and also contributes to Group-wide stress testing. These are also set at varying severities ranging from extreme for capital adequacy assessment to mild for earning stability purposes.

Trading Market Risk Economic Capital (TMR EC)

Our trading market risk economic capital model - scaled Stressed VaR based EC (SVaR based EC) - comprises two core components, the "common risk" component covering risk drivers across all businesses and the "business-specific risk" component, which enriches the Common Risk via a suite of Business Specific Stress Tests (BSSTs). Both components are calibrated to historically observed severe market shocks. Common risk is calculated using a scaled version of the Regulatory SVaR framework while BSSTs are designed to capture more product/business-related bespoke risks (e.g. complex basis risks) as well as higher order risks not captured in the common risk component.

Traded Default Risk Economic Capital (TDR EC)

TDR EC captures the relevant credit exposures across our trading and fair value banking books. Trading book exposures are monitored by MRM via single name concentration and portfolio thresholds which are set based upon rating, size and liquidity. Single name concentration risk thresholds are set for two key metrics: Default Exposure, i.e., the P&L impact of an instantaneous default at the current recovery rate (RR), and bond equivalent Market Value (MV), i.e. default exposure at 0 % recovery. In order to capture diversification and concentration effects we perform a joint calculation for traded default risk economic capital and credit risk economic capital. Important parameters for the calculation of traded default risk are exposures, recovery rates and default probabilities as well as maturities. The probability of joint rating downgrades and defaults is determined by the default and rating correlations of the portfolio model. These correlations are specified through systematic factors that represent countries, geographical regions and industries.

Trading Market Risk Reporting

Market Risk Management reporting creates transparency on the risk profile and facilitates the understanding of core market risk drivers to all levels of the organization. The Management Board and Senior Governance Committees receive regular reporting, as well as ad hoc reporting as required, on market risk, regulatory capital and stress testing. Senior Risk Committees receive risk information at a number of frequencies, including weekly or monthly.

Additionally, Market Risk Management produces daily and weekly Market Risk specific reports and daily limit utilisation reports for each business owner.

Regulatory prudent valuation of assets carried at fair value

Pursuant to Article 34 CRR institutions shall apply the prudent valuation requirements of Article 105 CRR to all assets measured at fair value and shall deduct from CET 1 capital the amount of any additional value adjustments necessary.

We determined the amount of the additional value adjustments based on the methodology defined in the Commission Delegated Regulation (EU) 2016/101.

As of December 31, 2017 the amount of the additional value adjustments was € 1.2 billion.

Based on Article 159 CRR the total amount of general and specific credit risk adjustments and additional value adjustments for exposures that are treated under the Internal Ratings Based Approach for credit risk and that are in scope of the expected loss calculation may be subtracted from the total expected loss amount related to these exposures. Any remaining positive difference must be deducted from CET 1 capital pursuant to Article 36 (1) lit. d. CRR.

As of December 31, 2017 the reduction of the expected loss from subtracting the additional value adjustments was € 0.3 billion, which partly mitigated the negative impact of the additional value adjustments on our CET 1 capital.

Nontrading Market Risk

Nontrading market risk arises primarily from outside the activities of our trading units, in our banking book and from certain off-balance sheet items. Significant market risk factors the Group is exposed to and are overseen by risk management groups in that area are:

- Interest rate risk (including risk from embedded optionality and changes in behavioral patterns for certain product types), credit spread risk, foreign exchange risk, equity risk (including investments in public and private equity as well as real estate, infrastructure and fund assets).
- Market risks from off-balance sheet items such as pension schemes and guarantees as well as structural foreign exchange risk and equity compensation risk.

Interest Rate Risk in the Banking Book

Interest rate risk in the banking book is the current or prospective risk, to both the Group's capital and earnings, arising from movements in interest rates, which affect the Group's banking book exposures. This includes gap risk, which arises from the term structure of banking book instruments, basis risk, which describes the impact of relative changes in interest rates for financial instruments that are priced using different interest rate curves, as well as option risk, which arises from option derivative positions or from optional elements embedded in financial instruments.

The Group manages its IRRBB exposures using economic value as well as earnings based measures. Our Group Treasury division is mandated to manage the interest rate risk centrally on a fiduciary basis, with Market Risk Management acting as an independent oversight function.

Economic value based measures look at the change in economic value of banking book of assets, liabilities and off-balance sheet exposures resulting from interest rate movements, independent of the accounting treatment. Thereby the Group measures the change in Economic Value of Equity ("ΔEVE") as the maximum decrease of the banking book economic value under the 6 standard scenarios defined by Basel Committee on Banking Supervision (BCBS).

Earnings-based measures look at the expected change in Net Interest Income ("NII"), compared to a defined benchmark scenario, over a defined time horizon resulting from interest rate movements. Thereby the Group measures ΔNII as the maximum reduction in NII under the 6 standard scenarios defined by Basel Committee on Banking Supervision (BCBS), compared to the Group's official capital planning, over a period of 12 months.

The Group employs mitigation techniques to immunize the interest rate risk arising from nontrading positions. The majority of our interest rate risk arising from nontrading asset and liability positions are managed through Treasury Pool Management. Treasury Pool Management hedges the transferred net banking book risk with Deutsche Bank's trading books within the CIB division. The treatment of interest rate risk in our trading portfolios and the application of the value-at-risk model is discussed in the "Trading Market Risk" section of this document.

Positions in our banking books as well as the hedges described in the aforementioned paragraph follow the accounting principles as detailed in the “Notes to the Consolidated Financial Statements” section of this document.

The Global Model Validation and Governance group performs independent validation of models used for IRRBB measurement in line with Deutsche Bank’s group-wide risk governance framework.

The most notable exceptions from the aforementioned paragraphs are in some Private & Commercial Bank (“PCB”) entities (e.g. Postbank). These entities manage interest rate risk through their entity specific Asset and Liability Management departments.

The measurement and reporting of economic value interest rate risk is performed daily, and earnings risk is monitored on a monthly basis. The Group generally uses the same metrics in its internal management systems as it applies for the disclosure in this report. This is applicable to both the methodology as well as the modelling assumptions used when calculating the metrics. The only notable exception is the usage of a steady (i.e. unchanged) rates scenario as benchmark for the ΔNII calculation in the public disclosures, whereas the internal quantitative risk appetite metric will use the Group’s official capital planning curve.

Deutsche Bank’s key modelling assumptions are applied to the positions in our PCB division and parts of our CIB Division. Those positions are subject to risk of changes in our client’s behaviour with regard to their deposits as well as loan products.

The Group manages the interest rate risk exposure of its Non-Maturity Deposits (NMDs) through a replicating portfolio approach to determine the average repricing maturity of the portfolio. For the purpose of constructing the replicating portfolio, the portfolio of NMDs is clustered by dimensions such as Business Unit, Currency, Product and Geographical Location. The main dimensions influencing the repricing maturity are elasticity of deposit rates to market interest rates, volatility of deposit balances and observable client behaviour. For the reporting period the average repricing maturity assigned across all such replicating portfolio is 1.6 years and Deutsche Bank uses 15 years as the longest repricing maturity.

In the Loan and some of the Term deposit products Deutsche Bank considers early prepayment/withdrawal behaviour of its customers. The parameters are based on historical observations, statistical analyses and expert assessments.

Furthermore, the Group generally calculates IRRBB related metrics in contractual currencies and aggregates the resulting metrics for reporting purposes. When calculating economic value based metrics without the exclusion of the commercial margin, the appropriate yield curve is selected that represents the characteristics of the instrument concerned.

Credit Spread Risk in the Banking Book

Deutsche Bank is exposed to credit spread risk of bonds held in the banking book, mainly as part of the Treasury Liquidity Reserves portfolio and in Postbank. This risk category is closely associated with interest rate risk in the banking book as changes in the perceived credit quality of individual instruments may result in fluctuations in spreads relative to underlying interest rates.

Foreign Exchange Risk

Foreign exchange risk arises from our nontrading asset and liability positions that are denominated in currencies other than the functional currency of the respective entity. The majority of this foreign exchange risk is transferred through internal hedges to trading books within Corporate & Investment Bank and is therefore reflected and managed via the value-at-risk figures in the trading books. The remaining foreign exchange risks that have not been transferred are mitigated through match funding the investment in the same currency, so that only residual risk remains in the portfolios. Small exceptions to above approach follow the general Market Risk Management monitoring and reporting process, as outlined for the trading portfolio.

The bulk of nontrading foreign exchange risk is related to unhedged structural foreign exchange exposure, mainly in our U.S., U.K. and China entities. Structural foreign exchange exposure arises from local capital (including retained earnings) held in the Group’s consolidated subsidiaries and branches and from investments accounted for at equity. Change in foreign exchange rates of the underlying functional currencies are booked as Currency Translation Adjustments (“CTA”).

The primary objective for managing our structural foreign exchange exposure is to stabilize consolidated capital ratios from the effects of fluctuations in exchange rates. Therefore the exposure remains unhedged for a number of core currencies with considerable amounts of risk-weighted assets denominated in that currency in order to avoid volatility in the capital ratio for the specific entity and the Group as a whole.

Equity and Investment Risk

Nontrading equity risk arising predominantly from our non-consolidated investment holdings in the banking book and from our equity compensation plans.

Our non-consolidated investment holdings in the banking book are categorized into strategic and alternative investment assets. Strategic investments typically relate to acquisitions made to support our business franchise and are undertaken with a medium to long-term investment horizon. Alternative assets are comprised of principal investments and other non-strategic investment assets. Principal investments are direct investments in private equity (including leveraged buy-out fund commitments and equity bridge commitments), real estate (including mezzanine debt) and venture capital, undertaken for capital appreciation. In addition, principal investments are made in hedge funds and mutual funds in order to establish a track record for sale to external clients. Other non-strategic investment assets comprise assets recovered in the workout of distressed positions or other legacy investment assets in private equity and real estate of a non-strategic nature.

Pension Risk

We are exposed to market risk from a number of defined benefit pension schemes for past and current employees. The ability of the pension schemes to meet the projected pension payments is maintained through investments and ongoing plan contributions. Market risk materializes due to a potential decline in the market value of the assets or an increase in the liability of each of the pension plans. Market Risk Management monitors and reports all market risks both on the asset and liability side of our defined benefit pension plans including interest rate risk, inflation risk, credit spread risk, equity risk and longevity risk. For details on our defined benefit pension obligation see additional Note 36 "Employee Benefits".

Other Risks

Market risks in our asset management activities in Deutsche Asset Management, primarily results from principal guaranteed funds or accounts, but also from co-investments in our funds.

Nontrading market risk Economic Capital

Nontrading market risk economic capital is calculated either by applying the standard traded market risk EC methodology or through the use of non-traded market risk models that are specific to each risk class and which consider, among other factors, historically observed market moves, the liquidity of each asset class, and changes in client's behavior in relation to products with behavioral optionalities.

Operational Risk Management

Operational Risk Management Framework

Operational Risk means the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, and includes Legal Risk. Operational Risk excludes Business and Reputational Risk. It forms a subset of the Bank's Non-Financial Risks, as does Reputational Risk.

The governance of our operational risks follows the Three Lines of Defence ("3LoD") approach, to protect the Bank, its customers and shareholders against risk losses and resulting reputational damages. It seeks to ensure that all our operational risks are identified and covered, that accountabilities regarding the management of operational risks are clearly assigned and risks are taken on and managed in the best and long term interest of the Bank. The 3LoD approach and its underlying principles, i.e., the full accountability of the First Line of defence ("1st LoD") to manage its own risks and the existence of an independent Second Line of Defence ("2nd LoD") to oversee and challenge risk taking and risk management, applies to all levels of the organization including the Group-level, regions, countries, and legal entities.

Deutsche Bank's Operational Risk appetite sets out the amount of Operational Risk we are willing to accept as a consequence of doing business. We take on operational risks consciously, both strategically as well as in day-to-day business. While the Bank may have no appetite for certain types of Operational Risk failures (such as serious violations of laws or regulations), in other cases a certain amount of Operational Risk must be accepted if the Bank is to achieve its business objectives. In case a residual risk is assessed to be outside our risk appetite, further risk reducing actions must be undertaken including further remediating risks, insuring risks or ceasing business.

Non-Financial Risk Management ("NFRM") is the Risk function for the Non-Financial Risk types of the Bank, including Operational Risk and owns the overarching Operational Risk Management Framework (ORMF).

The ORMF is a set of interrelated tools and processes that are used to identify, assess, measure, monitor and remediate operational risks. Its components have been designed to operate together to provide a comprehensive approach to managing the Bank's most material operational risks. ORMF components include the setup of the 1st and 2nd LoD as well as roles and responsibilities for the Operational Risk management process and appropriate independent challenge, the Group's approach to setting Operational Risk appetite and adhering to it, the Operational Risk type and control taxonomies, the minimum standards for Operational Risk management processes including tools, independent governance, and the Bank's Operational Risk capital model.

The following four principles form the foundation of Operational Risk management and the Group ORMF at Deutsche Bank:

Operational Risk Principle I: NFRM establishes and maintains the Group Operational Risk Management Framework. As the 2nd LoD control function, NFRM is the independent reviewer and challenger of the 1st LoD's risk and control assessments and risk management activities. As the subject matter expert for Operational Risk it provides independent risk views to facilitate forward looking management of operational risks, actively engages with risk owners and facilitates the implementation of risk management standards across the Bank. NFRM provides the oversight of risk and control mitigation plans to return risk within risk appetite, where required.

Operational Risk Principle II: Risk owners as the 1st LoD have full accountability for their operational risks and have to manage these against a defined risk specific appetite.

Risk owners are those roles in the Bank that generate risks, whether financial or non-financial. The heads of business divisions and infrastructure functions must determine the appropriate organizational structure to identify their organizations' Operational Risk profile, implement risk management and control standards within their organization, take business decisions on the mitigation or acceptance of operational risks within the risk appetite and establish and maintain risk owner (i.e. Level 1) controls.

Operational Risk Principle III: Risk Type Controllers ("RTCs") as 2nd LoD control functions establish the framework and define risk appetite statements for the specific risk type they control. They monitor the risk type's profile against risk appetite and exercise a veto on risk appetite breaches.

RTCs define risk management and control standards and independently oversee and challenge risk owners' implementation of these standards as well as their risk-taking and management activities. RTCs establish independent Operational Risk governance and prepare aggregated risk type profile reporting. As risk type experts, RTCs define the risk type and its taxonomy and support and facilitate the implementation of risk management standards and processes in the 1st LoD. To maintain their independence, RTC roles are located only in infrastructure functions.

Operational Risk Principle IV: NFRM is to ensure that sufficient capital is held to underpin Operational Risk. NFRM is accountable for the design, implementation and maintenance of the approach to determine a sufficient level of capital demand for Operational Risk for recommendation to the Management Board.

To fulfil this requirement, NFRM is accountable for the calculation and allocation of Operational Risk capital demand and Expected Loss planning under the Advanced Measurement Approach ("AMA"). NFRM is also accountable for the facilitation of the annual Operational Risk capital planning and monthly review process.

Organizational & Governance Structure

While the day-to-day management of Operational Risk is the primary responsibility of our business divisions and infrastructure functions as risk owners, NFRM oversees the Group-wide management of operational risks, identifies and reports risk concentrations and promotes a consistent application of the ORMF across the Bank. NFRM 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 who is accountable for the design, implementation and maintenance of an effective, efficient and regulatory compliant ORMF, including the Operational Risk capital model.

The Non-Financial Risk Committee ("NFRC"), which is co-chaired by the Chief Risk Officer and the Chief Regulatory Officer, is responsible for the oversight, governance and coordination of the management of Operational Risk in the Group on behalf of the Management Board by establishing a cross-risk and holistic perspective of the key operational risks of the Group. Its decision-making and policy related authorities include the review, advice and management of all Operational Risk issues which may impact the risk profile of our business divisions and infrastructure functions. Several sub-fora with attendees from both, the 1st and 2nd LoDs support the Non-Financial Risk Committee (NFRC) to effectively fulfil its mandate. In 2017, we have established additional councils to enhance the effectiveness of the NFRC with regards to e.g. new technology, framework and culture themes.

Managing Our Operational Risk

We manage operational risks by employing the tools and processes provided by our ORMF, which enables us to determine our Operational Risk profile in comparison to our risk appetite for Operational Risk, to systematically identify Operational Risk themes and concentrations, and to define risk mitigating measures and priorities.

In 2017, we enhanced the ORMF and the management of operational risks by simplifying our risk management processes, focusing on the identification of the most material operational risks and their effective mitigation, and by promoting an active and continuous dialogue between the 1st and 2nd LoDs. This allows challenge to be raised throughout the various risk management processes and makes the management of operational risks more transparent, meaningful and embedded in day-to-day business decisions.

In order to cover the broad range of risk types underlying Operational Risk, our ORMF contains a number of management techniques that apply to all Operational Risk types. These include:

Loss Data Collection: In a timely manner, we collect, categorize and analyze data on internal (with a P&L impact \geq €10.000) and relevant external Operational Risk events. This data is used for senior management information, in a variety of risk management processes and the calculation of Operational Risk capital requirements.

Lessons Learned reviews analyze the causes of significant Operational Risk events, identify their root causes, and document appropriate remediation actions to reduce the likelihood of reoccurrence. They are required for all Operational Risk events that meet defined quantitative or qualitative criteria. The area in which the Operational Risk failure occurred that caused the event is formally responsible to complete the review, though engagement with other relevant 2nd LoD functions throughout the process is encouraged. NFRM provides independent review and challenge over the appropriateness of the review's conclusions. In 2017, we harmonized several existing processes, moved to a workshop based approach and, thus, enhanced the consistency and quality of reviews.

Read Across reviews take the conclusions of the Lessons Learned process and seek to analyze whether similar risks and control weaknesses identified in a Lessons Learned review exist in other areas of the Bank, even if they have not yet resulted in problems. This allows preventative actions to be undertaken. Read Across reviews may also be undertaken based on events that have occurred at other relevant financial firms where sufficient information exists to allow meaningful analysis.

We complement our Operational Risk profile by using a set of scenarios including relevant external cases provided by a public database and additional internal scenarios. We 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.

The Risk & Control Assessment process (RCA) comprises of a series of bottom-up assessments of the risks generated by businesses and infrastructure functions, the effectiveness of the controls in place to manage them, and the remediation actions required to bring the outsized risks back into risk appetite. This enables both the 1st and 2nd LoDs to have a clear view of the Bank's material operational risks. Through 2017, we simplified the RCA process and made it easier to repeat by producing a smaller number of higher quality assessments that are easier to use for decision-making purposes. We developed control assessment and consequence management frameworks and held interactive workshops instead of running a sequential process. This increased the continuous engagement between risk owners, NFRM and RTCs and allowed for challenge to be raised throughout the process.

We regularly report and perform analyses on our Top Risks. Top Risks are rated in terms of both the likelihood that they could occur and the impact on the Bank should they do so. The reporting provides a forward-looking perspective on the impact of planned remediation and control enhancements. It also contains emerging risks and themes that have the potential to evolve as a Top Risk in future. Top Risk Reduction Programs comprise the most significant risk reduction activities that are key to bringing our operational top risk themes back within risk appetite.

Key Risk Indicators are used to monitor the Operational Risk profile, including against the Bank's defined risk appetite, and to alert the organization to impending problems in a timely fashion. Key Risk Indicators enable the monitoring of the Bank's major risks, its control culture and overall business environment and trigger risk mitigating actions. They facilitate the forward-looking management of operational risks, based on early warning signals.

Operational Risk Type Frameworks

The ORMF, which provides the overarching set of standards, tools and processes that apply to the management of all risk types underlying Operational Risk, is complemented by the Operational Risk type frameworks, risk management and control standards and tools set up by the respective Risk Type Controllers for the Operational Risk types they control. These include the following with respect to the following risk types:

- Compliance Risk is the risk of incurring criminal or administrative sanctions, financial loss or damage to reputation as a result of failing to comply with laws, regulations, rules, expectations of regulators, the standards of self-regulatory organizations, and codes of conduct/ethics in connection with the Bank's regulated activities (collectively the "Rules"). Failure to appropriately manage Compliance Risk can give rise to fines, penalties, judgments, damages, sanctions, settlements and/or increased costs, limitations on businesses related to regulatory or legal actions due to non-compliance with established policies and procedures and Rules governing the activities of a business or entity, and potential reputational damage. The Compliance department, as the second line of defence control function for the Compliance-owned risk types, identifies relevant effective procedures and corresponding controls to support the Bank's business divisions and Infrastructure functions in managing their Compliance risk. The Compliance department further provides advisory services on the above; performs monitoring activities in relation to the coverage of new or amended material rules and regulations; and assesses the control environment. The results of these assessments are regularly reported to the Management Board and Supervisory Board.
- Financial Crime risks are managed by our Anti-Financial Crime ("AFC") function via maintenance and development of a dedicated program. The AFC program is based on regulatory and supervisory requirements. AFC has defined roles and responsibilities and established dedicated functions for the identification and management of financial crime risks resulting from money laundering, terrorism financing, non-compliance with sanctions and embargoes as well as other criminal activities including fraud, bribery and corruption and other crimes. AFC assures further update of its strategy on financial crime prevention via regular development of internal policies and procedures, institution-specific risk assessment and staff training.
- Group Legal is primarily responsible for managing the Bank's legal risk, and carries out its mandate as infrastructure control function through, among other things, the following legal services: (i) provision of legal advice, (ii) drafting of legal content of documentation that defines rights and obligations of the Bank such as contracts, (iii) the management of all contentious matters and (iv) retaining external counsel. These activities are the key pillars of the legal control framework to mitigate the Bank's legal risk. Legal has established a Legal Risk Management function responsible for implementing and maintaining the ORMF in respect of legal risk types which includes overseeing Legal's participation in the Bank's Risk and Control Assessment process and Lessons Learned reviews as well as managing the interface into the Non-Financial Risk Management function. LRM also conducts quality assurance reviews on Legal's processes, thereby testing the robustness of the legal control framework, identifying related control enhancements and fostering legal risk management awareness via regular communication and training.
- Non-Financial Risk Management Risk Type Control ("NFRM RTC") is Risk Type Controller for a number of operational risks. Its mandate includes controls over transaction processing activities, as well as infrastructure risks to prevent technology or process disruption, maintain the confidentiality, integrity and availability of data, records and 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 RTC also manages the risks arising from the Bank's internal and external vendor engagements via the provision of a comprehensive vendor risk management framework.

Measuring Our Operational Risks

We calculate and measure the regulatory and economic capital requirements for Operational Risk using the Advanced Measurement Approach ("AMA") methodology. Our AMA capital calculation is based upon the Loss Distribution Approach. Gross losses from historical internal and external loss data (Operational Riskdata eXchange 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 adjustments and expected loss.

The regulatory capital requirement for Operational Risk is derived from the 99.9 % percentile. Since Q4 2017, the economic capital is also set at 99.9 % percentile, see the section "Internal Capital Adequacy". 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. 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 Group's model risk management process.

Drivers for Operational Risk Capital Development

In 2017, our Operational Risk losses have been predominantly driven by losses and provisions arising from civil litigation and regulatory enforcement. Such losses account for 70 % of Operational Risk losses and account for the majority of Operational Risk regulatory and economic capital demand. For a description of our current legal and regulatory proceedings, please see section "Current Individual Proceedings" in Note 29 "Provisions" to our consolidated financial statements. The Operational Risk losses from civil litigation and regulatory enforcement decreased by € 2.5 billion or 85 % while our non-legal Operational Risk losses were € 29 million or 19% higher compared to 2016.

In view of the relevance of legal risks within our Operational Risk profile, we dedicate specific attention to the management and measurement of our open civil litigation and regulatory enforcement matters where the Bank relies both on information from internal as well as external data sources to consider developments in legal matters that affect the Bank specifically but also the banking industry as a whole. Reflecting the multi-year nature of legal proceedings the measurement of these risks furthermore takes into account changing levels of certainty by capturing the risks at various stages throughout the lifecycle of a legal matter.

Conceptually, the Bank measures Operational Risk including legal risk by determining the maximum loss that will not be exceeded with a given probability. This maximum loss amount includes a component that due to the IFRS criteria is reflected in our financial statements and a component that is expressed as regulatory or economic capital demand that is above the amount reflected as provisions within our financial statements.

The legal losses which the Bank expects with a likelihood of more than 50 % are already reflected in our IFRS group financial statements. These losses include net changes in provisions for existing and new cases in a specific period where the loss is deemed probable and is reliably measurable in accordance with IAS 37. The development of our legal provisions for civil litigations and regulatory enforcement is outlined in detail in Note 29 "Provisions" to our consolidated financial statements.

Uncertain legal losses which are not reflected in our financial statements as provisions because they do not meet the recognition criteria under IAS 37 are expressed as "regulatory or economic capital demand" reflecting our risk exposure that consumes regulatory and economic capital.

To quantify the litigation losses in the AMA model the Bank takes into account historic losses, provisions, contingent liabilities and legal forecasts. Legal forecasts are generally comprised of ranges of potential losses from legal matters that are not deemed probable but are reasonably possible. Reasonably possible losses may result from ongoing and new legal matters which are reviewed at least quarterly by the attorneys handling the legal matters.

We include the legal forecasts in the "Relevant Loss Data" used in our AMA model. Hereby the projection range of the legal forecasts is not restricted to the one year capital time horizon but goes beyond and conservatively assumes early settlement of the underlying losses in the reporting period - thus considering the multi-year nature of legal matters.

Liquidity Risk Management

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. The objective of the Group's liquidity risk management framework is to ensure that the Group can fulfill its payment obligations at all times and can manage liquidity and funding risks within its risk appetite. The framework considers relevant and significant drivers of liquidity risk, whether on-balance sheet or off-balance sheet.

Liquidity Risk Management Framework

In accordance with the ECB's Supervisory Review and Evaluation Process (SREP), Deutsche Bank has implemented an annual Internal Liquidity Adequacy Assessment Process ("ILAAP"), which is reviewed and approved by the Management Board. The ILAAP provides comprehensive documentation of the Bank's Liquidity Risk Management framework, including: identifying the key liquidity and funding risks to which the Group is exposed; describing how these risks are identified, monitored and measured and describing the techniques and resources used to manage and mitigate these risks.

The Management Board defines the liquidity and funding risk strategy for the Bank, as well as the risk appetite, based on recommendations made by the Group Risk Committee ("GRC"). At least annually the Management Board reviews and approves the limits which are applied to the Group to measure and control liquidity risk as well as our long-term funding and issuance plan.

Treasury is mandated to manage the overall liquidity and funding position of the Bank, with Liquidity Risk Management acting as an independent control function, responsible for reviewing the liquidity risk framework, proposing the risk appetite to GRC and the validation of Liquidity Risk models which are developed by Treasury, to measure and manage the Group's liquidity risk profile.

Treasury manages liquidity and funding, in accordance with the Management Board-approved risk appetite across a range of relevant metrics, and implements a number of tools to monitor these and ensure compliance. In addition, Treasury works closely in conjunction with Liquidity Risk Management ("LRM"), and the business, to analyze and understand the underlying liquidity characteristics of the business portfolios. These parties are engaged in regular and frequent dialogue to understand changes in the Bank's position arising from business activities and market circumstances. Dedicated business targets are allocated to ensure the Group operates within its overall liquidity and funding appetite.

The Management Board is informed of performance against the risk appetite metrics, via a weekly Liquidity Dashboard. As part of the annual strategic planning process, we project the development of the key liquidity and funding metrics based on the underlying business plans to ensure that the plan is in compliance with our risk appetite.

Capital Markets Issuance

Deutsche Bank has a wide range of funding sources, including retail and institutional deposits, unsecured and secured wholesale funding and debt issuance in the capital markets. Debt issuance, encompassing senior unsecured bonds, covered bonds as well as capital securities, is a key source of term funding for the Bank and is managed directly by Treasury. At least once a year Treasury submits an annual long-term Funding Plan to the GRC for recommendation and then to the Management Board for approval. This plan is driven by global and local funding and liquidity requirements based on expected business development. Our capital markets portfolio is dynamically managed through our yearly issuance plans to avoid excessive maturity concentrations.

Short-term Liquidity and Wholesale Funding

Deutsche Bank tracks all contractual cash flows from wholesale funding sources, on a daily basis, over a 12-month horizon. For this purpose, we consider wholesale funding to include unsecured liabilities raised primarily by Treasury Pool Management, as well as secured liabilities raised by our Corporate & Investment Bank Division. Our wholesale funding counterparties typically include corporates, banks and other financial institutions, governments and sovereigns.

The Group has implemented a set of Management Board-approved limits to restrict the Bank's exposure to wholesale counterparties, which have historically shown to be the most susceptible to market stress. The wholesale funding limits are monitored daily, and apply to the total combined currency amount of all wholesale funding currently outstanding, both secured and unsecured with specific tenor limits covering the first 8 weeks. Our Liquidity Reserves are the primary mitigant against potential stress in short-term wholesale funding markets.

The tables in section "Liquidity Risk Exposure: Funding Diversification" show the contractual maturity of our short-term wholesale funding and capital markets issuance.

Liquidity Stress Testing and Scenario Analysis

Global liquidity stress testing and scenario analysis is one of the key tools for measuring liquidity risk and evaluating the Group's short-term liquidity position within the liquidity framework. It complements the intraday operational liquidity management process and the long-term liquidity strategy, represented by the Funding Matrix.

Our global liquidity stress testing process is managed by Treasury in accordance with the Management Board approved risk appetite. Treasury is responsible for the design of the overall methodology, including the definition of the stress scenarios, the choice of liquidity risk drivers and the determination of appropriate assumptions (parameters) to translate input data into model results. Liquidity Risk Management is responsible for the independent validation of liquidity risk models. Liquidity and Treasury Reporting & Analysis (LTRA) is responsible for implementing these methodologies in conjunction with Treasury and IT as well as for the stress test calculation.

We use stress testing and scenario analysis to evaluate the impact of sudden and severe stress events on our liquidity position. The scenarios we apply are based on historic events, such as the 2008 financial markets crisis.

Deutsche Bank has selected five scenarios to calculate the Group's stressed Net Liquidity Position ("sNLP"). These scenarios capture the historical experience of Deutsche Bank during periods of idiosyncratic and/or market-wide stress and are assumed to be both plausible and sufficiently severe as to materially impact the Group's liquidity position. A global market crisis, for example, is covered by a specific stress scenario (systemic market risk) that models the potential consequences observed during the financial crisis of 2008. Additionally, we have introduced regional market stress scenarios. Under each of the scenarios we assume a high degree of maturing loans to non-wholesale customers is rolled-over, to support our business franchise. Wholesale funding, from the most risk sensitive counterparties (including banks and money-market mutual funds) is assumed to roll-off at contractual maturity or even be bought back, in the acute phase of the stress.

In addition, we include the potential funding requirements from contingent liquidity risks which might arise, including credit facilities, increased collateral requirements under derivative agreements, and outflows from deposits with a contractual rating linked trigger.

We then model the actions we would take to counterbalance the outflows incurred. Countermeasures include utilizing the Liquidity Reserve and generating liquidity from unencumbered, marketable assets.

Stress testing is conducted at a global level and for defined individual legal entities. In addition to the global stress test, stress tests for material currencies (EUR, USD and GBP) are performed. We review our stress-testing assumptions on a regular basis and have made further enhancements to the methodology and severity of certain parameters through the course of 2017.

On a daily basis, we run the liquidity stress test over an eight-week horizon, which we consider the most critical time span in a liquidity crisis, and apply the relevant stress assumptions to risk drivers from on-balance sheet and off-balance sheet products. Beyond the eight week time horizon, we analyze the impact of a more prolonged stress period, extending to twelve months. This stress testing analysis is performed on a daily basis.

In the second half of 2016, the Bank experienced deposit outflows as a result of negative market perceptions concerning Deutsche Bank in the context of civil claims then being negotiated with the U.S. Department of Justice in connection with the Bank's issuance and underwriting of residential mortgage backed securities. As part of the lessons learned from this period, the risk appetite was increased from € 5 billion as per December 2016 to € 10 billion in January 2017. The risk appetite to maintain a surplus of at least € 10 billion throughout the 8 week stress horizon under all scenarios for our daily global liquidity stress test remained at this level for the rest of 2017.

The tables in section "Liquidity Risk Exposure: Stress Testing and Scenario Analysis" show the results of our internal global liquidity stress test under the various different scenarios.

Liquidity Coverage Ratio

In addition to our internal stress test result, the Group has a Management Board-approved risk appetite for the Liquidity Coverage Ratio ("LCR"). The LCR is intended to promote the short-term resilience of a bank's liquidity risk profile over a 30 day stress scenario. The ratio is defined as the amount of High Quality Liquid Assets ("HQLA") that could be used to raise liquidity, measured against the total volume of net cash outflows, arising from both actual and contingent exposures, in a stressed scenario.

This requirement has been implemented into European law, via the Commission Delegated Regulation (EU) 2015/61, adopted in October 2014. Compliance with the LCR was required in the EU from October 1, 2015.

The LCR complements the internal stress testing framework. By maintaining a ratio in excess of minimum regulatory requirements, the LCR seeks to ensure that the Group holds adequate liquidity resources to mitigate a short-term liquidity stress.

In 2017, the Bank has set its internal risk appetite more conservative by 5 % in order to maintain a LCR ratio of at least 110 %.

Key differences between the liquidity stress test and LCR include the time horizon (eight weeks versus 30 days), classification and haircut differences between Liquidity Reserves and the LCR HQLA, outflow rates for various categories of funding, and inflow assumption for various assets (for example, loan repayments). Our liquidity stress test also includes outflows related to intraday liquidity assumptions, which are not explicitly captured in the LCR.

Funding Risk Management

Structural Funding

Deutsche Bank's primary tool for monitoring and managing funding risk is the Funding Matrix. The Funding Matrix assesses the Group's structural funding profile for the greater than one year time horizon. To produce the Funding Matrix, all funding-relevant assets and liabilities are mapped into time buckets corresponding to their contractual or modeled maturities. This allows the Group to identify expected excesses and shortfalls in term liabilities over assets in each time bucket, facilitating the management of potential liquidity exposures.

The liquidity maturity profile is based on contractual cash flow information. If the contractual maturity profile of a product does not adequately reflect the liquidity maturity profile, it is replaced by modeling assumptions. Short-term balance sheet items (<1yr) or matched funded structures (asset and liabilities directly matched with no liquidity risk) can be excluded from the term analysis.

The bottom-up assessment by individual business line is combined with a top-down reconciliation against the Group's IFRS balance sheet. From the cumulative term profile of assets and liabilities beyond 1 year, any long-funded surpluses or short-funded gaps in the Group's maturity structure can be identified. The cumulative profile is thereby built up starting from the above 10 year bucket down to the above 1 year bucket.

The strategic liquidity planning process, which incorporates the development of funding supply and demand across business units, together with the bank's targeted key liquidity and funding metrics, provides the key input parameter for our annual capital markets issuance plan. Upon approval by the Management Board the capital markets issuance plan establishes issuance targets for securities by tenor, volume and instrument. We also maintain a stand-alone U.S. dollar and GBP funding matrix which limits the maximum short position in any time bucket (more than 1 year to more than 10 years) to € 10 billion and € 5 billion respectively. This supplements the risk appetite for our global funding matrix which requires us to maintain a positive funding position in any time bucket (more than 1 year to more than 10 years).

Net Stable Funding Ratio

The Net Stable Funding Ratio ("NSFR") was proposed as part of Basel 3, as the regulatory metric for assessing a bank's structural funding profile. The NSFR is intended to reduce medium to long-term funding risks by requiring banks to maintain a stable funding profile in relation to their on- and off-balance sheet activities. The ratio is defined as the amount of Available Stable Funding (the portion of capital and liabilities expected to be a stable source of funding), relative to the amount of Required Stable Funding (a function of the liquidity characteristics of various assets held).

In the EU, on November 23, 2016, the Commission published a legislative proposal to amend the CRR. The proposal defines, inter alia, a mandatory quantitative NSFR requirement which would apply two years after the proposal comes into force. The proposal remains subject to change in the EU legislative process. Therefore, for banks domiciled in the EU, the final definition of the ratio and associated implementation timeframe has not yet been confirmed.

We are currently in the process of assessing the impacts of the NSFR, and would expect to formally embed this metric within our overall liquidity risk management framework, once the relevant rules and timing within the EU have been finally determined.

Funding Diversification

Diversification of our funding profile in terms of investor types, regions, products and instruments is an important element of our liquidity risk management framework. Our most stable funding sources come from capital markets and equity, retail, and transaction banking clients. Other customer deposits and secured funding and short positions are additional sources of funding. Unsecured wholesale funding represents unsecured wholesale liabilities sourced primarily by our Treasury Pool Management. Given the relatively short-term nature of these liabilities, they are primarily used to fund cash and liquid trading assets.

To promote the additional diversification of our refinancing activities, we hold a Pfandbrief license allowing us to issue mortgage Pfandbriefe. In addition, we have established a program for the purpose of issuing Covered Bonds under Spanish law (Cedulas).

Unsecured wholesale funding comprises a range of unsecured products, such as Certificates of Deposit (CDs), Commercial Paper (CP) as well as term, call and overnight deposits across tenors primarily up to one year.

To avoid any unwanted reliance on these short-term funding sources, and to promote a sound funding profile, which complies with the defined risk appetite, we have implemented limits (across tenors) on these funding sources, which are derived from our daily stress testing analysis. In addition, we limit the total volume of unsecured wholesale funding to manage the reliance on this funding source as part of the overall funding diversification.

The chart "Liquidity Risk Exposure: Funding Diversification" shows the composition of our external funding sources that contribute to the liquidity risk position, both in EUR billion and as a percentage of our total external funding sources.

Funds Transfer Pricing

The funds transfer pricing framework applies to all businesses and regions and promotes pricing of (i) assets in accordance with their underlying liquidity risk, (ii) liabilities in accordance with their liquidity value and funding maturity and (iii) contingent liquidity exposures in accordance with the cost of providing for commensurate liquidity reserves to fund unexpected cash requirements.

Deutsche Bank's funds transfer pricing framework reflects regulatory principles and guidelines. Within this framework all funding and liquidity risk costs and benefits are allocated to the firm's business units based on market rates. Those market rates reflect the economic costs of liquidity for Deutsche Bank. Treasury might set further financial incentives in line with the Bank's liquidity risk guidelines. While the framework promotes a diligent group-wide allocation of the Bank's funding costs to the liquidity users, it also provides an incentive-based compensation framework for businesses generating stable long-term and stress compliant funding. Funding relevant transactions are subject to liquidity (term) premiums and/or other funds transfer pricing mechanisms depending on market conditions. Liquidity premiums are set by Treasury and reflected in a segregated Treasury liquidity account which is the aggregator of liquidity costs and benefits. The management and allocation of the liquidity account cost base is the key variable for funds transfer pricing within Deutsche Bank.

Liquidity Reserves

Liquidity reserves comprise available cash and cash equivalents, highly liquid securities (includes government, agency and government guaranteed) as well as other unencumbered central bank eligible assets.

The volume of our liquidity reserves is a function of our expected daily stress result, both at an aggregate level as well as at an individual currency level. To the extent we receive incremental short-term wholesale liabilities which attract a high stress roll-off, we will largely keep the proceeds of such liabilities in cash or highly liquid securities as a stress mitigant. Accordingly, the total volume of our liquidity reserves will fluctuate as a function of the level of short-term wholesale liabilities held, although this has no material impact on our overall liquidity position under stress. Our liquidity reserves include only assets that are freely transferable or that can be utilized after taking into consideration local liquidity demands within the Group, including local limits on free transferability within the Group, or that can be applied against local entity stress outflows. As a result our liquidity reserves exclude surplus liquidity held in DBTCA due to requirements pursuant to Section 23A of the U.S. Federal Reserve Act and in Postbank due to the absence of a waiver concerning the full integration of Postbank assets. We hold the vast majority of our liquidity reserves centrally across the major currencies, at our parent and our foreign branches with further reserves held at key locations in which we are active.

Asset Encumbrance

Encumbered assets primarily comprise those on- and off-balance sheet assets that are pledged as collateral against secured funding, collateral swaps, and other collateralized obligations. We generally encumber loans to support long-term capital markets secured issuance such as Pfandbriefe or other self-securitization structures, while financing debt and equity inventory on a secured basis is a regular activity for our Corporate & Investment Bank business. Additionally, in line with the EBA technical standards on regulatory asset encumbrance reporting, we consider as encumbered assets placed with settlement systems, including default funds and initial margins, as well as other assets pledged which cannot be freely withdrawn such as mandatory minimum reserves at central banks. We also include derivative margin receivable assets as encumbered under these EBA guidelines.

Business (Strategic) Risk Management

Strategic Risk is the risk of suffering an operating income shortfall due to lower than expected performance in revenues not compensated by a reduction in costs. Strategic Risk may arise from changes to the competitive landscape or regulatory framework or ineffective positioning in the macroeconomic environment. Strategic Risk could also arise due to a failure to execute strategy and/ or failure to effectively take actions to address underperformance.

A Strategic and Capital plan is developed annually and presented to the Management Board for discussion and approval. The final plan is then presented to the Supervisory Board. During the year, execution of business strategies is regularly monitored to assess the performance against strategic objectives and to seek to ensure we remain on track to achieve targets. A more comprehensive description of this process is detailed in the section 'Strategic and Capital Plan'.

Model Risk Management

Model risk is the potential for adverse consequences from incorrect or misused model outputs and reports using these outputs. Model risk can lead to financial loss, poor business or strategic decision making, or damage our reputation. The term 'model' refers to a quantitative method, system, or approach that applies statistical, economic, financial, or mathematical theories, techniques, and assumptions to process input data into quantitative estimates.

Model risk is managed across Pricing models, Risk & Capital models, and Other models:

- Pricing models are used to generate asset and liability fair value measurements reported in official books and records and/or risk sensitivities which feed Market Risk Management (MRM) processes;
- Risk & Capital models are related to risks used for regulatory or internal capital requirements, e.g. VaR, IMM, Stress tests etc;
- Other models are those outside of the Bank's Pricing and Risk & Capital models.

Model risk appetite is aligned to the Group's qualitative statements, ensuring that model risk management is embedded in a strong risk culture and that risks are minimized to the extent possible.

The management of model risk includes:

- Performing robust independent model validation that provides effective challenge to the model development process and includes identification of conditions for use, methodological limitations that may require adjustments or overlays, and validation findings that require remediation;
- Establishing a strong model risk management and governance framework, including senior forums for monitoring and escalation of model risk related topics;
- Creating Bank-wide model risk related policies, aligned to regulatory requirements with clear roles and responsibilities for key stakeholders across the model life cycle; and
- Providing an assessment of the model risk control environment and reporting to the Management Board on a periodic basis.

Reputational Risk Management

Within our risk management process, we define reputational risk as the risk of possible damage to our brand and reputation, and the associated risk to earnings, capital or liquidity, arising from any association, action or inaction which could be perceived by stakeholders to be inappropriate, unethical or inconsistent with Deutsche Bank's values and beliefs.

The Reputational Risk Framework (the Framework) is in place to manage primary reputational risk. It covers the process through which active decisions are taken on matters which may pose a reputational risk, before such risk materializes, and, in doing so, prevent damage to Deutsche Bank's reputation wherever possible. Reputational risks which may arise from a failure with another risk type, control or process (secondary reputational risk) are addressed separately via the associated risk type framework. The Framework is established to provide consistent standards for the identification, assessment and management of reputational risk issues. While every employee has a responsibility to protect our reputation, the primary responsibility for the identification, assessment, management, monitoring and, if necessary, referring or reporting, of reputational risk matters lies with our business divisions. Each employee is under an obligation, within the scope of his or her activities, to be alert to any potential causes of reputational risk and to address them according to the Framework. Reputational Risk Management has designed and implemented a comprehensive look back and lessons learned process in order to assess and control the effectiveness of the Framework, including in relation to reputational risk identification and referral.

If a matter is identified that is considered to pose, at a minimum, a moderate reputational risk then it is required to be referred for further consideration within the business division through its Unit Reputational Risk Assessment Process (Unit RRAP). In the event that a matter is deemed to pose a material reputational risk then it must be referred through to one of the four Regional Reputational Risk Committees (RRRCs) for further review. In addition to the materiality assessment, there are also certain criteria, known as mandatory referral criteria, which are considered inherently higher risk from a reputational perspective and therefore require mandatory referral to defined Subject Matter Experts (SMEs), e.g. Industry Reputational Risk or Group Sustainability, and/or referral to a Unit RRAP or RRRC.

The RRRCs are sub-committees of the Group Reputational Risk Committee (GRRC), which is itself a sub-committee of the Group Risk Committee (GRC), and are responsible for the oversight, governance and coordination of the management of reputational risk in their respective regions of Deutsche Bank on behalf of the Management Board. In exceptional circumstances, matters can also be referred by the RRRCs to the GRRC.

The modelling and quantitative measurement of reputational risk internal capital is implicitly covered in our economic capital framework primarily within operational and strategic risk.

Risk Concentration and Risk Diversification

Risk Concentrations

Risk concentrations refer to clusters of the same or similar risk drivers within specific risk types (intra-risk concentrations in credit, market, operational, liquidity and other risks) as well as across different risk types (inter-risk concentrations). They could occur within and across counterparties, businesses, regions/countries, industries and products. The management of concentrations is integrated as part of the management of individual risk types and monitored on an ongoing basis. The key objective is to avoid any undue concentrations in the portfolio, which is achieved through a quantitative and qualitative approach, as follows:

- Intra-risk concentrations are assessed, monitored and mitigated by the individual risk disciplines (credit, market, operational, liquidity risk management and others). This is supported by limit setting on different levels and/or management according to risk type.
- Inter-risk concentrations are managed through quantitative top-down stress-testing and qualitative bottom-up reviews, identifying and assessing risk themes independent of any risk type and providing a holistic view across the bank.

The most senior governance body for the oversight of risk concentrations throughout 2017 was the Enterprise Risk Committee (ERC), which is a subcommittee of the Group Risk Committee (GRC).

Risk Type Diversification Benefit

The risk type diversification benefit quantifies diversification effects between credit, market, operational and strategic risk in the economic capital calculation. To the extent correlations between these risk types fall below 1.0, a risk type diversification benefit results. The calculation of the risk type diversification benefit is intended to ensure that the standalone economic capital figures for the individual risk types are aggregated in an economically meaningful way.

Risk and Capital Performance

Capital and Leverage Ratio

Regulatory Capital

The calculation of our regulatory capital incorporates the capital requirements following the “Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms” (Capital Requirements Regulation or “CRR”) and the “Directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms” (Capital Requirements Directive 4 or “CRD 4”) as implemented into German law. The information in this section as well as in the section “Development of risk-weighted Assets” is based on the regulatory principles of consolidation.

When referring to results according to full application of the final CRR/CRD 4 framework (without consideration of applicable transitional methodology) we use the term “CRR/CRD 4 fully loaded”. In some cases, CRR/CRD 4 maintains transitional rules that had been adopted in earlier capital adequacy frameworks through Basel 2 or Basel 2.5. These relate, e.g., to the risk weighting of certain categories of assets and include rules permitting the grandfathering of equity investments at a risk-weight of 100 %. In this regard, we assumed in our CRR/CRD 4 fully loaded methodology for a limited subset of equity positions that the impact of the expiration of these transitional rules will be mitigated through sales of the underlying assets or other measures prior to the expiration of the grandfathering provisions by the end of 2017. Since the fourth quarter 2017 we have not applied this grandfathering rule anymore, but instead applied a risk weight between 190 % and 370 % determined based on Article 155 CRR under the CRR/CRD 4 fully loaded rules to all our equity positions. Consequently, no transitional arrangements are considered in our fully loaded RWA numbers for December 31, 2017. Only for the comparative period, yearend 2016, are these transitional rules within the risk weighting still applied.

This section refers to the capital adequacy of the group of institutions consolidated for banking regulatory purposes pursuant to the CRR and the German Banking Act (“Kreditwesengesetz” or “KWG”). Therein not included are insurance companies or companies outside the finance sector.

The total regulatory capital pursuant to the effective regulations as of year-end 2017 comprises Tier 1 and Tier 2 (T2) capital. Tier 1 capital is subdivided into Common Equity Tier 1 (CET 1) capital and Additional Tier 1 (AT1) capital.

Common Equity Tier 1 (CET 1) capital consists primarily of common share capital (reduced by own holdings) including related share premium accounts, retained earnings (including losses for the financial year, if any) and accumulated other comprehensive income, subject to regulatory adjustments (i.e. prudential filters and deductions). Prudential filters for CET 1 capital, according to Articles 32 to 35 CRR, include (i) securitization gain on sale, (ii) cash flow hedges and changes in the value of own liabilities, and (iii) additional value adjustments. CET 1 capital deductions comprise (i) intangible assets, (ii) deferred tax assets that rely on future profitability, (iii) negative amounts resulting from the calculation of expected loss amounts, (iv) net defined benefit pension fund assets, (v) reciprocal cross holdings in the capital of financial sector entities and, (vi) significant and non-significant investments in the capital (CET 1, AT1, T2) of financial sector entities above certain thresholds. All items not deducted (i.e., amounts below the threshold) are subject to risk-weighting.

Additional Tier 1 (AT1) capital consists of AT1 capital instruments and related share premium accounts as well as noncontrolling interests qualifying for inclusion in consolidated AT1 capital, and during the transitional period grandfathered instruments eligible under earlier frameworks. To qualify as AT1 capital under CRR/CRD 4, instruments must have principal loss absorption through a conversion to common shares or a write-down mechanism allocating losses at a trigger point and must also meet further requirements (perpetual with no incentive to redeem; institution must have full dividend/coupon discretion at all times, etc.).

Tier 2 (T2) capital comprises eligible capital instruments, the related share premium accounts and subordinated long-term debt, certain loan loss provisions and noncontrolling interests that qualify for inclusion in consolidated T2 capital. To qualify as T2 capital, capital instruments or subordinated debt must have an original maturity of at least five years. Moreover, eligible capital instruments may inter alia not contain an incentive to redeem, a right of investors to accelerate repayment, or a credit sensitive dividend feature.

Capital instruments that no longer qualify as AT1 or T2 capital under the CRR/CRD 4 fully loaded rules are subject to grandfathering rules during transitional period and are phased out from 2013 to 2022 with their recognition capped at 50 % in 2017 and the cap decreasing by 10 % every year.

Capital Instruments

Our Management Board received approval from the 2016 Annual General Meeting to buy back up to 137.9 million shares before the end of April 2021. Thereof 69.0 million shares can be purchased by using derivatives. These authorizations substitute the authorizations of the previous year. We have received approval from the ECB for share buybacks for 2016 and 2017 according to CRR/CRD 4 rules. During the period from the 2016 Annual General Meeting until the 2017 Annual General Meeting (May 18, 2017), 14.8 million shares have been purchased, of which 0.2 million shares through exercise of call options. The shares purchased were used for equity compensation purposes in the same period or were to be used in the upcoming period so that the number of shares held in Treasury from buybacks was 1.2 million as of the 2017 Annual General Meeting. In Q2 2017 we purchased under the 2016 AGM authorization 27.5 million call options on Deutsche Bank shares to hedge the risk of a rising share price for upcoming equity compensation liabilities. All options had a maturity of more than 18 months.

The 2017 Annual General Meeting granted our Management Board the approval to buy back up to 206.7 million shares before the end of April 2022. Thereof 103.3 million shares can be purchased by using derivatives, this includes 41.3 million derivatives with a maturity exceeding 18 months. These authorizations substitute the authorizations of the previous year. During the period from the 2017 Annual General Meeting until December 31, 2017, 14.1 million shares were purchased. The shares purchased were used for equity compensation purposes in the same period or were to be used in the upcoming period so that the number of shares held in Treasury from buybacks was 0.2 million as of December 31, 2017.

On March 5, 2017, Deutsche Bank announced a capital increase of up to 687.5 million new shares with subscription rights to existing shareholders and with the same dividend rights as all other outstanding shares. Deutsche Bank completed the capital increase on April 7, 2017. With the capital increase, the number of common shares of Deutsche Bank AG increased by 687.5 million, from 1,379.3 million to 2,066.8 million in early April 2017. The gross proceeds amounted to € 8.0 billion and the net proceeds amounted to € 7.9 billion. The recognition of the gross proceeds was formally approved by the ECB on July 26, 2017.

Since the 2017 Annual General Meeting, and as of December 31, 2017, authorized capital available to the Management Board is € 2,560 million (1,000 million shares). As of December 31, 2017, the conditional capital against cash stands at € 512 million (200 million shares). Additional conditional capital for equity compensation amounts to € 51.2 million (20 million shares).

Our legacy Hybrid Tier 1 capital instruments (substantially all noncumulative trust preferred securities) are not recognized under fully loaded CRR/CRD 4 rules as Additional Tier 1 capital, mainly because they have no write-down or equity conversion feature. However, they are to a large extent recognized as Additional Tier 1 capital under CRR/CRD 4 transitional provisions and can still be partially recognized as Tier 2 capital under the fully loaded CRR/CRD 4 rules. During the transitional phase-out period the maximum recognizable amount of Additional Tier 1 instruments from Basel 2.5 compliant issuances as of December 31, 2012 will be reduced at the beginning of each financial year by 10 % or € 1.3 billion, through 2022. For December 31, 2017, this resulted in eligible Additional Tier 1 instruments of € 8.6 billion (i.e. € 4.6 billion newly issued AT1 Notes plus € 3.9 billion of legacy Hybrid Tier 1 instruments recognizable during the transition period). In 2017, the Bank has called one legacy Hybrid Tier 1 instrument with a notional of € 0.5 billion and an eligible equivalent amount of € 0.5 billion and another legacy Hybrid Tier 1 instrument with a notional of U.S. \$ 0.3 billion and an eligible equivalent amount of € 0.0 billion. The bank has also called one legacy Hybrid Tier 1 instrument with a notional of U.S. \$ 2.0 billion and an eligible equivalent amount of € 1.6 billion effective as of February 20, 2018. € 3.9 billion of the legacy Hybrid Tier 1 instruments can still be recognized as Tier 2 capital under the fully loaded CRR/CRD 4 rules. Additional Tier 1 instruments recognized under fully loaded CRR/CRD 4 rules amounted to € 4.6 billion as of December 31, 2017.

On December 1, 2017, we issued fixed rate subordinated Tier 2 notes with an aggregate amount of U.S. \$ 1.0 billion. The notes have a denomination of U.S. \$ 200,000 and integral multiples of U.S. \$ 1,000 in excess thereof and are due December 1, 2032. They were issued in accordance with the registration requirements of the US Securities Act of 1933.

The total of our Tier 2 capital instruments as of December 31, 2017 recognized during the transition period under CRR/CRD 4 was € 6.4 billion. As of December 31, 2017, there were no legacy Hybrid Tier 1 instruments that are counted as Tier 2 capital under transitional rules. The gross notional value of the Tier 2 capital instruments was € 8.3 billion. No Tier 2 capital instrument had been called in 2017. Tier 2 instruments recognized under fully loaded CRR/CRD 4 rules amounted to € 10.3 billion as of December 31, 2017 (including the € 3.9 billion legacy Hybrid Tier 1 capital instruments only recognizable as Additional Tier 1 capital during the transitional period).

Minimum capital requirements and additional capital buffers

The Pillar 1 CET 1 minimum capital requirement applicable to the Group is 4.50 % of risk-weighted assets (RWA). The Pillar 1 total capital requirement of 8.00 % demands further resources that may be met with up to 1.50 % Additional Tier 1 capital and up to 2.00 % Tier 2 capital.

Failure to meet minimum capital requirements can result in supervisory measures such as restrictions of profit distributions or limitations on certain businesses such as lending. We complied with the regulatory capital adequacy requirements in 2017.

In addition to these minimum capital requirements, the following combined capital buffer requirements have been phased in since 2016 (other than the systemic risk buffer, if any, which is not subject to any phase-in) and will become fully effective from 2019 onwards. The buffer requirements must be met in addition to the Pillar 1 minimum capital requirements, but can be drawn down in times of economic stress.

Deutsche Bank continues to be designated as a global systemically important institution (G-SII) by the German Federal Financial Supervisory Authority (BaFin) in agreement with Deutsche Bundesbank, resulting in a G-SII buffer requirement of 2.00 % CET 1 capital of RWA in 2019. This is in line with the Financial Stability Board (FSB) assessment of systemic importance based on the indicators as published in 2017. The additional buffer requirement of 2.00 % for G-SIIs was phased in with 0.5 % in 2016, 1.00 % in 2017 and in 2018 amounts to 1.50 %. We will continue to publish our indicators on our website.

The capital conservation buffer is implemented in Section 10c German Banking Act based on Article 129 CRD 4 and equals a requirement of 2.50 % CET 1 capital of RWA. The additional buffer requirement of 2.50 % was phased in with 0.625 % in 2016, 1.25 % in 2017 and in 2018 amounts to 1.875 %.

The countercyclical capital buffer is deployed in a jurisdiction when excess credit growth is associated with an increase in system-wide risk. It may vary between 0 % and 2.50 % CET 1 capital of RWA by 2019. In exceptional cases, it could also be higher than 2.50 %. The institution specific countercyclical buffer that applies to Deutsche Bank is the weighted average of the countercyclical capital buffers that apply in the jurisdictions where our relevant credit exposures are located. As per December 31, 2017 (and currently), the institution-specific countercyclical capital buffer was at 0.02 %.

In addition to the aforementioned buffers, national authorities, such as the BaFin, may require a systemic risk buffer to prevent and mitigate long-term non-cyclical systemic or macro-prudential risks that are not covered by the CRR. They can require an additional buffer of up to 5.00 % CET 1 capital of RWA. As of the year-end 2017 (and currently), no systemic risk buffer applied to Deutsche Bank.

Additionally, Deutsche Bank AG has been classified by BaFin as other systemically important institution (O-SII) with an additional buffer requirement of 2.00 % that has to be met on a consolidated level. For Deutsche Bank, the O-SII buffer was introduced in first steps of 0.66 % in 2017 and in 2018 amounts to 1.32 %. Unless certain exceptions apply, only the higher of the systemic risk buffer, G-SII buffer and O-SII buffer must be applied. Accordingly, the O-SII buffer is not applicable as of December 31, 2017.

In addition, pursuant to the Pillar 2 Supervisory Review and Evaluation Process (SREP), the European Central Bank (ECB) may impose capital requirements on individual banks which are more stringent than statutory requirements (so-called Pillar 2 requirement). On December 8, 2016, following the results of the 2016 SREP, the ECB informed Deutsche Bank that it must maintain a phase-in CET 1 ratio of at least 9.52 % on a consolidated basis under applicable transitional rules under CRR/CRD 4 at all times, beginning on January 1, 2017. This CET 1 capital requirement comprises the Pillar 1 minimum capital requirement of 4.50 %, the Pillar 2 requirement (SREP Add-on) of 2.75 %, the phase-in capital conservation buffer of 1.25 %, the countercyclical buffer (currently 0.02 %) and the phase-in G-SII buffer of 1.00 %. Correspondingly the requirements for Deutsche Bank's Tier 1 capital ratio were at 11.02 % and total capital ratio at 13.02 % as of December 31, 2017.

On December 19, 2017, Deutsche Bank was informed by the ECB of its decision regarding prudential minimum capital requirements for 2018, following the results of the 2017 SREP. The decision requires Deutsche Bank to maintain a phase-in CET 1 ratio of at least 10.65 % on a consolidated basis, beginning on January 1, 2018. This CET 1 capital requirement comprises the Pillar 1 minimum capital requirement of 4.50 %, the Pillar 2 requirement (SREP Add-on) of 2.75 %, the phase-in capital conservation buffer of 1.875 %, the countercyclical buffer (currently 0.02 %) and the phase-in G-SII buffer of 1.50 %. The new CET 1 capital requirement of 10.65 % for 2018 is higher than the CET 1 capital requirement of 9.52 %, which was applicable to Deutsche Bank in 2017, reflecting the further phase-in of the capital conservation buffer and the G-SII buffer. Correspondingly, 2018 requirements for Deutsche Bank's Tier 1 capital ratio are at 12.15 % and for its total capital ratio at 14.15 %. Also, following the results of the 2017 SREP, the ECB communicated to us an individual expectation to hold a further "Pillar 2" CET 1 capital add-on, commonly referred to as the "Pillar 2" guidance'. The capital add-on pursuant to the "Pillar 2" guidance is separate from and in addition to the Pillar 2 requirement. The ECB has stated that it expects banks to meet the "Pillar 2" guidance although it is not legally binding, and failure to meet the "Pillar 2" guidance does not automatically trigger legal action.

The following table gives an overview of the different Pillar 1 and Pillar 2 minimum capital requirements (but excluding the "Pillar 2" guidance) as well as capital buffer requirements applicable to Deutsche Bank in the years 2017 and 2018 (articulated on a phase-in basis):

Overview total capital requirements and capital buffers

	2017	2018
Pillar 1		
Minimum CET 1 requirement	4.50 %	4.50 %
Capital Conservation Buffer	1.25 %	1.875 %
Countercyclical Buffer	0.02 %	0.02 % ¹
G-SII Buffer ³	1.00 %	1.50 %
O-SII Buffer ³	0.66 %	1.32 %
Systemic Risk Buffer ³	0.00 %	0.00 % ²
Pillar 2		
Pillar 2 SREP Add-on of CET 1 capital (excluding the "Pillar 2" guidance)	2.75 %	2.75 %
SREP CET 1 Requirement	8.50 %	9.125 %
Total CET 1 requirement from Pillar 1 and 2⁴	9.52 %	10.65 %
Total Tier 1 requirement from Pillar 1 and 2	11.02 %	12.15 %
Total capital requirement from Pillar 1 and 2	13.02 %	14.15 %

¹ Deutsche Bank's countercyclical buffer requirement is subject to country-specific buffer rates decreed by EBA and the Basel Committee of Banking Supervision (BCBS) as well as Deutsche Bank's relevant credit exposures as per respective reporting date. The countercyclical buffer rate for 2018 has been assumed to be 0.02 % due to unavailability of 2018 data.

² The systemic risk buffer has been assumed to remain at 0 % for the projected year 2018, subject to changes based on further directives.

³ Unless certain exceptions apply only the higher of the systemic risk buffer, G-SII and O-SII buffer must be applied.

⁴ The total Pillar 1 and Pillar 2 CET 1 requirement (excluding the "Pillar 2" guidance) is calculated as the sum of the SREP requirement, the higher of the G-SII, O-SII and systemic risk buffer requirement as well as the countercyclical buffer requirement.

Development of regulatory capital

Our CRR/CRD 4 Tier 1 capital as of December 31, 2017 amounted to € 57.6 billion, consisting of CET 1 capital of € 50.8 billion and AT1 capital of € 6.8 billion. The CRR/CRD 4 Tier 1 capital was € 2.1 billion higher than at the end of 2016, primarily driven by an increase in CET 1 capital of € 3.0 billion since year end 2016 while AT1 capital decreased by € 0.9 billion in the same period.

The € 3.0 billion increase of CRR/CRD 4 CET 1 capital was largely the result of the capital issuance completed in early April 2017 with net proceeds of € 7.9 billion and the reversal of 10 % threshold-related deductions of € 0.4 billion due to the higher capital base. These positive effects were then reduced by increased regulatory adjustments due to the higher phase-in rate of 80 % in 2017 compared to 60 % in 2016 and negative effects from Currency Translation Adjustments of € 2.6 billion with partially positive foreign exchange counter-effects in capital deduction items. Further reductions were due to the net loss attributable to Deutsche Bank shareholders and additional equity components of € 0.8 billion in 2017. Since we do not include an interim profit in our CET 1 capital as a consequence of the negative net income in the financial year 2017, neither AT1 coupon nor shareholder dividends are accrued in CET 1 capital in accordance with Art 26 (2) CRR.

The € 0.9 billion decrease in CRR/CRD 4 AT1 capital was mainly the result of reduced Legacy Hybrid Tier 1 instruments, recognizable as AT1 capital during the transition period, which were € 2.6 billion lower compared to year end 2016 largely due to the call of instruments (€ 2.4 billion) and foreign exchange effects. A positive counter-effect resulted from reduced transitional adjustments (€ 1.7 billion lower than at year end 2016) that were phased out from AT1 capital. These deductions reflect the residual amount of certain CET 1 deductions that are subtracted from CET 1 capital under fully loaded rules, but are allowed to reduce AT1 capital during the transitional period. The phase-in rate for these deductions on the level of CET 1 capital increased to 80 % in 2017 (60 % in 2016) and decreased correspondingly on the level of AT1 capital to 20 % in 2017 (40 % in 2016).

Our fully loaded CRR/CRD 4 Tier 1 capital as of December 31, 2017 was € 52.9 billion, compared to € 46.8 billion at the end of 2016. Our fully loaded CRR/CRD 4 CET 1 capital amounted to € 48.3 billion as of December 31, 2017, compared to € 42.3 billion as of December 31, 2016. Our fully loaded CRR/CRD 4 AT1 capital amounted to € 4.6 billion as of December 31, 2017, unchanged compared to year end 2016.

The increase of our fully loaded CET 1 capital of € 6.0 billion compared to year end 2016 capital was largely the result of the € 7.9 billion net proceeds from our capital issuance and the reversal of 10 % threshold-related deductions of € 0.6 billion due to the higher capital base. Further positive effects of € 0.4 billion resulted from regulatory adjustments from prudential filters (Debt Valuation Adjustments). These positive effects were partially reduced by our negative net income of € 0.8 billion and negative effects from Currency Translation Adjustments of € 2.6 billion with partially positive foreign exchange counter-effects in capital deduction items.

Based on ECB guidance and following the EBA Guidelines on payment commitments, Deutsche Bank will treat irrevocable payment commitments related to the Deposit Guarantee Scheme and the Single Resolution Fund as an additional CET 1 capital deduction instead of risk weighted assets, effective from January 2018 onwards. If these were treated as a capital deduction

item for the financial year 2017, then our pro-forma fully loaded CET 1 capital would have been € 0.4 billion lower along with an RWA relief of € 1.0 billion resulting in a pro-forma fully loaded CET 1 capital ratio decrease of 8 basis points.

Transitional template for regulatory capital, RWA and capital ratios

in € m.	Dec 31, 2017		Dec 31, 2016	
	CRR/CRD 4 fully-loaded	CRR/CRD 4	CRR/CRD 4 fully loaded	CRR/CRD 4
Common Equity Tier 1 (CET 1) capital: instruments and reserves				
Capital instruments and the related share premium accounts	45,195	45,195	37,290	37,290
Retained earnings	17,977	17,977	20,113	20,113
Accumulated other comprehensive income (loss), net of tax	696	660	3,708	3,645
Independently reviewed interim profits net of any foreseeable charge or dividend ¹	(751)	(751)	(2,023)	(2,023)
Other	0	33	0	79
Common Equity Tier 1 (CET 1) capital before regulatory adjustments	63,116	63,114	59,088	59,104
Common Equity Tier 1 (CET 1) capital: regulatory adjustments				
Additional value adjustments (negative amount)	(1,204)	(1,204)	(1,398)	(1,398)
Other prudential filters (other than additional value adjustments)	(102)	(74)	(639)	(428)
Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	(8,394)	(6,715)	(8,436)	(5,062)
Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liabilities where the conditions in Art. 38 (3) CRR are met) (negative amount)	(3,004)	(2,403)	(3,854)	(2,312)
Negative amounts resulting from the calculation of expected loss amounts	(502)	(408)	(297)	(188)
Defined benefit pension fund assets (negative amount)	(1,125)	(900)	(945)	(567)
Direct, indirect and synthetic holdings by an institution of own CET 1 instruments (negative amount)	(144)	(117)	(59)	(41)
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above the 10 % / 15 % thresholds and net of eligible short positions) (negative amount)	0	0	0	0
Deferred tax assets arising from temporary differences (net of related tax liabilities where the conditions in Art. 38 (3) CRR are met) (amount above the 10 % / 15 % thresholds) (negative amount)	0	0	(590)	(354)
Other regulatory adjustments ²	(341)	(485)	(591)	(971)
Total regulatory adjustments to Common Equity Tier 1 (CET 1) capital	(14,816)	(12,306)	(16,810)	(11,321)
Common Equity Tier 1 (CET 1) capital	48,300	50,808	42,279	47,782
Additional Tier 1 (AT1) capital: instruments				
Capital instruments and the related share premium accounts	4,676	4,676	4,676	4,676
Amount of qualifying items referred to in Art. 484 (4) CRR and the related share premium accounts subject to phase out from AT1	N/M	3,904	N/M	6,516
Additional Tier 1 (AT1) capital before regulatory adjustments	4,676	8,579	4,676	11,191
Additional Tier 1 (AT1) capital: regulatory adjustments				
Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	(55)	(26)	(125)	(51)
Residual amounts deducted from AT1 capital with regard to deduction from CET 1 capital during the transitional period pursuant to Art. 472 CRR	N/M	(1,730)	N/M	(3,437)
Other regulatory adjustments	0	0	0	0
Total regulatory adjustments to Additional Tier 1 (AT1) capital	(55)	(1,756)	(125)	(3,488)
Additional Tier 1 (AT1) capital	4,621	6,823	4,551	7,703
Tier 1 capital (T1 = CET 1 + AT1)	52,921	57,631	46,829	55,486
Tier 2 (T2) capital	10,329	6,384	12,673	6,672
Total capital (TC = T1 + T2)	63,250	64,016	59,502	62,158
Total risk-weighted assets	344,212	343,316	357,518	356,235
Capital ratios				
Common Equity Tier 1 capital ratio (as a percentage of risk-weighted assets)	14.0	14.8	11.8	13.4
Tier 1 capital ratio (as a percentage of risk-weighted assets)	15.4	16.8	13.1	15.6
Total capital ratio (as a percentage of risk-weighted assets)	18.4	18.6	16.6	17.4

N/M – Not meaningful

¹ As we do not include an interim profit in our CET 1 capital as a consequence of the negative net income in the financial year 2017, neither AT1 coupon nor shareholder dividends are accrued in CET 1 capital in accordance with Art 26 (2) CRR.

² Including an additional capital deduction of € 0.3 billion that was imposed on Deutsche Bank effective from October 2016 onwards based on a notification by the ECB pursuant to Article 16(1)(c), 16(2)(b) and (j) of Regulation (EU) No 1024/2013 as well as the additional filter for funds for home loans and savings protection ("Fonds für baupartechnische Absicherung") of € 19 million.

Reconciliation of shareholders' equity to regulatory capital

in € m.	CRR/CRD 4	
	Dec 31, 2017	Dec 31, 2016
Total shareholders' equity per accounting balance sheet	63,174	59,833
Deconsolidation/Consolidation of entities	(58)	(123)
Thereof:		
Additional paid-in capital	(6)	(6)
Retained earnings	(228)	(276)
Accumulated other comprehensive income (loss), net of tax	176	159
Total shareholders' equity per regulatory balance sheet	63,116	59,710
Noncontrolling interest based on transitional rules	33	79
Accrual for dividend and AT1 coupons ¹	0	(621)
Reversal of deconsolidation/consolidation of the position Accumulated other comprehensive income (loss), net of tax, during transitional period	(35)	(63)
Common Equity Tier 1 (CET 1) capital before regulatory adjustments	63,114	59,104
Additional value adjustments	(1,204)	(1,398)
Other prudential filters (other than additional value adjustments)	(74)	(428)
Regulatory adjustments relating to unrealized gains and losses pursuant to Art. 467 and 468 CRR	(144)	(380)
Goodwill and other intangible assets (net of related tax liabilities)	(6,715)	(5,062)
Deferred tax assets that rely on future profitability	(2,403)	(2,666)
Defined benefit pension fund assets	(900)	(567)
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	0
Other regulatory adjustments	(866)	(820)
Common Equity Tier 1 capital	50,808	47,782

¹ As we do not include an interim profit in our CET 1 capital as a consequence of the negative net income in the financial year 2017, neither AT1 coupon nor shareholder dividends are accrued in CET 1 capital in accordance with Art 26 (2) CRR.

Development of regulatory capital

in € m.	CRR/CRD 4	
	Dec 31, 2017	Dec 31, 2016
Common Equity Tier 1 (CET 1) capital - opening amount	47,782	52,429
Common shares, net effect	1,760	0
Additional paid-in capital	6,153	192
Retained earnings	(795)	(1,826)
Common shares in treasury, net effect/(+) sales (-) purchase	(9)	10
Movements in accumulated other comprehensive income	(2,748)	231
Accrual for dividend and Additional Tier 1 (AT1) coupons ¹	0	(621)
Additional value adjustments	194	479
Goodwill and other intangible assets (net of related tax liabilities)	(1,653)	(1,686)
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	(91)	(988)
Negative amounts resulting from the calculation of expected loss amounts	(219)	(130)
Defined benefit pension fund assets	(333)	(97)
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	0	278
Securitization positions not included in risk-weighted assets	0	0
Deferred tax assets arising from temporary differences (amount above 10 % and 15 % threshold, net of related tax liabilities where the conditions in Art. 38 (3) CRR are met)	354	(30)
Other, including regulatory adjustments	413	(457)
Common Equity Tier 1 (CET 1) capital - closing amount	50,808	47,782
Additional Tier 1 (AT1) Capital - opening amount	7,703	5,793
New Additional Tier 1 eligible capital issues	0	0
Matured and called instruments	(2,376)	(76)
Transitional arrangements	1,708	1,879
Thereof:		
Goodwill and other intangible assets (net of related tax liabilities)	1,696	1,689
Other, including regulatory adjustments	(212)	108
Additional Tier 1 (AT1) Capital - closing amount	6,823	7,703
Tier 1 capital	57,631	55,486
Tier 2 (T2) capital - closing amount	6,384	6,672
Total regulatory capital	64,016	62,158

¹ As we do not include an interim profit in our CET 1 capital as a consequence of the negative net income in the financial year 2017, neither AT1 coupon nor shareholder dividends are accrued in CET 1 capital in accordance with Art 26 (2) CRR.

Development of risk-weighted assets

The table below provides an overview of RWA broken down by risk type and business division. They include the aggregated effects of the segmental reallocation of infrastructure related positions, if applicable, as well as reallocations between the segments.

Risk-weighted assets by risk type and business division according to transitional rules

						Dec 31, 2017
in € m.	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consolidation & Adjustments and Other	Total
Credit Risk	118,940	75,377	3,273	0	16,552	214,142
Settlement Risk	142	0	0	0	5	147
Credit Valuation Adjustment (CVA)	6,189	171	84	0	7	6,451
Market Risk	30,896	70	0	0	0	30,966
Operational Risk	74,936	11,654	5,020	0	0	91,610
Total	231,103	87,272	8,378	0	16,564	343,316

						Dec 31, 2016
in € m.	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consolidation & Adjustments and Other	Total
Credit Risk	124,274	72,735	3,756	4,075	15,505	220,345
Settlement Risk	36	0	0	0	0	36
Credit Valuation Adjustment (CVA)	8,886	294	139	90	8	9,416
Market Risk	30,198	62	0	3,502	0	33,762
Operational Risk	73,610	12,696	4,957	1,413	0	92,675
Total	237,003	85,788	8,853	9,079	15,512	356,235

The RWA according to CRR/CRD 4 were € 343.3 billion as of December 31, 2017, compared to € 356.2 billion at the end of 2016. The overall decrease of € 12.9 billion mainly reflects decreases in credit risk RWA. Credit Risk RWA are € 6.2 billion lower mainly from foreign exchange reductions of € 10.2 billion which is partly offset by business driven increase in our Corporate & Investment Bank and Private & Commercial Bank segments. In addition book quality changes due to improved portfolio quality have contributed to the overall decrease in Credit Risk RWA. The decrease in RWA for market risk since December 31, 2016 was primarily driven by value-at-risk and stressed value-at-risk components, which was partly offset by an increase in the incremental risk charge and market risk standardised approach for securitizations. The € 2.9 billion reduction in RWA for CVA was mainly driven by de-risking of the portfolio. The slight decrease in Operational Risk RWA was mainly driven by the internal and external loss profile.

RWA calculated on CRR/CRD 4 fully loaded basis were € 344.2 billion as of December 31, 2016 compared with € 357.5 billion at the end of 2016. The decrease was driven by the same movements as outlined for the transitional rules. The fully loaded RWA were € 0.9 billion higher than the risk-weighted assets under the transitional rules due to the application under the transition rules of the equity investment grandfathering rule according to Article 495 CRR, pursuant to which certain equity investments receive a 100 % risk weight instead of a risk weight between 190 % and 370 % determined based on Article 155 CRR that would apply under the CRR/CRD 4 fully loaded rules.

As of December 31, 2017, we have not applied the grandfathering rule anymore, but instead applied a risk weight between 190 % and 370 % determined based on Article 155 CRR under the CRR/CRD 4 fully loaded rules to all our equity positions. Consequently, no transitional arrangements are considered in our fully loaded RWA numbers for December 31, 2017. Only for the comparative period, year end 2016, are these transitional rules within the risk weighting still applied.

As of December 31, 2016, our portfolio of transactions for which we applied the equity investment grandfathering rule in calculating our fully loaded RWA consisted of 15 transactions amounting to € 220 million in exposures. Had we not applied the grandfathering rule for these transactions, their fully loaded RWA would have been no more than € 816 million, and thus our Group fully loaded RWA would have been no more than € 358.1 billion as of December 31, 2016, rather than the Group fully loaded RWA of € 357.5 billion that we reported on a fully loaded basis with application of the grandfathering rule. Also, had we calculated our fully loaded CET 1 capital ratio, Tier 1 capital ratio and Total capital ratio as of December 31, 2016 using fully loaded RWAs without application of the grandfathering rule, such capital ratios would have remained unchanged (due to rounding) at the 11.8 %, 13.1 % and 16.6 %, respectively, that we reported on a fully loaded basis with application of the grandfathering rule.

The tables below provide an analysis of key drivers for risk-weighted asset movements observed for credit, market, operational risk and the credit valuation adjustment in the reporting period.

Development of risk-weighted assets for Credit Risk including Counterparty Credit Risk

in € m.	Dec 31, 2017		Dec 31, 2016	
	Credit risk RWA	Capital requirements	Credit risk RWA	Capital requirements
Credit risk RWA balance, beginning of year	220,345	17,628	242,019	19,362
Book size	3,523	282	(8,085)	(647)
Book quality	506	40	(3,827)	(306)
Model updates	1,272	102	2,328	186
Methodology and policy	0	0	(1,280)	(102)
Acquisition and disposals	0	0	(12,701)	(1,016)
Foreign exchange movements	(10,162)	(813)	350	28
Other	(1,342)	(107)	1,539	123
Credit risk RWA balance, end of year	214,142	17,131	220,345	17,628

Thereof: Development of risk-weighted assets for Counterparty Credit Risk

in € m.	Dec 31, 2017		Dec 31, 2016	
	Counterparty credit risk RWA	Capital requirements	Counterparty credit risk RWA	Capital requirements
Counterparty credit risk RWA balance, beginning of year	35,614	2,849	37,276	2,982
Book size	(4,628)	(370)	(2,740)	(219)
Book quality	3,715	297	511	41
Model updates	1,272	102	1,439	115
Methodology and policy	0	0	(60)	(5)
Acquisition and disposals	0	0	(707)	(57)
Foreign exchange movements	(2,048)	(164)	(106)	(8)
Other	0	0	0	0
Counterparty credit risk RWA balance, end of year	33,924	2,714	35,614	2,849

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" category. "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 decrease in RWA for credit risk by 3 % or € 6.2 billion since December 31, 2016 is predominantly driven by reductions in "Foreign exchange movements". This is partly offset by "Book Size" and "Model updates". The increase in "Book size" is driven by the FX neutral business driven growth in our Corporate & Investment Bank and Private & Commercial Bank segments. The increase in "Model updates" corresponds predominantly to a revised treatment of the applicable margin period of risk and general wrong way risk of specific derivatives portfolios, which was partially offset by a refinement in the calculation of effective maturity for collateralized counterparties.

The increase in "Book quality" within the counterparty credit risk table is predominantly driven by the revised treatment of netting application of our security financing products which is partly offset by reductions from recalibrations of our risk parameters as well as process enhancements. This increase is offset by a decrease in "Book size" where there was a decline due to de-risking measures and exposure reductions.

Based on the CRR/CRD 4 regulatory framework, we are required to calculate RWA using the CVA which takes into account the credit quality of our counterparties. RWA for CVA covers the risk of mark-to-market losses on the expected counterparty risk in connection with OTC derivative exposures. We calculate the majority of the CVA based on our own internal model as approved by the BaFin.

Development of risk-weighted assets for Credit Valuation Adjustment

in € m.	Dec 31, 2017		Dec 31, 2016	
	CVA RWA	Capital requirements	CVA RWA	Capital requirements
CVA RWA balance, beginning of year	9,416	753	15,877	1,270
Movement in risk levels	(3,228)	(258)	(5,600)	(448)
Market data changes and recalibrations	0	0	278	22
Model updates	0	0	(1,000)	(80)
Methodology and policy	870	70	0	0
Acquisitions and disposals	0	0	0	0
Foreign exchange movements	(607)	(49)	(139)	(11)
CVA RWA balance, end of year	6,451	516	9,416	753

The development of CVA RWA is broken down into a number of categories: “Movement in risk levels”, which includes changes to the portfolio size and composition; “Market data changes and recalibrations”, which includes changes in market data levels and volatilities as well as recalibrations; “Model updates” refers to changes to either the IMM credit exposure models or the value-at-risk models that are used for CVA RWA; “Methodology and policy” relates to changes to the regulation. Any significant business acquisitions or disposals would be presented in the category with that name.

As of December 31, 2017, the RWA for CVA amounted to € 6.5 billion, representing a decrease of € 2.9 billion (31%) compared with € 9.4 billion for December 31, 2016. The overall reduction was driven by de-risking of the portfolio and currency effects with some offset from “Methodology and policy” changes.

Development of risk-weighted assets for Market Risk

in € m.	Dec 31, 2017						Dec 31, 2017
	VaR	SVaR	IRC	CRM	Other	Total RWA	Total capital requirements
Market risk RWA balance, beginning of year	5,957	14,271	8,662	273	4,599	33,762	2,701
Movement in risk levels	(1,658)	(3,375)	2,598	(217)	922	(1,729)	(138)
Market data changes and recalibrations	81	0	0	0	581	661	53
Model updates/changes	0	0	(1,390)	0	(38)	(1,428)	(114)
Methodology and policy	0	0	0	0	0	0	0
Acquisitions and disposals	0	0	0	0	0	0	0
Foreign exchange movements	0	0	0	0	(301)	(301)	(24)
Other	0	0	0	0	0	0	0
Market risk RWA balance, end of year	4,380	10,896	9,871	56	5,763	30,966	2,477

in € m.	Dec 31, 2016						Dec 31, 2016
	VaR	SVaR	IRC	CRM	Other	Total RWA	Total capital requirements
Market risk RWA balance, beginning of year	6,931	17,146	11,608	2,378	11,491	49,553	3,964
Movement in risk levels	(655)	(1,547)	(2,716)	(3,553)	(8,852)	(17,323)	(1,386)
Market data changes and recalibrations	403	0	0	0	2,018	2,421	194
Model updates/changes	(57)	237	(230)	0	0	(50)	(4)
Methodology and policy	(665)	(1,565)	0	1,475	0	(754)	(60)
Acquisitions and disposals	0	0	0	0	0	0	0
Foreign exchange movements	0	0	0	(27)	(58)	(84)	(7)
Other	0	0	0	0	0	0	0
Market risk RWA balance, end of year	5,957	14,271	8,662	273	4,599	33,762	2,701

The analysis for market risk covers movements in our internal models for value-at-risk, stressed value-at-risk, incremental risk charge and comprehensive risk measure as well as results from the market risk standardized approach, which are captured in the table under the category “Other”. The market risk standardized approach covers trading securitizations and nth-to-default derivatives, longevity exposures, relevant Collective Investment Undertakings and market risk RWA from Postbank.

The market risk RWA movements due to changes in market data levels, volatilities, correlations, liquidity and ratings are included under the "Market data changes and recalibrations" category. Changes to our market risk RWA internal models, such as methodology enhancements or risk scope extensions, are included in the category of "Model updates". 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 the CRM and Standardized approach methods.

As of December 31, 2017 the RWA for market risk was € 31.0 billion which has decreased by € 2.8 billion (8.3 %) since December 31, 2016. The reduction was driven by the value-at-risk and stressed value-at-risk components in the "Movement in risk levels" category, partly offset by an increase in the incremental risk charge in the "Movement risk levels" category and the market risk standardised approach for securitisation positions in the "Movement in risk levels" and "Market data changes" categories.

Development of risk-weighted assets for Operational Risk

in € m.	Dec 31, 2017		Dec 31, 2016	
	Operational risk RWA	Capital requirements	Operational risk RWA	Capital requirements
Operational risk RWA balance, beginning of year	92,675	7,414	89,923	7,194
Loss profile changes (internal and external)	(2,815)	(225)	7,048	564
Expected loss development	1,104	88	(1,798)	(144)
Forward looking risk component	(3,265)	(261)	(1,140)	(91)
Model updates	3,912	313	(358)	(29)
Methodology and policy	0	0	(1,000)	(80)
Acquisitions and disposals	0	0	0	0
Operational risk RWA balance, end of year	91,610	7,329	92,675	7,414

Changes of internal and external loss events are reflected in the category "Loss profile changes". The category "Expected loss development" is based on divisional business plans as well as historical losses and is deducted from the AMA capital figure within certain constraints. The category "Forward looking risk component" reflects qualitative adjustments and as such the effectiveness and performance of the day-to-day Operational Risk management activities via Key Risk Indicators and Self-Assessment scores, focusing on the business environment and internal control factors. The category "Model updates" covers model refinements such as the implementation of model changes. The category "Methodology and policy" represents externally driven changes such as regulatory add-ons. The category "Acquisition and disposals" represents significant exposure movements which can be clearly assigned to new or disposed businesses.

The overall RWA decrease of € 1.1 billion was mainly driven by a lighter loss profile from internal and external losses feeding into our capital model. An additional increased benefit from the forward looking risk component overcompensated the impact of a model change regarding an enhanced scoring mechanism for the Self-Assessment results. This model change replaced the existing Self-Assessment process by our enhanced Risk and Control Assessment process. In Q4 2017, we have implemented a model change concerning the consistent use of loss data in our AMA model.

Economic Capital

Internal Capital Adequacy

Our internal capital adequacy assessment process (ICAAP) is aimed at maintaining the viability of Deutsche Bank on an ongoing basis. We assess our internal capital adequacy as the ratio of our internal capital supply divided by our internal economic capital demand as shown in the table below. While Deutsche Bank's ICAAP was historically based on a "gone concern approach", the approach was changed in November 2017 to take a perspective aimed at maintaining the viability of Deutsche Bank on an ongoing basis. As a result, the quantile used for the calculation of the internal economic capital demand has been changed from 99.98% to 99.9% improving comparability with regulatory capital demand along with the following implications for the internal capital supply definition: The revised internal capital supply definition excludes any Tier 1 capital instruments subject to grandfathering and Tier 2 capital instruments. Accruals for AT1 coupons and IFRS deferred tax assets that rely on future profitability excluding those arising from temporary differences are fully deducted. IFRS deferred tax assets arising from temporary differences are risk weighted and covered within business risk economic capital on the internal capital demand side. Previously, deferred tax assets had been fully deducted from internal capital supply. Fair value adjustments for assets reclassified where no matched funding is available are no longer deducted from the internal capital supply.

Total capital supply and demand

in € m.
(unless stated otherwise)

	Dec 31, 2017	Dec 31, 2016
Capital supply		
Shareholders' equity	63,174	59,833
Noncontrolling interests ¹	0	0
Accruals AT1 coupons	(213)	N/M
Gain on sale of securitisations, cash flow hedges	(29)	N/M
Fair value gains on own debt and debt valuation adjustments, subject to own credit risk ²	(73)	(440)
Additional valuation adjustments ³	(1,204)	(1,398)
Intangible assets	(8,839)	(8,982)
IFRS deferred tax assets excl. temporary differences ⁴	(3,341)	N/M
IFRS deferred tax assets ⁴	N/M	(8,666)
Expected loss shortfall	(502)	(297)
Defined benefit pension fund assets ⁵	(1,125)	(945)
Holdings of own common equity tier 1 capital instruments	(131)	(45)
Home loans and savings protection ("Fonds zur baupartechnischen Absicherung")	(19)	(231)
Other adjustments	(322)	N/M
Fair value adjustments for financial assets reclassified to loans ⁶	N/M	(557)
Additional tier 1 equity instruments ⁷	4,675	N/M
Hybrid tier 1 capital instruments	N/M	11,259
Tier 2 capital instruments	N/M	8,003
Capital supply	52,051	57,534
Total economic capital requirement		
Credit risk	10,769	13,105
Market risk	10,428	14,593
Operational risk	7,329	10,488
Business risk	5,677	5,098
Diversification benefit	(7,074)	(7,846)
Capital demand	27,129	35,438
Internal capital adequacy ratio	192 %	162 %

¹ Includes noncontrolling interest up to the economic capital requirement for each subsidiary.

² Includes deduction of fair value gains on own credit-effect relating to own liabilities designated under the fair value option as well as the debt valuation adjustments.

³ As applied in the section Capital Management.

⁴ Deduction-treatment of deferred tax assets arising from temporary differences was changed to inclusion in business risk economic capital demand.

⁵ Reported as net assets (assets minus liabilities) of a defined pension fund, i.e. applicable for overfunded pension plans.

⁶ Includes fair value adjustments for assets reclassified in accordance with IAS 39 and for banking book assets where no matched funding is available.

⁷ As per Dec 31, 2016 included under 'Hybrid Tier 1 capital instruments'

A ratio of more than 100 % signifies that the total capital supply is sufficient to cover the capital demand determined by the risk positions. This ratio was 192 % as of December 31, 2017, compared with 162 % as of December 31, 2016. The change of the ratio was due to the fact that capital supply decreased proportionately less than the capital demand did. The decrease in capital demand was driven by lower economic capital requirements partly due to the change in quantile as explained in the section "Risk Profile". The capital supply decreased by € 5.4 billion mainly due to the new capital supply definition as per the new internal capital adequacy perspective implemented in November 2017.

The above capital adequacy measures apply to the consolidated Group as a whole (including Postbank) and form an integral part of our risk and capital management framework.

Leverage Ratio

We manage our balance sheet on a Group level and, where applicable, locally in each region. In the allocation of financial resources we favour business portfolios with the highest positive impact on our profitability and shareholder value. We monitor and analyze balance sheet developments and track certain market-observed balance sheet ratios. Based on this we trigger discussion and management action by the Group Risk Committee (GRC). Following the publication of the CRR/CRD 4 framework, we established a leverage ratio calculation according to that framework.

Leverage Ratio according to revised CRR/CRD 4 framework

The CRR/CRD 4 framework introduced a non-risk based leverage ratio that is intended to act as a supplementary measure to the risk based capital requirements. Its objectives are to constrain the build-up of leverage in the banking sector, helping avoid destabilizing deleveraging processes which can damage the broader financial system and the economy, and to reinforce the risk based requirements with a simple, non-risk based "backstop" measure. While the CRR/CRD 4 framework currently does not provide for a mandatory minimum leverage ratio to be complied with by the relevant financial institutions, a legislative proposal published by the European Commission on November 23, 2016 suggests introducing a minimum leverage ratio of 3 %. The legislative proposal provides that the leverage ratio would apply two years after the proposal's entry into force and remains subject to political discussion among EU institutions.

We calculate our leverage ratio exposure on a fully loaded basis in accordance with Article 429 of the CRR as per Delegated Regulation (EU) 2015/62 of October 10, 2014 published in the Official Journal of the European Union on January 17, 2015 amending Regulation (EU) No 575/2013. In addition, we provide the leverage ratio on a phase-in basis as displayed below in the tables.

Our total leverage ratio exposure includes derivatives, securities financing transactions (SFTs), off-balance sheet exposure and other on-balance sheet exposure (excluding derivatives and SFTs).

The leverage exposure for derivatives is calculated by using the regulatory mark-to-market method for derivatives comprising the current replacement cost plus a regulatory defined add-on for the potential future exposure. Variation margin received in cash from counterparties is deducted from the current replacement cost portion of the leverage ratio exposure measure and variation margin paid to counterparties is deducted from the leverage ratio exposure measure related to receivables recognized as an asset on the balance sheet, provided certain conditions are met. Deductions of receivables for cash variation margin provided in derivatives transactions are shown under derivative exposure in the table "Leverage ratio common disclosure" below. The effective notional amount of written credit derivatives, i.e., the notional reduced by any negative fair value changes that have been incorporated in Tier 1 capital, is included in the leverage ratio exposure measure; the resulting exposure measure is further reduced by the effective notional amount of a purchased credit derivative on the same reference name provided certain conditions are met.

The securities financing transaction (SFT) component includes the gross receivables for SFTs, which are netted with SFT payables if specific conditions are met. In addition to the gross exposure a regulatory add-on for the counterparty credit risk is included.

The off-balance sheet exposure component follows the credit risk conversion factors (CCF) of the standardized approach for credit risk (0 %, 20 %, 50 %, or 100 %), which depend on the risk category subject to a floor of 10 %.

The other on-balance sheet exposure component (excluding derivatives and SFTs) reflects the accounting values of the assets (excluding derivatives and SFTs) as well as regulatory adjustments for asset amounts deducted in determining Tier 1 capital.

The following tables show the leverage ratio exposure and the leverage ratio, both on a fully loaded basis, in accordance with the disclosure tables of the implementing technical standards (ITS) which were adopted by the European Commission via Commission Implementing Regulation (EU) 2016/200 published in the Official Journal of the European Union on February 16, 2016. For additional information, they also contain the phase-in figures.

Summary reconciliation of accounting assets and leverage ratio exposures

in € bn.	Dec 31, 2017	Dec 31, 2016
Total assets as per published financial statements	1,475	1,591
Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	5	0
Adjustments for derivative financial instruments	(172)	(276)
Adjustment for securities financing transactions (SFTs)	41	20
Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	95	102
Other adjustments	(50)	(90)
Leverage ratio total exposure measure (fully loaded)	1,395	1,348
Leverage ratio total exposure measure (phase-in)	1,396	1,350

Leverage ratio common disclosure

in € bn. (unless stated otherwise)	Dec 31, 2017	Dec 31, 2016
Total derivative exposures	166	177
Total securities financing transaction exposures	158	135
Total off-balance sheet exposures	95	102
Other Assets	990	948
Asset amounts deducted in determining Tier 1 capital ¹	(14)	(15)
Tier 1 capital (fully loaded)	52.9	46.8
Leverage ratio total exposure measure (fully loaded)	1,395	1,348
Leverage ratio (fully loaded, in %)	3.8	3.5
Tier 1 capital (phase-in)	57.6	55.5
Leverage ratio total exposure measure (phase-in)	1,396	1,350
Leverage ratio (phase-in, in %)	4.1	4.1

¹ Using a fully loaded definition of Tier 1 capital. The amount using a transitional definition of Tier 1 capital is € (13) billion and € (13) billion as of December 31, 2017 and December 31, 2016, respectively.

Description of the factors that had an impact on the leverage ratio in 2017

As of December 31, 2017, our fully loaded CRR/CRD 4 leverage ratio was 3.8 % compared to 3.5 % as of December 31, 2016, taking into account as of December 31, 2017 a fully loaded Tier 1 capital of € 52.9 billion over an applicable exposure measure of € 1,395 billion (€ 46.8 billion and € 1,348 billion as of December 31, 2016, respectively).

Our CRR/CRD 4 leverage ratio according to transitional provisions was 4.1 % as of December 31, 2017 (4.1 % as of December 31, 2016), calculated as Tier 1 capital according to transitional rules of € 57.6 billion over an applicable exposure measure of € 1,396 billion (€ 55.5 billion and € 1,350 billion as of December 31, 2016, respectively). The exposure measure under transitional rules is € 1 billion (€ 2 billion as of December 31, 2016) higher compared to the fully loaded exposure measure as the asset amounts deducted in determining Tier 1 capital are lower under transitional rules.

Based on recent ECB guidance, we have included pending settlements in the calculation of the leverage exposure since the second quarter 2017 based on the asset values as recorded for financial accounting purposes, i.e., for Deutsche Bank Group under IFRS, trade date accounting. The application of trade date accounting leads to a temporary increase of the leverage exposure between trade date and settlement date for regular way asset purchases. The size of the reported increase was € 17 billion at December 31, 2017. It should be noted that under the proposed revision of the Capital Requirement Regulation ("CRR") as currently drafted this increase would materially reverse out once the revision becomes effective given it allows for the offsetting of pending settlement cash payables and cash receivables for regular way purchases and sales that are settled on a delivery-versus-payment basis.

Following a clarification by the EBA published on January 19, 2018 we have changed the treatment of sold options which form part of a regulatory netting set starting with the fourth quarter 2017. We no longer apply a cap at the maximum possible exposure increase of the netting set that may result from the option and this leads to an increase of the add-ons for potential future exposure for derivatives by € 15 billion.

Over the year 2017, our leverage ratio exposure increased by € 47 billion to € 1,395 billion. This is primarily driven by the € 41 billion increase in Other Assets which in addition to the above mentioned pending settlements also reflects the development on our balance sheet, in particular increases in cash and central bank balances and non-derivative trading assets, partly offset by a decrease in loans. Furthermore, there was an increase of € 23 billion in SFT exposures reflecting higher add-ons for counterparty credit risk and the overall growth on the balance sheet in the SFT related items (securities purchased under resale agreements and securities borrowed, under accrual and fair value accounting as well as receivables from prime brokerage). Derivative exposures decreased by € 11 billion mainly driven by lower replacement costs; the above-mentioned increase of the potential future exposure add-ons for sold options was largely offset by the change from the previous collateral model to a settlement model for the interest rate swaps transacted with the London Clearing House and other reductions. In addition, off-balance sheet exposures decreased by € 7 billion corresponding to lower notional amounts for irrevocable lending commitments and contingent liabilities.

The increase of the leverage ratio exposure in 2017 includes a negative foreign exchange impact of € 82 billion mainly due to the appreciation of the Euro against the U.S. dollar.

Our leverage ratio calculated as the ratio of total assets under IFRS to total equity under IFRS was 22 as of December 31, 2017 compared to 25 as of December 31, 2016.

For main drivers of the Tier 1 capital development please refer to section "Regulatory Capital" in this report.

Credit Risk Exposure

Counterparty credit exposure arises from our traditional non-trading lending activities which include elements such as loans and contingent liabilities, as well as from our direct trading activity with clients in certain instruments including OTC derivatives like foreign exchange forwards and Forward Rate Agreements. A default risk also arises from our positions in equity products and traded credit products such as bonds.

We define our credit exposure by taking into account all transactions where losses might occur due to the fact that counterparties may not fulfill their contractual payment obligations.

Maximum Exposure to Credit Risk

The maximum exposure to credit risk table shows the direct exposure before consideration of associated collateral held and other credit enhancements (netting and hedges) that do not qualify for offset in our financial statements for the periods specified. The netting credit enhancement component includes the effects of legally enforceable netting agreements as well as the offset of negative mark-to-markets from derivatives against pledged cash collateral. The collateral credit enhancement component mainly includes real estate, collateral in the form of cash as well as securities-related collateral. In relation to collateral we apply internally determined haircuts and additionally cap all collateral values at the level of the respective collateralized exposure.

Maximum Exposure to Credit Risk

in € m. ¹	Maximum exposure to credit risk ²	Dec 31, 2017 Credit Enhancements			
		Netting	Collateral	Guarantees and Credit derivatives ³	Total credit enhancements
Cash and central bank balances	225,655	–	0	–	0
Interbank balances (w/o central banks)	9,265	–	0	7	7
Central bank funds sold and securities purchased under resale agreements	9,971	–	9,914	–	9,914
Securities borrowed	16,732	–	15,755	–	15,755
Financial assets at fair value through profit or loss ⁴	550,313	286,149	136,650	265	423,065
Trading assets	98,730	–	2,635	146	2,781
Positive market values from derivative financial instruments	361,032	285,421	52,797	119	338,338
Financial assets designated at fair value through profit or loss	90,551	728	81,218	0	81,946
thereof:					
Securities purchased under resale agreement	57,843	728	56,566	0	57,294
Securities borrowed	20,254	–	20,034	0	20,034
Financial assets available for sale ⁴	47,766	–	559	0	559
Loans ⁵	405,621	–	211,578	20,063	231,641
Securities held to maturity	3,170	–	–	–	–
Other assets subject to credit risk	66,900	29,854	1,514	56	31,424
Financial guarantees and other credit related contingent liabilities ⁶	48,212	–	4,024	6,579	10,604
Irrevocable lending commitments and other credit related commitments ⁶	158,253	–	7,544	1,759	9,303
Maximum exposure to credit risk	1,541,858	316,003	387,538	28,730	732,271

¹ All amounts at carrying value unless otherwise indicated.

² Does not include credit derivative notional sold (€ 828,804 million) and credit derivative notional bought protection.

³ Bought credit protection is reflected with the notional of the underlying.

⁴ Excludes equities, other equity interests and commodities.

⁵ Gross loans less deferred expense/unearned income before deductions of allowance for loan losses.

⁶ Figures are reflected at notional amounts.

in € m. ¹	Maximum exposure to credit risk ²	Dec 31, 2016 Credit Enhancements			
		Netting	Collateral	Guarantees and Credit derivatives ³	Total credit enhancements
Cash and central bank balances	181,364	0	0	0	0
Interbank balances (w/o central banks)	11,606	0	0	25	25
Central bank funds sold and securities purchased under resale agreements	16,287	0	15,944	0	15,944
Securities borrowed	20,081	0	19,193	0	19,193
Financial assets at fair value through profit or loss ⁴	667,411	389,475	139,274	1,241	529,990
Trading assets	95,410	0	3,601	1,007	4,607
Positive market values from derivative financial instruments	485,150	386,727	64,438	164	451,329
Financial assets designated at fair value through profit or loss	86,850	2,748	71,235	70	74,054
thereof:					
Securities purchased under resale agreement	47,404	2,748	44,591	0	47,339
Securities borrowed	21,136	0	20,918	0	20,918
Financial assets available for sale ⁴	54,275	0	560	28	589
Loans ⁵	413,455	0	210,776	30,189	240,965
Securities held to maturity	3,206	0	0	0	0
Other assets subject to credit risk	76,036	39,567	1,061	80	40,708
Financial guarantees and other credit related contingent liabilities ⁶	52,341	0	5,094	8,661	13,756
Irrevocable lending commitments and other credit related commitments ⁶	166,063	0	8,251	7,454	15,705
Maximum exposure to credit risk	1,662,125	429,042	400,153	47,679	876,874

¹ All amounts at carrying value unless otherwise indicated.

² Does not include credit derivative notional sold (€ 744,159 million) and credit derivative notional bought protection.

³ Bought credit protection is reflected with the notional of the underlying.

⁴ Excludes equities, other equity interests and commodities.

⁵ Gross loans less deferred expense/unearned income before deductions of allowance for loan losses.

⁶ Figures are reflected at notional amounts.

The overall decrease in maximum exposure to credit risk for December 31, 2017 was driven by a € 124.1 billion decrease in positive market values from derivative financial instruments, € 9.1 billion decrease in Other assets subject to credit risk, € 7.8 billion decrease in loans and € 6.5 billion decrease in financial assets available for sale, partly offset by a € 44.3 billion increase in cash and central bank balances.

Included in the category of trading assets as of December 31, 2017, were traded bonds of € 87.3 billion (€ 81.3 billion as of December 31, 2016) of which over 82 % were investment-grade (over 81 % as of December 31, 2016). The above mentioned financial assets available for sale category primarily reflected debt securities of which more than 98 % were investment-grade (more than 98 % as of December 31, 2016).

Credit Enhancements are split into three categories: netting, collateral and guarantees / credit derivatives. Haircuts, parameter setting for regular margin calls as well as expert judgments for collateral valuation are employed to prevent market developments from leading to a build-up of uncollateralized exposures. All categories are monitored and reviewed regularly. Overall credit enhancements received are diversified and of adequate quality being largely cash, highly rated government bonds and third-party guarantees mostly from well rated banks and insurance companies. These financial institutions are domiciled mainly in European countries and the United States. Furthermore we have collateral pools of highly liquid assets and mortgages (principally consisting of residential properties mainly in Germany) for the homogeneous retail portfolio.

Credit Quality of Financial Instruments neither Past Due nor Impaired

We derive our credit quality from internal ratings and group our exposures into classes as shown below. Please refer to section "Measuring Credit Risk" for more details about our internal ratings.

Credit Quality of Financial Instruments neither Past Due nor Impaired

	Dec 31, 2017						
in € m. ¹	iAAA–iAA	iA	iBBB	iBB	iB	iCCC and below	Total
Cash and central bank balances	219,690	3,717	1,453	597	80	118	225,655
Interbank balances (w/o central banks)	3,921	2,743	1,450	808	23	320	9,265
Central bank funds sold and securities purchased under resale agreements	2,666	2,851	716	3,018	630	89	9,971
Securities borrowed	13,326	2,379	495	499	10	22	16,732
Financial assets at fair value through profit or loss ²	251,554	193,193	50,326	41,347	10,004	3,888	550,313
Trading assets	49,305	12,186	11,833	16,496	6,684	2,226	98,730
Positive market values from derivative financial instruments	151,693	167,014	25,442	13,333	2,472	1,078	361,032
Financial assets designated at fair value through profit or loss	50,557	13,993	13,051	11,518	848	585	90,551
thereof:							
Securities purchased under resale agreement	25,389	11,498	9,662	10,367	324	603	57,843
Securities borrowed	18,309	1,277	644	24	0	0	20,254
Financial assets available for sale ²	36,235	6,658	2,592	399	57	130	46,071
Loans ³	40,765	54,383	126,071	117,807	43,872	12,236	395,132
thereof:							
IAS 39 reclassified loans	20	0	36	283	141	108	588
Securities held to maturity	3,170	0	0	0	0	0	3,170
Other assets subject to credit risk	16,705	25,909	8,128	14,704	754	700	66,900
Financial guarantees and other credit related contingent liabilities ⁴	5,108	13,899	16,165	7,882	3,434	1,723	48,212
Irrevocable lending commitments and other credit related commitments ⁴	18,643	44,388	51,021	25,652	15,286	3,264	158,253
Total	611,783	350,120	258,417	212,713	74,152	22,489	1,529,674

¹ All amounts at carrying value unless otherwise indicated.

² Excludes equities, other equity interests and commodities.

³ Gross loans less deferred expense/unearned income before deductions of allowance for loan losses.

⁴ Figures are reflected at notional amounts.

	Dec 31, 2016						
in € m. ¹	iAAA–iAA	iA	iBBB	iBB	iB	iCCC and below	Total
Cash and central bank balances	174,978	4,241	1,778	238	81	47	181,364
Interbank balances (w/o central banks)	5,546	3,452	1,612	689	112	195	11,606
Central bank funds sold and securities purchased under resale agreements	3,542	7,734	1,028	2,624	1,338	22	16,287
Securities borrowed	16,036	2,882	802	343	18	0	20,081
Financial assets at fair value through profit or loss ²	277,645	258,627	61,162	52,904	11,183	5,889	667,411
Trading assets	46,398	10,956	12,024	17,729	5,833	2,471	95,410
Positive market values from derivative financial instruments	188,037	234,491	38,113	19,138	3,297	2,073	485,150
Financial assets designated at fair value through profit or loss	43,211	13,180	11,024	16,037	2,053	1,344	86,850
thereof:							
Securities purchased under resale agreement	13,622	10,684	7,401	13,667	1,165	866	47,404
Securities borrowed	18,697	1,498	937	4	0	0	21,136
Financial assets available for sale ²	42,808	6,616	2,106	577	72	254	52,433
Loans ³	44,116	52,421	127,682	121,213	42,941	14,273	402,645
thereof:							
IAS 39 reclassified loans	54	28	341	26	68	87	604
Securities held to maturity	3,206	0	0	0	0	0	3,206
Other assets subject to credit risk	26,594	25,791	9,656	13,091	630	273	76,036
Financial guarantees and other credit related contingent liabilities ⁴	5,699	13,712	16,753	9,663	4,477	2,038	52,341
Irrevocable lending commitments and other credit related commitments ⁴	21,479	45,635	47,480	29,274	18,173	4,022	166,063
Total	621,650	421,112	270,058	230,615	79,025	27,013	1,649,473

¹ All amounts at carrying value unless otherwise indicated.

² Excludes equities, other equity interests and commodities.

³ Gross loans less deferred expense/unearned income before deductions of allowance for loan losses.

⁴ Figures are reflected at notional amounts.

The overall decline in total credit exposure of € 119.8 billion for December 31, 2017 is mainly due to an decrease in positive market value from derivative financial instruments in investment-grade rating categories, mainly in the category iA.

Main Credit Exposure Categories

The tables in this section show details about several of our main credit exposure categories, namely loans, irrevocable lending commitments, contingent liabilities, over-the-counter ("OTC") derivatives, traded loans, traded bonds, debt securities available for sale and repo and repo-style transactions:

- "Loans" are net loans as reported on our balance sheet at amortized cost but before deduction of our allowance for loan losses.
- "Irrevocable lending commitments" consist of the undrawn portion of irrevocable lending-related commitments.
- "Contingent liabilities" consist of financial and performance guarantees, standby letters of credit and other similar arrangements (mainly indemnity agreements).
- "OTC derivatives" are our credit exposures from over-the-counter derivative transactions that we have entered into, after netting and cash collateral received. On our balance sheet, these are included in financial assets at fair value through profit or loss or, for derivatives qualifying for hedge accounting, in other assets, in either case, before netting and cash collateral received.
- "Traded loans" are loans that are bought and held for the purpose of selling them in the near term, or the material risks of which have all been hedged or sold. From a regulatory perspective this category principally covers trading book positions.
- "Traded bonds" include bonds, deposits, notes or commercial paper that are bought and held for the purpose of selling them in the near term. From a regulatory perspective this category principally covers trading book positions.
- "Debt securities" include debentures, bonds, deposits, notes or commercial paper, which are issued for a fixed term and redeemable by the issuer, which we have classified as available for sale.
- "Repo and repo-style transactions" consist of reverse repurchase transactions, as well as securities or commodities borrowing transactions before application of netting and collateral received.

Although considered in the monitoring of maximum credit exposures, the following are not included in the details of our main credit exposure: brokerage and securities related receivables, cash and central bank balances, interbank balances (without central banks), assets held for sale, accrued interest receivables, traditional securitization positions as well as equity investments.

Main Credit Exposure Categories by Business Divisions

	Dec 31, 2017								
in € m.	Loans ¹	Irrevocable lending commit- ments ²	Contingent liabilities	OTC derivatives ³	Traded Loans	Traded Bonds	Debt securities ⁴	Repo and repo-style transactions ⁵	Total
Corporate & Investment Bank	137,954	141,892	45,342	30,993	10,875	83,067	2,667	99,335	552,125
Private & Commercial Bank	267,554	16,201	2,802	422	1	0	14,421	835	302,235
Deutsche Asset Management	87	53	16	0	0	67	39	0	262
Non-Core Operations Unit	-	-	-	-	-	-	-	-	-
Consolidation & Adjustments	26	107	52	15	0	4,130	31,124	4,630	40,084
Total	405,621	158,253	48,212	31,430	10,876	87,264	48,251	104,800	894,707

¹ Includes impaired loans amounting to € 6.2 billion as of December 31, 2017.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.1 billion as of December 31, 2017.

³ Includes the effect of netting agreements and cash collateral received where applicable. Excludes derivatives qualifying for hedge accounting.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

⁵ Before reflection of collateral and limited to securities purchased under resale agreements and securities borrowed.

	Dec 31, 2016								
in € m.	Loans ¹	Irrevocable lending commit- ments ²	Contingent liabilities	OTC derivatives ³	Traded Loans	Traded Bonds	Debt securities ⁴	Repo and repo-style transactions ⁵	Total
Corporate & Investment Bank	145,187	148,599	48,778	43,230	12,996	72,342	3,568	98,135	572,835
Private & Commercial Bank	264,385	16,976	2,985	737	0	1	17,360	4,290	306,734
Deutsche Asset Management	343	55	21	27	6	2,569	26	0	3,047
Non-Core Operations Unit	3,133	131	434	175	191	257	0	34	4,355
Consolidation & Adjustments	407	302	123	24	0	6,124	33,768	2,450	43,197
Total	413,455	166,063	52,341	44,193	13,193	81,293	54,722	104,909	930,169

¹ Includes impaired loans amounting to € 7.4 billion as of December 31, 2016.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.3 billion as of December 31, 2016.

³ Includes the effect of netting agreements and cash collateral received where applicable. Excludes derivatives qualifying for hedge accounting.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

⁵ Before reflection of collateral and limited to securities purchased under resale agreements and securities borrowed.

As part of our resegmentation in 2017, Global Markets along with Corporate & Investment Banking were merged together to form Corporate & Investment Bank as a new business segment. Similarly, Private, Wealth and Commercial Clients along with Postbank were merged together to form Private & Commercial Bank. The divisional balances for 2017 and comparative balances for 2016 have been allocated as per the new segmentation. The activities of the Non-Core Operations Unit, including a total credit exposure of € 4.4 billion as of December 31, 2016 were moved to Private & Commercial Bank and Corporate & Investment Bank, in the beginning of 2017.

Our main credit exposure decreased by € 35.5 billion.

- From a divisional perspective, decreases in exposure are observed across all divisions. Corporate & Investment Bank decreased by € 20.7 billion is the main contributor to the overall decrease.
- From a product perspective strong exposure reductions have been observed for OTC derivatives, Loans, Irrevocable lending commitments and Debt securities while an increase is observed for Traded Bonds.

Main Credit Exposure Categories by Industry Sectors

	Dec 31, 2017								
		Irrevocable lending commit- ments ²	Contingent liabilities	OTC derivatives ³	Traded Loans	Traded Bonds	Debt securities ⁴	Repo and repo-style transactions ⁵	
in € m.	Loans ¹								Total
Financial intermediation	52,087	31,839	9,407	17,991	1,635	16,982	15,590	100,006	245,536
Fund management activities	18,668	6,213	173	1,232	306	737	53	44	27,426
Manufacturing	27,569	38,450	14,893	1,347	628	1,991	294	–	85,172
Wholesale and retail trade	19,246	10,684	5,623	413	388	501	50	–	36,905
Households	186,687	9,975	671	398	74	–	–	–	197,805
Commercial real estate activities	29,180	4,343	508	1,185	2,080	1,468	1	41	38,806
Public sector	13,510	844	138	3,510	611	54,989	30,301	4,694	108,597
Other	58,674	55,904	16,799	5,353	5,154	10,596	1,963	16	154,459
Total	405,621	158,253	48,212	31,430	10,876	87,264	48,251	104,800	894,707

¹ Includes impaired loans amounting to € 6.2 billion as of December 31, 2017.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.1 billion as of December 31, 2017.

³ Includes the effect of netting agreements and cash collateral received where applicable. Excludes derivatives qualifying for hedge accounting.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

⁵ Before reflection of collateral and limited to securities purchased under resale agreements and securities borrowed.

	Dec 31, 2016								
		Irrevocable lending commit- ments ²	Contingent liabilities	OTC derivatives ³	Traded Loans	Traded Bonds	Debt securities ⁴	Repo and repo-style transactions ⁵	
in € m.	Loans ¹								Total
Financial intermediation	49,630	31,296	10,189	22,554	3,115	19,580	16,452	104,095	256,911
Fund management activities	26,062	6,843	53	1,441	115	1,322	183	59	36,077
Manufacturing	29,932	41,801	15,067	2,850	1,658	2,368	302	2	93,980
Wholesale and retail trade	16,733	10,473	5,607	518	443	556	30	0	34,360
Households	187,862	9,936	1,267	652	105	2	0	0	199,825
Commercial real estate activities	27,324	4,372	512	1,780	2,015	861	78	67	37,008
Public sector	15,707	1,795	189	6,457	629	47,265	35,515	480	108,037
Other	60,206	59,548	19,456	7,941	5,114	9,339	2,162	205	163,972
Total	413,455	166,063	52,341	44,193	13,193	81,293	54,722	104,909	930,169

¹ Includes impaired loans amounting to € 7.4 billion as of December 31, 2016.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.3 billion as of December 31, 2016.

³ Includes the effect of netting agreements and cash collateral received where applicable. Excludes derivatives qualifying for hedge accounting.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

⁵ Before reflection of collateral and limited to securities purchased under resale agreements and securities borrowed.

The above table gives an overview of our credit exposure by industry, allocated based on the NACE code of the counterparty. NACE (Nomenclature des Activités Économiques dans la Communauté Européenne) is a European industry standard classification system.

From an industry classification perspective, our credit exposure is lower compared with last year mainly due to a decrease in Financial Intermediation by € 11.4 billion, Other sectors by € 9.5 billion, Manufacturing sector by € 8.8 billion and Fund management activities by € 8.7 billion, driven by lower OTC derivatives, Loans and Irrevocable lending commitments.

Loan exposures to the industry sectors Financial Intermediation, Manufacturing and Public sector comprise predominantly investment-grade loans. The portfolio is subject to the same credit underwriting requirements stipulated in our "Principles for Managing Credit Risk", including various controls according to single name, country, industry and product-specific concentration.

Material transactions, such as loans underwritten with the intention to syndicate, are subject to review by senior credit risk management professionals and (depending upon size) an underwriting credit committee and/or the Management Board. High emphasis is placed on structuring such transactions so that de-risking is achieved in a timely and cost effective manner. Exposures within these categories are mostly to good quality borrowers and also subject to further risk mitigation as outlined in the description of our Credit Portfolio Strategies Group's activities.

Our household loans exposure amounting to € 186.7 billion as of December 31, 2017 (€ 187.9 billion as of December 2016) is principally associated with our Private & Commercial Bank portfolios. € 150.2 billion (80 %) of the portfolio comprises mortgages, of which € 121.4 billion are held in Germany. The remaining exposures (€ 36.5 billion, 20 %) are predominantly Consumer and small business financing related. Given the largely homogeneous nature of this portfolio, counterparty credit-worthiness and ratings are predominately derived by utilizing an automated decision engine.

Mortgage business is principally the financing of owner-occupied properties sold by various business channels in Europe, primarily in Germany but also in Spain, Italy and Poland, with exposure normally not exceeding real estate value. Consumer finance is divided into personal instalment loans, credit lines and credit cards. Various lending requirements are stipulated, including (but not limited to) maximum loan amounts and maximum tenors and are adapted to regional conditions and/or circumstances of the borrower (i.e., for consumer loans a maximum loan amount taking into account household net income). Interest rates are mostly fixed over a certain period of time, especially in Germany. Second lien loans are not actively pursued.

The level of credit risk of the mortgage loan portfolio is determined by assessing the quality of the client and the underlying collateral. The loan amounts are generally larger than consumer finance loans and they are extended for longer time horizons. Consumer finance loan risk depends on client quality. Given that they are uncollateralized, compared with mortgages they are also smaller in value and are extended for shorter time. Based on our underwriting criteria and processes, diversified portfolio (customers/properties) and low loan-to-value (LTV) ratios, the mortgage portfolio is categorized as lower risk and consumer finance as medium risk.

Our commercial real estate loans, primarily in the U.S. and Europe, are generally secured by first mortgages on the underlying real estate property. Credit underwriting policy guidelines provide that LTV ratios of generally less than 75 % are maintained. Additionally, given the significance of the underlying collateral independent external appraisals are commissioned for all secured loans by a valuation team (part of the independent Credit Risk Management function) which is also responsible for reviewing and challenging the reported real estate values regularly.

The Commercial Real Estate Group only in exceptional cases retains mezzanine or other junior tranches of debt (although we do underwrite mezzanine loans). Loans originated for distribution are carefully monitored under a pipeline limit. Securitized loan positions are entirely sold (except where regulation requires retention of economic risk), while we frequently retain a portion of syndicated bank loans. This hold portfolio, which is held at amortized cost, is also subject to the aforementioned principles and policy guidelines. We also participate in conservatively underwritten unsecured lines of credit to well-capitalized real estate investment trusts and other public companies, which are generally investment-grade. We provide both fixed rate (generally securitized product) and floating rate loans, with interest rate exposure subject to hedging arrangements. In addition, sub-performing and non-performing loans and pools of loans are acquired from other financial institutions at generally substantial discounts to both the notional amounts and current collateral values. The underwriting process for these is stringent and the exposure is managed under separate portfolio limits. Commercial real estate property valuations and rental incomes can be significantly impacted by macro-economic conditions and underlying properties to idiosyncratic events. Accordingly, the portfolio is categorized as higher risk and hence subject to the aforementioned tight restrictions on concentration.

The category Other loans, with exposure of € 58.7 billion as of December 31, 2017 (€ 60.2 billion as of December 31, 2016) relates to numerous smaller industry sectors with no individual sector greater than 7 % of total loans.

Our credit exposure to our ten largest counterparties accounted for 8 % of our aggregated total credit exposure in these categories as of December 31, 2017 compared with 7 % as of December 31, 2016. Our top ten counterparty exposures were with well-rated counterparties or otherwise related to structured trades which show high levels of risk mitigation.

The statement on focus industries below follows the Credit Risk Management view on industries, which can differ from the allocation on the basis of NACE codes.

Our credit exposure to the focus industry “Shipping & other maritime” accounts for approximately € 4.8 billion of which € 3.7 billion pertains to vessel financings. The difference consists of other maritime (e.g. port facilities, yards). The reduction of the vessel financing related exposure by more than € 1 billion in 2017 demonstrates the Bank’s applied discipline to reduce exposure to this higher risk industry as well as the impact of the weakening of the US Dollar versus the Euro. Over a number of years, the shipping industry has suffered from persistent low earnings in oversupplied markets. Demand is driven by the macroeconomic environment and affected by geopolitical tensions and oil price movements. Container and dry bulk transportation segments were most severely impacted in 2016 and have experienced slightly improved freight rates in 2017 driven by significant scrapping and moderate new building activity. The tanker segment faced very high levels of scheduled deliveries for 2017 and 2018, which caused freight rates to fall notably in early 2017 from 2016 levels. Overall freight rates have now stabilized at the lower levels. Ongoing new building activity on global markets, which is occurring to an unknown extent, for example in China, poses a threat for further market developments. Any significant improvement in charter rates and subsequent asset values is not expected in the short term. A high portion of the portfolio is non-investment-grade rated in reflection of the prolonged challenging market conditions over recent years. A net provision for credit losses of € 198 million before a release of provision for collectively assessed non-impaired loans was booked for the shipping industry portfolio in 2017.

The “Oil & Gas” and “Metals, Mining & Steel” industries both benefitted from recovering commodity prices in 2017. As of December 31, 2017, our loan exposure to the “Oil & Gas” industry is approximately € 7 billion and our loan exposure to the “Metals, Mining and Steel” industry is approximately € 4 billion. Overall, provisions for credit losses were lower than in 2016 for both industries.

Main credit exposure categories by geographical region

	Dec 31, 2017								
		Irrevocable lending commit- ments ²	Contingent liabilities	OTC derivatives ³	Traded Loans	Traded Bonds	Debt securities ⁴	Repo and repo-style transactions ⁵	
in € m.	Loans ¹								Total
Europe	299,937	65,739	27,574	18,353	3,149	33,120	35,304	26,648	509,825
thereof:									
Germany	199,867	27,483	10,739	1,661	146	4,912	12,414	3,421	260,644
United Kingdom	6,895	5,748	1,514	5,849	190	9,668	864	10,123	40,851
France	2,651	8,265	1,266	1,231	242	3,096	3,597	3,442	23,788
Luxembourg	15,983	2,858	484	1,102	247	1,017	6,142	711	28,544
Italy	21,836	1,642	3,657	1,750	497	4,167	642	820	35,012
Netherlands	8,304	6,498	1,627	2,292	493	2,022	2,793	82	24,112
Spain	13,250	1,866	3,046	704	227	2,188	946	987	23,213
Ireland	4,415	1,843	481	972	272	1,022	655	2,673	12,333
Switzerland	6,922	2,324	2,488	313	65	644	163	416	13,336
Poland	7,871	807	234	26	36	296	1,820	0	11,089
Belgium	1,177	1,280	405	352	12	601	1,574	0	5,401
Other Europe	10,765	5,124	1,633	2,099	723	3,486	3,696	3,975	31,500
North America	64,086	85,358	10,031	10,015	5,129	31,636	10,986	56,776	274,017
thereof:									
U.S.	53,795	80,776	9,489	8,036	4,750	29,972	10,623	44,659	242,101
Cayman Islands	2,312	1,951	52	700	103	1,041	17	9,162	15,336
Canada	838	1,564	110	1,092	87	272	346	1,688	5,996
Other North America	7,141	1,068	380	187	190	351	0	1,267	10,584
Asia/Pacific	34,469	4,447	8,967	2,254	1,735	20,319	1,025	19,909	93,126
thereof:									
Japan	1,093	276	349	366	66	4,760	15	10,354	17,278
Australia	1,477	1,076	128	277	310	3,716	588	1,453	9,026
India	7,034	717	1,645	219	86	3,973	0	1,517	15,191
China	4,393	378	1,195	263	2	836	0	3,130	10,198
Singapore	4,946	419	794	177	75	927	0	220	7,559
Hong Kong	4,224	385	598	144	551	399	2	45	6,348
Other Asia/Pacific	11,300	1,197	4,259	808	644	5,707	419	3,190	27,526
Other geographical areas	7,130	2,708	1,639	808	862	2,190	936	1,466	17,739
Total	405,621	158,253	48,212	31,430	10,876	87,264	48,251	104,800	894,707

¹ Includes impaired loans amounting to € 6.2 billion as of December 31, 2017.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.1 billion as of December 31, 2017.

³ Includes the effect of netting agreements and cash collateral received where applicable. Excludes derivatives qualifying for hedge accounting.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

⁵ Before reflection of collateral and limited to securities purchased under resale agreements and securities borrowed.

Dec 31, 2016⁶

in € m.	Loans ¹	Irrevocable lending commit- ments ²	Contingent liabilities	OTC derivatives ³	Traded Loans	Traded Bonds	Debt securities ⁴	Repo and repo-style transactions ⁵	Total
Europe	303,329	65,926	28,747	25,944	4,157	23,924	41,438	24,418	517,881
thereof:									
Germany	197,368	27,954	11,511	2,636	236	3,070	12,970	5,571	261,316
United Kingdom	7,942	7,331	1,422	7,925	519	4,224	1,929	9,327	40,620
France	2,703	5,854	1,373	1,436	216	2,255	4,866	1,830	20,534
Luxembourg	19,312	2,998	575	1,521	330	1,228	7,179	372	33,515
Italy	21,374	1,462	3,607	3,183	444	2,195	279	1,808	34,351
Netherlands	8,934	6,370	1,749	3,270	224	2,164	4,143	474	27,328
Spain	13,196	1,785	3,045	671	361	1,451	756	674	21,939
Ireland	5,113	1,742	465	1,525	305	1,251	746	1,216	12,364
Switzerland	7,350	2,285	2,044	243	162	1,134	186	230	13,635
Poland	7,402	702	208	65	6	281	1,542	0	10,205
Belgium	1,581	1,423	399	481	5	424	2,520	80	6,914
Other Europe	11,055	6,018	2,349	2,988	1,347	4,248	4,322	2,836	35,162
North America	69,921	92,699	12,013	12,162	6,471	36,332	11,444	61,771	302,814
thereof:									
U.S.	56,567	87,503	11,336	9,307	6,181	30,961	10,843	47,528	260,225
Cayman Islands	2,993	1,045	86	725	37	1,215	24	11,679	17,804
Canada	2,247	2,288	163	1,723	112	628	249	95	7,505
Other North America	8,115	1,863	428	406	142	3,528	328	2,470	17,279
Asia/Pacific	31,644	5,782	9,958	4,753	1,606	18,525	1,425	17,515	91,208
thereof:									
Japan	888	299	350	941	95	3,932	17	9,002	15,522
Australia	1,259	1,142	166	445	143	3,357	949	1,157	8,619
India	7,589	371	1,735	537	8	3,148	0	1,578	14,966
China	2,953	722	1,113	446	11	687	0	1,945	7,877
Singapore	3,885	434	807	142	419	1,528	1	280	7,497
Hong Kong	2,405	944	566	407	174	343	0	64	4,903
Other Asia/Pacific	12,664	1,869	5,221	1,834	757	5,531	458	3,490	31,824
Other geographical areas	8,561	1,655	1,624	1,334	960	2,513	414	1,204	18,266
Total	413,455	166,063	52,341	44,193	13,193	81,293	54,722	104,909	930,169

¹ Includes impaired loans amounting to € 7.4 billion as of December 31, 2016.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.3 billion as of December 31, 2016.

³ Includes the effect of netting agreements and cash collateral received where applicable. Excludes derivatives qualifying for hedge accounting.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

⁵ Before reflection of collateral and limited to securities purchased under resale agreements and securities borrowed.

⁶ Comparatives have been restated to reflect the changes in the reported geographical areas.

The above table gives an overview of our credit exposure by geographical region, allocated based on the counterparty's country of domicile, see also section "Credit Exposure to Certain Eurozone Countries" of this report for a detailed discussion of the "country of domicile view".

Our largest concentration of credit risk within loans from a regional perspective is in our home market Germany, with a significant share in households, which includes the majority of our mortgage lending business.

Within OTC derivatives, tradable assets as well as repo and repo-style transactions, our largest concentrations from a regional perspective were in Europe and North America. From the industry classification perspective, exposures from OTC derivative as well as repo and repo-style transactions have a significant share in highly rated Financial Intermediation companies. For tradable assets, a large proportion of exposure is also with Public Sector companies.

As of December 31, 2017, our loan book decreased to € 405.6 billion (compared to € 413.5 billion as of December 31, 2016) mainly as a result of lower levels of exposures in Luxembourg and the United States. Our Fund Management activities, household and manufacturing loan books experienced the largest decreases. The decrease in loans in Western Europe and United States was primarily due to reduced loan balances across businesses as well as by a strengthening of the Euro in comparison to the US dollar. Traded bonds increased by € 6.0 billion mainly in Europe region driven by an increased client activity and an increased bond positions in EU rates business. Debt securities reduced by € 6.5 billion majorly in the United Kingdom and the Netherlands mainly due to sale of available for sale bonds.

Credit Exposure to Certain Eurozone Countries

Certain Eurozone countries are presented within the table below due to concerns relating to sovereign risk.

In our “country of domicile view” we aggregate credit risk exposures to counterparties by allocating them to the domicile of the primary counterparty, irrespective of any link to other counterparties, or in relation to credit default swaps underlying reference assets from, these Eurozone countries. Hence we also include counterparties whose group parent is located outside of these countries and exposures to special purpose entities whose underlying assets are from entities domiciled in other countries.

The following table, which is based on the country of domicile view, presents our gross position, the included amount thereof of undrawn exposure and our net exposure to these Eurozone countries. The gross exposure reflects our net credit risk exposure grossed up for net credit derivative protection purchased with underlying reference assets domiciled in one of these countries, guarantees received and collateral. Such collateral is particularly held with respect to the retail portfolio, but also for financial institutions predominantly based on derivative margining arrangements, as well as for corporates. In addition, the amounts also reflect the allowance for credit losses. In some cases, our counterparties’ ability to draw on undrawn commitments is limited by terms included in the specific contractual documentation. Net credit exposures are presented after effects of collateral held, guarantees received and further risk mitigation, including net notional amounts of credit derivatives for protection sold/bought. The provided gross and net exposures to certain European countries do not include credit derivative tranches and credit derivatives in relation to our correlation business which, by design, is structured to be credit risk neutral. Additionally, the tranche and correlated nature of these positions does not allow a meaningful disaggregated notional presentation by country, e.g., as identical notional exposures represent different levels of risk for different tranche levels.

Gross position, included undrawn exposure and net exposure to certain Eurozone countries – Country of Domicile View

in € m.	Sovereign		Financial Institutions		Corporates		Retail		Other		Total	
	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017 ¹	Dec 31, 2016
Greece												
Gross	55	89	734	743	526	986	5	6	–	0	1,320	1,824
Undrawn	–	0	30	31	5	21	–	0	–	0	36	52
Net	38	83	270	258	8	15	1	1	–	0	317	357
Ireland												
Gross	865	826	927	908	7,556	9,280	31	31	2,275 ²	3,263 ²	11,654	14,308
Undrawn	–	0	4	42	2,005	2,000	–	1	316 ²	172 ²	2,326	2,214
Net	717	569	477	352	4,420	5,374	6	5	2,275 ²	3,459 ²	7,895	9,759
Italy												
Gross	2,875	2,735	3,338	3,051	12,050	10,591	16,489	17,122	147	358	34,898	33,857
Undrawn	13	32	28	74	5,162	4,730	96	208	–	26	5,300	5,069
Net	1,015	438	672	920	8,202	7,514	7,633	7,288	146	344	17,669	16,504
Portugal												
Gross	(227)	61	185	127	1,329	1,424	1,757	1,674	80	65	3,123	3,352
Undrawn	–	0	75	12	374	232	24	12	–	0	474	256
Net	(223)	79	115	73	893	1,205	134	143	80	65	998	1,564
Spain												
Gross	1,672	1,325	1,301	1,947	9,106	8,340	9,570	9,770	128	112	21,777	21,493
Undrawn	–	0	225	261	4,583	4,310	259	283	–	3	5,068	4,858
Net	1,554	1,195	552	971	7,113	6,643	2,117	1,935	128	265	11,464	11,009
Total gross	5,240	5,037	6,485	6,776	30,566	30,621	27,851	28,603	2,629	3,797	72,771	74,835
Total undrawn	14	33	364	419	12,130	11,292	380	504	316	202	13,203	12,449
Total net³	3,102	2,364	2,086	2,574	20,637	20,751	9,891	9,371	2,629	4,133	38,344	39,194

¹ Approximately 71 % of the overall exposure as per December 31, 2017 will mature within the next 5 years.

² Other exposures to Ireland include exposures to counterparties where the domicile of the group parent is located outside of Ireland as well as exposures to special purpose entities whose underlying assets are from entities domiciled in other countries.

³ Total net exposure excludes credit valuation reserves for derivatives amounting to € 64.6 million as of December 31, 2017 and € 281 million as of December 31, 2016.

Total net exposure to the above selected Eurozone countries decreased by € 850 million in 2017 driven by decreased exposure in Ireland and Portugal, partly offset by an increase in Italy and Spain.

Sovereign Credit Risk Exposure to Certain Eurozone Countries

The amounts below reflect a net "country of domicile view" of our sovereign exposure.

Sovereign credit risk exposure to certain Eurozone countries

in € m.	Dec 31, 2017				Dec 31, 2016			
	Direct Sovereign exposure ¹	Net Notional of CDS referencing sovereign debt	Net sovereign exposure	Memo Item: Net fair value of CDS referencing sovereign debt ²	Direct Sovereign exposure ¹	Net Notional of CDS referencing sovereign debt	Net sovereign exposure	Memo Item: Net fair value of CDS referencing sovereign debt ²
Greece	55	(17)	38	0	89	(6)	83	2
Ireland	709	9	717	0	569	0	569	74
Italy	2,834	(1,818)	1,016	49	2,662	(2,223)	438	398
Portugal	(227)	3	(223)	0	61	17	79	(8)
Spain	1,669	(115)	1,554	35	1,322	(127)	1,195	279
Total	5,040	(1,938)	3,102	84	4,703	(2,339)	2,364	744

¹ Includes sovereign debt classified as financial assets/liabilities at fair value through profit or loss, available for sale and loans carried at amortized cost. Direct Sovereign exposure is net of guarantees received and collateral.

² The amounts reflect the net fair value in relation to credit default swaps referencing sovereign debt of the respective country representing the counterparty credit risk.

The increase of € 738 million in net sovereign exposure compared with year-end 2016 mainly reflects increases in debt securities in Italy and Spain.

The above represents direct sovereign exposure included the carrying value of loans held at amortized cost to sovereigns, which as of December 31, 2017, amounted to € 225 million for Italy and € 427 million for Spain and as of December 31, 2016 amounted to € 261 million for Italy and € 401 million for Spain.

Credit Exposure Classification

We also classify our credit exposure under two broad headings: consumer credit exposure and corporate credit exposure.

- Our consumer credit exposure consists of our smaller-balance standardized homogeneous loans, primarily in Germany, Italy and Spain, which include personal loans, residential and non-residential mortgage loans, overdrafts and loans to self-employed and small business customers of our private and retail business.
- Our corporate credit exposure consists of all exposures not defined as consumer credit exposure.

Corporate Credit Exposure

The tables below show our Corporate Credit Exposure by product types and internal rating bands. Please refer to section "Measuring Credit Risk" for more details about our internal ratings.

Main corporate credit exposure categories according to our internal creditworthiness categories of our counterparties – gross

in € m.
(unless stated otherwise)

Rating band	Probability of default in % ¹	Dec 31, 2017					
		Loans	Irrevocable lending commitments ²	Contingent liabilities	OTC derivatives ³	Debt securities ⁴	Total
iAAA–iAA	> 0.00 ≤ 0.04	38,743	18,643	5,108	13,025	39,405	114,924
iA	> 0.04 ≤ 0.11	39,428	44,388	13,899	8,416	6,277	112,407
iBBB	> 0.11 ≤ 0.5	56,245	51,021	16,165	5,204	2,174	130,809
iBB	> 0.5 ≤ 2.27	41,888	25,652	7,882	3,390	371	79,183
iB	> 2.27 ≤ 10.22	23,556	15,286	3,434	1,174	5	43,456
iCCC and below	> 10.22 ≤ 100	13,688	3,264	1,723	220	19	18,913
Total		213,547	158,253	48,212	31,430	48,251	499,693

¹ Reflects the probability of default for a one year time horizon.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.1 billion as of December 31, 2017.

³ Includes the effect of netting agreements and cash collateral received where applicable.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

in € m.
(unless stated otherwise)

Dec 31, 2016

Rating band	Probability of default in % ¹	Loans	Irrevocable lending commitments ²	Contingent liabilities	OTC derivatives ³	Debt securities ⁴	Total
iAAA–iAA	> 0.00 ≤ 0.04	43,149	21,479	5,699	16,408	46,014	132,749
iA	> 0.04 ≤ 0.11	39,734	45,635	13,712	12,566	6,616	118,264
iBBB	> 0.11 ≤ 0.5	57,287	47,480	16,753	8,300	1,696	131,515
iBB	> 0.5 ≤ 2.27	46,496	29,274	9,663	5,333	366	91,132
iB	> 2.27 ≤ 10.22	22,920	18,173	4,477	1,053	9	46,631
iCCC and below	> 10.22 ≤ 100	15,069	4,022	2,038	533	21	21,683
Total		224,655	166,063	52,341	44,193	54,722	541,974

¹ Reflects the probability of default for a one year time horizon.

² Includes irrevocable lending commitments related to consumer credit exposure of € 10.3 billion as of December 31, 2016.

³ Includes the effect of netting agreements and cash collateral received where applicable.

⁴ Includes debt securities on financial assets available for sale and securities held to maturity.

The above table shows an overall decrease in our corporate credit exposure in 2017 of € 42.3 billion or 7.8 %. Loans decreased by € 11.1 billion, mainly attributable to Luxembourg and the United States. The decrease is primarily due to reduced loan balance across businesses as well as by a strengthening of the Euro in comparison to the US Dollar. Debt securities decreased by € 6.5 billion, almost entirely related to the top rating band and mainly due to sale of debt securities available for sale. The decrease in irrevocable lending commitments of € 7.8 billion was primarily attributable to North America and Asia/Pacific. The quality of the corporate credit exposure before risk mitigation is at 72 % share of investment-grade rated exposures as of December 2017 compared to 71% as of December 31, 2016.

We use risk mitigation techniques as described above to optimize our corporate credit exposure and reduce potential credit losses. The tables below disclose the development of our corporate credit exposure net of collateral, guarantees and hedges.

Main corporate credit exposure categories according to our internal creditworthiness categories of our counterparties – net

in € m.
(unless stated otherwise)

Dec 31, 2017¹

Rating band	Probability of default in % ²	Loans	Irrevocable lending commitments	Contingent liabilities	OTC derivatives	Debt securities	Total
iAAA–iAA	> 0.00 ≤ 0.04	27,580	18,281	4,272	7,370	39,405	96,907
iA	> 0.04 ≤ 0.11	25,355	42,104	11,882	6,528	6,277	92,146
iBBB	> 0.11 ≤ 0.5	32,131	49,095	13,461	4,490	2,174	101,351
iBB	> 0.5 ≤ 2.27	18,845	24,056	5,267	2,506	371	51,046
iB	> 2.27 ≤ 10.22	8,306	14,130	2,097	1,106	5	25,645
iCCC and below	> 10.22 ≤ 100	4,157	2,540	629	216	15	7,557
Total		116,374	150,206	37,608	22,216	48,247	374,652

¹ Net of eligible collateral, guarantees and hedges based on IFRS requirements.

² Reflects the probability of default for a one year time horizon.

in € m.
(unless stated otherwise)

Dec 31, 2016¹

Rating band	Probability of default in % ²	Loans	Irrevocable lending commitments	Contingent liabilities	OTC derivatives	Debt securities	Total
iAAA–iAA	> 0.00 ≤ 0.04	32,305	19,653	4,351	10,480	46,014	112,802
iA	> 0.04 ≤ 0.11	24,970	41,435	11,393	10,032	6,616	94,448
iBBB	> 0.11 ≤ 0.5	28,369	43,659	13,845	7,439	1,672	94,984
iBB	> 0.5 ≤ 2.27	19,573	27,206	5,932	4,034	361	57,105
iB	> 2.27 ≤ 10.22	8,090	16,745	2,176	1,020	9	28,041
iCCC and below	> 10.22 ≤ 100	5,954	2,872	889	509	21	10,246
Total		119,261	151,571	38,586	33,514	54,694	397,626

¹ Net of eligible collateral, guarantees and hedges based on IFRS requirements.

² Reflects the probability of default for a one year time horizon.

The corporate credit exposure net of collateral amounted to € 374.7 billion as of December 31, 2017 reflecting a risk mitigation of 25 % or € 125.0 billion compared to the corporate gross exposure. This includes a more significant reduction of 46 % for our loans exposure which includes a reduction by 60 % for the lower rated sub-investment-grade rated loans and 37 % for the higher-rated investment-grade rated loans. The risk mitigation for the total exposure in the weakest rating band was 60 %, which was significantly higher than 16 % in the strongest rating band.

The risk mitigation of € 125.0 billion is split into 20 % guarantees and hedges and 80 % other collateral.

CPSG Risk Mitigation for the Corporate Credit Exposure

Our Credit Portfolio Strategies Group ("CPSG") helps mitigate the risk of our corporate credit exposures. The notional amount of CPSG's risk reduction activities decreased from € 43.3 billion as of December 31, 2016, to € 32.7 billion as of December 31, 2017. The notional of risk reduction activities reduced across the course of 2017 following Management Board approval granted in 2016 to increase the Group's risk appetite for Investment Grade exposures.

As of year-end 2017, CPSG mitigated the credit risk of € 32 billion of loans and lending-related commitments as of December 31, 2017, through synthetic collateralized loan obligations supported predominantly by financial guarantees. This position totalled € 42.2 billion as of December 31, 2016.

CPSG also held credit derivatives with an underlying notional amount of € 0.7 billion. The position totalled € 1.1 billion as of December 31, 2016. The credit derivatives used for our portfolio management activities are accounted for at fair value.

CPSG has elected to use the fair value option under IAS 39 to report loans and commitments at fair value, provided the criteria for this option are met. The notional amount of CPSG loans and commitments reported at fair value decreased during the year to € 2.8 billion as of December 31, 2017, from € 3.9 billion as of December 31, 2016.

Consumer Credit Exposure

In our consumer credit exposure we monitor consumer loan delinquencies in terms of loans that are 90 days or more past due and net credit costs, which are the annualized net provisions charged after recoveries.

Consumer credit exposure, consumer loan delinquencies and net credit costs

	Total exposure in € m. ¹		90 days or more past due as a % of total exposure ¹		Net credit costs as a % of total exposure ²	
	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017	Dec 31, 2016
Consumer credit exposure Germany:	153,728	150,639	0.73	0.75	0.12	0.13
Consumer and small business financing	21,224	20,316	2.96	2.45	1.07	0.99
Mortgage lending	132,505	130,323	0.37	0.48	-0.03	0.00
Consumer credit exposure outside Germany	38,345	38,162	3.77	4.22	0.39	0.68
Consumer and small business financing	15,298	13,663	6.54	8.44	0.78	0.98
Mortgage lending	23,047	24,499	1.93	1.87	0.12	0.51
Total consumer credit exposure	192,074	188,801	1.34	1.45	0.17	0.24

¹ Includes impaired loans amounting to € 2.8 billion as of December 31, 2017 and € 3.1 billion as of December 31, 2016.

² Net credit costs for the twelve months period ended at the respective balance sheet date divided by the exposure at that balance sheet date.

The volume of our consumer credit exposure increased from year-end 2016 to December 31, 2017 by € 3.3 billion, or 1.7 %, driven by our loan books in Germany, which increased by € 3.1 billion and in India, which increased by € 239 million. Our loan book in Spain decreased by € 116 million and in Italy by € 111 million, which were partially driven by non-performing loan sales.

The 90 days or more past due ratio of our consumer credit exposure decreased from 1.45 % as of year-end 2016 to 1.34 % as of December 31, 2017. The total net credit costs as a percentage of our consumer credit exposure decreased from 0.24 % as of year-end 2016 to 0.17 % as of December 31, 2017. This ratio was positively affected by the further improved and stabilized environment in countries in which we operate and by non-performing loan sales in Spain and Italy.

Consumer mortgage lending exposure grouped by loan-to-value buckets¹

	Dec 31, 2017	Dec 31, 2016
≤ 50 %	68 %	68 %
> 50 ≤ 70 %	16 %	16 %
> 70 ≤ 90 %	9 %	9 %
> 90 ≤ 100 %	3 %	3 %
> 100 ≤ 110 %	2 %	2 %
> 110 ≤ 130 %	1 %	1 %
> 130 %	1 %	1 %

¹ When assigning the exposure to the corresponding LTV buckets, the exposure amounts are distributed according to their relative share of the underlying assessed real estate value.

The LTV expresses the amount of exposure as a percentage of assessed value of real estate.

Our LTV ratios are calculated using the total exposure divided by the current assessed value of the respective properties. These values are updated on a regular basis. The exposure of transactions that are additionally backed by liquid collateral is reduced by the respective collateral values, whereas any prior charges increase the corresponding total exposure. The LTV calculation includes exposure which is secured by real estate collateral. Any mortgage lending exposure that is collateralized exclusively by any other type of collateral is not included in the LTV calculation.

The creditor's creditworthiness, the LTV and the quality of collateral is an integral part of our risk management when originating loans and when monitoring and steering our credit risks. In general, we are willing to accept higher LTV's, the better the creditor's creditworthiness is. Nevertheless, restrictions of LTV apply for countries with negative economic outlook or expected declines of real estate values.

As of December 31, 2017, 68 % of our exposure related to the mortgage lending portfolio had a LTV ratio below or equal to 50 %, unchanged to the previous year.

Credit Exposure from Derivatives

All exchange traded derivatives are cleared through central counterparties ("CCPs"), the rules and regulations of which provide for daily margining of all current and future credit risk positions emerging out of such transactions. To the extent possible, we also use CCP services for OTC derivative transactions ("OTC clearing"); we thereby benefit from the credit risk mitigation achieved through the CCP's settlement system.

The Dodd-Frank Act provides for an extensive framework for the regulation of OTC derivatives, including mandatory clearing, exchange trading and transaction reporting of certain OTC derivatives, as well as rules regarding the registration of, and capital, margin and business conduct standards for, swap dealers, security-based swap dealers, major swap participants and major security-based swap participants. The Dodd-Frank Act and related CFTC rules introduced in 2013 mandatory OTC clearing in the United States for certain standardized OTC derivative transactions, including certain interest rate swaps and index credit default swaps. The European Regulation (EU) No 648/2012 on OTC Derivatives, Central Counterparties and Trade Repositories ("EMIR") introduced a number of risk mitigation techniques for non-centrally cleared OTC derivatives in 2013 and the reporting of OTC and exchange traded derivatives in 2014. Mandatory clearing for certain standardized OTC derivatives transactions in the EU began in June 2016, and margin requirements for uncleared OTC derivative transactions in the EU started in February 2017. Deutsche Bank implemented the exchange of both initial and variation margin in the EU from February 2017 for the first category of counterparties subject to the EMIR margin for uncleared derivatives requirements. All other in-scope entities followed the variation margin requirements from March 1, 2017. Initial margin requirements are subject to a phased implementation schedule which will be fully applied by September 2020.

The CFTC adopted final rules in 2016 that require additional interest rate swaps to be cleared, with a phased implementation schedule ending in October 2018. Deutsche Bank implemented the CFTC's expanded clearing requirements for the relevant interest rate swaps subject to the 2017 compliance schedule, covering identified instruments denominated in AUD, CAD, HKD, NOK, PLN, and SEK. In December 2016, also pursuant to the Dodd-Frank Act, the CFTC re-proposed regulations to impose position limits on certain commodities and economically equivalent swaps, futures and options. This proposal has not yet been finalized. The Securities and Exchange Commission ("SEC") has also finalized rules regarding registration, business conduct standards and trade acknowledgement and verification requirements for security-based swap dealers and major security-based swap participants, although these rules will not come into effect until the SEC completes further security-based swap rulemakings. Finally, U.S. prudential regulators (the Federal Reserve, the FDIC, the Office of the Comptroller of the Currency, the Farm Credit Administration and the Federal Housing Finance Agency) have adopted final rules establishing margin requirements for non-cleared swaps and security-based swaps, and the CFTC has adopted final rules establishing margin requirements for non-cleared swaps. The final margin rules follow a phased implementation schedule, with certain initial margin and variation margin requirements in effect as of September 2016, additional variation margin requirements in effect as of March 1, 2017 for all covered counterparties. Deutsche Bank implemented the exchange of both initial and variation margin for uncleared derivatives in the U.S. from September 2016, for the first category of counterparties subject to the U.S. prudential regulators' margin requirements. Additional initial margin requirements for smaller counterparties are phased in on an annual basis from September 2017 through September 2020, with the relevant compliance dates depending in each case on the transactional volume of the parties and their affiliates.

The following table shows a breakdown of notional amounts and gross market value of derivative transactions along with a breakdown of notional amounts of OTC derivative assets and liabilities on the basis of clearing channel.

Notional amounts of derivatives on basis of clearing channel and type of derivative

Dec 31, 2017

in € m.	Notional amount maturity distribution				Positive market value	Negative market value	Net market value
	Within 1 year	> 1 and ≤ 5 years	After 5 years	Total			
Interest rate related:							
OTC	18,389,853	9,644,152	5,862,868	33,896,874	224,783	202,492	22,291
Bilateral (Amt)	2,231,176	2,624,101	1,989,543	6,844,820	200,520	177,989	22,532
CCP (Amt)	16,158,677	7,020,051	3,873,326	27,052,054	24,262	24,503	(241)
Exchange-traded	4,100,955	1,379,528	155	5,480,638	250	275	(25)
Total Interest rate related	22,490,809	11,023,680	5,863,023	39,377,512	225,033	202,767	22,266
Currency related:							
OTC	4,265,081	1,036,897	470,541	5,772,518	82,392	75,535	6,858
Bilateral (Amt)	4,209,509	1,036,536	470,541	5,716,586	81,597	74,823	6,774
CCP (Amt)	55,572	361	0	55,932	795	712	83
Exchange-traded	48,252	0	0	48,252	19	18	1
Total Currency related	4,313,333	1,036,897	470,541	5,820,771	82,411	75,553	6,859
Equity/index related:							
OTC	301,662	156,272	19,248	477,182	18,201	23,010	(4,810)
Bilateral (Amt)	301,662	156,272	19,248	477,182	18,201	23,010	(4,810)
CCP (Amt)	0	0	0	0	0	0	0
Exchange-traded	732,870	107,631	5,398	845,900	9,986	12,708	(2,722)
Total Equity/index related	1,034,533	263,903	24,647	1,323,082	28,187	35,718	(7,531)
Credit derivatives related							
OTC	209,376	1,321,066	153,867	1,684,309	28,317	27,888	429
Bilateral (Amt)	91,919	204,583	49,442	345,944	5,363	4,779	584
CCP (Amt)	117,457	1,116,482	104,426	1,338,365	22,954	23,108	(154)
Exchange-traded	0	0	0	0	0	0	0
Total Credit derivatives related	209,376	1,321,066	153,867	1,684,309	28,317	27,888	429
Commodity related:							
OTC	3,431	995	2,015	6,441	35	1,485	(1,449)
Bilateral (Amt)	3,431	995	2,015	6,441	35	1,485	(1,449)
CCP (Amt)	0	0	0	0	0	0	0
Exchange-traded	39,955	4,163	0	44,119	187	214	(27)
Total Commodity related	43,386	5,158	2,015	50,560	222	1,699	(1,476)
Other:							
OTC	3,744	765	0	4,509	9	371	(362)
Bilateral (Amt)	3,744	765	0	4,509	9	371	(362)
CCP (Amt)	0	0	0	0	0	0	0
Exchange-traded	5,196	1	0	5,197	5	26	(20)
Total Other	8,940	766	0	9,706	14	397	(382)
Total OTC business	23,173,146	12,160,146	6,508,540	41,841,833	353,737	330,780	22,957
Total bilateral business	6,841,441	4,023,253	2,530,789	13,395,482	305,726	282,457	23,269
Total CCP business	16,331,705	8,136,894	3,977,751	28,446,351	48,012	48,324	(312)
Total exchange-traded business	4,927,230	1,491,323	5,553	6,424,106	10,447	13,240	(2,793)
Total	28,100,376	13,651,470	6,514,093	48,265,939	364,185	344,020	20,164
Positive market values after netting and cash collateral received	0	0	0	0	32,083	0	0

Dec 31, 2016

in € m.	Notional amount maturity distribution				Positive market value	Negative market value	Net market value
	Within 1 year	> 1 and ≤ 5 years	After 5 years	Total			
Interest rate related:							
OTC	13,214,990	8,828,544	6,102,510	28,146,044	309,405	284,954	24,451
Bilateral (Amt)	2,777,349	3,625,915	2,645,075	9,048,340	272,059	248,396	23,664
CCP (Amt)	10,437,641	5,202,629	3,457,434	19,097,704	37,346	36,558	787
Exchange-traded	5,013,591	1,387,444	1,174	6,402,209	326	394	(68)
Total Interest rate related	18,228,581	10,215,988	6,103,684	34,548,253	309,731	285,348	24,382
Currency related:							
OTC	3,994,113	1,053,558	537,044	5,584,715	129,731	126,480	3,251
Bilateral (Amt)	3,938,295	1,053,434	537,044	5,528,773	129,288	126,049	3,239
CCP (Amt)	55,818	124	0	55,942	443	431	12
Exchange-traded	29,431	398	35	29,864	6	54	(48)
Total Currency related	4,023,544	1,053,956	537,078	5,614,579	129,738	126,534	3,203
Equity/index related:							
OTC	366,170	168,529	25,313	560,012	20,358	23,692	(3,334)
Bilateral (Amt)	366,170	168,529	25,313	560,012	20,358	23,692	(3,334)
CCP (Amt)	0	0	0	0	0	0	0
Exchange-traded	472,888	74,045	9,006	555,939	6,172	8,575	(2,402)
Total Equity/index related	839,058	242,574	34,319	1,115,951	26,531	32,266	(5,736)
Credit derivatives related							
OTC	297,563	1,076,954	142,572	1,517,089	21,297	22,399	(1,102)
Bilateral (Amt)	157,950	298,313	58,852	515,115	7,426	8,238	(811)
CCP (Amt)	139,613	778,640	83,720	1,001,974	13,870	14,161	(291)
Exchange-traded	0	0	0	0	0	0	0
Total Credit derivatives related	297,563	1,076,954	142,572	1,517,089	21,297	22,399	(1,102)
Commodity related:							
OTC	2,660	1,657	9,222	13,539	479	653	(175)
Bilateral (Amt)	2,660	1,657	9,222	13,539	479	653	(175)
CCP (Amt)	0	0	0	0	0	0	0
Exchange-traded	53,757	8,766	0	62,523	440	503	(63)
Total Commodity related	56,417	10,423	9,222	76,062	918	1,156	(238)
Other:							
OTC	13,994	6,856	98	20,948	443	719	(276)
Bilateral (Amt)	13,963	6,856	98	20,917	433	698	(265)
CCP (Amt)	31	0	0	31	10	21	(11)
Exchange-traded	4,929	0	0	4,929	10	29	(18)
Total Other	18,923	6,856	98	25,877	453	747	(295)
Total OTC business	17,889,490	11,136,098	6,816,759	35,842,347	481,712	458,897	22,816
Total bilateral business	7,256,387	5,154,704	3,275,604	15,686,696	430,043	407,725	22,318
Total CCP business	10,633,102	5,981,394	3,541,155	20,155,651	51,669	51,172	497
Total exchange-traded business	5,574,597	1,470,653	10,214	7,055,464	6,954	9,555	(2,600)
Total	23,464,086	12,606,751	6,826,973	42,897,811	488,667	468,451	20,215
Positive market values after netting and cash collateral received	0	0	0	0	44,784	0	0

Equity Exposure

The table below presents the carrying values of our equity investments according to IFRS definition split by trading and non-trading for the respective reporting dates. We manage our respective positions within our market risk and other appropriate risk frameworks.

Composition of our Equity Exposure

in € m.	Dec 31, 2017	Dec 31, 2016
Trading Equities	85,932	75,633
Nontrading Equities ¹	2,496	2,979
Total Equity Exposure	88,427	78,613

¹ Includes equity investment funds amounting to € 367 million as of December 31, 2017 and € 288 million as of December 31, 2016.

As of December 31, 2017, our Trading Equities exposure was mainly composed of € 84.8 billion from Corporate & Investment Bank activities and € 1.2 billion from the Deutsche Asset Management business. Overall trading equities increased by € 10.3 billion year on year driven mainly by increased exposure in Corporate & Investment Bank activities.

Asset Quality

This section describes the asset quality of our loans. All loans where known information about possible credit problems of borrowers causes our management to have serious doubts as to the collectability of the borrower's contractual obligations are included in this section.

Overview of performing, renegotiated, past due and impaired loans by customer groups

in € m.	Dec 31, 2017			Dec 31, 2016		
	Corporate loans	Consumer loans	Total	Corporate loans	Consumer loans	Total
Loans neither past due, nor renegotiated or impaired	208,457	185,979	394,436	219,106	182,760	401,865
Past due loans, neither renegotiated nor impaired	1,167	2,778	3,945	882	2,445	3,327
Loans renegotiated, but not impaired	518	488	1,006	357	459	816
Impaired loans	3,406	2,828	6,234	4,310	3,137	7,447
Total	213,547	192,074	405,621	224,655	188,801	413,455

Past Due Loans

Loans are considered to be past due if contractually agreed payments of principal and/or interest remain unpaid by the borrower, except if those loans are acquired through consolidation. The latter are considered to be past due if payments of principal and/or interest, which were expected at a certain payment date at the time of the initial consolidation of the loans, are unpaid by the borrower.

Non-impaired past due loans at amortized cost by past due status

in € m.	Dec 31, 2017	Dec 31, 2016
Loans less than 30 days past due	2,747	2,116
Loans 30 or more but less than 60 days past due	482	494
Loans 60 or more but less than 90 days past due	250	268
Loans 90 days or more past due	776	484
Total	4,255	3,363

Non-impaired past due loans at amortized cost by industry

in € m.	Dec 31, 2017	Dec 31, 2016
Financial intermediation	267	95
Fund management activities	40	28
Manufacturing	179	278
Wholesale and retail trade	233	172
Households	2,481	2,076
Commercial real estate activities	363	190
Public sector	10	12
Other	682	512
Total	4,255	3,363

Non-impaired past due loans at amortized cost by region

in € m.	Dec 31, 2017	Dec 31, 2016
Germany	1,810	1,299
Western Europe (excluding Germany)	1,758	1,531
Eastern Europe	158	155
North America	343	233
Central and South America	6	18
Asia/Pacific	161	113
Africa	19	14
Other	0	0
Total	4,255	3,363

Our non-impaired past due loans increased by € 892 million to € 4.3 billion as of December 31, 2017, largely caused by loans that were overdue by a few days. Businesswise, the main driver was PCB.

Aggregated value of collateral – with the fair values of collateral capped at loan outstanding – held against our non-impaired past due loans

in € m.	Dec 31, 2017	Dec 31, 2016
Financial and other collateral	2,364	1,775
Guarantees received	148	148
Total	2,512	1,923

Our aggregated value of collateral held against our non-impaired past due loans as of December 31, 2017 increased in line with the increase of non-impaired past due loans compared to prior year.

Renegotiated and Forborne Loans

For economic or legal reasons we might enter into a forbearance agreement with a borrower who faces or will face financial difficulties in order to ease the contractual obligation for a limited period of time. A case –by –case approach is applied for our corporate clients considering each transaction and client -specific facts and circumstances. For consumer loans we offer forbearances for a limited period of time, in which the total or partial outstanding or future instalments are deferred to a later point of time. However, the amount not paid including accrued interest during this period must be re-compensated at a later point of time. Repayment options include distribution over residual tenor, a one-off payment or a tenor extension. Forbearances are restricted and depending on the economic situation of the client, our risk management strategies and the local legislation. In case a forbearance agreement is entered into, an impairment measurement is conducted as described below, an impairment charge is taken if necessary and the loan is subsequently recorded as impaired.

In our management and reporting of forborne loans, we are following the EBA definition for forbearances and non-performing loans (Implementing Technical Standards (ITS) on Supervisory reporting on forbearance and non-performing exposures under article 99(4) of Regulation (EU) No 575/2013). Once the conditions mentioned in the ITS are met, we report the loan as being forborne; we remove the loan from our forbearance reporting, once the discontinuance criteria in the ITS are met (i.e., the contract is considered as performing, a minimum 2 year probation period has passed, regular payments of more than an insignificant aggregate amount of principal or interest have been made during at least half of the probation period, and none of the exposures to the debtor is more than 30 days past-due at the end of the probation period).

Forborne Loans

in € m.	Dec 31, 2017				Dec 31, 2016			
	Performing		Non-performing	Total forborne loans	Performing		Non-performing	Total forborne loans
	Nonimpaired	Nonimpaired	Impaired		Nonimpaired	Nonimpaired	Impaired	
German	1,109	569	711	2,390	907	374	983	2,264
Non-German	445	529	1,248	2,222	799	709	1,697	3,204
Total	1,554	1,099	1,959	4,612	1,706	1,083	2,679	5,468

The total forborne loans in 2017 decreased by € 857 million mainly driven by non-performing forborne loans to non-German clients mainly reflecting non-performing loan sales in our shipping portfolio reported in CIB as well as in PCC International.

Development of Forborne Loans

in € m.	Dec 31, 2017
Balance beginning of period	5,468
Classified as forborne during the year	1,015
Transferred to non forborne during the year (including repayments)	(1,518)
Charge-offs	(234)
Exchange rate and other movements	(119)
Balance end of period	4,612

Impaired Loans

Credit Risk Management regularly assesses whether there is objective evidence that a loan or group of loans is impaired. A loan or group of loans is impaired and impairment losses are incurred if:

- there is objective evidence of impairment as a result of a loss event that occurred after the initial recognition of the asset and up to the balance sheet date (a “loss event”). When making our assessment we consider information on such events that is reasonably available up to the date the financial statements are authorized for issuance in line with the requirements of IAS 10;
- the loss event had an impact on the estimated future cash flows of the financial asset or the group of financial assets, and
- a reliable estimate of the loss amount can be made.

Credit Risk Management’s loss assessments are subject to regular review in collaboration with Group Finance. The results of this review are reported to and approved by Group Finance and Risk Senior Management.

For further details with regard to impaired loans please refer to Note 1 “Significant Accounting Policies and Critical Accounting Estimates”.

Impairment Loss and Allowance for Loan Losses

If there is evidence of impairment the impairment loss is generally calculated on the basis of discounted expected cash flows using the original effective interest rate of the loan. If the terms of a loan are renegotiated or otherwise modified because of financial difficulties of the borrower without qualifying for de-recognition of the loan, the impairment loss is measured using the original effective interest rate before modification of terms. We reduce the carrying amount of the impaired loan by the use of an allowance account and recognize the amount of the loss in the consolidated statement of income as a component of the provision for credit losses. We record increases to our allowance for loan losses as an increase of the provision for loan losses in our income statement. Charge-offs reduce our allowance while recoveries, if any, are credited to the allowance account. If we determine that we no longer require allowances which we have previously established, we decrease our allowance and record the amount as a reduction of the provision for loan losses in our income statement. When it is considered that there is no realistic prospect of recovery and all collateral has been realized or transferred to us, the loan and any associated allowance for loan losses is charged off (i.e., the loan and the related allowance for loan losses are removed from the balance sheet).

While we assess the impairment for our corporate credit exposures individually, we assess the impairment of our smaller-balance standardized homogeneous loans collectively.

Our collectively assessed allowance for non-impaired loans reflects allowances to cover for incurred losses that have neither been individually identified nor provided for as part of the impairment assessment of smaller-balance homogeneous loans.

For further details regarding our accounting policies regarding impairment loss and allowance for credit losses, please refer to Note 1 “Significant Accounting Policies and Critical Accounting Estimates”.

Impaired loans, allowance for loan losses and coverage ratios by business division

in € m.	Dec 31, 2017			Dec 31, 2016 ³			2017 increase (decrease) from 2016	
	Impaired loans	Loan loss allowance	Impaired loan coverage ratio in %	Impaired loans	Loan loss allowance	Impaired loan coverage ratio in %	Impaired loans	Impaired loan coverage ratio in ppt
Corporate & Investment Bank	2,517	1,565	62	3,007	1,893	63	(490)	(1)
Private & Commercial Bank	3,717	2,355	63	3,646	2,217	61	71	3
Deutsche Asset Management	0	0	N/M	0	1	N/M ¹	0	N/M
Non-Core Operations Unit ²	0	0	N/M	794	462	58	(794)	N/M
thereof: assets reclassified to loans and receivables according to IAS 39	0	0	N/M	92	69	75	(92)	N/M
Consolidation & Adjustments	1	1	N/M ¹	0	4	N/M ¹	0	N/M
Total	6,234	3,921	63	7,447	4,546	61	(1,213)	2

N/M – not meaningful.

¹ Allowance in Consolidation & Adjustments and Other and Deutsche Asset Management fully consists of collectively assessed allowance for non-impaired loans.

² From 2017 onwards, Non-Core Operations Unit (NCOU) ceased to exist as a standalone division. The remaining impaired assets and the corresponding loan loss allowance as of December 31, 2016 are now managed by the corresponding core operating segments, predominantly Private & Commercial Bank.

³ 2016 Impaired loans and Loan loss allowance numbers have been restated to reflect restructuring of business areas.

Impaired loans, allowance for loan losses and coverage ratios by industry

Dec 31, 2017

in € m.	Impaired Loans			Loan loss allowance				Impaired loan coverage ratio in %
	Individually assessed	Collectively assessed	Total	Individually assessed allowance	Collectively assessed allowance for impaired loans	Collectively assessed allowance for non-impaired loans	Total	
Financial intermediation	121	8	129	1	3	40	44	34
Fund management activities	8	8	16	1	0	3	4	24
Manufacturing	520	165	685	439	146	51	635	93
Wholesale and retail trade	333	188	521	211	156	27	394	76
Households	155	2,233	2,388	153	1,290	83	1,526	64
Commercial real estate activities	345	30	376	115	11	42	168	45
Public sector	74	0	74	6	0	12	17	24
Other ¹	1,792	254	2,046	840	139	153	1,132	55
Total	3,348	2,886	6,234	1,766	1,745	410	3,921	63

¹ Thereof: 'Transportation, storage and communication' - Total Impaired Loans € 808 million/Total Loan loss allowance € 469 million. 'Real estate; renting and business activities' - € 482 million/ € 234 million, 'Construction' - € 378 million/ € 144 million, 'Mining and quarrying' - € 169 million/ € 116 million.

Dec 31, 2016

in € m.	Impaired Loans			Loan loss allowance				Impaired loan coverage ratio in %
	Individually assessed	Collectively assessed	Total	Individually assessed allowance	Collectively assessed allowance for impaired loans	Collectively assessed allowance for non-impaired loans	Total	
Financial intermediation	122	11	133	27	3	47	77	58
Fund management activities	14	7	21	1	0	4	5	26
Manufacturing	524	229	754	476	149	82	707	94
Wholesale and retail trade	472	234	707	223	161	29	413	58
Households	193	2,467	2,661	220	1,466	67	1,754	66
Commercial real estate activities	385	37	422	168	25	39	233	55
Public sector	19	0	19	4	0	3	7	35
Other ¹	2,397	334	2,731	953	168	230	1,351	49
Total	4,126	3,321	7,447	2,071	1,972	503	4,546	61

¹ Thereof: 'Transportation, storage and communication' - Total Impaired Loans € 1.1 billion/Total Loan loss allowance € 650 million, 'Real estate; renting and business activities' - € 489 million/ € 230 million, 'Construction': € 309 million/ € 170 million, 'Mining and quarrying' - € 232 million/ € 103 million.

Impaired loans, allowance for loan losses and coverage ratios by region

Dec 31, 2017

in € m.	Impaired Loans			Loan loss allowance				Impaired loan coverage ratio in %
	Individually assessed	Collectively assessed	Total	Individually assessed allowance	Collectively assessed allowance for impaired loans	Collectively assessed allowance for non-impaired loans	Total	
Germany	953	1,312	2,266	600	823	104	1,527	67
Western Europe (excluding Germany)	1,471	1,422	2,892	815	822	113	1,749	60
Eastern Europe	45	123	168	45	92	11	147	88
North America	497	1	498	67	0	102	170	34
Central and South America	70	0	70	14	0	21	35	50
Asia/Pacific	264	28	292	223	8	41	272	93
Africa	48	0	49	1	0	9	10	20
Other	0	0	0	0	0	11	11	N/M
Total	3,348	2,886	6,234	1,766	1,745	410	3,921	63

N/M – not meaningful

in € m.	Impaired Loans			Loan loss allowance			Total	Impaired loan coverage ratio in %
	Individually assessed	Collectively assessed	Total	Individually assessed allowance	Collectively assessed allowance for impaired loans	Collectively assessed allowance for non-impaired loans		
Germany	1,154	1,486	2,639	563	804	122	1,489	56
Western Europe (excluding Germany)	2,021	1,688	3,709	1,008	1,057	130	2,195	59
Eastern Europe	46	132	179	39	106	10	154	86
North America	495	1	496	148	0	128	277	56
Central and South America ¹	4	0	5	3	0	14	16	363
Asia/Pacific ¹	341	14	355	286	5	76	367	103
Africa	63	1	64	24	0	8	32	50
Other ¹	2	0	2	0	0	17	17	908
Total	4,126	3,321	7,447	2,071	1,972	503	4,546	61

¹ Impaired Loans in Central & South America, Asia Pacific and Other are more than fully covered by loan loss allowance due to the latter including collectively assessed allowance for non-impaired loans.

Development of Impaired Loans

in € m.	Dec 31, 2017			Dec 31, 2016		
	Individually assessed	Collectively assessed	Total	Individually assessed	Collectively assessed	Total
Balance, beginning of year	4,126	3,321	7,447	4,236	3,915	8,151
Classified as impaired during the year	1,370	1,248	2,618	2,177	1,291	3,469
Transferred to not impaired during the year ¹	(1,127)	(961)	(2,088)	(1,080)	(723)	(1,803)
Charge-offs	(540)	(605)	(1,146)	(979)	(987)	(1,966)
Disposals of impaired loans	(267)	(116)	(383)	(266)	(161)	(427)
Exchange rate and other movements	(215)	(1)	(216)	38	(15)	23
Balance, end of year	3,348	2,886	6,234	4,126	3,321	7,447

¹ Includes repayments.

Our impaired loans decreased in 2017 by € 1.2 billion or 16 % to € 6.2 billion. The reduction in our individually assessed portfolio mainly reflects charge-offs in CIB along with de-risking of former NCOU assets, while the reduction in our collectively assessed portfolio was driven by charge-offs related to disposals in PCC International.

The impaired loan coverage ratio (defined as total on-balance sheet allowances) for all loans individually impaired or collectively assessed divided by IFRS impaired loans (excluding collateral) increased from 61 % as of year-end 2016 to 63 % as of December 31, 2017.

Provision for loan losses and recoveries by Industry

in € m.	2017				2016	
	Provision for loan losses before recoveries				Provision for loan losses before recoveries (total)	
	For individually assessed loans	For collectively assessed impaired loans	For collectively assessed non-impaired loans	Total	Recoveries	Recoveries
Financial intermediation	25	(2)	(3)	20	4	4
Fund management activities	0	0	(2)	(1)	0	0
Manufacturing	48	18	(28)	38	19	14
Wholesale and retail trade	46	19	1	66	5	4
Households	11	322	20	354	66	99
Commercial real estate activities	(20)	4	5	(10)	12	36
Public sector	2	0	9	11	0	0
Other ¹	239	23	(62)	201	20	31
Total	352	385	(59)	678	127	187

¹ In 2017, the largest contributions to risk provisioning in the "Other" category came from the "Transport, Storage and Communications" sector (€ 107 million) and the "Mining and quarrying" sector (€ 72 million). In 2016, the "Transport, Storage and Communications" sector contributed € 422 million and the "Mining and Quarrying" sector € 91 million.

Our existing commitments to lend additional funds to debtors with impaired loans amounted to € 28 million as of December 31, 2017 and € 117 million as of December 31, 2016.

Collateral held against impaired loans, with fair values capped at transactional outstanding

in € m.	Dec 31, 2017	Dec 31, 2016
Financial and other collateral ¹	1,757	2,016
Guarantees received	309	343
Total collateral held for impaired loans	2,066	2,359

¹ Defaulted mortgage loans secured by residential real estate properties, where the loan agreement has been terminated/cancelled are generally subject to formal foreclosure proceedings.

Our total collateral held for impaired loans as of December 31, 2017 decreased by € 293 million or 12 % compared to previous year, while coverage ratio including collateral (defined as total on-balance sheet allowances for all loans individually impaired or collectively assessed plus collateral held against impaired loans, with fair values capped at transactional outstanding, divided by IFRS impaired loans) increased to 96 % as of December 31, 2017 compared to 93 % as of December 31, 2016.

Financial assets available for sale

The impairment concept is also applicable for available for sale debt instruments, which are otherwise carried at fair value with changes in fair value reported in other comprehensive income. If an available for sale debt instrument is considered impaired, the cumulative impairment loss reflects the difference between the amortized cost and the current fair value of the instrument. For a detailed discussion of our accounting procedures please refer to Note 1 "Significant Accounting policies and Critical Accounting Estimates".

Non-impaired past due and impaired financial assets available for sale, accumulated impairments, coverage ratio and collateral held against impaired financial assets available for sale

in € m.	Dec 31, 2017	Dec 31, 2016
Financial assets non-impaired past due available for sale	1,538	1,661
thereof:		
Less than 30 days past due	176	178
30 or more but less than 60 days past due	23	24
60 or more but less than 90 days past due	138	23
90 days or more past due	1,201	1,436
Impaired financial assets available for sale	157	229
Accumulated impairment for financial assets available for sale	113	131
Impaired financial assets available for sale coverage ratio in %	71	57
Collateral held against impaired financial assets available for sale	17	20
thereof:		
Financial and other collateral	17	20
Guarantees received	0	0

Collateral Obtained

We obtain collateral on the balance sheet only in certain cases by either taking possession of collateral held as security or by calling upon other credit enhancements. Collateral obtained is made available for sale in an orderly fashion or through public auctions, with the proceeds used to repay or reduce outstanding indebtedness. Generally we do not occupy obtained properties for our business use. The commercial and residential real estate collateral obtained in 2017 refers predominantly to our exposures in Spain.

Collateral obtained during the reporting periods

in € m.	2017	2016
Commercial real estate	9	9
Residential real estate ¹	63	55
Other	0	0
Total collateral obtained during the reporting period	72	64

¹ Carrying amount of foreclosed residential real estate properties amounted to € 67 million as of December 31, 2017 and € 78 million as of December 31, 2016.

The collateral obtained, as shown in the table above, excludes collateral recorded as a result of consolidating securitization trusts under IFRS 10. In 2017 as well as in 2016 the Group did not obtain any collateral related to these trusts.

Allowance for Credit Losses

Development of allowance for credit losses

2017							
in € m.	Allowance for Loan Losses			Allowance for Off-Balance Sheet Positions			Total
	Individually assessed	Collectively assessed ¹	Subtotal	Individually assessed	Collectively assessed ²	Subtotal	
Balance, beginning of year	2,071	2,475	4,546	162	183	346	4,892
Provision for credit losses	299	253	552	(23)	(4)	(27)	525
thereof: (Gains)/Losses from disposal of impaired loans	(83)	(32)	(115)	0	0	0	(115)
Net charge-offs:	(487)	(532)	(1,019)	0	0	0	(1,019)
Charge-offs	(541)	(605)	(1,146)	0	0	0	(1,146)
Recoveries	54	73	127	0	0	0	127
Other changes	(117)	(41)	(158)	(18)	(16)	(34)	(191)
Balance, end of year	1,766	2,155	3,921	122	163¹	285	4,207
Changes compared to prior year							
Provision for credit losses							
Absolute	(444)	(351)	(795)	(47)	(16)	(62)	(857)
Relative	(60) %	(58) %	(59) %	(196) %	(132) %	(175) %	(62) %
Net charge-offs							
Absolute	407	338	745	0	0	0	745
Relative	(45) %	(39) %	(42) %	0 %	0 %	0 %	(42) %
Balance, end of year							
Absolute	(305)	(320)	(625)	(41)	(20)	(60)	(685)
Relative	(15) %	(13) %	(14) %	(25) %	(11) %	(17) %	(14) %

¹ Thereof 'Transfer risk reserve' € 5 million.

² Thereof 'Transfer risk reserve' € 8 million.

Allowance for credit losses as of December 31, 2017 amounted to € 4.2 billion compared to € 4.9 billion as of December 31, 2016. The reduction was driven by charge-offs, partly compensated by additional provision for credit losses.

As of December 31, 2017, provision for credit losses decreased by € 857 million compared to year-end 2016, driven by a decrease in provision for loan losses of € 795 million, as well as by a reduction in provisions for off-balance sheet positions of € 62 million. The decrease in our individually assessed loan portfolio mainly resulted from CIB, driven by all portfolios including shipping. Despite the year-over-year reduction, shipping continued to be the main driver of provision for credit losses in 2017, in part related to the re-evaluation of the respective impairment method during the year, as discussed in Note 1 of this report. A further year-over-year reduction in PCB was driven by a significant release in Postbank. The decrease in provisions for our collectively assessed loan portfolio mainly resulted from the non-recurrence of one-off items related to assets reported under NCOU in the prior year and further reflected the good portfolio quality and ongoing benign economic environment in PCB.

The decrease in net charge-offs of € 745 million compared to 2016 was mainly driven by non-recurrence of net charge offs related to assets reported under NCOU in the prior year as well as in Postbank.

2016							
in € m.	Allowance for Loan Losses			Allowance for Off-Balance Sheet Positions			Total
	Individually assessed	Collectively assessed ¹	Subtotal	Individually assessed	Collectively assessed ²	Subtotal	
Balance, beginning of year	2,252	2,776	5,028	144	168	312	5,340
Provision for credit losses	743	604	1,347	24	12	36	1,383
thereof: (Gains)/Losses from disposal of impaired loans	3	(16)	(13)	0	0	0	(13)
Net charge-offs:	(894)	(870)	(1,764)	0	0	0	(1,764)
Charge-offs	(979)	(972)	(1,951)	0	0	0	(1,951)
Recoveries	85	101	187	0	0	0	187
Other changes	(30)	(35)	(65)	(5)	3	(2)	(67)
Balance, end of year	2,071	2,475¹	4,546	162	183¹	346	4,892
Changes compared to prior year							
Provision for credit losses							
Absolute	409	56	465	(34)	(4)	(39)	427
Relative	123 %	10 %	53 %	(59) %	(27) %	(52) %	45 %
Net charge-offs							
Absolute	(412)	(258)	(670)	0	0	0	(670)
Relative	85 %	42 %	61 %	0 %	0 %	0 %	61 %
Balance, end of year							
Absolute	(181)	(301)	(482)	18	15	34	(448)
Relative	(8) %	(11) %	(10) %	13 %	9 %	11 %	(8) %

¹ Thereof 'Transfer risk reserve' € 5 million.

² Thereof 'Transfer risk reserve' € 6 million.

Allowance for credit losses as of December 31, 2016 amounted to € 4.9 billion compared to € 5.3 billion as of December 31, 2015. The reduction was driven by charge-offs, partly compensated by additional provision for credit losses.

As of December 31, 2016, provision for credit losses increased by € 427 million compared to year-end 2015, driven by an increase in provision for loan losses of € 465 million partly offset by a reduction in provisions for off-balance sheet positions of € 39 million. The increase in our individually assessed portfolio mainly resulted from CIB reflecting the continued market weakness of the shipping sector as well as lower commodity prices in the metals and mining and oil and gas sectors. The increase in provisions for our collectively assessed loan portfolio was mainly driven by NCOU partly relating to higher charges for IAS 39 reclassified assets and partly offset by PCB, among other factors reflecting the good quality of the loan book and the benign economic environment. The reduction in provisions for off-balance sheet positions was driven by CIB and reflects releases caused by crystallization into cash of a few guarantee exposures leading to higher provision for loan losses.

The increase in net charge-offs of € 670 million compared to 2015 was mainly driven by NCOU caused by IAS 39 reclassified assets along with disposals.

Our allowance for loan losses for IAS 39 reclassified assets, which were reported in NCOU, amounted to € 69 million as of December 31, 2016, representing 2 % of our total allowance for loan losses, down 82 % from the level at the end of 2015 which amounted to € 389 million (8 % of total allowance for loan losses). This reduction was driven by charge offs of € 355 million along with reduction driven by foreign exchange as most IAS 39 reclassified assets are denominated in non-Euro currencies and partly offset by additional provisions of € 66 million.

Compared to 2015, provision for loan losses for IAS 39 reclassified assets increased by € 110 million mainly related to our European mortgage portfolios. Net charge offs increased by € 242 million mainly driven by the European mortgage portfolio and one large single booking.

Derivatives – Credit Valuation Adjustment

We establish counterparty Credit Valuation Adjustment ("CVA") for OTC derivative transactions to cover expected credit losses. The adjustment amount is determined by assessing the potential credit exposure to a given counterparty and taking into account any collateral held, the effect of any relevant netting arrangements, expected loss given default and the credit risk, based on available market information, including CDS spreads.

Treatment of Default Situations under Derivatives

Unlike standard loan assets, we generally have more options to manage the credit risk in our derivatives transactions when movement in the current replacement costs or the behavior of our counterparty indicate that there is the risk that upcoming payment obligations under the transactions might not be honored. In these situations, we are frequently able under the relevant derivatives agreements to obtain additional collateral or to terminate and close-out the derivative transactions at short notice.

The master agreements for OTC derivative transactions executed with our clients usually provide for a broad set of standard or bespoke termination rights, which allow us to respond swiftly to a counterparty's default or to other circumstances which indicate a high probability of failure. We have less comfort under the rules and regulations applied by clearing CCPs, which rely primarily on the clearing members default fund contributions and guarantees and less on the termination and close-out of contracts, which will be considered only at a later point in time after all other measures failed. Considering the severe systemic disruptions to the financial system, that could be caused by a disorderly failure of a CCP, the Financial Stability Board ("FSB") recommended in October 2014 to subject CCPs to resolution regimes that apply the same objectives and provisions that apply to global systemically important banks (G-SIBs).

Our contractual termination rights are supported by internal policies and procedures with defined roles and responsibilities which ensure that potential counterparty defaults are identified and addressed in a timely fashion. These procedures include necessary settlement and trading restrictions. When our decision to terminate derivative transactions results in a residual net obligation owed by the counterparty, we restructure the obligation into a non-derivative claim and manage it through our regular work-out process. As a consequence, for accounting purposes we typically do not show any nonperforming derivatives.

Wrong-way risk occurs when exposure to a counterparty is adversely correlated with the credit quality of that counterparty. In compliance with Article 291(2) and (4) CRR we, excluding Postbank, had established a monthly process to monitor several layers of wrong-way risk (specific wrong-way risk, general explicit wrong-way risk at country/industry/region levels and general implicit wrong-way risk, whereby exposures arising from transactions subject to wrong-way risk are automatically selected and presented for comment to the responsible credit officer). A wrong-way risk report is then sent to Credit Risk senior management on a monthly basis. In addition, we, excluding Postbank, utilized our established process for calibrating our own alpha factor (as defined in Article 284 (9) CRR) to estimate the overall wrong-way risk in our derivatives and securities financing transaction portfolio. Postbank derivative counterparty risk is immaterial to the Group and collateral held is typically in the form of cash.

Trading Market Risk Exposures

Value-at-Risk Metrics of Trading Units of Deutsche Bank Group (excluding Postbank)

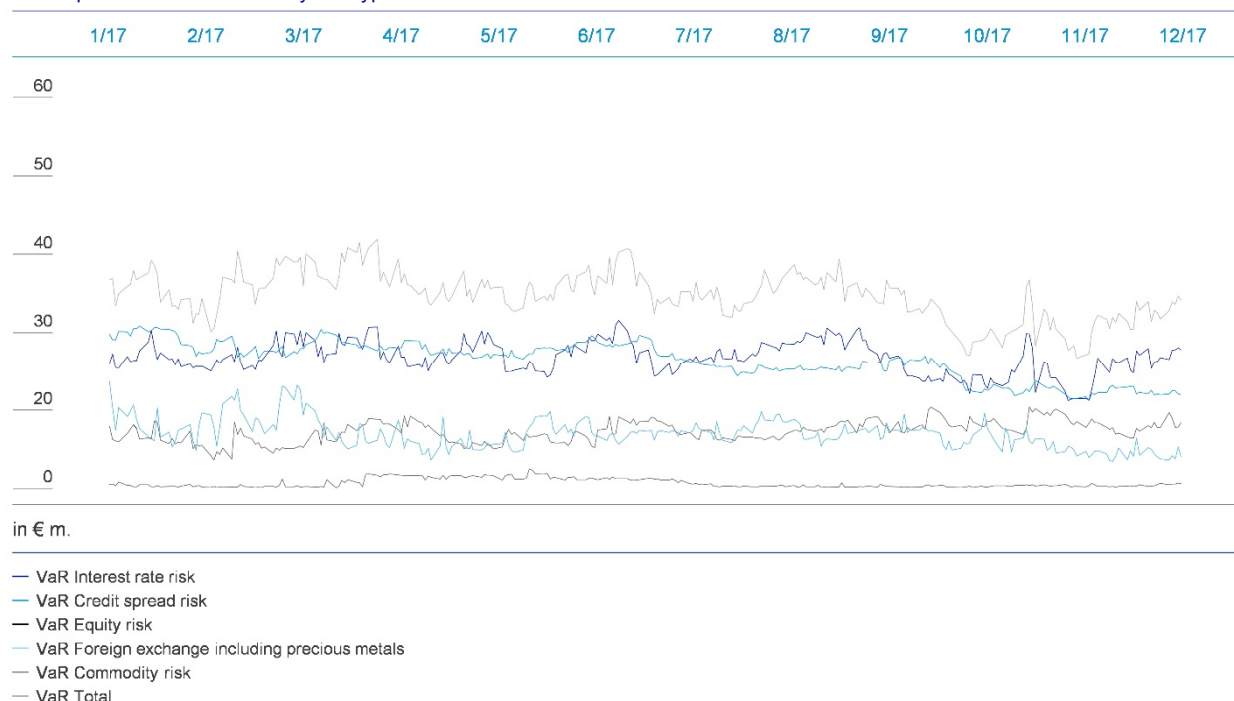
The tables and graph below present the value-at-risk metrics calculated with a 99 % confidence level and a one-day holding period for our trading units. They exclude contributions from Postbank trading book which are calculated on a stand-alone basis.

Value-at-Risk of our Trading Units by Risk Type

	Total		Diversification effect		Interest rate risk		Credit spread risk		Equity price risk		Foreign exchange risk ¹		Commodity price risk	
in € m.	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Average	29.8	32.0	(28.1)	(35.0)	20.2	19.7	19.7	26.6	8.7	9.3	8.4	10.7	0.8	0.7
Maximum	38.4	59.4	(37.6)	(57.6)	26.0	29.5	25.1	32.5	12.5	52.4	16.5	16.7	3.0	3.3
Minimum	20.1	20.4	(21.4)	(25.6)	13.5	14.8	13.5	22.3	4.4	4.4	4.2	3.6	0.1	0.2
Period-end	29.1	30.1	(22.5)	(36.9)	21.4	19.9	14.4	24.3	10.1	10.0	4.9	12.6	0.7	0.2

¹ Includes value-at-risk from gold and other precious metal positions.

Development of value-at-risk by risk types in 2017



The average value-at-risk over 2017 was € 29.8 million, which is a decrease of € 2.2 million compared with the full year 2016. The average credit spread value-at-risk decreased due to a reduction in idiosyncratic risk.

The period end value-at-risk reduction was driven by reductions across the credit spread and foreign exchange asset classes.

Regulatory Trading Market Risk Measures (excluding Postbank)

The table below presents the stressed value-at-risk metrics calculated with a 99 % confidence level and a one-day holding period for our trading units. It excludes contributions from Postbank's trading book which are calculated on a stand-alone basis

Average, Maximum and Minimum Stressed Value-at-Risk by Risk Type

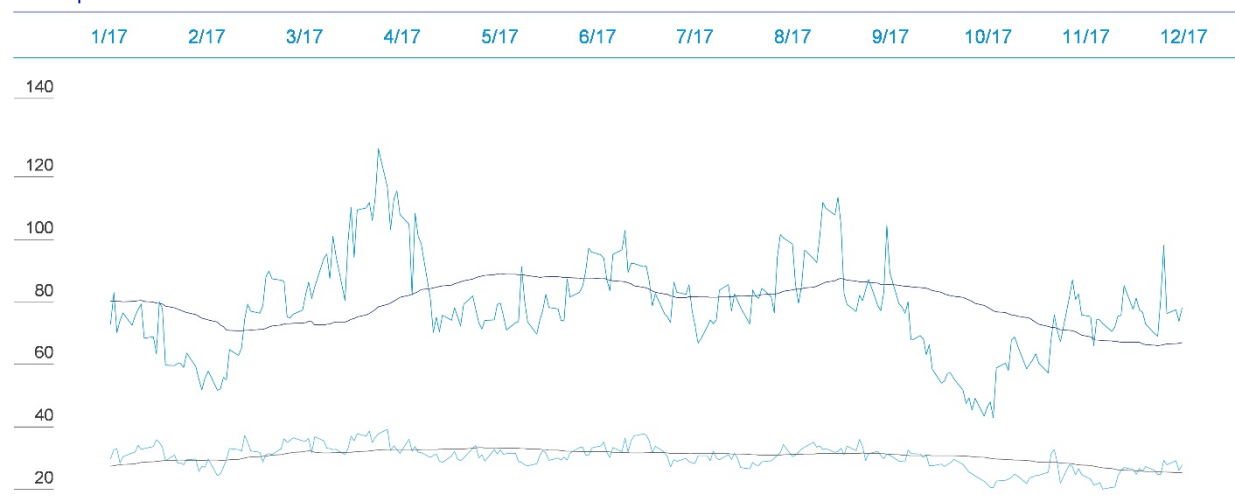
	Total		Diversification effect		Interest rate risk		Credit spread risk		Equity price risk		Foreign exchange risk ¹		Commodity price risk	
in € m.	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Average	76.7	85.2	(88.4)	(78.2)	69.8	51.9	62.1	74.9	18.8	20.6	12.6	14.8	1.8	1.3
Maximum	125.0	143.7	(115.8)	(150.0)	92.0	82.5	73.2	99.3	66.8	144.5	28.0	30.4	6.1	3.9
Minimum	42.0	60.4	(73.0)	(53.4)	48.3	37.4	54.3	59.0	1.5	2.4	6.9	3.4	0.3	0.4
Period-end	85.6	75.8	(81.0)	(91.3)	67.8	51.9	64.3	63.0	19.9	29.6	12.6	22.1	1.9	0.5

¹ Includes value-at-risk from gold and other precious metal positions.

The average stressed value-at-risk was € 76.7 million over 2017, a decrease of € 8.5 million compared with the full year 2016. The reduction in the average was driven by a decrease in credit spread stressed value-at-risk due to a reduction in idiosyncratic risk as well as a small reduction coming from a model enhancement to the credit spread component. This has been partly offset by an increase in interest rate stressed value-at-risk due to a change in directional exposure on average over 2017.

The following graph compares the development of the daily value-at-risk with the daily stressed value-at-risk and their 60 day averages, calculated with a 99 % confidence level and a one-day holding period for our trading units. Amounts are shown in millions of euro and exclude contributions from Postbank's trading book which are calculated on a stand-alone basis.

Development of value-at-risk and stressed value-at-risk in 2017



in € m.

- SVaR Total
- SVaR Rolling 60d Average
- VaR Total
- VaR Rolling 60d Average

For regulatory reporting purposes, the incremental risk charge for the respective reporting dates represents the higher of the spot value at the reporting dates, and their preceding 12-week average calculation.

Average, Maximum and Minimum Incremental Risk Charge of Trading Units (with a 99.9 % confidence level and one-year capital horizon)^{1,2,3}

in € m.	Total		Non-Core Operations Unit		Global Credit Trading		Core Rates		Fixed Income & Currencies APAC		Emerging Markets - Debt		Other	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Average	802.1	840.2	0.0	52.0	544.6	393.0	107.1	200.4	168.1	188.6	37.2	116.8	(54.8)	(110.5)
Maximum	899.3	944.4	0.0	57.3	597.4	405.8	172.5	229.6	229.0	243.0	62.9	128.0	(20.4)	(65.6)
Minimum	754.8	693.0	0.0	44.5	503.7	368.0	48.7	173.7	92.4	119.6	(1.4)	111.6	(90.0)	(141.8)
Period-end	789.6	693.0	0.0	51.8	540.1	368.0	133.2	173.7	142.3	119.6	19.9	121.8	(45.9)	(141.8)

¹ Amounts show the bands within which the values fluctuated during the 12-weeks preceding December 31, 2017 and December 31, 2016, respectively.

² Business line breakdowns have been updated for 2017 reporting to better reflect the current business structure.

³ All liquidity horizons are set to 12 months.

The incremental risk charge as at the end of 2017 was € 790 million an increase of € 97 million (14 %) compared with year end 2016. The 12-week average of the incremental risk charge as at the end of 2017 was € 802 million and thus € 38 million (5 %) lower compared with the average for the 12-week period ended December 31, 2016. The decreased average incremental risk charge is driven by a decrease in credit exposures in the Core Rates and Emerging Markets Debt business areas when compared to the full year 2016.

For regulatory reporting purposes, the comprehensive risk measure for the respective reporting dates represents the higher of the internal spot value at the reporting dates, their preceding 12-week average calculation, and the floor, where the floor is equal to 8 % of the equivalent capital charge under the standardized approach securitization framework.

Average, Maximum and Minimum Comprehensive Risk Measure of Trading Units (with a 99.9 % confidence level and one-year capital horizon)^{1,2,3}

in € m.	2017	2016
Average	5.4	31.3
Maximum	6.3	39.8
Minimum	4.5	21.9
Period-end	4.4	17.9

¹ Regulatory Comprehensive Risk Measure calculated for the 12-week period ending December 29.

² Period end is based on the internal model spot value.

³ All liquidity horizons are set to 12 months.

The internal model comprehensive risk measure as at the end 2017 was € 4.4 million a decrease of € 13.5 million (-75 %) compared with year end 2016. The 12-week average of our regulatory comprehensive risk measure as at the end of 2017 was € 5.4 million and thus € 25.8 million (83 %) lower compared with the average for the 12-week period ending December 31, 2016. The reduction was due to continued de-risking on this portfolio.

Market Risk Standardized Approach

As of December 31, 2017, the securitization positions, for which the specific interest rate risk is calculated using the market risk standardized approach, generated capital requirements of € 379.5 million corresponding to risk weighted-assets of € 4.7 billion. As of December 31, 2016 these positions generated capital requirements of € 278.4 million corresponding to risk weighted-assets of € 3.5 billion.

For nth-to-default credit default swaps the capital requirement decreased to € 2.8 million corresponding to risk weighted-assets of € 35 million compared with € 6.4 million and € 80 million as of December 31, 2016.

The capital requirement for Collective Investment Undertakings under the market risk standardized approach was € 45 million corresponding to risk weighted-assets of € 556 million as of December 31, 2017, compared with € 39 million and € 487 million as of December 31, 2016.

The capital requirement for longevity risk under the market risk standardized approach was € 32 million corresponding to risk-weighted assets of € 395 million as of December 31, 2017, compared with € 46 million and € 570 million as of December 31, 2016.

Value-at-Risk at Postbank

The value-at-risk of Postbank's trading book calculated with a 99 % confidence level and a one-day holding period amounted to zero as of December 31, 2017. Postbank's current trading strategy does not allow any new trading activities with regard to the trading book. Therefore, Postbank's trading book did not contain any positions as of December 31, 2017. Nevertheless, Postbank will remain classified as a trading book institution.

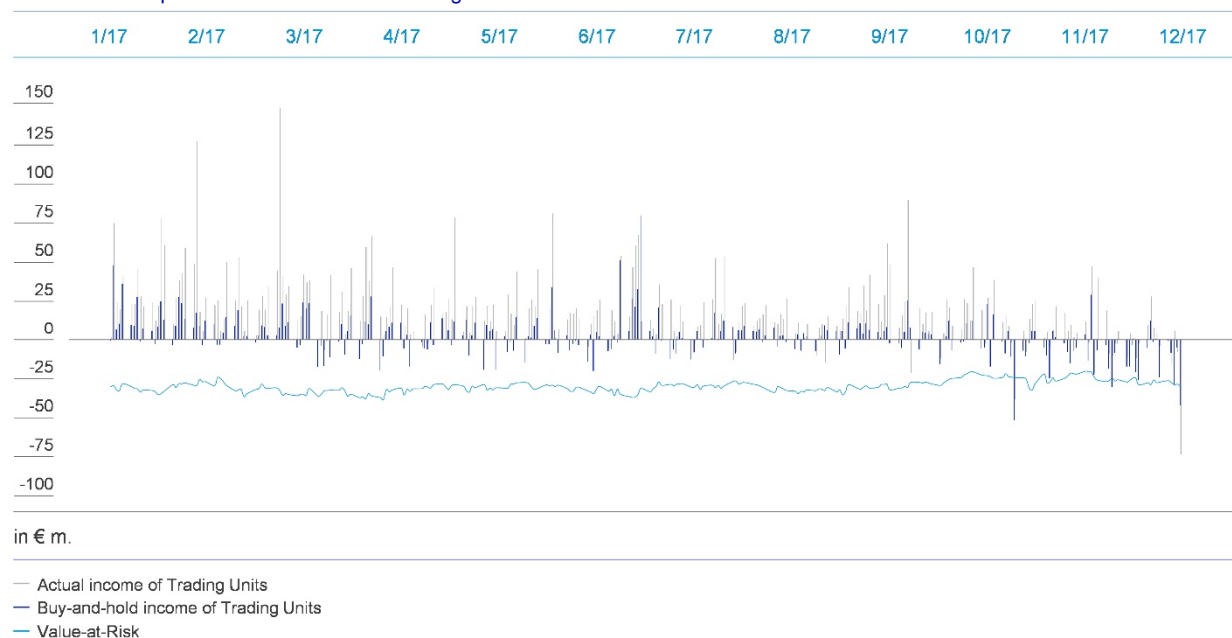
Results of Regulatory Backtesting of Trading Market Risk

In 2017 we observed three global outliers, where our loss on a buy-and-hold basis exceeded the value-at-risk of our Trading Books, compared with one outlier in 2016. The outliers in 2017 all occurred in the fourth quarter. The first was driven by an idiosyncratic event that led to losses in our Non Strategic and Emerging Markets Debt business areas. The second was an idiosyncratic event primarily impacting our Equities business. The final outlier was at the year end and was caused by losses across a number of business areas. The first and third of these events also led to an outlier on an Actual Backtesting basis, which compares the VaR to Total Income less Fees & Commissions, and excluding Debt Valuation Adjustments. There were two Actual Backtesting outliers in 2017 compared to four in 2016.

Based on the backtesting results, our analysis of the underlying reasons for outliers and enhancements included in our value-at-risk methodology, we continue to believe that our value-at-risk model will remain an appropriate measure for our trading market risk under normal market conditions. The following graph presents trading units' daily comparison of the VAR measure as of the close of the previous business day with both hypothetical (buy-and-hold income, i.e. one-day change in portfolio's value) and the actual backtesting outcomes (as defined above), in order to highlight the frequency and the extent of the backtesting exceptions. The value-at-risk is presented in negative amounts to visually compare the estimated potential loss of our trading positions with the buy and hold income. The chart shows that our trading units achieved a positive buy and hold income for 57 % of the trading days in 2017 (versus 54 % in 2016), as well as displaying the global outliers experienced in 2017.

The capital requirements for the value-at-risk model, for which the backtesting results are shown here, accounts for 1.3% of the total capital requirement for the Group.

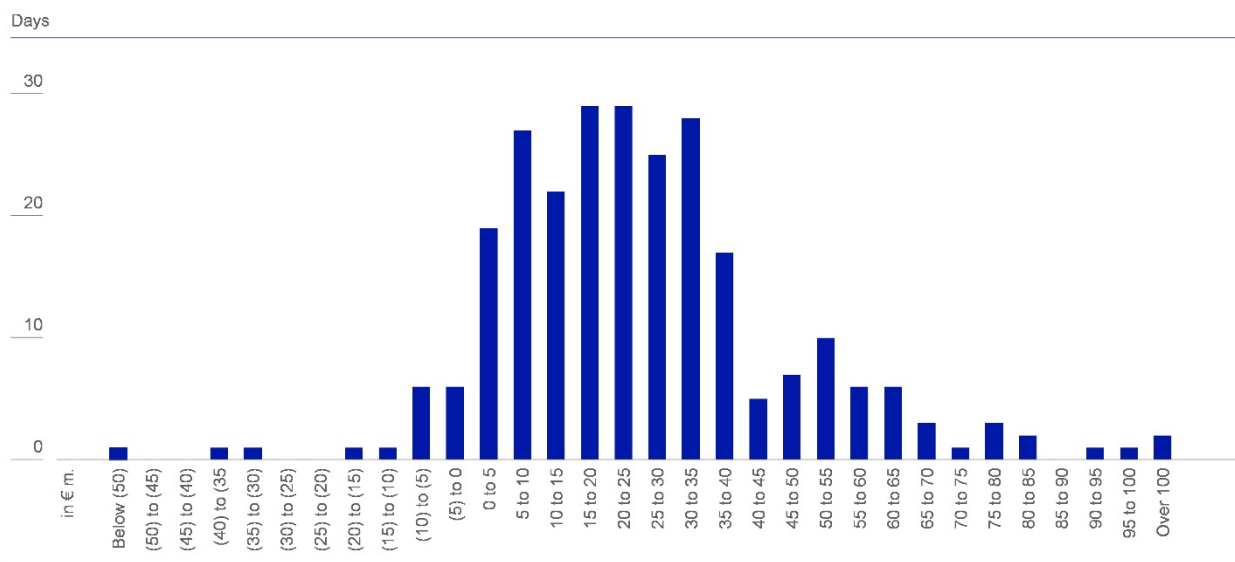
EU MR4 – Comparison of VAR estimates with gains/losses



Daily Income of our Trading Units

The following histogram shows the distribution of daily income of our trading units (excluding Postbank). Daily income is defined as total income which consists of new trades, fees & commissions, buy & hold income, reserves, carry and other income. It displays the number of trading days on which we reached each level of trading income shown on the horizontal axis in millions of euro.

Distribution of daily income of our trading units in 2017



Our trading units achieved a positive revenue for 93 % of the trading days in 2017 compared with 87 % in the full year 2016.

Nontrading Market Risk Exposures

Economic Capital Usage for Nontrading Market Risk

The following table shows the Nontrading Market Risk economic capital usage by risk type:

Economic Capital Usage by risk type

in € m.	Economic capital usage	
	Dec 31, 2017	Dec 31, 2016
Interest rate risk	1,743	1,921
Credit spread risk	722	1,419
Equity and Investment risk	1,431	1,834
Foreign exchange risk	1,509	2,485
Pension risk	1,174	1,007
Guaranteed funds risk	49	1,699
Total nontrading market risk portfolios	6,628	10,364

The economic capital figures do take into account diversification benefits between the different risk types.

Economic Capital Usage for Nontrading Market Risk totaled € 6.6 billion as of December 31, 2017, which is € 3.7 billion below our economic capital usage at year-end 2016. The decrease in economic capital usage driven by the quantile change from 99.98 % to 99.90 % including reductions in capital supply items due to going concern adjustments amounted to approximately half of the total decrease, or € 1.8 billion.

- **Interest rate risk.** Economic capital charge for interest rate risk in the banking book, including gap risk, basis risk and option risk, such as the risk of a change in client behaviour embedded in modelled non-maturity deposits or prepayment risk. In total the economic capital usage for December 31, 2017 was € 1,743 million, compared to € 1,921 million for December 31, 2016. The decrease in economic capital contribution was mainly driven by the quantile change from 99.98 % to 99.90 %.
- **Credit spread risk.** Economic capital charge for portfolios in the banking book subject to material credit spread risk. Economic capital usage was € 722 million as of December 31, 2017, versus € 1,419 million as of December 31, 2016. The decrease in economic capital contribution was mainly driven by the quantile change from 99.98 % to 99.90 %.
- **Equity and Investment risk.** Economic capital charge for equity risk from our non-consolidated investment holdings, such as our strategic investments and alternative assets, and from a structural short position in our own share price arising from our equity compensation plans. The economic capital usage was € 1,431 million as of December 31, 2017, compared with € 1,834 million as of December 31, 2016, predominately driven by the quantile change from 99.98 % to 99.90 %.
- **Pension risk.** This risk arises from our defined benefit obligations, including interest rate risk and inflation risk, credit spread risk, equity risk and longevity risk. The economic capital usage was € 1,174 million and € 1,007 million as of December 31, 2017 and December 31, 2016 respectively. The increase in Pension economic capital is mainly related to an increase in interest rate and credit risk.
- **Foreign exchange risk.** Foreign exchange risk predominately arises from our structural position in unhedged capital and retained earnings in non-euro currencies in certain subsidiaries. Our economic capital usage was € 1,509 million as of December 31, 2017 versus € 2,485 million as of December 31, 2016. The decrease in economic capital contribution was mainly driven by reductions in capital supply items due to going concern adjustments and the quantile change from 99.98 % to 99.90 %.
- **Guaranteed funds risk.** Economic capital usage was € 49 million as of December 31, 2017, versus € 1,699 million as of December 31, 2016. The decrease in economic capital contribution was largely driven by redesign of the economic capital model for guaranteed retirement accounts and the removal of conservative placeholders.

Interest Rate Risk in the Banking Book

The following table shows the impact on the Group's net interest income in the banking book as well as the change of the economic value for the banking book positions from interest rate changes under the six standard scenarios defined by Basel Committee on Banking Supervision (BCBS):

Economic value & net interest income interest rate risk in the banking book by scenario

in € bn.	Delta EVE		Delta NII ¹	
	Dec 31, 2017	Dec 31, 2016	Dec 31, 2017	Dec 31, 2016
Parallel up	(0.4)	(0.3)	2.8	2.1
Parallel down	(1.1)	(0.4)	(0.8)	(0.6)
Steeper	0.2	0.4	(0.6)	N/A
Flattener	(0.6)	(0.5)	2.7	N/A
Short rate up	(0.5)	(0.6)	3.5	N/A
Short rate down	0.0	(0.0)	(0.7)	N/A
Maximum	(1.1)	(0.6)	(0.8)	(0.6)
in € bn.	Dec 31, 2017	Dec 31, 2016		
Tier 1 Capital	57.6	55.5		

N/A – Not applicable

¹ Delta Net Interest Income (NII) reflects the difference between projected NII in the respective scenario with shifted rates vs. unchanged rates. Sensitivities are based on a static balance sheet at constant exchange rates, excluding trading positions and Deutsche Asset Management. Figures do not include Mark to Market (MtM) / Other Comprehensive Income (OCI) effects on centrally managed positions not eligible for hedge accounting.

A sudden parallel increase in the yield curve would positively impact the Group's earnings (net interest income) from the banking book positions. Deutsche Bank estimates that the total one-year net interest income change resulting from parallel yield curve shifts of +200 and (200) basis points (floored by a rate of zero) would be € 2.8 billion and € (0.8) billion, respectively, at December 31, 2017.

The maximum Economic Value of Equity (EVE) loss was € (1.1) billion as of December 2017, compared to € (0.6) billion as of December 2016. The increase in EVE loss was mainly driven by an increased interest rate risk position in Deutsche Bank's Pension portfolio. As per December 2017 the maximum EVE loss represents 1.9 % of Tier 1 Capital.

The following table shows the variation of the economic value for Deutsche Bank's banking book positions resulting from downward and upward interest rate shocks by currency:

Economic value interest rate risk in the banking book by currency

in € bn.	Dec 31, 2017	
	-200 bp ¹	+200 bp
EUR	(1.3)	(0.3)
GBP	(0.0)	(0.0)
USD	0.3	(0.2)
JPY	(0.0)	0.1
Other	0.0	0.0
Total	(1.1)	(0.4)

¹ Floored at zero

The estimated change in the economic value resulting from the impact of the BCBS parallel yield curve shifts of -200 bp (floored by a rate of zero) and +200 bp would be € (1.1) billion and € (0.4) billion, respectively, at December 31, 2017. Both scenarios, downward and upward shock, lead to a decrease in the economic value mainly due to a negative convexity in Deutsche Bank's Pension portfolio and the impact of the applied zero floor on portfolios with offsetting positions in the long and short tenors.

Operational Risk Exposure

Operational Risk – Risk Profile

Operational Risk Losses by Event Type (Profit and Loss view)

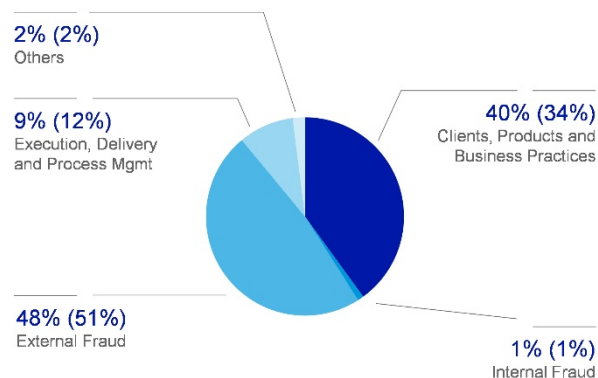
in € m.	2017	2016 ¹
Clients, Products and Business Practices	309	2,512
Internal Fraud	38	397
External Fraud	15	18
Execution, Delivery and Process Management	223	119
Others	30	25
Group	615	3,072

¹ Changed 2016 loss figures due to subsequent capture of losses and reclassification.

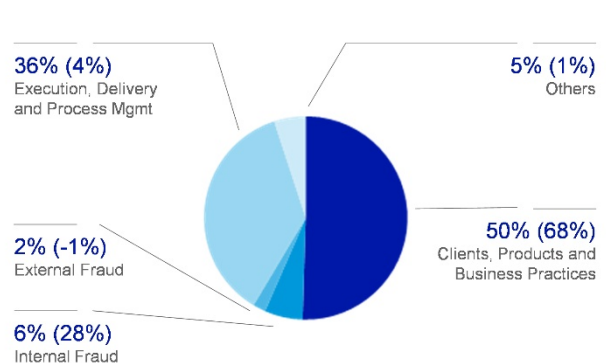
As of December 31, 2017, profit and loss based operational losses decreased by € 2.5 billion or 80 % compared to year-end 2016. The decrease was driven by the event types "Clients, Products and Business Practices" and "Internal Fraud", due to settlements reached and increased litigation reserves for unsettled cases in 2016.

Operational Losses by Event Type occurred in the period 2017 (2012-2016)¹

Frequency of Operational Losses (first posting date)



Distribution of Operational Losses (posting date)



¹ Percentages in brackets correspond to loss frequency respectively to loss amount for losses occurred in 2012-2016 period. Frequency and amounts can change subsequently.

The above left chart “Frequency of Operational Losses” summarizes Operational Risk events which occurred in 2017 compared to the five-year period 2012-2016 in brackets based on the period in which a loss was first recognized for that event. For example, for a loss event that was first recognized in 2010 with an additional profit/loss event recognized in 2017, the frequency chart would not include the loss event, but the loss distribution chart would include the profit/loss recognized in the respective period.

Frequencies are driven by the event types “External Fraud” with a frequency of 48 % and the event type “Clients, Product and Business Practices” with 40 % of all observed loss events. “Execution, Delivery and Process Management” contributes 9 %. “Others” are stable at 2 %. The event type “Internal Fraud” has a low frequency, resulting in less than 1 % of the loss events in the period 2017.

The above right chart “Distribution of Operational Losses” summarizes Operational Risk loss postings recognized in the profit/loss in 2017 compared to the five-year period 2012-2016. The event type “Clients, Product and Business Practices” dominates the operational loss distribution with a share of 50 % and is determined by outflows related to litigation, investigations and enforcement actions. “Execution, Delivery and Process Management” has the second highest share (36 %) which is related to one large event in 2017. The absolute loss amount of this event type only shows a small increase, but the relative increase is high, given the smaller basis of the total Operational Risk Losses. Finally, the event types “Internal Fraud” (6 %), “Others” (5 %) and “External Fraud” (2 %) are minor, compared to other event types.

Liquidity Risk Exposure

Funding Markets and Capital Markets Issuance

Credit markets in 2017 were affected by continued political uncertainties and the ongoing low interest rate environment. Our 5 year CDS traded within a range of 71 to 166 basis points, substantially lower compared to 2016. The peak was observed in the beginning of January, since then, the spread has declined significantly and as of year-end was trading at 73 basis points, at the low end of the range for the year. The spreads on our bonds exhibited similar behaviour. For example, our 1.5 % EUR benchmark maturing in January 2022 traded in a range of 43 to 150 basis points, closing at 49 basis points at year end 2017.

Our 2017 funding plan of up to € 25 billion, comprising debt issuance with an original maturity in excess of one year, was completed and we concluded 2017 having raised € 24.8 billion in term funding. This funding was broadly spread across the following funding sources: Senior unsecured plain-vanilla issuance, including benchmarks (€ 14.7 billion), Tier 2 benchmark issuance (€ 0.8 billion), covered bond issuance (€ 1.1 billion), and other unsecured structured issuance (€ 8.2 billion). The € 24.8 billion total is divided into Euro (€ 9.2 billion), US dollar (€ 13.2 billion), British Pound (€ 0.9 billion) and other currencies aggregated (€ 1.5 billion). In addition to direct issuance, we use long-term cross currency swaps to manage our funding needs outside of EUR. Our investor base for 2017 issuances comprised retail customers (29 %), banks (6 %), asset managers and pension funds (38 %), insurance companies (8 %) and other institutional investors (19 %). The geographical distribution was split between Germany (21 %), rest of Europe (28 %), US (31 %), Asia/Pacific (16 %) and Other (3 %). Of our total capital markets issuance outstanding as of December 31, 2017, approximately 93 % was issued on an unsecured basis.

The average spread of our issuance over 3-months-Euribor (all non-Euro funding spreads are rebased versus 3-months Euribor) was 71 basis points for the full year, substantially lower compared to 129 basis points average spread in 2016. The average tenor was 6.7 years. Our issuance activities were slightly higher in the first half of the year. We issued the following volumes over each quarter: Q1: € 8.5 billion, Q2: € 4.8 billion, Q3: € 6.0 billion and Q4: € 5.5 billion, respectively.

In 2018, our funding plan is € 30 billion which we plan to cover by accessing the above sources, without being overly dependent on any one source. We also plan to raise a portion of this funding in U.S. dollar and may enter into cross currency swaps to manage any residual requirements. We have total capital markets maturities, excluding legally exercisable calls of approximately € 16 billion in 2018.

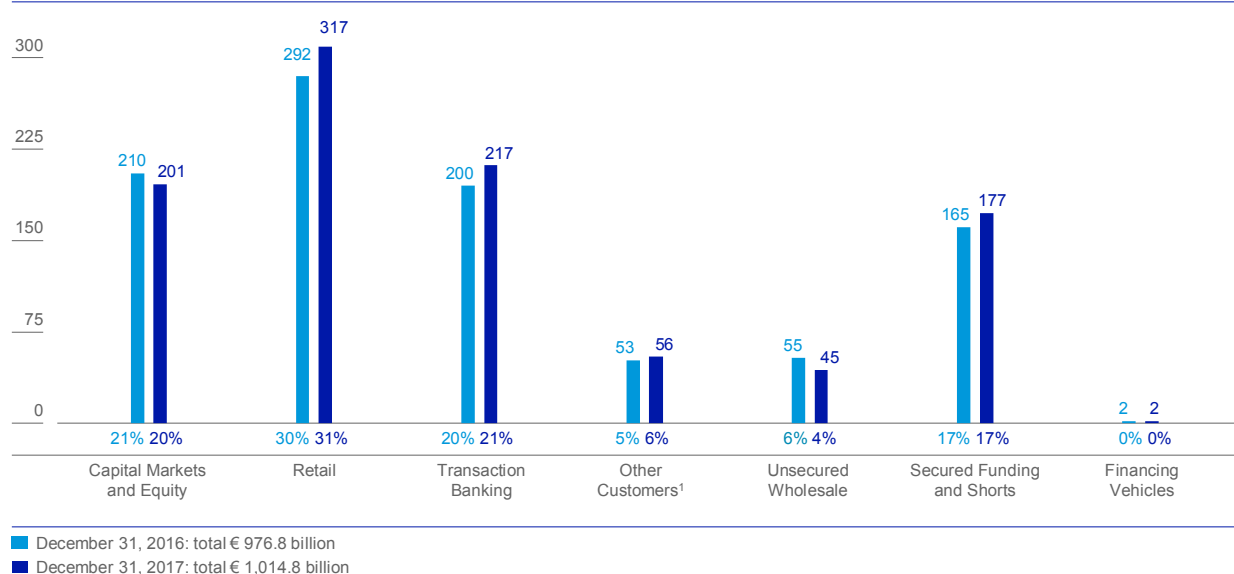
Funding Diversification

In 2017, total external funding increased by € 38.0 billion from € 976.8 billion at December 31, 2016 to € 1,014.8 billion at December 31, 2017. This is primarily driven by increased balances in Retail deposits by € 24.9 billion (8.5 %), Transaction Banking by € 16.5 billion (8.3 %), secured funding and shorts by € 11.8 billion (7.1 %) and other customers by € 3.5 billion (6.6 %). The total increase is slightly offset by reduction in unsecured wholesale funding by € 9.7 billion (17.6 %) and Capital Markets and Equity volume by € 8.9 billion (4.2 %).

The overall proportion of our most stable funding sources (comprising capital markets and equity, retail, and transaction banking) remained constant at 72 %.

Composition of External Funding Sources

In € bn.



¹ Other includes fiduciary, self-funding structures (e.g. X-markets), margin / Prime Brokerage cash balances (shown on a net basis)

Reference: Reconciliation to total balance sheet: Derivatives & settlement balances € 369.4 billion (€ 503.6 billion), add-back for netting effect for Margin & Prime Brokerage cash balances (shown on a net basis) € 59.2 billion (€ 67.9 billion), other non-funding liabilities € 31.3 billion (€ 42.2 billion) for December 31, 2017 and December 31, 2016 respectively; figures may not add up due to rounding.

Maturity of unsecured wholesale funding, ABCP and capital markets issuance¹

Dec 31, 2017								
in € m.	Not more than 1 month	Over 1 month but not more than 3 months	Over 3 months but not more than 6 months	Over 6 months but not more than 1 year	Sub-total less than 1 year	Over 1 year but not more than 2 years	Over 2 years	Total
Deposits from banks	9,709	3,477	2,196	1,172	16,554	721	54	17,330
Deposits from other wholesale customers	3,451	5,884	4,112	3,974	17,421	483	525	18,429
CDs and CP	1,579	2,595	2,381	2,873	9,427	6	82	9,516
ABCP	0	0	0	0	0	0	0	0
Senior unsecured plain vanilla	405	4,038	3,231	3,288	10,961	16,009	44,399	71,368
Senior unsecured structured notes	345	868	1,654	2,952	5,818	3,044	16,893	25,756
Covered bonds/ABS	90	194	1,711	737	2,731	2,190	17,248	22,169
Subordinated liabilities	50	234	5,265	700	6,250	135	11,694	18,079
Other	4	0	0	0	4	0	0	4
Total	15,632	17,289	20,550	15,695	69,167	22,588	90,895	182,650
thereof:								
Secured	90	194	1,711	737	2,731	2,190	17,248	22,169
Unsecured	15,542	17,096	18,840	14,959	66,436	20,398	73,647	160,481

¹ Includes additional Tier 1 notes reported as additional equity components in the financial statements. Liabilities with call features are shown at earliest legally exercisable call date. No assumption is made as to whether such calls would be exercised.

The total volume of unsecured wholesale liabilities, ABCP and capital markets issuance maturing within one year amount to € 69 billion as of December 31, 2017, and should be viewed in the context of our total Liquidity Reserves of € 280 billion.

	Dec 31, 2016							
in € m.	Not more than 1 month	Over 1 month but not more than 3 months	Over 3 months but not more than 6 months	Over 6 months but not more than 1 year	Sub-total less than 1 year	Over 1 year but not more than 2 years	Over 2 years	Total
Deposits from banks	15,626	5,294	6,961	1,588	29,469	40	659	30,168
Deposits from other wholesale customers	4,164	5,712	3,992	4,111	17,979	703	422	19,104
CDs and CP	1,117	1,379	1,973	1,060	5,529	4	1	5,534
ABCP	0	0	0	0	0	0	0	0
Senior unsecured plain vanilla	626	4,111	4,735	11,825	21,296	8,085	49,993	79,374
Senior unsecured structured notes	430	696	858	1,715	3,698	3,578	20,217	27,494
Covered bonds/ABS	0	482	678	1,284	2,445	2,718	18,601	23,764
Subordinated liabilities	0	8	1,576	972	2,556	4,620	11,712	18,887
Other	0	0	0	0	0	0	0	0
Total	21,963	17,682	20,773	22,555	82,973	19,749	101,605	204,326
thereof:								
Secured	0	482	678	1,284	2,445	2,718	18,601	23,764
Unsecured	21,963	17,199	20,094	21,271	80,528	17,031	83,004	180,563

The following table shows the currency breakdown of our short-term unsecured wholesale funding, of our ABCP funding and of our capital markets issuance.

Unsecured wholesale funding, ABCP and capital markets issuance (currency breakdown)

	Dec 31, 2017					Dec 31, 2016				
in € m.	in EUR	in USD	in GBP	in other CCYs	Total	in EUR	in USD	in GBP	in other CCYs	Total
Deposits from banks	2,310	11,096	2,423	1,502	17,330	3,554	22,122	3,649	843	30,168
Deposits from other whole-sale customers	14,109	3,743	233	344	18,429	15,396	2,964	541	203	19,104
CDs and CP	6,401	1,942	310	863	9,516	4,456	259	259	560	5,534
ABCP	0	0	0	0	0	0	0	0	0	0
Senior unsecured plain vanilla	36,407	27,482	864	6,616	71,368	39,510	33,504	8	6,352	79,374
Senior unsecured structured notes	9,937	12,301	31	3,487	25,756	11,037	12,697	133	3,626	27,494
Covered bonds/ABS	22,142	25	0	2	22,169	23,745	16	0	2	23,764
Subordinated liabilities	7,940	8,960	801	378	18,079	8,540	9,196	799	353	18,887
Other	0	4	0	0	4	0	0	0	0	0
Total	99,245	65,552	4,662	13,192	182,650	106,239	80,758	5,390	11,940	204,326
thereof:										
Secured	22,142	25	0	2	22,169	23,745	16	0	2	23,764
Unsecured	77,103	65,527	4,662	13,190	160,481	82,494	80,742	5,390	11,938	180,563

Liquidity Reserves

Composition of our liquidity reserves by parent company (including branches) and subsidiaries

in € bn.	Dec 31, 2017		Dec 31, 2016	
	Carrying Value	Liquidity Value	Carrying Value	Liquidity Value
Available cash and cash equivalents (held primarily at central banks)	222	222	178	178
Parent (incl. foreign branches)	189	189	136	136
Subsidiaries	33	33	42	42
Highly liquid securities (includes government, government guaranteed and agency securities)	39	37	27	25
Parent (incl. foreign branches)	24	23	25	24
Subsidiaries	15	15	2	1
Other unencumbered central bank eligible securities	19	13	14	9
Parent (incl. foreign branches)	11	8	9	6
Subsidiaries	8	5	5	3
Total liquidity reserves	280	272	219	212
Parent (incl. foreign branches)	223	219	171	166
Subsidiaries	56	53	48	46

As of December 31, 2017, our liquidity reserves amounted to € 280 billion compared with € 219 billion as of December 31, 2016. The increase of € 61 billion comprised a € 44 billion increase in cash and cash equivalents, a € 12 billion increase in highly liquid securities and a € 5 billion increase in other unencumbered securities. The development was largely driven by a steady growth of stable funding sources, as well as an adaption of internal and regulatory liquidity models that resulted in an increase in the requirement for liquidity buffers. Our average liquidity reserves during the year were € 269.3 billion compared with € 212.4 billion during 2016. In the table above the carrying value represents the market value of our liquidity reserves while the liquidity value reflects our assumption of the value that could be obtained, primarily through secured funding, taking into account the experience observed in secured funding markets at times of stress.

The liquidity value (weighted) of our Liquidity Reserves of € 272 billion exceeds the liquidity value (weighted) of our High Quality Liquid Assets (HQLA) of € 247 billion. The major drivers of this difference are that Liquidity Reserves include central bank eligible, but otherwise less liquid securities (for example traded loans, other investment grade corporate bonds and ABS) which are not recognized in HQLA. Additionally, HQLA includes major index equities, but excludes cash balances deposited with central banks to satisfy minimum cash requirements as well as cash balances deposited with non EU Central Banks rated below AA- which are included in the LCR but not as part of the HQLA.

Liquidity Coverage Ratio

The final EBA guidelines on LCR disclosure released on March 8, 2017 (EBA/GL/2017/01) requires us to disclose the average of month-end observations over twelve months preceding the end of each quarter instead of the year-end LCR. Therefore, this year's disclosed LCR for 2016 will differ slightly from the disclosed LCR in the previous year. For reference, we have additionally included the year-end LCR numbers below.

Our weighted average LCR of 144 % (twelve months average) has been calculated in accordance with the Commission Delegated Regulation (EU) 2015/61 and the EBA Guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 CRR. Due to changes of the calculation method in October 2016, the December 2016 weighted average LCR of 121 % includes 3 data points (October – December 2016) whereas the December 2017 LCR includes 12 data points (January – December 2017).

The year-end LCR as of December 31, 2017 stands at 140 % compared to 128 % as of December 31, 2016

LCR components

in € bn. (unless stated otherwise)	Dec 31, 2017	Dec 31, 2016
	Total adjusted weighted value (average)	Total adjusted weighted value (average)
Number of data points used in the calculation of averages	12	3
Liquidity buffer	247	191
Total net cash outflows	172	158
Liquidity Coverage Ratio (LCR) in %	144 %	121 %

Funding Risk Management

Structural Funding

All funding matrices (the aggregate currency, the U.S. dollar and the GBP funding matrix) were in line with the respective risk appetite as of year ends 2017 and 2016.

Stress Testing and Scenario Analysis

During 2017, our stressed Net Liquidity Position remained well above the risk appetite and finished 2017 with a surplus of € 33 billion.

Global All Currency Daily Stress Testing Results

in € bn.	Dec 31, 2017			Dec 31, 2016		
	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³
Systemic market risk	121	284	163	64	204	141
Emerging markets	28	228	200	10	190	180
1 notch downgrade (DB specific)	79	252	173	43	195	152
Severe downgrade (DB specific)	287	331	43	178	224	46
Combined ⁴	318	351	33	206	242	36

¹ Funding gap caused by impaired rollover of liabilities and other projected outflows.

² Based on liquidity generation through Liquidity Reserves and other countermeasures.

³ 2017 scenario shows the minimum net liquidity position over the stress period, whereas 2016 shows the net liquidity position at the end of the stress period.

⁴ Combined impact of systemic market risk and severe downgrade.

Global EUR Daily Stress Testing Results⁵

in €	Dec 31, 2017			Dec 31, 2016		
	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³
Combined ⁴	157	172	15	-	-	-

¹ Funding gap caused by impaired rollover of liabilities and other projected outflows.

² Based on liquidity generation through Liquidity Reserves and other countermeasures.

³ 2017 scenario shows the minimum net liquidity position over the stress period.

⁴ Combined impact of systemic market risk and severe downgrade.

⁵ Standalone EUR Stress test has been implemented in 2017, therefore no comparison to 2016.

Global USD Daily Stress Testing Results

in € bn.	Dec 31, 2017			Dec 31, 2016		
	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³
Combined ⁴	114	127	13	94	164	69

¹ Funding gap caused by impaired rollover of liabilities and other projected outflows.

² Based on liquidity generation through Liquidity Reserves and other countermeasures.

³ 2017 scenario shows the minimum net liquidity position over the stress period, whereas 2016 shows the net liquidity position at the end of the stress period.

⁴ Combined impact of systemic market risk and severe downgrade.

Global GBP Daily Stress Testing Results

in € bn.	Dec 31, 2017			Dec 31, 2016		
	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³	Funding Gap ¹	Gap Closure ²	Net Liquidity Position ³
Combined ⁴	14	18	4	10	20	10

¹ Funding gap caused by impaired rollover of liabilities and other projected outflows.

² Based on liquidity generation through Liquidity Reserves and other countermeasures.

³ 2017 scenario shows the minimum net liquidity position over the stress period, whereas 2016 shows the net liquidity position at the end of the stress period.

⁴ Combined impact of systemic market risk and severe downgrade.

The following table presents the amount of additional collateral required in the event of a one- or two-notch downgrade by rating agencies for all currencies.

Additional Contractual Obligations

in € m.	Dec 31, 2017		Dec 31, 2016	
	One-notch downgrade	Two-notch downgrade	One-notch downgrade	Two-notch downgrade
Contractual derivatives funding or margin requirements	1,024	1,577	1,470	1,982
Other contractual funding or margin requirements	317	1,459	317	1,459

Asset Encumbrance

This section refers to asset encumbrance in the group of institutions consolidated for banking regulatory purposes pursuant to the German Banking Act. Thereunder not included are insurance companies or companies outside the finance sector. Assets pledged by our insurance subsidiaries are included in Note 22 "Assets Pledged and Received as Collateral" of the consolidated financial statements, and restricted assets held to satisfy obligations to insurance companies' policy holders are included within Note 40 "Information on Subsidiaries" of the consolidated financial statements.

Encumbered assets primarily comprise those on- and off-balance sheet assets that are pledged as collateral against secured funding, collateral swaps, and other collateralized obligations. Additionally, in line with the EBA technical standards on regulatory asset encumbrance reporting, we consider as encumbered assets placed with settlement systems, including default funds and initial margins, as well as other assets pledged which cannot be freely withdrawn such as mandatory minimum reserves at central banks. We also include derivative margin receivable assets as encumbered under these EBA guidelines.

Readily available assets are those on- and off-balance sheet assets that are not otherwise encumbered, and which are in freely transferrable form. Unencumbered financial assets at fair value, other than securities borrowed or purchased under resale agreements and positive market value from derivatives, and available for sale investments are all assumed to be readily available.

The readily available value represents the current balance sheet carrying value rather than any form of stressed liquidity value (see the "Liquidity Reserves" for an analysis of unencumbered liquid assets available under a liquidity stress scenario). Other unencumbered on- and off-balance sheet assets are those assets that have not been pledged as collateral against secured funding or other collateralized obligations, or are otherwise not considered to be ready available. Included in this category are securities borrowed or purchased under resale agreements and positive market value from derivatives. Similarly, for loans and other advances to customers, these would only be viewed as readily available to the extent they are already in a pre-packaged transferrable format, and have not already been used to generate funding. This represents the most conservative view given that an element of such loans currently shown in Other assets could be packaged into a format that would be suitable for use to generate funding.

Encumbered and unencumbered assets

in € bn. (unless stated otherwise)	Dec 31, 2017			
	Carrying value			
	Unencumbered assets			
	Assets	Encumbered assets	Readily available	Other
Debt securities	148	65	84	0
Equity instruments	86	63	23	0
Other assets:				
Cash and due from banks & Interest earning deposits with Banks	234	11	223	0
Securities borrowed or purchased under resale agreements ¹	27	0	0	27
Financial assets at fair value through profit and loss ²				
Trading assets	11	0	11	0
Positive market value from derivative financial instruments	363	0	0	363
Securities borrowed or purchased under resale agreements ¹	78	0	0	78
Other financial assets at fair value through profit or loss	5	0	5	0
Financial assets available for sale ²	3	0	3	0
Loans	417	70	15	332
Other assets	108	42	0	66
Total	1,480	251	363	866

¹ Securities borrowed and securities purchased under resale agreements are all shown as other unencumbered. The use of the underlying collateral is separately captured in the off-balance sheet table below.

² Excludes Debt securities and Equity instruments (separately disclosed above).

in € bn. (unless stated otherwise)	Dec 31, 2017			
	Fair value of collateral received			
	Unencumbered assets			
	Assets	Encumbered assets	Readily available	Other
Collateral received:	365	307	58	0
Debt securities	228	189	39	0
Equity instruments	137	118	18	0
Other collateral received	0	0	0	0

in € bn. (unless stated otherwise)	Dec 31, 2016 ³			
	Carrying value			
	Unencumbered assets			
	Assets	Encumbered assets	Readily available	Other
Debt securities	151	77	74	0
Equity instruments	75	54	21	0
Other assets:				
Cash and due from banks & Interest earning deposits with Banks	191	12	179	0
Securities borrowed or purchased under resale agreements ¹	36	0	0	36
Financial assets at fair value through profit and loss ²				
Trading assets	14	0	14	0
Positive market value from derivative financial instruments	488	0	0	488
Securities borrowed or purchased under resale agreements ¹	69	0	0	69
Other financial assets at fair value through profit or loss	7	0	7	0
Financial assets available for sale ²	3	0	3	0
Loans	419	72	17	329
Other assets	139	55	0	84
Total	1,591	270	315	1,005

¹ Securities borrowed and securities purchased under resale agreements are all shown as other unencumbered. The use of the underlying collateral is separately captured in the off-balance sheet table below.

² Excludes Debt securities and Equity instruments (separately disclosed above).

³ Prior period results have been restated due to a refined approach to determine assets pledged.

in € bn. (unless stated otherwise)	Dec 31, 2016 ¹			
	Fair value of collateral received			
	Unencumbered assets			
	Assets	Encumbered assets	Readily available	Other
Collateral received:	322	260	62	0
Debt securities	218	168	50	0
Equity instruments	104	92	12	0
Other collateral received	0	0	0	0

¹ Prior period results have been restated due to a refined approach to determine collateral received and collateral re-pledged.

The above tables set out a breakdown of on- and off-balance sheet items, broken down between encumbered, readily available and other. Any securities borrowed or purchased under resale agreements are shown based on the fair value of collateral received.

The above tables of encumbered assets include assets that are not encumbered at an individual entity level, but which may be subject to restrictions in terms of their transferability within the group. Such restrictions may be due to local connected lending requirements or similar regulatory restrictions. In this situation it is not feasible to identify individual balance sheet items that cannot be transferred.

Maturity Analysis of Assets and Financial Liabilities

Treasury manages the maturity analysis of assets and liabilities. Modeling of assets and liabilities is necessary in cases where the contractual maturity does not adequately reflect the liquidity risk position. The most significant example in this context would be immediately repayable deposits from retail and transaction banking customers which have consistently displayed high stability throughout even the most severe financial crises.

The modeling profiles are part of the overall liquidity risk management framework (see section “Liquidity Stress Testing and Scenario Analysis” for short-term liquidity positions ≤ 1 year and section “Structural Funding” for long-term liquidity positions > 1 year) which is defined and approved by the Management Board.

The following tables present a maturity analysis of our total assets based on carrying value and upon earliest legally exercisable maturity as of December 31, 2017 and 2016, respectively.

Analysis of the earliest contractual maturity of assets

Dec 31, 2017

in € m.	On demand (incl. Overnight and one day notice)	Up to one month	Over 1 month to no more than 3 months	Over 3 months but no more than 6 months	Over 6 months but no more than 9 months	Over 9 months but no more than 1 year	Over 1 year but no more than 2 years	Over 2 years but no more than 5 years	Over 5 years	Total
Cash and central bank balances	222,082	1,173	106	94	29	2,053	118	0	0	225,655
Interbank balances (w/o central banks)	4,737	2,613	305	215	116	696	122	0	463	9,265
Central bank funds sold	0	0	0	0	0	0	0	0	0	0
Securities purchased under resale agreements	29	4,625	1,220	1,277	1,448	617	561	89	105	9,971
With banks	21	3,758	585	735	1,400	443	468	0	0	7,409
With customers	8	867	635	542	48	175	94	89	105	2,562
Securities borrowed	15,786	553	49	0	323	0	22	0	0	16,732
With banks	1,889	283	0	0	0	0	0	0	0	2,172
With customers	13,896	270	49	0	323	0	22	0	0	14,560
Financial assets at fair value through profit or loss – trading	565,632	40,074	14,269	1,914	731	455	1,805	3,047	9,043	636,970
Trading assets	184,661	0	0	0	0	0	0	0	0	184,661
Fixed-income securities and loans	98,140	0	0	0	0	0	0	0	0	98,140
Equities and other variable-income securities	85,932	0	0	0	0	0	0	0	0	85,932
Other trading assets	590	0	0	0	0	0	0	0	0	590
Positive market values from derivative financial instruments	361,032	0	0	0	0	0	0	0	0	361,032
Financial assets designated at fair value through profit or loss	19,938	40,074	14,269	1,914	731	455	1,805	3,047	9,043	91,276
Securities purchased under resale agreements	5,364	36,195	12,160	1,115	662	125	1,066	903	253	57,843
Securities borrowed	14,540	3,786	1,928	0	0	0	0	0	0	20,254
Fixed-income securities and loans	34	93	182	799	68	17	720	2,144	8,216	12,273
Equities and other variable-income securities	0	0	0	0	0	132	20	0	573	725
Other financial assets designated at fair value through profit or loss	0	0	0	0	0	181	0	0	1	182
Positive market values from derivative financial instruments qualifying for hedge accounting	0	40	191	26	139	9	119	1,029	1,601	3,153
Financial assets available for sale	47	1,175	1,257	2,934	1,728	2,742	5,469	15,438	18,608	49,397
Fixed-income securities and loans	24	969	1,253	2,934	1,728	2,021	5,404	15,418	18,016	47,766
Equities and other variable-income securities	23	206	4	0	0	721	64	20	592	1,630
Loans	17,334	27,284	27,229	17,442	9,273	14,628	27,053	62,232	199,225	401,699
To banks	787	2,163	2,832	1,979	1,253	821	1,103	670	1,230	12,838
To customers	16,546	25,121	24,397	15,463	8,021	13,807	25,950	61,562	197,995	388,862
Retail	4,291	4,725	4,645	1,632	1,721	1,313	4,720	15,216	151,449	189,712
Corporates and other customers	12,256	20,395	19,752	13,831	6,300	12,493	21,230	46,346	46,546	199,149
Securities held to maturity	0	0	0	0	0	0	0	1,652	1,518	3,170
Other financial assets	85,083	352	179	135	92	143	21	433	74	86,513
Total financial assets	910,728	77,889	44,804	24,037	13,878	21,343	35,290	83,920	230,636	1,442,525
Other assets	20,451	0	0	0	0	0	0	0	11,756	32,207
Total assets	931,178	77,889	44,804	24,037	13,878	21,343	35,290	83,920	242,392	1,474,732

Analysis of the earliest contractual maturity of assets

Dec 31, 2016

in € m.	On demand (incl. Overnight and one day notice)	Up to one month	Over 1 month to no more than 3 months	Over 3 months but no more than 6 months	Over 6 months but no more than 9 months	Over 9 months but no more than 1 year	Over 1 year but no more than 2 years	Over 2 years but no more than 5 years	Over 5 years	Total
Cash and central bank balances	177,648	539	131	121	334	2,591	0	0	0	181,364
Interbank balances (w/o central banks)	5,841	3,578	596	83	65	834	115	26	469	11,606
Central bank funds sold	0	0	0	0	0	0	0	0	0	0
Securities purchased under resale agreements	631	4,204	5,852	3,170	1,368	532	449	15	67	16,287
With banks	604	2,534	5,026	2,077	1,217	461	0	0	0	11,918
With customers	27	1,670	826	1,093	152	71	449	15	67	4,370
Securities borrowed	19,548	532	0	0	0	0	0	0	0	20,081
With banks	2,459	52	0	0	0	0	0	0	0	2,511
With customers	17,089	480	0	0	0	0	0	0	0	17,570
Financial assets at fair value through profit or loss – trading	677,696	33,314	9,577	1,752	776	1,983	2,995	2,803	12,884	743,781
Trading assets	171,044	0	0	0	0	0	0	0	0	171,044
Fixed-income securities and loans	94,486	0	0	0	0	0	0	0	0	94,486
Equities and other variable-income securities	75,633	0	0	0	0	0	0	0	0	75,633
Other trading assets	924	0	0	0	0	0	0	0	0	924
Positive market values from derivative financial instruments	485,150	0	0	0	0	0	0	0	0	485,150
Financial assets designated at fair value through profit or loss	21,502	33,314	9,577	1,752	776	1,983	2,995	2,803	12,884	87,587
Securities purchased under resale agreements	7,154	28,691	6,810	914	110	1,256	995	608	866	47,404
Securities borrowed	14,227	4,561	2,348	0	0	0	0	0	0	21,136
Fixed-income securities and loans	120	62	419	838	666	232	1,992	2,195	11,399	17,923
Equities and other variable-income securities	0	0	0	0	0	146	0	0	590	736
Other financial assets designated at fair value through profit or loss	1	0	0	0	0	350	7	0	29	387
Positive market values from derivative financial instruments qualifying for hedge accounting	0	61	201	39	52	30	257	1,030	1,846	3,516
Financial assets available for sale	471	1,154	2,344	1,031	1,915	2,298	9,210	18,778	19,028	56,228
Fixed-income securities and loans	251	1,008	2,341	1,031	1,915	1,334	9,210	18,733	18,452	54,275
Equities and other variable-income securities	219	146	3	0	0	964	0	45	575	1,953
Loans	18,364	23,666	26,185	29,223	9,128	9,107	28,787	66,383	198,067	408,909
To banks	937	1,978	3,043	2,425	650	641	1,529	1,298	775	13,276
To customers	17,427	21,688	23,142	26,798	8,477	8,467	27,258	65,085	197,292	395,633
Retail	6,446	3,872	5,436	2,397	1,630	2,055	5,634	17,450	157,616	202,536
Corporates and other customers	10,980	17,816	17,706	24,401	6,847	6,412	21,624	47,635	39,676	193,097
Securities held to maturity	0	0	0	0	0	0	0	1,515	1,691	3,206
Other financial assets	104,400	475	1,052	221	240	135	58	671	2,878	110,131
Total financial assets	1,004,599	67,523	45,937	35,640	13,878	17,510	41,870	91,221	236,931	1,555,109
Other assets	23,492	0	0	0	0	0	0	0	11,944	35,437
Total assets	1,028,091	67,523	45,937	35,640	13,878	17,510	41,870	91,221	248,875	1,590,546

The following tables present a maturity analysis of our total liabilities based on carrying value and upon earliest legally exercisable maturity as of December 31, 2017 and 2016, respectively.

Analysis of the earliest contractual maturity of liabilities

Dec 31, 2017										
in € m.	On demand (incl. Over- night and one day notice)	Up to one month	Over 1 month to no more than 3 months	Over 3 months but no more than 6 months	Over 6 months but no more than 9 months	Over 9 months but no more than 1 year	Over 1 year but no more than 2 years	Over 2 years but no more than 5 years	Over 5 years	Total
Deposits	359,619	34,022	111,695	23,800	12,196	9,416	9,133	9,175	11,757	580,812
Due to banks	58,070	5,618	10,520	4,464	1,081	1,345	2,744	5,277	8,921	98,041
Due to customers	301,549	28,404	101,174	19,336	11,115	8,071	6,389	3,898	2,836	482,771
Retail	120,110	10,308	73,883	3,014	2,011	1,264	948	859	271	212,669
Corporates and other customers	181,439	18,095	27,291	16,323	9,103	6,806	5,441	3,038	2,565	270,102
Trading liabilities	414,189	0	0	0	0	0	0	0	0	414,189
Trading securities	71,148	0	0	0	0	0	0	0	0	71,148
Other trading liabilities	314	0	0	0	0	0	0	0	0	314
Negative market values from derivative financial instruments	342,726	0	0	0	0	0	0	0	0	342,726
Financial liabilities designed at fair value through profit or loss (without loan commitments and financial guarantees)	16,018	29,236	6,080	1,574	548	5,520	665	1,091	3,134	63,866
Securities sold under repur- chase agreements	14,722	28,857	4,167	1,089	5	4,897	62	24	18	53,840
Long-term debt	256	33	582	323	345	427	603	889	2,980	6,439
Other financial liabilities designed at fair value through profit or loss	1,040	346	1,332	161	199	196	1	178	136	3,587
Investment contract liabilities	0	0	0	0	0	574	0	0	0	574
Negative market values from derivative financial instruments qualifying for hedge accounting	0	11	58	230	65	41	423	249	218	1,294
Central bank funds purchased	174	83	0	0	0	0	0	0	0	257
Securities sold under repur- chase agreements	14,143	353	1,497	409	94	837	476	16	23	17,849
Due to banks	11,459	266	1,453	327	43	736	476	11	0	14,772
Due to customers	2,684	87	44	82	52	102	0	5	23	3,077
Securities loaned	6,684	3	1	0	0	0	0	0	1	6,688
Due to banks	2,253	3	0	0	0	0	0	0	1	2,256
Due to customers	4,432	0	1	0	0	0	0	0	0	4,433
Other short term borrowings	11,831	848	1,542	1,227	738	2,226	0	0	0	18,411
Long-term debt	0	886	5,029	16,419	9,931	14,137	21,218	49,923	42,172	159,715
Debt securities - senior	0	626	4,266	3,481	5,873	3,334	19,392	45,546	26,978	109,496
Debt securities - subordi- nated	0	0	189	267	67	11	48	1,096	5,554	7,232
Other long-term debt - senior	0	210	529	12,496	3,886	10,722	1,685	3,230	9,362	42,120
Other long-term debt - subordinated	0	50	45	176	105	70	93	50	278	868
Trust Preferred Securities	0	0	1,644	2,723	274	183	666	0	0	5,491
Other financial liabilities	112,960	1,254	2,228	180	197	177	204	163	4	117,367
Total financial liabilities	935,618	66,696	129,775	46,562	24,044	33,110	32,785	60,616	57,308	1,386,513
Other liabilities	20,112	0	0	0	0	0	0	0	0	20,112
Total equity	0	0	0	0	0	0	0	0	68,099	68,099
Total liabilities and equity	955,730	66,696	129,775	46,562	24,044	33,110	32,785	60,616	125,407	1,474,724
Off-balance sheet commitments given	6,290	8,484	10,418	16,261	8,234	15,928	27,732	84,121	28,996	206,464
Banks	238	406	1,398	1,591	557	733	952	346	216	6,437
Retail	352	253	389	247	108	205	223	445	8,483	10,706
Corporates and other customers	5,700	7,825	8,630	14,423	7,569	14,990	26,557	83,330	20,297	189,320

Analysis of the earliest contractual maturity of liabilities

Dec 31, 2016

in € m.	On demand (incl. Over- night and one day notice)	Up to one month	Over 1 month to no more than 3 months	Over 3 months but no more than 6 months	Over 6 months but no more than 9 months	Over 9 months but no more than 1 year	Over 1 year but no more than 2 years	Over 2 years but no more than 5 years	Over 5 years	Total
Deposits	329,776	36,590	110,606	17,562	15,756	12,595	8,532	8,041	10,746	550,204
Due to banks	64,438	9,602	13,129	2,279	6,175	4,220	1,885	5,372	8,993	116,094
Due to customers	265,337	26,988	97,477	15,283	9,581	8,375	6,647	2,669	1,752	434,110
Retail	109,943	10,761	75,517	3,191	1,744	902	785	911	279	204,033
Corporates and other customers	155,395	16,227	21,960	12,093	7,837	7,472	5,862	1,758	1,473	230,077
Trading liabilities	520,887	0	0	0	0	0	0	0	0	520,887
Trading securities	56,592	0	0	0	0	0	0	0	0	56,592
Other trading liabilities	437	0	0	0	0	0	0	0	0	437
Negative market values from derivative financial instruments	463,858	0	0	0	0	0	0	0	0	463,858
Financial liabilities designed at fair value through profit or loss (without loan commitments and financial guarantees)	1,992	38,633	8,123	2,212	744	3,745	1,031	1,004	2,969	60,452
Securities sold under repur- chase agreements	1,587	36,128	7,584	1,791	2	2,739	566	0	0	50,397
Long-term debt	201	73	329	384	640	859	398	949	2,640	6,473
Other financial liabilities designated at fair value through profit or loss	203	2,432	210	37	102	147	68	55	329	3,582
Investment contract liabilities	0	0	0	0	0	592	0	0	0	592
Negative market values from derivative financial instruments qualifying for hedge accounting	0	249	324	194	312	231	943	1,484	856	4,593
Central bank funds purchased	353	0	0	0	0	0	0	0	0	353
Securities sold under repur- chase agreements	19,957	1,510	844	1,191	0	1,178	434	271	0	25,387
Due to banks	14,934	1,510	844	1,191	0	1,178	292	271	0	20,222
Due to customers	5,023	0	0	0	0	0	142	0	0	5,165
Securities loaned	3,587	10	1	0	0	0	0	0	0	3,598
Due to banks	1,488	4	0	0	0	0	0	0	0	1,492
Due to customers	2,099	6	1	0	0	0	0	0	0	2,106
Other short term borrowings	13,216	921	1,073	265	1,292	529	0	0	0	17,295
Long-term debt	0	1,037	5,275	8,143	10,113	4,190	43,315	56,444	43,799	172,316
Debt securities - senior	0	989	5,085	7,476	9,772	3,534	13,284	51,704	30,162	122,006
Debt securities - subordi- nated	0	0	0	0	0	231	140	1,124	5,293	6,788
Other long-term debt - senior	0	43	190	582	284	384	29,507	3,496	8,063	42,549
Other long-term debt - subordinated	0	5	0	85	56	42	384	120	281	974
Trust Preferred Securities	0	0	0	730	1,054	413	4,176	0	0	6,373
Other financial liabilities	128,398	976	1,665	221	201	161	295	112	3,246	135,274
Total financial liabilities	1,018,165	79,926	127,911	30,518	29,473	23,635	58,726	67,356	61,616	1,497,325
Other liabilities	28,362	0	0	0	0	0	0	0	0	28,362
Total equity	0	0	0	0	0	0	0	0	64,819	64,819
Total liabilities and equity	1,046,527	79,926	127,911	30,518	29,473	23,635	58,726	67,356	126,435	1,590,506
Off-balance sheet commitments given	6,061	9,569	8,896	13,765	8,708	14,794	30,609	98,024	27,978	218,404
Banks	305	688	1,501	1,671	602	587	1,185	958	192	7,688
Retail	253	124	95	226	283	387	757	538	8,875	11,540
Corporates and other customers	5,503	8,757	7,300	11,868	7,823	13,820	28,667	96,528	18,911	199,176

Compensation Report

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Introduction

The 2017 Compensation Report provides detailed compensation information with regard to the overall Deutsche Bank Group.

The Compensation Report comprises the following three sections:

Management Board Compensation Report

The first section of the Report sets out the structure and design of the compensation system for the members of the Management Board of Deutsche Bank AG. It presents the compensation system for the 2017 financial year, for which the variable compensation structure was amended compared to the compensation system for the 2016 financial year and which was approved by the General Meeting in May 2017. In addition, the report contains information on the compensation and other benefits granted by the Supervisory Board to the members of the Management Board of Deutsche Bank AG.

Employee Compensation Report

The second section of the Compensation Report discloses information with regard to the compensation system and structure that applies to the employees in Deutsche Bank Group (except for Deutsche Postbank AG, which publishes a separate Compensation Report). The report provides details on the new Compensation Framework that was introduced in 2016 and it outlines the decisions on Variable Compensation for 2016. Furthermore, this part contains quantitative disclosures specific to employees identified as Material Risk Takers (MRTs) in accordance with the German Remuneration Ordinance for Institutions (Institutsvergütungsverordnung, "InstVV").

Supervisory Board Report and Disclosure

The third section provides information on the structure and level of compensation for Supervisory Board members of Deutsche Bank AG.

The report complies with the requirements of Section 314 (1) No. 6 of the German Commercial Code (Handelsgesetzbuch, "HGB"), the German Accounting Standard No. 17 ("DRS 17") "Reporting on Executive Body Remuneration", CRR, InstVV, and the recommendations of the German Corporate Governance Code.

Letter of the Chairman of the Supervisory Board

Dear Shareholders,

In the following report on the remuneration of the members of the Management Board you will find comprehensive information on the compensation system and the compensation for the members of the Management Board – possibly in even greater detail than some of you might wish to study. Let me therefore summarise in brief the main points:

At last year's General Meeting, you, our shareholders, resolved with a majority of 97 % a compensation system for the Group Management Board which forms the basis for our compensation decisions. Pursuant to this compensation system, each of the Management Board members, alongside a fixed salary and a contribution to the company pension plan, is entitled to a variable compensation which is subject to annually defined objectives and their achievement. The largest part (60 %) of the variable compensation is long-term and Group-oriented, the remaining part (a maximum of 40 %) takes into account short-term Group targets and individual or divisional objectives. In the year under review, the achievement level for the Long-Term Award was 38 % and for the short-term Group targets 45 %. For details please refer to the following pages.

However, the Management Board and the Supervisory Board are well aware that the result of the 2017 financial year is not satisfactory with a net loss. To underline this, the members of the Management Board have declared to the Supervisory Board that they are waiving the determination and granting of variable compensation for the 2017 financial year. The Supervisory Board respects this decision and for this reason refrained from determining any variable remuneration for the 2017 financial year for the members of the Management Board. Thus, the Management Board receives no variable compensation for the third consecutive year. On behalf of the Supervisory Board, I would like to pay tribute to the readiness of the Management Board to waive the contractual compensation components in the interest of our bank.

Despite the waiver, the subsequent report is intended to illustrate the objectives on which the individual assessments of the Supervisory Board are based with regard to the Group targets and thus meet the expectations of our investors regarding the transparency of the remuneration system.

The Supervisory Board welcomes constructive feedback and criticism on this important topic and looks forward to the discussions with you at the General Meeting.

Yours sincerely,

Dr. Paul Achleitner

Management Board Compensation Report

Management Board Compensation Governance

Compensation Control Committee

Prepares the resolutions about the compensation system and the compensation level and presents these to the Supervisory Board.

Supervisory Board

Takes decisions about the compensation system and the compensation level. The concluded compensation system is presented to the Annual General Meeting.

Annual General Meeting

Takes decision about the approval of the compensation system.

The Supervisory Board, as a plenary body, is responsible for the structuring of the compensation system for the members of the Management Board as well as for determining their individual compensation. The Supervisory Board is supported by the Compensation Control Committee. The Compensation Control Committee controls and supports the appropriate structuring of the compensation system and prepares the resolutions of the Supervisory Board regarding the individual compensation of the Management Board members. In addition, the Compensation Control Committee and/or the Supervisory Board will consult independent external consultants where this is considered necessary.

The Compensation Control Committee currently comprises four members. In accordance with regulatory requirements, at least one must have sufficient expertise and professional experience in the area of risk management and risk controlling and at least one other must be an employee representative.

The Supervisory Board regularly reviews the compensation system for the members of the Management Board. In the case of a change or restructuring of the compensation framework, the Supervisory Board also uses the possibility provided in § 120 (4) of the German Stock Corporation Act (Aktiengesetz – AktG) for the General Meeting to approve the system of compensation for Management Board members.

The Supervisory Board resolved new compensation structures for the 2017 financial year which it presented to the General Meeting for approval in May 2017. The General Meeting granted its approval with a large majority of 97 %.

Principles of the Management Board Compensation and the Compensation System

Numerous factors are to be considered when structuring the compensation system and determining individual compensation. These factors can be summarized as specific remuneration principles. The following overview shows the core remuneration principles which have an impact on both the compensation system and the individual remuneration and must therefore be taken into consideration by the Supervisory Board when passing a resolution on questions of remuneration.

When passing a resolution on the structure and determination of compensation, the Supervisory Board considers in particular:

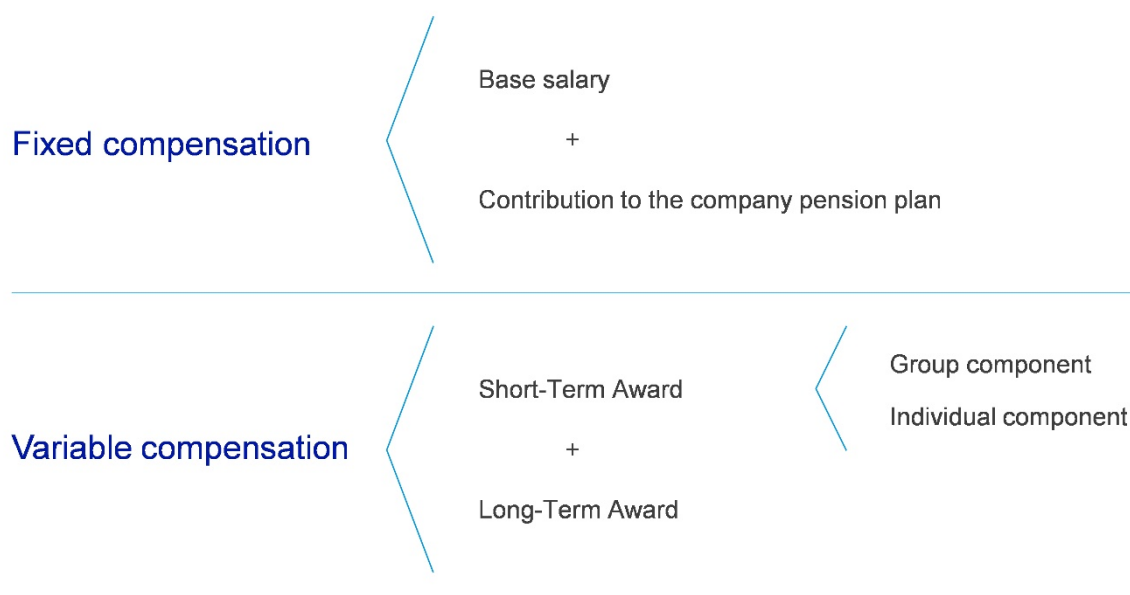
Governance	The structuring of the compensation system and determination of individual remuneration takes place within the framework of the statutory and regulatory requirements. The Supervisory Board's objective is to offer, within the regulatory requirements, a compensation package that continues to be in line with customary market practices and is therefore competitive.
Group Strategy	Through the structure of the compensation system the members of the Management Board are to be motivated to achieve the objectives set out in the Bank's strategies, to work continuously towards the positive development of the Group and to avoid unreasonably high risks.
Collective and Individual Performance of the Management Board Members	The variable, performance-related compensation is determined on the basis of the level of achievement of previously agreed objectives. For this purpose, collective and Deutsche Bank Group-related objectives applying equally to all Management Board members are set. In addition, the Supervisory Board sets individual objectives for each member of the Management Board separately, which particularly take into account the development of the business, infrastructure or regional areas of responsibility as the case may be. Such objectives may be financial or non-financial.
Regulatory or other compensation caps	Pursuant to the regulatory approaches under CRD 4, the ratio of fixed to variable compensation is generally limited to 1:1 (cap regulation), i.e. the amount of variable compensation must not exceed that of fixed compensation. However, lawmakers have also stipulated that shareholders can resolve to relax the requirement by setting the ratio of fixed to variable compensation to 1:2. In May 2014, the General Meeting approved the aforementioned setting to 1:2 with a large majority of 91 %. The compensation system resolved by the Supervisory Board also provides fixed caps for the individual variable compensation components. In addition, the Supervisory Board is entitled to set an additional cap for the total compensation of the individual members of the Management Board. In the 2017 financial year, the additional cap is € 9.85 million.
Sustainability Aspects	The total variable compensation for Management Board members is currently only to be granted on a deferred basis. Since 2017, a portion of at least 75 % of the deferred variable compensation is to be granted in the form of equity-based compensation components, which only vest no less than five years after the grant in one tranche (cliff vesting) and are subject to an additional retention period of one year. The remaining portion is to be granted as non-equity based compensation component and to vest in identical tranches over a period of four years. During the deferral and retention period, deferred compensation is subject to specific forfeiture provisions.
Interests of the Shareholders	When designing the specific structure of the compensation system, determining individual compensation amounts, and structuring its delivery and allocation, the focus is on ensuring a close link between the interests of both the Management Board members and shareholders. While defining the variable compensation, this is achieved through the utilization of clearly defined key financial figures which are directly linked to the performance of Deutsche Bank.

The compensation system and the compensation structures it encompasses are reflected in the individual Management Board members' contracts.

Compensation Structure since January 2017

- Transparent Compensation Structures
- Clear link between compensation and previously agreed objectives
- Strong emphasis on the interests of the shareholders

Structure and compensation elements of the compensation system



The compensation system applicable since January 2017 consists of non-performance-related (fixed) and performance-related (variable) components.

Non-Performance-Related Components (Fixed Compensation)

The fixed compensation is not linked to performance and consists of the base salary, contributions to the company pension plan and “other benefits”.

The annual base salary amounts to € 3.4 million for the Chairman of the Management Board. The Deputy Chairmen receive an annual base salary of € 3 million. The annual base salary for the ordinary board members with responsibility for CIB is € 3 million and for all other ordinary board members € 2.4 million.

In addition, the Supervisory Board decided in 2017 to introduce an optional functional allowance. It may be paid to Management Board members who are assigned additional tasks and a particular responsibility extending beyond the assigned regular area of responsibility within the Management Board. The allowance can be a maximum of 100 % of the fixed base salary and is paid for as long as the additional tasks and the particular responsibility are assigned to the Management Board member.

Various factors were considered when determining the appropriate level of the base salary. First, the base salary rewards general assumption of the office of Management Board member and the related overall responsibility of the individual Management Board members. In addition, the compensation paid in the comparable market is taken into account when determining the amount of the base salary. However, a market comparison must take into consideration that the regulatory requirements pursuant to the German Remuneration Ordinance for Institutions (Institutsvergütungsverordnung – InstVV) in connection with Section 25a (5) of the German Banking Act (Kreditwesengesetz) set a cap for variable compensation at 200 % of the fixed compensation. Accordingly, the fixed compensation must be determined in a way that ensures competitive compensation in line with market practice while taking into account the aforementioned requirements. The regulatory cap was implemented in 2014.

The InstVV provides for the possibility to define contributions to the company pension plan as fixed compensation and thus to include these in the basis for calculating the ratio between fixed and variable compensation components. The annual contribution to the company pension plan amounts to € 650,000 for the Chairman of the Management Board, € 1,000,000 for the ordinary board members with responsibility for AM and CIB and € 650,000 for all other ordinary board members.

Additional non-performance-related components include "other benefits". The "other benefits" comprise the monetary value of non-cash benefits such as company cars and driver services, insurance premiums, expenses for company-related social functions and security measures including payments, if applicable, of taxes on these benefits as well as taxable reimbursements of expenses.

Performance-Related Components (Variable Compensation)

For 2016, the compensation system set forth three components (the Annual Performance Award (APA), the Long-Term Performance Award (LTPA) and the Division Performance Award (DPA)) that together made up the variable compensation. The APA rewarded the achievement of the Bank's short and medium-term business policy and corporate objectives. Not only was financial success taken into account in the process, but also the conduct towards staff members and clients as part of carrying out business activities. The level of the LTPA was determined on the basis of the relative performance of the Deutsche Bank share in comparison to selected peer institutions on the basis of a three-year assessment and also considered non-financial parameters (so-called Culture & Clients factor). The Division Performance Award sought to reflect the specific characteristics of only the front offices.

For 2017, the compensation system was adjusted in order to substantially simplify the structures of the variable compensation and link compensation to transparent performance criteria. However, the structure still allows for the agreement of individual and divisional objectives alongside collective objectives and makes it possible to achieve competitive pay levels in line with market practice on the basis of the respective member's area of responsibility and, at the same time, also meets in this respect the regulatory requirements.

The entire variable compensation is performance-related. As of the 2017 financial year, variable compensation will consist of a short-term component and a long-term component:

- the [Short-Term Award](#) and
- the [Long-Term Award](#).

Short-Term Award (STA)

The STA is linked to the achievement of short-term and medium-term objectives. Objectives include collective objectives to be achieved by the Management Board as a whole and individual objectives whose achievement level is determined separately for each member of the Management Board.

In order to clearly distinguish collective objectives from individual objectives, the STA is divided into two components:

- the [Group Component](#) and
- the [Individual Component](#).

[Group Component](#)

The objectives to be achieved form the basis for the calculation of the Group component as part of the STA. The key objective of the Group component is to link the variable compensation for the Management Board to the overall performance of the Bank.

In 2016, the Management Board decided to align part of the variable compensation for non-tariff employees of the Bank more closely with Group performance. This seeks to reward the contribution of all employees to the financial results of the Bank and the achievements in the implementation of its strategy. Management Board compensation is also closely linked to the performance of the Bank using selected key financial figures. The Supervisory Board decided to align the compensation system for the Management Board members more closely with the compensation system for employees. This is achieved by using the performance metrics underlying the Group component in the compensation system for employees as the reference value for the Group component of the STA since 2017.

In accordance with the strategy, four performance metrics constituting important indicators for the capital, risk, cost and return profile of the Bank form the reference value for the Group Component of the STA:

Common Equity Tier 1 (CET1) capital ratio (fully loaded)	The Common Equity Tier 1 Ratio of the Bank in relation to risk-weighted assets.
Leverage Ratio	The Bank's Tier 1 capital as a percentage of its total leverage exposure pursuant in line with CRR/CRD 4.
Adjusted costs	Total noninterest expenses, excluding restructuring and severance, litigation and impairment of goodwill and other intangibles.
Post-tax return on tangible equity (RoTE)	Net income (or loss) attributable to Deutsche Bank shareholders as a percentage of average tangible shareholders' equity. The latter is the shareholders' equity on the bank's balance sheet, excluding goodwill and other intangible assets.

The Supervisory Board regularly reviews the selection of the performance metrics. The above four objectives are equally weighted at up to 25 % in the determination of the Group Component of the STA, depending on the achievement level. If, overall, the performance metric-based objectives are not achieved during the period being evaluated, the Supervisory Board may determine that a Group component will not be granted.

Individual Component

The individual component of the STA rewards the achievement of short- and medium-term individual and front office-related objectives. These objectives are established by the Supervisory Board as part of the objective-setting agreement for the respective financial year's performance evaluation. The key objectives are designed to contribute to the applicable business policy and strategic objectives of the Bank, in line with each Management Board member's area of responsibility. Not only is financial success taken into account in the process, but also the conduct towards staff members and clients as part of carrying out business activities. Objectives for the individual component may for example include revenue developments in the course of the year, project-related targets, diversity objectives or other developments in employee or client satisfaction.

As part of the annual objective setting agreement, corresponding key financial figures and/or factors are set for all objectives that will be used to determine the objective achievement level. A maximum of three objectives per financial year is set for each Management Board member. The sum of individually agreed and divisional objectives amounts to a maximum of 90 % of the individual component of the STA, depending on the achievement level of the aforementioned objectives. The Supervisory Board decides on the remaining portion of 10 % of the individual component to reward outstanding contributions over the course of the financial year as an exercise of its discretionary authority. If, overall, the objectives are not achieved during the period being evaluated, the Supervisory Board may determine that an individual component will not be granted.

Minimum, Target and Maximum Values

The sum of Group-wide and individually agreed objectives amounts to a maximum of 40 % of the total variable compensation, depending on the achievement level of the aforementioned objectives. This is designed to ensure that the individual objectives do not primarily determine the value of the variable compensation. If, overall, the objectives are not achieved during the period being evaluated, the Supervisory Board may determine that an STA will not be granted.

in €	2017		
	Minimum	Target	Maximum
Chairman			
Group component	0	500,000	1,000,000
Individual component	0	1,400,000	2,800,000
STA total¹	0	1,900,000	3,800,000
Ordinary Board member			
Group component	0	500,000	1,000,000
Individual component (from - up to)	0	800,000	1,600,000
	0	up to 1,400,000	up to 2,800,000
STA total (from - up to)	0	1,300,000	2,600,000
	0	up to 1,900,000	up to 3,800,000

¹ STA: Short-Term Award.

Long-Term Award (LTA)

The Supervisory Board decided to clearly focus on the achievement of long-term objectives when determining the variable compensation. Therefore, the target figure of the LTA constitutes a portion of no less than 60 % of the total variable target compensation. As with the short-term component, the Supervisory Board determines the collective and/or individual long-term objectives for the Management Board members. The achievement level is determined on the basis of the definition of clear performance metrics and/or factors which are to be agreed for these objectives at the beginning of a financial year.

60 % of the variable compensation, as a minimum,
relate to the long-term component

The Supervisory Board determines a total of three objectives for each Management Board member. Each objective is equally weighted at 1/3 in the assessment of the LTA. For 2017, the Supervisory Board determined the following three common objectives for all Management Board members.

The **relative performance of the Deutsche Bank** share in comparison to selected peer institutions is an objective within the framework of the LTA. This objective is intended to promote the sustainable performance of the Deutsche Bank share. The long-term nature of this objective is supported by the determination of the Relative Total Shareholder Return (RTSR) on the basis of a three-year assessment. The RTSR of Deutsche Bank is derived from the Total Shareholder Return of Deutsche Bank in relation to the average total shareholder returns of a selected peer group (calculated in Euro). This LTA portion is calculated from the average of the annual RTSR for the last three financial years (compensation year and the two preceding years). If the three-year average of the relative total shareholder return of Deutsche Bank is greater than 100 %, then the value of the RTSR portion increases proportionately to an upper limit of 150 % of the target figure, i.e., the value increases by 1 % for each percentage point above 100 %. If the three-year average of the relative total shareholder return is lower than 100 %, the value declines disproportionately. If the relative total shareholder return is calculated to be in the range of less than 100 % to 80 %, the value of the Award portion is reduced for each lower percentage point by 2 percentage points. In the range between 80 % and 60 %, the value of the Award portion is reduced for each lower percentage point by 3 percentage points. If the three-year average of the RTSR does not exceed 60 %, the value of the Award portion is set to zero.

The peer group used for the calculation of the relative total shareholder return is selected based on the criteria of generally comparable business activities, comparable size and international presence. The Supervisory Board reviews the composition of the peer group regularly.

In 2017, the peer group for the RTSR comprises the following banks:

Peer Group of Deutsche Bank

BNP Paribas	Société Générale	Barclays	Credit Suisse	UBS
Bank of America	Citigroup	JP Morgan Chase	HSBC	

The second objective is linked to the growth and strengthening of the Bank. Within the notion of **organic capital growth** on a net basis, the Supervisory Board sets an objective designed to promote this growth. In order to determine the level of capital growth, the factor "Organic Capital Growth" is calculated. Organic Capital Growth is defined as the balance of the following changes (which are also reported in the Consolidated Statement of Changes in Equity) occurring during the financial year, divided by the Deutsche Bank Shareholders Equity attributable as at December 31 of the previous financial year.

- Total comprehensive income, net of tax
- Coupons on additional equity components, net of tax
- Remeasurement gains (losses) related to defined benefit plans, net of tax
- Option premiums and other effects from options on common shares
- Net gains (losses) on treasury shares sold

Consequently, "non-organic" changes in equity, in particular payment of a dividend or capital increase, are of no relevance to the achievement of the objective.

As before, the third objective is taken from the category "**Culture & Clients**". In this context, the Supervisory sets an objective which is linked to corporate culture, client satisfaction and dealing with clients. This objective is linked to the sustainable development of the intrabank environment or designed to foster the development of the relationships to clients. As for the 2017 financial year, one objective set by the Supervisory Board for all Management Board members is again the evaluation of the control environment within the Deutsche Bank Group.

The Long Term Award can be a maximum of 150 % of the respective target figures.

Objectives

Objectives are established by the Supervisory Board as part of an objective setting agreement at the beginning of the respective financial year for purposes of performance evaluation. For all objectives, financial figures and/or factors are set from which the achievement level of the objectives is transparently derived. The leeway for the discretionary decision is strictly limited to 3 to 6 % with respect to the total variable compensation.

The allocation of the objectives to the individual compensation components is set out below.

	Relevant indicators	Relative weight
Short-Term Award (STA)	Group component ⁽¹⁾	
	CET1 ratio	25 %
	Leverage ratio	25 %
	Adjusted non-interest expenses	25 %
	Post-tax return on tangible equity (RoTE)	25 %
	Individual component (exemplary) ⁽²⁾	
	Revenue Growth y-o-y versus plan	30 %
	Project-related objectives (realisation, management)	30 %
	Employee Commitment Index (% y-o-y) / Diversity objectives	30 %
Long-Term Award (LTA) ⁽³⁾	Adjustment based on informed judgement	10 %
	Relative total shareholder return	33,34 %
	Organic Capital Growth	33,33 %
	Control Environment	33,33 %

(1) Joint strategic key objectives which also form base for the assessment of the group component as part of the compensation system for the employees of DB Group.

(2) Short-term individual and divisional objectives of quantitative and qualitative nature.

(3) Long-term group-wide objectives.

Maximum Compensation

Total Compensation/Target and Maximum Values

					2017	2016
	Base salary		STA ¹	LTA ²	Total compensation	Total compensation
in €		Group component	Individual component			
Chairman						
Target	3,400,000	500,000	1,400,000	3,400,000	8,700,000	9,100,000
Maximum	3,400,000	1,000,000	2,800,000	5,100,000	12,300,000	12,500,000
Ordinary Board member (CIB)						
Target	3,000,000	500,000	1,400,000	2,800,000	7,700,000	8,500,000
Maximum	3,000,000	1,000,000	2,800,000	4,200,000	11,000,000	13,200,000
Ordinary Board member (PCB)						
Target	2,400,000	500,000	1,100,000	2,800,000	6,800,000	5,800,000
Maximum	2,400,000	1,000,000	2,200,000	4,200,000	9,800,000	8,300,000
Ordinary Board member (Deutsche AM)						
Target	2,400,000	500,000	1,300,000	2,800,000	7,000,000	7,000,000
Maximum	2,400,000	1,000,000	2,600,000	4,200,000	10,200,000	10,500,000
Ordinary Board member (Infrastructure/Region)						
Target	2,400,000	500,000	800,000	2,800,000	6,500,000	5,800,000
Maximum	2,400,000	1,000,000	1,600,000	4,200,000	9,200,000	8,000,000

¹ STA: Short-Term Award.

² LTA: Long-Term Award.

The total compensation of a Management Board member is subject to additional caps. Due to regulatory requirements, the variable compensation is capped at 200 % of the fixed compensation. In addition, the Supervisory Board again set a cap of € 9.85 million for the overall total compensation for the 2017 financial year. Consequently, compensation is capped at a maximum of € 9.85 million, even where the level of the target achievement would result in higher compensation. The functional allowance which may be granted for a fixed period does not count towards the cap.

Long-Term Incentive and Sustainability

According to the requirements of the InstVV at least 60 % of the total variable compensation must be granted on a deferred basis. Not less than half of this deferred portion may comprise equity-based compensation components, while the remaining portion must be granted as deferred cash compensation. Both compensation components must be deferred over a multi-year period which, for the equity-based compensation components, must be followed by a retention period. During the period until payment or delivery, the compensation portions awarded on a deferred basis may be forfeited. At least half of the maximum of 40 % of the Variable Compensation granted on a non-deferred basis must consist of equity-based compensation components and only the remaining portion may be paid out directly in cash. Of the total Variable Compensation, no more than a maximum of 20 % may be paid out in cash immediately, while at least 80 % are paid or delivered at a later date.

Since 2014, the total variable compensation for Management Board members is only granted on a deferred basis. The compensation system applicable up to and including 2016 provided that the short-term components (APA and DPA) were in principle granted in the form of non-equity-based compensation components ("Restricted Incentive Awards"). However, the long term component (LTPA) was exclusively granted in the form of equity-based compensation components ("Restricted Equity Award").

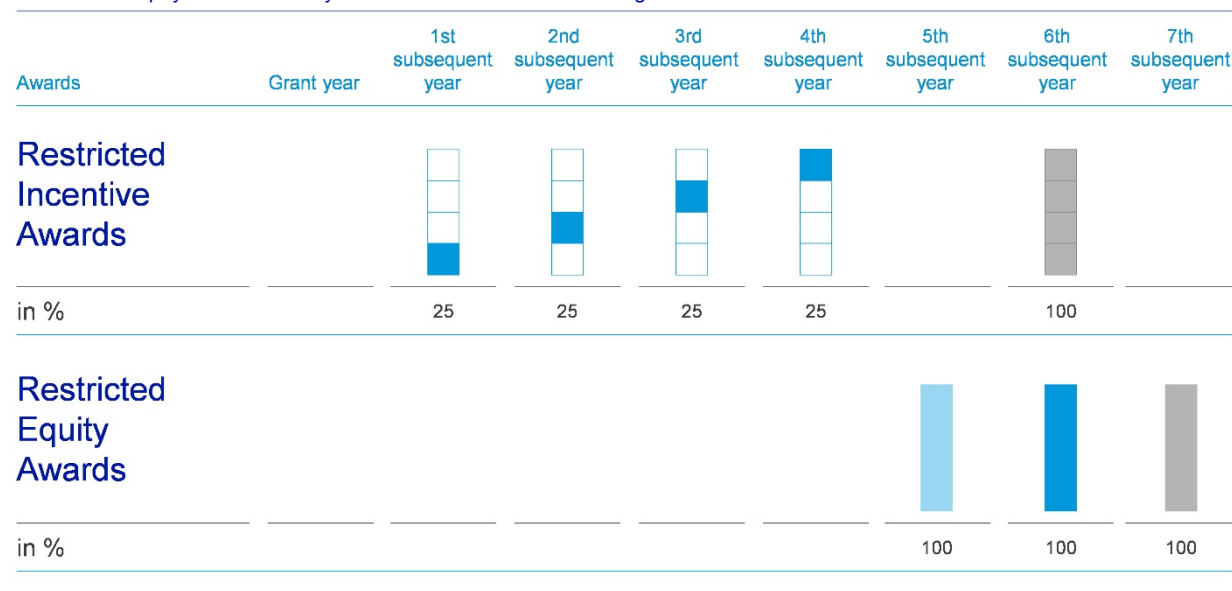
At least **75 %** of the variable compensation is granted equity-based

In order to bind the Management Board members even closer to the performance of the Bank and the Deutsche Bank share price, the Supervisory Board decided that as of the 2017 financial year, the long-term component (LTA), and in fact no less than 75 % of the total variable compensation, will continue to be granted only in the form of Restricted Equity Awards. Only the short-term component (STA), however, a maximum of 25 % of the total variable compensation, is granted in the form of Restricted Incentive Awards.

The Restricted Incentive Awards vest over a period of four years. The Restricted Equity Awards vest after five years in one tranche ("cliff vesting") and have an additional retention period of one year. Accordingly, Management Board members are first permitted to dispose of the equities after six years. During the deferral and retention period, the value of the Restricted Equity Awards is linked to the Bank's share price and is therefore tied to the sustained performance of the Bank. Specific forfeiture provisions apply for Restricted Incentive Awards and Restricted Equity Awards during the deferral and retention period.

The following chart shows the time period for the payment or the delivery of the variable compensation components in the five consecutive years following the grant year as well as the period of a possible clawback.

Timeframe for payment or delivery and non-forfeiture for the Management Board



- Vesting and/or non forfeiture, aligned with payment or delivery.
- Vesting followed by a retention period until delivery; subject to individual forfeiture conditions during the retention period.
- End of possibility to demand the return ('Clawback') of already paid/delivered compensation components.

Forfeiture Conditions / Clawback

Because some of the compensation components are deferred or spread out over several years (Restricted Incentive Awards and Restricted Equity Awards) certain forfeiture conditions are applicable until vesting or the end of the retention periods, in order to create a long-term incentive. Awards may be fully or partially forfeited, for example, due to individual misconduct (including a breach of regulations) or termination for cause, and also due to a negative Group result or individual negative contributions to results. In addition, the Restricted Equity Award will be forfeited completely if the statutory or regulatory minimum requirements for the core capital ratio are not met during this period.

The revision of the InstVV adopted in August 2017 provides inter alia that so-called “clawback provisions” are to be agreed with the members of the management body (Geschäftsleiter) of significant institutions. Contrary to the forfeiture conditions, this clause allows the Supervisory Board to reclaim already paid out or delivered compensation components in response to specific individual negative contributions to results made by the Management Board member. The Supervisory Board had already agreed on such a clause with the Management Board members on the basis of the InstVV draft, which is also in line with the insofar unmodified final version of the InstVV. Thereby, the Supervisory Board successfully fulfilled the obligation set forth in the InstVV to bring the service contracts concluded with the Management Board members in line with the new provisions of the InstVV. The clawback provision is applicable as of the 2018 performance year.

Limitations in the Event of Exceptional Developments

In the event of exceptional developments, the total compensation for each Management Board member is limited to a maximum amount. In addition, the Supervisory Board and the members of the Management Board agreed on a possible limitation of the variable compensation which is included in the service agreements of the Management Board members and according to which the variable compensation may be limited to amounts below the provided maximum amounts or may not be granted altogether. Furthermore, statutory regulations provide that the Supervisory Board may reduce the compensation of the Management Board members to an appropriate level, if the situation of the company deteriorates in such a way following the determination of the compensation that the continuous granting of the compensation would be unreasonable for the company. A payment of variable compensation elements will also not take place if the payment of Variable Compensation components is prohibited or restricted by the competent regulator in accordance with existing statutory requirements.

Shareholding Guidelines

- Long-term commitment of Management Board members to the Bank
- Identification with Deutsche Bank and its shareholders
- Link to performance of the Bank through deferred compensation

All members of the Management Board are required to hold a specified value of Deutsche Bank shares. This requirement fosters the identification of the Management Board members with Deutsche Bank and its shareholders and aims to ensure a sustainable link to the performance of the Bank.

For the Chairman, the number of shares to be held amounts to two times the annual base salary for the Chairman, i.e., the equivalent of € 6,800,000, and for other Management Board members one time the annual base salary for other Management Board members, i.e., the equivalent of € 2,400,000 or € 3,000,000 respectively.

With effect from the 2017 financial year, the former waiting period by which these requirements were to be fulfilled has been replaced by a provision which is linked to the amount of the equity-based variable compensation granted. The share retention obligations must first be fulfilled on the date on which the Management Board member was granted an overall equity based variable compensation corresponding to 1 ½ times the retention obligations since his or her appointment to the Management Board. Deferred equity-based compensation may be taken into account at 75 % of its value towards fulfillment of the obligation.

Observance of the requirement is reviewed semi-annually as of June 30 and December 31. If the required number of shares is not met, the Management Board members must correct any deficiencies by the next review. In 2017, all Management Board members fulfilled the retention obligations for shares or are still within the waiting period.

As compensation components are deferred or spread out over several years, another link to the performance of the Deutsche Bank share is established that should generally continue to exist even for the period after leaving the Management Board.

Pension benefits

The Supervisory Board allocates an entitlement to pension plan benefits to the Management Board members. These entitlements involve a defined contribution pension plan. Under this pension plan, a personal pension account has been set up for each participating member of the Management Board after appointment to the Management Board. A contribution is made annually into this pension account.

Management Board members receive a contribution in the form of a contractually agreed fixed annual amount in Euro. The contribution accrues interest credited in advance, determined by means of an age-related factor, at an average rate of 4 % per year up to the age of 60. From the age of 61 onwards, the contribution made is credited with an annual interest payment of 4 % up to the date of retirement.

The annual contributions, taken together, form the pension amount available to pay the future pension benefit in case of a pension event (age limit, disability or death). The pension right is vested from the start.

The following table shows the annual contributions, the interest credits, the account balances and the annual service costs for the years 2017 and 2016 as well as the corresponding defined benefit obligations for each member of the Management Board in office in 2017 as of December 31, 2017 and December 31, 2016. The different balances are attributable to the different lengths of service on the Management Board, the respective age-related factors, and the different contribution rates, as well as the individual pensionable compensation amounts and the previously mentioned additional individual entitlements.

Members of the Management Board in €	Annual contribution, in the year		Interest credit, in the year		Account balance, end of year		Service cost (IFRS), in the year		Present value of the defined benefit obligation (IFRS), end of year	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
John Cryan	728,000	754,000	0	0	1,875,250	1,147,250	748,829	821,114	1,916,940	1,221,303
Kimberly Hammonds ¹	936,000	250,001	0	0	1,186,001	250,001	842,110	270,466	1,091,041	275,563
Stuart Lewis	871,000	556,000	0	0	3,213,938	2,342,938	807,465	546,402	3,377,866	2,555,844
Sylvie Matherat	786,500	500,000	0	0	1,373,168	586,668	774,917	517,352	1,354,995	613,025
James von Moltke ²	503,750	-	0	-	503,750	-	451,453	-	463,619	-
Nicolas Moreau ³	1,340,000	347,500	0	0	1,687,500	347,500	1,232,878	442,672	1,591,229	450,380
Garth Ritchie	1,500,000	1,550,000	0	0	3,050,000	1,550,000	1,306,915	1,443,171	2,704,127	1,475,820
Karl von Rohr	871,000	556,000	0	0	1,523,001	652,001	807,465	546,402	1,434,564	647,482
Dr. Marcus Schenck	1,105,500	556,000	0	0	2,189,501	1,084,001	1,018,267	546,402	2,051,090	1,041,150
Christian Sewing	1,046,500	1,085,500	0	0	2,824,000	1,777,500	899,307	984,198	2,450,830	1,592,460
Werner Steinmüller ⁴	650,000	166,667	6,667	0	823,334	166,667	701,617	164,232	907,793	169,445
Frank Strauß ⁵	348,834	-	0	-	348,834	-	313,391	-	321,839	-
Jeffrey Urwin ⁶	500,000	2,000,000	20,000	0	0 ⁷	2,000,000	557,370	2,036,367	0	2,090,722

¹ Member since August 1, 2016.

² Member since July 1, 2017.

³ Member since October 1, 2016.

⁴ Member since August 1, 2016.

⁵ Member since September 1, 2017.

⁶ Member until March 31, 2017.

⁷ The pension entitlement was not vested at the time of the termination of the Management Board membership and was paid in form of a cash compensation in the amount of € 2,520,000.

Other Benefits upon Early Termination

The Management Board members are in principle entitled to receive a severance payment upon early termination of their appointment at the Bank's initiative, provided the Bank is not entitled to revoke the appointment or give notice under the contractual agreement for cause. The circumstances of the early termination of the appointment and the length of service on the Management Board are to be taken into account when determining the amount of the severance payment. The severance payment, as a rule, is two annual compensation amounts and is limited to the claims to compensation for the remaining term of the contract. The calculation of the severance payment is based on the annual compensation for the previous financial year and on the expected annual compensation for the current financial year, if applicable. The severance payment is determined in accordance with the statutory and regulatory requirements, in particular with the provisions of the InstVV.

If a Management Board member leaves office in connection with a change of control, he/she is also, under certain conditions, entitled in principle to a severance payment. The exact amount of the severance payment is determined by the Supervisory Board within its sole discretion. According to the German Corporate Governance Codex, the severance payment will not exceed three annual compensation amounts and is limited to the claims to compensation for the remaining term of the contract. The calculation of the compensation is again based on the annual compensation for the previous financial year.

Jeffrey Urwin left the Management Board with effect from the end of March 31, 2017. Then Management Board service contract was terminated by mutual agreement. There were no further entitlements resulting from the termination agreement.

Expense for Long-Term Incentive Components

The following table presents the compensation expense recognized in the respective years for long-term incentive components of compensation granted for service on the Management Board.

Members of the Management Board	Amount expensed for			
	Share-based compensation components		Cash-based compensation components	
in €	2017	2016	2017	2016
James von Moltke ¹	0	0	671,148	0
Stuart Lewis	955,633	(136,084) ²	230,974	466,922

¹ Member since July 1, 2017.

² Share-based compensation of Management Board members is generally valued based on the share price at each respective reporting date and leads to a negative result in this instance.

Management Board compensation for the 2017 financial year

Base Salary

In the 2017 financial year, the annual base salary was € 3,400,000 for the Chairman of the Management Board and € 2,400,000 or € 3,000,000 respectively for the other Management Board members. In 2017, Management Board member Stuart Lewis received a functional allowance in the amount of € 300,000; the Supervisory Board conferred on him the additional responsibility of further improving the relationship with U.S. regulators. Garth Ritchie received a functional allowance in the amount of € 250,000; Mr. Ritchie was entrusted with an additional responsibility in connection with the implications of Brexit.

Variable Compensation

Having taken into consideration the stated loss of the Bank for the 2017 financial year, the Management Board – as they already had done for the 2016 financial year – unanimously took the decision to irrevocably waive any entitlement to the determination and grant of variable compensation to the members of the Management Board for the 2017 financial year. The Management Board declared its waiver to the Supervisory Board. Therefore, the Supervisory Board refrained from determining and granting any variable compensation for the Management Board members for the 2017 financial year.

Level of Objective Achievement

The Supervisory Board has taken account of the shareholder criticism expressed at last year's General Meeting with respect to the transparency of the compensation decisions and decided to make available a review of the level of objective achievement. Given the aforementioned waiver by the Management Board, the Supervisory Board refrained from the determination and grant of variable compensation resulting from the objective achievement.

In the financial year 2017, the development of the four performance metrics for the **Group Component of the STA** was as follows: With respect to the Common Equity Tier 1 (CET1) capital ratio, significant progress was made in achieving the target level in accordance with the strategy plan. The 2017 target level was even exceeded. With respect to the leverage ratio, progress was made in achieving the target level in accordance with the strategy plan, even though the interim target level was not fully reached (please refer to section "Leverage Ratio" in the Risk Report for further detail). The desired 2017 interim target level for the adjusted noninterest expenses was reached. The 2017 post-tax-return target was not met.

In sum, the Supervisory Board determined an achievement level of 45 % for the Group Component.

45 % was the objective achievement level of the STA Group component

The **individual component of the STA** is linked to the achievement of short-term and medium-term individual and divisional objectives determined for the Management Board members in 2017.

John Cryan

In 2017, individual objectives for Mr. Cryan included achieving a defined Group performance (Plan-IBIT). Further objectives included the management of the processes for the implementation of the strategy and enhancing cooperation with regulators as well as dealing with regulatory findings and requirements. In addition, diversity targets and specific scores with respect to employee engagement were agreed.

Kimberly Hammonds

Objectives for Ms. Hammonds included the unhampered provision of significant regulatory programs to support business activities and securing availability of the Bank's key IT applications. Further objectives alongside complying with a defined cost budget for 2017 were the remedy of and compliance with supervisory findings and meeting diversity targets and specific scores with respect to employee engagement.

Stuart Lewis

In 2017, objectives for Mr. Lewis included the implementation of defined cost reductions. Another objective was the implementation of important regulatory programs with a risk focus. Finally, Mr. Lewis pursued the objective of immediately remediating supervisory findings and meeting diversity targets and specific scores with respect to employee engagement.

Sylvie Matherat

Completing the establishment of the Compliance and Anti-Financial Crime divisions was one of the objectives agreed with Ms. Matherat. Another objective was to support the divisions in implementing MiFID 2 requirements alongside the immediate remediation of supervisory findings, enhancing internal cooperation and meeting diversity targets and specific scores with respect to employee engagement were further objectives.

James von Moltke

Objectives for Mr. von Moltke included roll out of bank-wide performance management initiatives aimed at establishing an improved culture of accountability and greater transparency and alignment.

Nicolas Moreau

Objectives for Mr. Moreau included generating net inflows in Asset Management. Another objective was to establish Asset Management as an operatively independent unit and to prepare the IPO. Dealing with supervisory findings and meeting diversity targets and specific scores with respect to employee engagement were further objectives.

Garth Ritchie

Objectives for Mr. Ritchie included in particular CIB-related revenue and IBIT-targets. The immediate remediation of supervisory findings as well as meeting diversity targets and specific scores with respect to employee engagement were further objectives.

Karl von Rohr

One of the objectives for Mr. von Rohr was to reduce the number of pending legal disputes. Another objective was related to improving staff planning. The immediate remediation of supervisory findings was equally an objective as was meeting diversity targets and specific scores with respect to employee engagement.

Dr Marcus Schenck

In his role as CFO (up to and including June 2017), individual objectives for Dr Schenck were the successful completion of the capital increase and Finance-related cost targets. As of July 2017, one of the objectives for Dr Schenck as a co-responsible Management Board member for CIB was to meet CIB-related revenue and IBIT targets. In both of his areas of responsibility, his objectives included the remediation of supervisory findings and meeting diversity targets and specific scores with respect to employee engagement.

Christian Sewing

Objectives for Mr. Sewing included a division-related IBIT target for the 2017 financial year. Another objective related to activities to further integrate Postbank. The immediate remediation of supervisory findings was equally an objective as was meeting diversity targets and specific scores with respect to employee engagement.

Werner Steinmüller

For the financial year 2017, a revenue target and a management objective relating to Asia Pacific were individually agreed with Mr. Steinmüller. The remediation of supervisory findings and meeting diversity targets and specific scores with respect to employee engagement were further objectives.

Frank Strauß

The individual objectives agreed with Mr. Strauß for the period as of September 1, 2017 related to managing Deutsche Postbank AG for which he continues to act as CEO. Another objective was to integrate Postbank into Deutsche Bank Group.

Due to the waiver, the level of achievement of the individual performance of the members of the Management Board was not assessed by the Supervisory Board.

Although the RTSR underlying the **LTA** improved year-on-year in 2017, the average performance in the relevant three-year-period (2015 to 2017) was 82.1 % and lay thus below the performance of the peer group. Organic Capital Growth as defined developed negatively in 2017. The strengthening of the control environment was evaluated based on feedback from internal audit and supervisory authorities.

The Supervisory Board determined an overall achievement level of 38 % for the LTA.

38 % was the LTA objective achievement level

Total Compensation

The members of the Management Board collectively received in/for the 2017 financial year compensation (without fringe benefits and pension service costs) totaling € 29,200,000 (2016: € 25,883,333). This amount was for fixed compensation only. € 0 (2016: € 0) was received for performance-related components with long-term incentives.

The Supervisory Board determined the aforementioned compensation on an individual basis for 2017 and 2016 as follows:

					2017	2016
	Base salary	Group component	STA ¹ Individual component	LTA ²	Total compensation Functional allowance	Total compensation
in €						
John Cryan	3,400,000	0	0	0	3,400,000	3,800,000
Kimberly Hammonds ³	2,400,000	0	0	0	2,400,000	1,000,000
Stuart Lewis	2,400,000	0	0	0	2,400,000	2,400,000
Sylvie Matherat	2,400,000	0	0	0	2,400,000	2,400,000
James von Moltke ⁴	1,200,000	0	0	0	1,200,000	–
Nicolas Moreau ⁵	2,400,000	0	0	0	2,400,000	600,000
Garth Ritchie	3,000,000	0	0	0	3,000,000	2,400,000
Karl von Rohr	2,400,000	0	0	0	2,400,000	2,400,000
Dr. Marcus Schenck	2,900,000	0	0	0	2,900,000	2,400,000
Christian Sewing	2,900,000	0	0	0	2,900,000	2,400,000
Werner Steinmüller ⁶	2,400,000	0	0	0	2,400,000	1,000,000
Frank Strauß ⁷	800,000	0	0	0	800,000	–
Jeffrey Urwin ⁸	600,000	0	0	0	600,000	2,400,000
Jürgen Fitschen ⁹	–	–	–	–	–	1,583,333
Quintin Price ¹⁰	–	–	–	–	–	1,100,000
Total	29,200,000	0	0	0	29,200,000	25,883,333

¹ STA: Short-Term Award.

² LTA: Long-Term Award.

³ Member since August 1, 2016.

⁴ Member since July 1, 2017.

⁵ Member since October 1, 2016.

⁶ Member since August 1, 2016.

⁷ Member since September 1, 2017.

⁸ Member until March 31, 2017.

⁹ Member until May 19, 2016 / contract termination on May 31, 2016.

¹⁰ Member from January 1 until June 15, 2016.

The table above does not include any compensation elements granted to a member of the Management Board as a replacement for components of compensation that have been forfeited at the previous employer. These are shown in the chapters on share awards and the tables in accordance with the German Corporate Governance Code and DRS 17.

Share awards

The Management Board members declared to the Supervisory Board that they waive the determination and grant of any variable compensation for the 2017 financial year. Therefore, no share awards were to grant with respect to the determination of variable compensation. The same applied for the 2016 financial year.

Management Board members do not receive any compensation for mandates on boards of Deutsche Bank subsidiaries.

Due to his taking up office as Management Board member, James von Moltke forfeited deferred compensation components granted to him by his former employer. Furthermore, he did not receive any pro-rated variable compensation from his previous employer for his employment in 2017, due to him joining Deutsche Bank during the year. The forfeited compensation components and those not granted were substituted at the same value by granting a cash payment, by granting 194,142 Deutsche Bank share awards based on the 2017 DB Equity Plan (Equity Upfront Awards and Restricted Equity Awards) and by deferred cash compensation (Restricted Incentive Awards). The Equity Upfront Awards are subject to a retention period until February 28, 2019; the Restricted Equity Awards will vest between September 1, 2017 and March 1, 2023 and are subsequently subject to a retention period of six and twelve months respectively. Until their allocation, the awards are subject to specific forfeiture provisions.

Management Board Share Ownership

As of February 16, 2018 and February 17, 2017, respectively, the current members of the Management Board held Deutsche Bank shares as presented below:

Members of the Management Board		Number of shares
John Cryan	2018	13,740
	2017	9,160
Kimberly Hammonds ¹	2018	34,200
	2017	22,800
Stuart Lewis	2018	88,292
	2017	51,347
Sylvie Matherat	2018	0
	2017	0
James von Moltke ²	2018	0
Nicolas Moreau ³	2018	0
	2017	0
Garth Ritchie	2018	43,227
	2017	28,778
Karl von Rohr	2018	5,601
	2017	3,737
Dr. Marcus Schenck	2018	78,168
	2017	26,445
Christian Sewing	2018	54,356
	2017	36,249
Werner Steinmüller ⁴	2018	119,688
	2017	79,792
Frank Strauß ⁵	2018	7,172
Total	2018	444,444
	2017	258,308

¹ Member since August 1, 2016.

² Member since July 1, 2017.

³ Member since October 1, 2016.

⁴ Member since August 1, 2016.

⁵ Member since September 1, 2017.

The current members of the Management Board held an aggregate of 444,444 Deutsche Bank shares on February 16, 2018, amounting to approximately 0.02 % of Deutsche Bank shares issued on that date.

The following table shows the number of share awards held by the Management Board members as of February 17, 2017 and February 16, 2018 as well as the number of share awards newly granted, delivered or forfeited in this period.

Members of the Management Board	Balance as of Feb 17, 2017	Granted	Delivered	Forfeited	Balance as of Feb 16, 2018
John Cryan	0	0	0	0	0
Kimberly Hammonds ¹	88,072	14,760	0	0	102,832
Stuart Lewis	166,539	21,889	19,748	8,182	160,498
Sylvie Matherat	10,758	1,423	0	0	12,181
James von Moltke ²	–	194,142	0	0	194,142
Nicolas Moreau ³	0	0	0	0	0
Garth Ritchie	549,651	69,085	0	0	618,736
Karl von Rohr	43,456	5,749	0	0	49,206
Dr. Marcus Schenck	216,979	22,241	48,868	0	190,353
Christian Sewing	85,508	11,313	0	0	96,821
Werner Steinmüller ⁴	191,879	28,941	0	0	220,821
Frank Strauß ⁵	30,732	23,523	7,272	0	46,983

¹ Member since August 1, 2016.

² Member since July 1, 2017.

³ Member since October 1, 2016.

⁴ Member since August 1, 2016.

⁵ Member since September 1, 2017.

Compensation in accordance with the German Corporate Governance Code (GCGC)

The compensation for the members of the Management Board in accordance with the requirements of section 4.2.5 paragraph 3 of the GCGC is provided below. This comprises the benefits granted for the year under review including the fringe benefits, and including the maximum and minimum achievable compensation for variable compensation components. In addition, the disbursements of fixed compensation and variable compensation (broken down by Restricted Incentive Awards and Restricted Equity Awards) in/for the year under review, broken down into the relevant reference years are reported.

The following table provides the compensation granted for the 2017 and 2016 financial years according to GCGC:

in €	2017				John Cryan	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	3,400,000	3,400,000	3,400,000	3,400,000	3,800,000	3,800,000
Fringe benefits	220,982	220,982	220,982	220,982	41,795	41,795
Total	3,620,982	3,620,982	3,620,982	3,620,982	3,841,795	3,841,795
Variable compensation	0	5,300,000	0	8,900,000	0	5,300,000
thereof:						
Restricted Incentive Awards	0	1,900,000	0	3,800,000	0	1,500,000
Restricted Equity Awards	0	3,400,000	0	5,100,000	0	3,800,000
Total	0	5,300,000	0	8,900,000	0	5,300,000
Pension service costs	748,829	748,829	748,829	748,829	821,114	821,114
Total compensation (GCGC)	4,369,811	9,669,811	4,369,811	13,269,811	4,662,909	9,962,909
Total compensation¹	3,400,000	8,700,000	3,400,000	12,300,000	3,800,000	9,100,000

¹ Without fringe benefits and pension service costs.

in €	2017				Kimberly Hammonds ¹	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	1,000,000	1,000,000
Fringe benefits	260,489	260,489	260,489	260,489	6,035	6,035
Total	2,660,489	2,660,489	2,660,489	2,660,489	1,006,035	1,006,035
Variable compensation	0	4,100,000	0	6,800,000	0	1,416,667
thereof:						
Restricted Incentive Awards	0	1,300,000	0	2,600,000	0	416,667
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	1,000,000
Total	0	4,100,000	0	6,800,000	0	1,416,667
Pension service costs	842,110	842,110	842,110	842,110	270,466	270,466
Total compensation (GCGC)	3,502,599	7,602,599	3,502,599	10,302,599	1,276,501	2,693,168
Total compensation²	2,400,000	6,500,000	2,400,000	9,200,000	1,000,000	2,416,667

¹ Member since August 1, 2016.

² Without fringe benefits and pension service costs.

in €	2017				Stuart Lewis	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000
Functional allowance	300,000	300,000	300,000	300,000	0	0
Fringe benefits	206,628	206,628	206,628	206,628	77,938	77,938
Total	2,906,628	2,906,628	2,906,628	2,906,628	2,477,938	2,477,938
Variable compensation	0	4,100,000	0	6,800,000	0	3,400,000
thereof:						
Restricted Incentive Awards	0	1,300,000	0	2,600,000	0	1,000,000
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	2,400,000
Total	0	4,100,000	0	6,800,000	0	3,400,000
Pension service costs	807,465	807,465	807,465	807,465	546,402	546,402
Total compensation (GCGC)	3,714,093	7,814,093	3,714,093	10,514,093	3,024,340	6,424,340
Total compensation¹	2,400,000	6,500,000	2,400,000	9,200,000	2,400,000	5,800,000

¹ Without functional allowance, fringe benefits and pension service costs.

Sylvie Matherat						
in €	2017				2016	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000
Fringe benefits	16,338	16,338	16,338	16,338	12,905	12,905
Total	2,416,338	2,416,338	2,416,338	2,416,338	2,412,905	2,412,905
Variable compensation	0	4,100,000	0	6,800,000	0	3,400,000
thereof:						
Restricted Incentive Awards	0	1,300,000	0	2,600,000	0	1,000,000
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	2,400,000
Total	0	4,100,000	0	6,800,000	0	3,400,000
Pension service costs	774,917	774,917	774,917	774,917	517,352	517,352
Total compensation (GCGC)	3,191,255	7,291,255	3,191,255	9,991,255	2,930,257	6,330,257
Total compensation¹	2,400,000	6,500,000	2,400,000	9,200,000	2,400,000	5,800,000

¹ Without fringe benefits and pension service costs.

James von Moltke ¹						
in €	2017				2016	
	Determined ²	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	1,200,000	1,200,000	1,200,000	1,200,000	-	-
Fringe benefits	473,299	473,299	473,299	473,299	-	-
Total	1,673,299	1,673,299	1,673,299	1,673,299	-	-
Variable compensation	4,858,442	2,050,000	0	3,400,000	-	-
thereof:						
Cash	355,404	0	0	0	-	-
Restricted Incentive Awards	1,600,227	650,000	0	1,300,000	-	-
Equity Upfront Awards	355,404	0	0	0	-	-
Restricted Equity Awards	2,547,407	1,400,000	0	2,100,000	-	-
Total	4,858,442	2,050,000	0	3,400,000	-	-
Pension service costs	451,453	451,453	451,453	451,453	-	-
Total compensation (GCGC)	6,983,194	4,174,752	2,124,752	5,524,752	-	-
Total compensation³	6,058,442	3,250,000	1,200,000	4,600,000	-	-

¹ Member since July 1, 2017.

² The benefits granted to Mr. von Moltke as a substitute for forfeited awards and not granted variable compensation from his previous employer are displayed under "Variable Compensation".

³ Without fringe benefits and pension service costs.

Nicolas Moreau ¹						
in €	2017				2016	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	600,000	600,000
Fringe benefits	59,383	59,383	59,383	59,383	5,239	5,239
Total	2,459,383	2,459,383	2,459,383	2,459,383	605,239	605,239
Variable compensation	0	4,600,000	0	7,800,000	0	1,150,000
thereof:						
Restricted Incentive Awards	0	1,800,000	0	3,600,000	0	600,000
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	550,000
Total	0	4,600,000	0	7,800,000	0	1,150,000
Pension service costs	1,232,878	1,232,878	1,232,878	1,232,878	442,672	442,672
Total compensation (GCGC)	3,692,261	8,292,261	3,692,261	11,492,261	1,047,911	2,197,911
Total compensation²	2,400,000	7,000,000	2,400,000	10,200,000	600,000	1,750,000

¹ Member since October 1, 2016.

² Without fringe benefits and pension service costs.

Garth Ritchie						
in €	2017				2016	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	3,000,000	3,000,000	3,000,000	3,000,000	2,400,000	2,400,000
Functional allowance	250,000	250,000	250,000	250,000	0	0
Fringe benefits	269,457	269,457	269,457	269,457	110,241	110,241
Total	3,519,457	3,519,457	3,519,457	3,519,457	2,510,241	2,510,241
Variable compensation	0	4,700,000	0	8,000,000	0	4,600,000
thereof:						
Restricted Incentive Awards	0	1,900,000	0	3,800,000	0	2,400,000
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	2,200,000
Total	0	4,700,000	0	8,000,000	0	4,600,000
Pension service costs	1,306,915	1,306,915	1,306,915	1,306,915	1,443,171	1,443,171
Total compensation (GCGC)	4,826,372	9,526,372	4,826,372	12,826,372	3,953,412	8,553,412
Total compensation¹	3,000,000	7,700,000	3,000,000	11,000,000	2,400,000	7,000,000

¹ Without functional allowance, fringe benefits and pension service costs.

Karl von Rohr						
in €	2017				2016	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000
Fringe benefits	23,642	23,642	23,642	23,642	47,730	47,730
Total	2,423,642	2,423,642	2,423,642	2,423,642	2,447,730	2,447,730
Variable compensation	0	4,100,000	0	6,800,000	0	3,400,000
thereof:						
Restricted Incentive Awards	0	1,300,000	0	2,600,000	0	1,000,000
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	2,400,000
Total	0	4,100,000	0	6,800,000	0	3,400,000
Pension service costs	807,465	807,465	807,465	807,465	546,402	546,402
Total compensation (GCGC)	3,231,107	7,331,107	3,231,107	10,031,107	2,994,132	6,394,132
Total compensation¹	2,400,000	6,500,000	2,400,000	9,200,000	2,400,000	5,800,000

¹ Without fringe benefits and pension service costs.

Dr. Marcus Schenck						
in €	2017				2016	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,900,000	2,900,000	2,900,000	2,900,000	2,400,000	2,400,000
Fringe benefits	16,148	16,148	16,148	16,148	23,720	23,720
Total	2,916,148	2,916,148	2,916,148	2,916,148	2,423,720	2,423,720
Variable compensation	0	4,400,000	0	7,400,000	0	3,400,000
thereof:						
Restricted Incentive Awards	0	1,600,000	0	3,200,000	0	1,000,000
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	2,400,000
Total	0	4,400,000	0	7,400,000	0	3,400,000
Pension service costs	1,018,267	1,018,267	1,018,267	1,018,267	546,402	546,402
Total compensation (GCGC)	3,934,415	8,334,415	3,934,415	11,334,415	2,970,122	6,370,122
Total compensation¹	2,900,000	7,300,000	2,900,000	10,300,000	2,400,000	5,800,000

¹ Without fringe benefits and pension service costs.

Christian Sewing						
in €	2017				2016	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,900,000	2,900,000	2,900,000	2,900,000	2,400,000	2,400,000
Fringe benefits	80,307	80,307	80,307	80,307	204,758	204,758
Total	2,980,307	2,980,307	2,980,307	2,980,307	2,604,758	2,604,758
Variable compensation	0	4,400,000	0	7,400,000	0	3,400,000
thereof:						
Restricted Incentive Awards	0	1,600,000	0	3,200,000	0	1,600,000
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	1,800,000
Total	0	4,400,000	0	7,400,000	0	3,400,000
Pension service costs	899,307	899,307	899,307	899,307	984,198	984,198
Total compensation (GCGC)	3,879,614	8,279,614	3,879,614	11,279,614	3,588,956	6,988,956
Total compensation¹	2,900,000	7,300,000	2,900,000	10,300,000	2,400,000	5,800,000

¹ Without fringe benefits and pension service costs.

Werner Steinmüller ¹						
in €	2017				2016	
	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	1,000,000	1,000,000
Fringe benefits	399,424	399,424	399,424	399,424	165,001	165,001
Total	2,799,424	2,799,424	2,799,424	2,799,424	1,165,001	1,165,001
Variable compensation	0	4,100,000	0	6,800,000	0	1,416,667
thereof:						
Restricted Incentive Awards	0	1,300,000	0	2,600,000	0	416,667
Restricted Equity Awards	0	2,800,000	0	4,200,000	0	1,000,000
Total	0	4,100,000	0	6,800,000	0	1,416,667
Pension service costs	701,617	701,617	701,617	701,617	164,232	164,232
Total compensation (GCGC)	3,501,041	7,601,041	3,501,041	10,301,041	1,329,233	2,745,900
Total compensation²	2,400,000	6,500,000	2,400,000	9,200,000	1,000,000	2,416,667

¹ Member since August 1, 2016.

² Without fringe benefits and pension service costs.

					Frank Strauß ¹	
					2017	2016
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	800,000	800,000	800,000	800,000	-	-
Fringe benefits	26,893	26,893	26,893	26,893	-	-
Total	826,893	826,893	826,893	826,893	-	-
Variable compensation	0	1,466,667	0	2,466,667	-	-
thereof:						
Restricted Incentive Awards	0	533,333	0	1,066,667	-	-
Restricted Equity Awards	0	933,333	0	1,400,000	-	-
Total	0	1,466,667	0	2,466,667	-	-
Pension service costs	313,391	313,391	313,391	313,391	-	-
Total compensation (GCGC)	1,140,284	2,606,951	1,140,284	3,606,951	-	-
Total compensation²	800,000	2,266,667	800,000	3,266,667	-	-

¹ Member since September 1, 2017.

² Without fringe benefits and pension service costs.

					Jeffrey Urwin ¹	
					2017	2016
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	600,000	600,000	600,000	600,000	2,400,000	2,400,000
Fringe benefits	530	530	530	530	59,763	59,763
Total	600,530	600,530	600,530	600,530	2,459,763	2,459,763
Variable compensation	0	0	0	0	0	6,100,000
thereof:						
Restricted Incentive Awards	0	0	0	0	0	3,300,000
Restricted Equity Awards	0	0	0	0	0	2,800,000
Total	0	0	0	0	0	6,100,000
Pension service costs	557,370	557,370	557,370	557,370	2,036,367	2,036,367
Total compensation (GCGC)	1,157,900	1,157,900	1,157,900	1,157,900	4,496,130	10,596,130
Total compensation²	600,000	600,000	600,000	600,000	2,400,000	8,500,000

¹ Member until March 31, 2017.

² Without fringe benefits and pension service costs.

					Jürgen Fitschen ¹	
					2017	2016
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	-	-	-	-	1,583,333	1,583,333
Fringe benefits	-	-	-	-	38,937	38,937
Total	-	-	-	-	1,622,270	1,622,270
Variable compensation	-	-	-	-	0	2,208,333
thereof:						
Restricted Incentive Awards	-	-	-	-	0	625,000
Restricted Equity Awards	-	-	-	-	0	1,583,333
Total	-	-	-	-	0	2,208,333
Pension service costs	-	-	-	-	232,666	232,666
Total compensation (GCGC)	-	-	-	-	1,854,936	4,063,269
Total compensation²	-	-	-	-	1,583,333	3,791,667

¹ Member until May 19, 2016 / contract termination on May 31, 2016.

² Without fringe benefits and pension service costs.

					Quintin Price ¹	
					2017	2016
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	-	-	-	-	1,100,000	1,100,000
Fringe benefits	-	-	-	-	13,783	13,783
Total	-	-	-	-	1,113,783	1,113,783
Variable compensation	-	-	-	-	0	2,108,333
thereof:						
Restricted Incentive Awards	-	-	-	-	0	1,100,000
Restricted Equity Awards	-	-	-	-	0	1,008,333
Total	-	-	-	-	0	2,108,333
Pension service costs	-	-	-	-	525,143	525,143
Total compensation (GCGC)	-	-	-	-	1,638,926	3,747,259
Total compensation²	-	-	-	-	1,100,000	3,208,333

¹ Member from January 1 until June 15, 2016.

² Without fringe benefits and pension service costs.

The following table provides the compensation disbursements in/for the 2017 and 2016 financial years according to GCGC

	John Cryan		Kimberly Hammonds ¹		Stuart Lewis		Sylvie Matherat	
in €	2017	2016	2017	2016	2017	2016	2017	2016
Fixed compensation	3,400,000	3,800,000	2,400,000	1,000,000	2,400,000	2,400,000	2,400,000	2,400,000
Functional allowance	0	0	0	0	300,000	0	0	0
Fringe benefits	220,982	41,795	260,489	6,035	206,628	77,938	16,338	12,905
Total	3,620,982	3,841,795	2,660,489	1,006,035	2,906,628	2,477,938	2,416,338	2,412,905
Variable compensation	0	0	0	0	999,285	0	0	0
thereof Cash:	0	0	0	0	0	0	0	0
thereof Equity Awards:								
2013 Equity Upfront Award for 2012	0	0	0	0	27,560	0	0	0
2014 Equity Upfront Award for 2013	0	0	0	0	35,498	0	0	0
thereof Restricted Incentive Awards:								
2013 Restricted Incentive Award for 2012	0	0	0	0	377,871	0	0	0
2014 Restricted Incentive Award for 2013	0	0	0	0	357,391	0	0	0
2015 Restricted Incentive Award for 2014	0	0	0	0	200,965	0	0	0
Total	0	0	0	0	999,285	0	0	0
Pension service costs	748,829	821,114	842,110	270,466	807,465	546,402	774,917	517,352
Total compensation (GCGC)	4,369,811	4,662,909	3,502,599	1,276,501	4,713,378	3,024,340	3,191,255	2,930,257

¹ Member since August 1, 2016.

	James von Moltke ¹		Nicolas Moreau ²		Garth Ritchie		Karl von Rohr	
in €	2017	2016	2017	2016	2017	2016	2017	2016
Fixed compensation	1,200,000	-	2,400,000	600,000	3,000,000	2,400,000	2,400,000	2,400,000
Functional allowance	0	-	0	0	250,000	0	0	0
Fringe benefits	473,299	-	59,383	5,239	269,457	110,241	23,642	47,730
Total	1,673,299	-	2,459,383	605,239	3,519,457	2,510,241	2,423,642	2,447,730
Variable compensation	355,404	-	0	0	0	0	0	0
thereof Cash:	355,404	-	0	0	0	0	0	0
thereof Equity Awards:								
2013 Equity Upfront Award for 2012	0	-	0	0	0	0	0	0
2014 Equity Upfront Award for 2013	0	-	0	0	0	0	0	0
thereof Restricted Incentive Awards:								
2013 Restricted Incentive Award for 2012	0	-	0	0	0	0	0	0
2014 Restricted Incentive Award for 2013	0	-	0	0	0	0	0	0
2015 Restricted Incentive Award for 2014	0	-	0	0	0	0	0	0
Total	355,404	-	0	0	0	0	0	0
Pension service costs	451,453	-	1,232,878	442,672	1,306,915	1,443,171	807,465	546,402
Total compensation (GCGC)	2,480,156	-	3,692,261	1,047,911	4,826,372	3,953,412	3,231,107	2,994,132

¹ Member since July 1, 2017. The benefits granted to Mr. von Moltke as a substitute for forfeited awards and not granted variable compensation from his previous employer are displayed under "Variable Compensation".

² Member since October 1, 2016.

	Dr. Marcus Schenck		Christian Sewing		Werner Steinmüller ¹		Frank Strauß ²	
in €	2017	2016	2017	2016	2017	2016	2017	2016
Fixed compensation	2,900,000	2,400,000	2,900,000	2,400,000	2,400,000	1,000,000	800,000	-
Functional allowance	0	0	0	0	0	0	0	-
Fringe benefits	16,148	23,720	80,307	204,758	399,424	165,001	26,893	-
Total	2,916,148	2,423,720	2,980,307	2,604,758	2,799,424	1,165,001	826,893	-
Variable compensation	0	0	0	0	0	0	0	-
thereof Cash:	0	0	0	0	0	0	0	-
thereof Equity Awards:								
2013 Equity Upfront Award for 2012	0	0	0	0	0	0	0	-
2014 Equity Upfront Award for 2013	0	0	0	0	0	0	0	-
thereof Restricted Incentive Awards:								
2013 Restricted Incentive Award for 2012	0	0	0	0	0	0	0	-
2014 Restricted Incentive Award for 2013	0	0	0	0	0	0	0	-
2015 Restricted Incentive Award for 2014	0	0	0	0	0	0	0	-
Total	0	0	0	0	0	0	0	-
Pension service costs	1,018,267	546,402	899,307	984,198	701,617	164,232	313,391	-
Total compensation (GCGC)	3,934,415	2,970,122	3,879,614	3,588,956	3,501,041	1,329,233	1,140,284	-

¹ Member since August 1, 2016.

² Member since September 1, 2017.

in €	Jeffrey Urwin ¹		Jürgen Fitschen ²		Quintin Price ³	
	2017	2016	2017	2016	2017	2016
Fixed compensation	600,000	2,400,000	-	1,583,333	-	1,100,000
Functional allowance	0	0	-	0	-	0
Fringe benefits	530	59,763	-	38,937	-	13,783
Total	600,530	2,459,763	-	1,622,270	-	1,113,783
Variable compensation	0	0	2,079,429	0	-	0
thereof Cash:	0	0	-	0	-	0
thereof Equity Awards:						
2012 Equity Upfront Award for 2011	0	0	24,334	0	-	0
2013 Equity Upfront Award for 2012	0	0	33,348	0	-	0
2014 Equity Upfront Award for 2013	0	0	35,491	0	-	0
2011 Restricted Equity Award for 2010	0	0	71,018	0	-	0
2012 Restricted Equity Award for 2011	0	0	247,666	0	-	0
thereof Restricted Incentive Awards:						
2011 Restricted Incentive Award for 2010	0	0	196,008	0	-	0
2012 Restricted Incentive Award for 2011	0	0	523,818	0	-	0
2013 Restricted Incentive Award for 2012	0	0	511,933	0	-	0
2014 Restricted Incentive Award for 2013	0	0	330,352	0	-	0
2015 Restricted Incentive Award for 2014	0	0	105,461	0	-	0
Total	0	0	2,079,429	0	-	0
Pension service costs	557,370	2,036,367	-	232,666	-	525,143
Total compensation (GCGC)	1,157,900	4,496,130	2,079,429	1,854,936	-	1,638,926

¹ Member until March 31, 2017.

² Member until May 19, 2016.

³ Member since January 1, 2016 / contract termination on May 31, 2016.

In 2015 and 2016, the Supervisory Board had suspended the tranches of deferred compensation elements for the Management Board member Stuart Lewis (who was an active member during the reporting period), Jürgen Fitschen and nine other former Management Board members. In 2017, these Management Board members voluntarily waived their entitlement to a large part of their yet unpaid compensation and, in an agreement with the Supervisory Board, agreed that only € 31.4 million of the € 69.8 million of outstanding Variable Compensation will be disbursed. The compensation elements paid out (or delivered, in the case of equity-based elements) under this agreement in 2017 are included in the above table.

With respect to deferred awards scheduled to be delivered in the first quarter of 2018, the Supervisory Board has confirmed that the performance conditions relating to Group-wide IBIT for the financial year 2017 have been met.

Compensation in accordance with the German Accounting Standard No. 17 (GAS 17)

In accordance with the requirements of the GAS 17, the members of the Management Board collectively received in the 2017 financial year compensation totaling € 37,665,535 (2016: € 26,691,178). Of that, € 29,200,000 (2016: € 25,883,333) was for base salaries, € 2,053,520 (2016: € 807,845) for fringe benefits and € 5,862,015 (2016: € 0) for performance-related components.

In accordance with German Accounting Standard No. 17, the Restricted Incentive Awards, as a deferred, non-equity-based compensation component subject to certain (forfeiture) conditions, must be recognized in the total compensation for the year of their payment (i.e. in the financial year in which the unconditional payment takes place) and not in the year they are originally granted. Based on this the Management Board members individually received the following compensation components for their service on the Management Board for or in the years 2017 and 2016, including the non-performance-related fringe benefits.

Compensation according to GAS 17

	John Cryan		Kimberly Hammonds ¹		Stuart Lewis		Sylvie Mathérat	
in €	2017	2016	2017	2016	2017	2016	2017	2016
Compensation								
Performance-related components								
With short-term incentives								
Cash	0	0	0	0	0	0	0	0
With long-term incentives								
Cash-based								
Restricted Incentive Award(s) paid	0	0	0	0	936,228	0	0	0
Share-based								
Equity Upfront Award(s)	0	0	0	0	0	0	0	0
Restricted Equity Award(s)	0	0	0	0	0	0	0	0
Non-performance-related components								
Base salary	3,400,000	3,800,000	2,400,000	1,000,000	2,400,000	2,400,000	2,400,000	2,400,000
Functional allowance	0	0	0	0	300,000	0	0	0
Fringe benefits	220,982	41,795	260,489	6,035	206,628	77,938	16,338	12,905
Total	3,620,982	3,841,795	2,660,489	1,006,035	3,842,856	2,477,938	2,416,338	2,412,905

¹ Member since August 1, 2016.

	James von Moltke ¹		Nicolas Moreau ²		Garth Ritchie		Karl von Rohr	
in €	2017	2016	2017	2016	2017	2016	2017	2016
Compensation								
Performance-related components								
With short-term incentives								
Cash	355,404	-	0	0	0	0	0	0
With long-term incentives								
Cash-based								
Restricted Incentive Award(s) paid	0	-	0	0	0	0	0	0
Share-based								
Equity Upfront Award(s)	355,404	-	0	0	0	0	0	0
Restricted Equity Award(s)	2,547,407	-	0	0	0	0	0	0
Non-performance-related components								
Base salary	1,200,000	-	2,400,000	600,000	3,000,000	2,400,000	2,400,000	2,400,000
Functional allowance	0	-	0	0	250,000	0	0	0
Fringe benefits	473,299	-	59,383	5,239	269,457	110,241	23,642	47,730
Total	4,931,514	-	2,459,383	605,239	3,519,457	2,510,241	2,423,642	2,447,730

¹ Member since July 1, 2017.

² Member since October 1, 2016.

	Dr. Marcus Schenck		Christian Sewing		Werner Steinmüller ¹		Frank Strauß ²	
in €	2017	2016	2017	2016	2017	2016	2017	2016
Compensation								
Performance-related components								
With short-term incentives								
Cash	0	0	0	0	0	0	0	-
With long-term incentives								
Cash-based								
Restricted Incentive Award(s) paid	0	0	0	0	0	0	0	-
Share-based								
Equity Upfront Award(s)	0	0	0	0	0	0	0	-
Restricted Equity Award(s)	0	0	0	0	0	0	0	-
Non-performance-related components								
Base salary	2,900,000	2,400,000	2,900,000	2,400,000	2,400,000	1,000,000	800,000	-
Functional allowance	0	0	0	0	0	0	0	-
Fringe benefits	16,148	23,720	80,307	204,758	399,424	165,001	26,893	-
Total	2,916,148	2,423,720	2,980,307	2,604,758	2,799,424	1,165,001	826,893	-

¹ Member since August 1, 2016.

² Member since September 1, 2017.

	Jeffrey Urwin ¹		Jürgen Fitschen ²		Quintin Price ³		Total	
in €	2017	2016	2017	2016	2017	2016	2017	2016
Compensation								
Performance-related components								
With short-term incentives								
Cash	0	0	-	0	-	0	355,404	0
With long-term incentives								
Cash-based								
Restricted Incentive Award(s) paid	0	0	1,667,572	0	-	0	2,603,800	0
Share-based								
Equity Upfront Award(s)	0	0	-	0	-	0	355,404	0
Restricted Equity Award(s)	0	0	-	0	-	0	2,547,407	0
Non-performance-related components								
Base salary	600,000	2,400,000	-	1,583,333	-	1,100,000	29,200,000	25,883,333
Functional allowance	0	0	-	0	-	0	550,000	0
Fringe benefits	530	59,763	-	38,937	-	13,783	2,053,520	807,845
Total	600,530	2,459,763	1,667,572	1,622,270	-	1,113,783	37,665,535	26,691,178

¹ Member until March 31, 2017.

² Member until May 19, 2016 / contract termination on May 31, 2016.

³ Member from January 1 until June 15, 2016.

In 2015 and 2016, the Supervisory Board had suspended the tranches of deferred compensation elements for the Management Board member Stuart Lewis (who was an active member during the reporting period), Jürgen Fitschen and nine other former Management Board members. In 2017, these Management Board members voluntarily waived their entitlement to a large part of their yet unpaid compensation and, in an agreement with the Supervisory Board, agreed that only € 31.4 Million of the € 69.8 Million of outstanding variable compensation will be disbursed. The compensation elements paid out (or delivered, in the case of equity-based elements) under this agreement in 2017 are included in the above table.

With respect to deferred awards scheduled to be delivered in the first quarter of 2018, the Supervisory Board has confirmed that the performance conditions relating to Group-wide IBIT for the 2017 financial year have been met.

Employee Compensation Report

The content of the 2017 Employee Compensation Report is based on the qualitative and quantitative remuneration disclosure requirements outlined in Article 450 No. 1 (a) to (i) Capital Requirements Regulation (“CRR”) in conjunction with Section 16 of the Remuneration Ordinance for Institutions (“Institutsvergütungsverordnung” – “InstVV”).

Regulatory Environment

Ensuring compliance with regulatory requirements is an overarching consideration in our Group Compensation Strategy. We strive to be at the forefront of regulatory changes with respect to compensation and will continue to work closely with our prudential supervisor, the European Central Bank (“ECB”), to be in compliance with all existing and new requirements.

As an EU-headquartered institution, Deutsche Bank is subject to the CRR and Capital Requirements Directive 4 (“CRD 4”) requirements globally, as translated into German national law in the German Banking Act and InstVV. As of August 4, 2017, the revised version of the InstVV became effective. The principal objective of the amendment was to reflect the guidance on sound remuneration policies published by the European Banking Authority (“EBA”) on December 21, 2015. According to the InstVV, all compensation elements must be categorised as either fixed or variable. If a compensation element cannot clearly be categorised as fixed, it is deemed to be variable. We adopted the rules for all of Deutsche Bank’s subsidiaries and branches worldwide to the extent required in accordance with Section 27 InstVV.

Pursuant to CRD 4 and the requirements subsequently adopted in the German Banking Act, Deutsche Bank is subject to a ratio of 1:1 with regard to fixed to variable remuneration components, which was increased to 1:2 with shareholder approval on May 22, 2014 with an approval rate of 95.27 %. However, we have determined that individuals within the corporate control functions remain subject to a 1:1 ratio.

As a “significant Institution” within the meaning of the InstVV, Deutsche Bank identifies all employees whose work is deemed to have a material impact on the overall risk profile (“Material Risk Takers” or “MRTs”) as referenced in the InstVV and in accordance with criteria stipulated under the Commission Delegated Regulation (EU) No. 604/2014. MRTs are identified at a Group level and at the level of Group entities which are significant institutions within the meaning of Section 17 InstVV. The compensation framework for MRTs must comply with specific requirements. Among other things, a significant part (at least 40 %) of the variable compensation has to be deferred over a period of at least three years (for senior management at least 60 % over five years). As a new ex-post risk adjustment instrument from performance-year 2018 onwards, significant institutions must have the ability to reduce retained variable compensation components and in cases of severe misconduct, demand repayment of variable compensation already paid out (“claw-back”). Stricter rules also apply to severance payments, such as the requirement to determine general rules for severance payments including maximum amounts or specific criteria for the calculation of the payments. Moreover, the InstVV establishes more stringent compensation related documentation and disclosure requirements. Based on thorough analysis, we have determined that our compensation system was already aligned with the revised version of the InstVV to a large extent. Where required, we have been adjusting our relevant policies, processes, and practices.

As a result of sector specific legislation and in accordance with the InstVV, some of Deutsche Bank’s subsidiaries fall under the “Alternative Investments Fund Managers Directive” (“AIFMD”) or the “Undertakings for Collective Investments in Transferable Securities V” Directive (“UCITS V”) and are subject to their respective remuneration provisions. We also identify Material Risk Takers in AIFMD/UCITS V regulated subsidiaries in accordance with the applicable rules and apply the remuneration provisions for MRTs identified according to InstVV also to this group, except for the 1:2 ratio with regard to fixed to variable components which does not apply as long as these employees are not identified as MRTs according to InstVV at the same time.

Deutsche Bank also takes into account the guidelines under the “Markets in Financial Instruments Directive II” (“MiFID II”) targeted at employees who engage directly or indirectly with the bank’s clients. Together with the “Minimum Requirements for the Compliance Function” (“MaComp”) circular, these provisions require the implementation of a specific compensation policy, a review of compensation plans and the identification of populations of employees deemed to be “Relevant Persons” to ensure that they act in the best interest of clients.

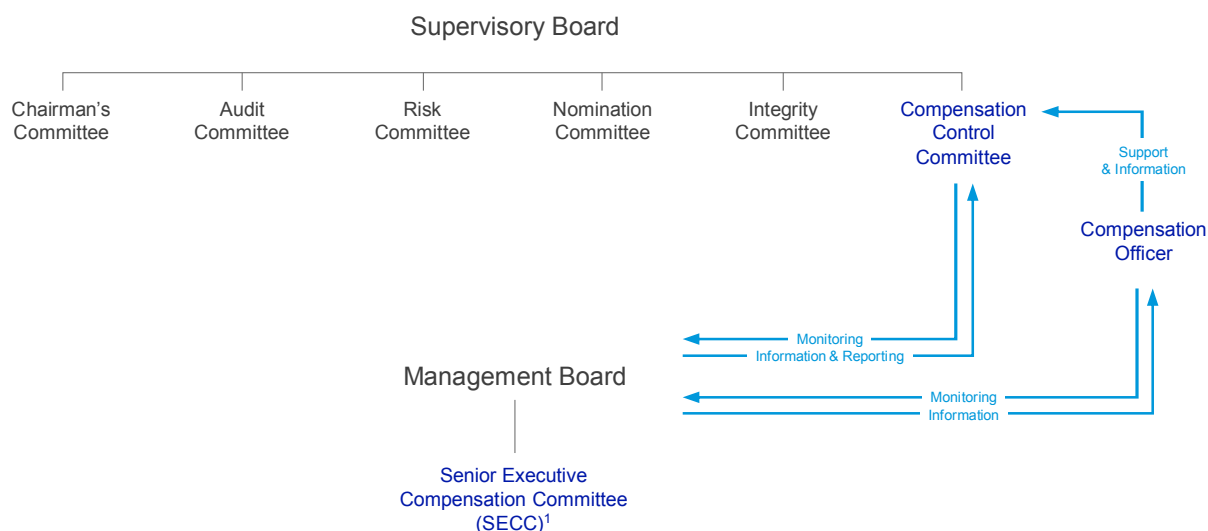
We also adhere to the requirements regarding compensation arrangements contained in the final rule implementing Section 619 of the “Dodd-Frank Wall Street Reform and Consumer Protection Act” globally (the “Volcker Rule”).

Where applicable, Deutsche Bank is also subject to specific rules and regulations implemented by local regulators. Many of these requirements are aligned with the InstVV, however, where variations are apparent, pro-active and open discussions with regulators have enabled us to follow the local regulations whilst ensuring any impacted employees or locations remain within the bank's overall global compensation framework. This includes, for example, the identification of "Covered Employees" in the United States under the requirements of the Federal Reserve Board. In any case, we apply the InstVV requirements as minimum standards globally.

Compensation Governance

Deutsche Bank has a robust governance structure enabling it to operate within the clear parameters of the Compensation Strategy and the Compensation Policies. In accordance with the German two-tier board structure, the Supervisory Board governs the compensation of the Management Board members while the Management Board oversees compensation matters for all other employees in the Group. Both the Supervisory Board and the Management Board are supported by specific committees and functions, in particular the Compensation Control Committee ("CCC") and the Senior Executive Compensation Committee ("SECC"), respectively.

Reward Governance structure



¹ The relevant tasks are performed by the SECC on behalf of the Management Board.

Compensation Control Committee ("CCC")

The Supervisory Board has established the CCC to support in establishing and monitoring the structure of the compensation system for the Management Board Members of Deutsche Bank AG, considering, in particular, the effects on the risks and risk management in accordance with the InstVV. Furthermore, the CCC monitors the appropriateness of the compensation system for the employees, as established by the Management Board and the Senior Executive Compensation Committee. The CCC checks regularly whether the total amount of variable compensation is affordable and set in accordance with the InstVV. The CCC also assesses the impact of the compensation systems on the management of risk, capital and liquidity and seeks to ensure that the compensation systems are aligned to the business and risk strategies. Furthermore, the CCC supports the Supervisory Board in monitoring the MRT identification process and whether the internal control functions and the other relevant areas are properly involved in the structuring of the compensation systems.

The CCC consists of the Chairperson of the Supervisory Board and three further Supervisory Board Members, two from among the employee representatives. It had ten meetings in the calendar year 2017, one of them being a joint meeting with the Risk Committee.

Compensation Officer

The Management Board, in cooperation with the CCC, has appointed a Compensation Officer to support the Supervisory Board and the CCC in performing their compensation related duties. The Compensation Officer is involved in the conceptual review, development, monitoring and the application of the employees' compensation systems on an ongoing basis. The Compensation Officer performs his monitoring obligations independently and provides an assessment on the appropriateness of design and practices of the compensation systems for employees at least annually.

Senior Executive Compensation Committee ("SECC")

The SECC is a delegated committee established by the Management Board which has the mandate to develop sustainable compensation principles, to prepare recommendations on Total Compensation levels and to ensure appropriate compensation governance and oversight. The SECC establishes the Group Compensation Strategy and Compensation Policy. The SECC also utilizes quantitative and qualitative factors to assess performance as a basis for compensation decisions and makes recommendations to the Management Board regarding the total amount of annual variable compensation and its allocation across business divisions and infrastructure functions.

In order to maintain its independence, only representatives from infrastructure functions who are not aligned to any of the business divisions are members of the SECC. In 2017, the SECC's membership comprised of the Chief Administration Officer and the Chief Financial Officer as Co-Chairpersons, as well as the Chief Risk Officer (all of whom are Management Board Members), the Global Head of Human Resources as well as an additional representative from both Finance and Risk as Voting Members. The Compensation Officer, the Deputy Compensation Officer and one of the Global Co-Heads of HR Performance & Reward were Non-Voting Members. The SECC generally meets on a monthly basis and it had 16 meetings with regard to the performance-year 2017 compensation process.

Compensation Strategy

Deutsche Bank recognizes that its compensation system plays a vital role in supporting its strategic objectives. It enables us to attract and retain the individuals required to achieve our bank's objectives. The Group Compensation Strategy is aligned to Deutsche Bank's strategic objectives and to its corporate values and beliefs.

Five key objectives of our compensation practices

- To support the delivery of the bank's client-focused, global bank strategy by attracting and retaining talent across its full range of diverse business models and country locations
- To support the long-term, sustainable performance and development of the bank and a corresponding risk strategy
- To promote and support long-term performance based on cost discipline and efficiency
- To ensure that the bank's compensation practices are safe, by way of risk-adjusting performance outcomes, preventing inappropriate risk taking, ensuring sustained compatibility with capital and liquidity planning, and complying with regulation
- To apply and promote the bank's corporate values of integrity, sustainable performance, client centricity, innovation, discipline and partnership

Core remuneration principles

- Align compensation to shareholder interests and sustained bank-wide profitability, taking account of risk
- Maximize sustainable performance, both at the employee and the bank-wide level
- Attract and retain the best talent
- Calibrate compensation to reflect different divisions and levels of responsibility
- Apply a simple and transparent compensation design
- Ensure compliance with regulatory requirements

The Group Compensation Policy informs our employees with regard to our Compensation Strategy, governance processes as well as compensation practices and structures. Together, the Group Compensation Strategy and the Group Compensation Policy provide a clear link between compensation practices and the wider Group strategy. Both documents have been published on our intranet site and are available to all employees.

Total Compensation Framework

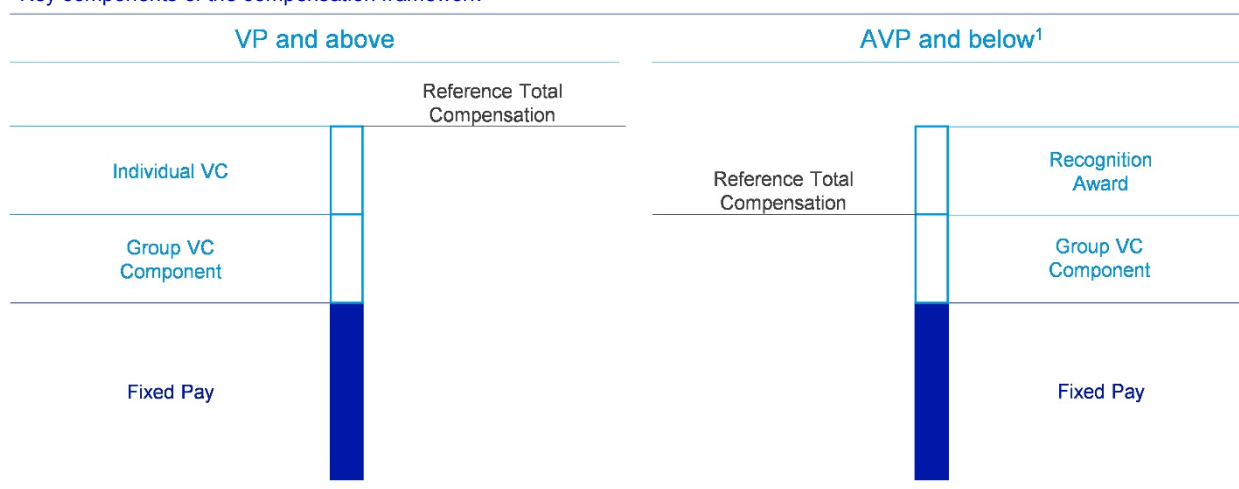
Our compensation framework aligns incentives for sustainable performance at all levels of Deutsche Bank whilst enhancing the transparency of compensation decisions and their impact on shareholders and employees. The framework puts an appropriate balance on Fixed Pay over Variable Compensation (VC) – together the “Total Compensation”.

In 2016, we introduced a new concept of “Reference Total Compensation” for each employee, that describes a reference value for their role. This reference provides our employees orientation on their Fixed Pay and VC. Actual individual Total Compensation can be at, above or below the Reference Total Compensation, based on Group affordability, and performance expectations having been satisfied at Group, divisional and individual levels, as determined by Deutsche Bank at its sole discretion.

Fixed Pay is used to compensate employees for their skills, experience and competencies, commensurate with the requirements, size and scope of their role. The appropriate level of Fixed Pay is determined with reference to the prevailing market rates for each role, internal comparisons and applicable regulatory requirements. It plays a key role in permitting us to meet our strategic objectives by attracting and retaining the right talent. For the majority of our employees, Fixed Pay is the primary compensation component, and the share of fixed compensation within Total Compensation is greater than 50 %. This is appropriate to many businesses and will continue to be a significant feature of Total Compensation going forward.

Variable Compensation allows to differentiate individual performance and to drive behavior through appropriate incentive systems that can positively influence culture. It also allows for flexibility in the cost base. VC generally consists of two elements – the “Group VC Component” and the “Individual VC Component”. The “Individual VC Component” is delivered either in the form of “Individual VC” (generally starting at the senior level of Vice President (VP) and above) or as “Recognition Award” (generally starting at the senior level of Assistant Vice President (AVP) and below). Under our compensation framework, there continues to be no guarantee of VC in an existing employment relationship.

Key components of the compensation framework



¹ Some Assistant Vice Presidents and below in select entities and divisions are eligible for the Individual VC Component in lieu of the Recognition Award.

The **Group VC Component** is based on one of the overarching goals of the compensation framework – to strengthen the link between VC and the performance of the Group. The Management Board decided to align the “Group VC Component” directly and in a manner comprehensible for the employees to Deutsche Bank’s achievements in reaching strategic targets. To assess progress towards the strategic aspirations, four Key Performance Indicators (KPIs) are utilised: Common Equity Tier 1 (CET 1) Capital Ratio (fully loaded), Leverage Ratio, Adjusted Costs, and Post-Tax Return on Tangible Equity (RoTE). These four KPIs represent important metrics for the capital, risk, cost and the revenue profile of our bank and provide an indication of the sustainable performance of Deutsche Bank.

Individual VC takes into consideration a number of financial and non-financial factors, including the applicable divisional performance, the employee’s individual performance and conduct, the comparison with the employee’s peer group and retention considerations.

Recognition Awards provide the opportunity to acknowledge and reward outstanding contributions made by the employees of lower seniority levels in a transparent and timely manner. Generally, the size of the Recognition Award Program is directly linked to a set percentage of Fixed Pay for the eligible population and it is paid out twice a year, based on a review of nominations and contributions at divisional level.

Total Compensation is complemented by employee benefits which may be linked to employment or seniority, but have no direct link to performance. They are granted in accordance with applicable local market practice and requirements. Recognition Awards and benefits (including company pension schemes) are not part of an employee's Reference Total Compensation.

Determination of Variable Compensation

Deutsche Bank applies a robust methodology when determining Variable Compensation, that reflects the risk-adjusted performance (which includes ex-ante and ex-post risk adjustments) and is primarily driven by (i) Group affordability, i.e. what "can" Deutsche Bank award in alignment with regulatory requirements, and (ii) performance, i.e. what "should" we award in order to provide an appropriate compensation for performance, while protecting the long-term health of the franchise. These aspects apply to both the Group VC Component and the Individual VC Component (whether granted as Individual VC or Recognition Award).

Group affordability is assessed to determine that key parameters are within the projected fulfilment of future regulatory and strategic goals. The affordability parameters used are fully aligned with our "Risk Appetite Framework" and include: CET 1 Capital Ratio, Economic Capital Adequacy Ratio, Leverage Ratio, Stressed Net Liquidity Position and Liquidity Coverage Ratio.

When assessing performance, we reference a range of considerations, including divisional performance. The performance is assessed in context of divisional financial and non-financial targets. The financial targets are subject to appropriate risk-adjustment, in particular by referencing the degree of future potential risks to which Deutsche Bank may be exposed, and the amount of capital required to absorb severe unexpected losses arising from these risks. For the infrastructure functions, the performance assessment is based on the achievement of cost and control targets. While the allocation of VC to infrastructure functions depends on the overall performance of Deutsche Bank, it is not dependent on the performance of the division(s) these functions, particularly independent control functions, oversee.

At the level of the individual employee, we have established "Variable Compensation Guiding Principles", which detail the factors and metrics that must be taken into account when making Individual VC decisions. Our managers must fully appreciate both the absolute and relative risk-taking activities of individuals to ensure that VC allocations are balanced and risk-taking is not inappropriately incentivized. The factors and metrics to be considered include, but are not limited to, divisional risk-adjusted financial and non-financial performance, culture and behavioural considerations, disciplinary sanctions, and individual performance. Managers of Material Risk Takers must document the factors and risk metrics considered when making Individual VC decisions, and demonstrate how these factors influenced the Individual VC decision.

Variable Compensation Structure

Our compensation structures are designed to provide a mechanism that promotes and supports long-term performance of our employees and our bank. Whilst a portion of VC is paid “upfront”, these structures ensure that an appropriate portion is deferred with the aim to ensure alignment to sustainable performance of the Group.

In our bank we continue to believe that the use of shares or share-based instruments for deferred VC is an effective way to align compensation with Deutsche Bank’s sustainable performance and the interests of shareholders. By using Deutsche Bank shares, the value of the individual’s VC is linked to Deutsche Bank’s share price over the deferral and retention period.

As detailed below, we continue to go beyond certain regulatory requirements with the amount of VC that is deferred and Deutsche Bank’s minimum deferral periods. Whilst ensuring lower compensated employees are not unnecessarily subject to deferrals, we ensure an appropriate amount of deferred VC for higher earners, which generally means that where VC is set at or above € 150,000 and in the case of Material Risk Takers employees at or above € 50,000, the portion of deferred VC increases for VC above these levels. Material Risk Takers are on average subject to deferral rates in excess of the minimum 40 % (60 % for Senior Management) as required by InstVV.

Overview on 2017 Award Types

Award Type	Description	Beneficiaries	Deferral Period	Retention Period	Proportion
Cash VC	Upfront cash proportion	All eligible employees	N/A	N/A	MRTs: 50 % of upfront VC Non-MRTs: 100 % of upfront VC
Equity Upfront Award (“EUA”)	Upfront equity proportion: The value of the EUA is linked to Deutsche Bank’s share price	All MRTs with VC >= € 50,000	N/A	12 months	50 % of upfront VC
Restricted Incentive Award (“RIA”) ¹	Non-equity based portion (deferred cash compensation)	All employees with deferred VC	Pro rata vesting over four years	N/A	50 % of deferred VC
Restricted Equity Award (“REA”) ¹	Deferred equity portion: The value of the REA is linked to Deutsche Bank’s share price over the vesting and retention period	All employees with deferred VC	Pro rata vesting over four years Senior Management: 4.5 year cliff-vesting ²	6 months for MRTs	50 % of deferred VC

N/A – Not applicable

¹ For certain AIFMD/UCITS V employees: Employee Investment Plan (“EIP”). These are cash settled awards based on the value of funds managed by the business.

² For the purposes of performance-year 2017 annual awards, “Senior Management” is defined as the Deutsche Bank’s “Senior Leadership Cadre”, which includes direct reports of Deutsche Bank AG Management Board Members (excluding non-strategic roles), Management Board Members of the bank’s significant institutions (excluding Deutsche Bank AG and Postbank AG for whom other remuneration systems apply) and other senior employees who are significant influencers and stewards of the Deutsche Bank’s long-term health and performance. All Senior Management employees are also considered MRTs.

In addition to the standard Group approach detailed above, we have decided to apply a stricter approach with regard to VC awards granted to Directors and Managing Directors in the Corporate & Investment Bank: The effective deferral threshold for this population is set at € 130,000 (for MRTs at € 50,000) and the proportion of VC that is deferred generally increases faster with increasing levels of the overall amount of compensation awarded than for employees in other areas of the bank, to align their VC even more closely with the sustainable performance of the Group. Furthermore, those Directors and Managing Directors with either Fixed Pay or VC in excess of € 500,000 are subject to a VC deferral of 100 %.

Our employees are not allowed to sell, pledge, transfer or assign a deferred award or any rights in respect to the award. They may not enter into any transaction having an economic effect of hedging any variable compensation, for example offsetting the risk of price movement with respect to the equity-based award. Our Human Resources and Compliance functions work together to monitor employee trading activity and to ensure that all our employees comply with this requirement.

Ex-post Risk Adjustment of Variable Compensation

We believe that the future conduct and performance of our employees are a key element of deferred VC. As a result, all deferred awards are subject to performance conditions and forfeiture provisions as detailed below.

Overview on performance conditions and forfeiture provisions of Variable Compensation

Provision	Description	Forfeiture
Group CET 1 Ratio	If at the quarter end prior to vesting and delivery the Group CET 1 Ratio is below a certain threshold	Next tranche of equity based deferred award due for delivery (100 % of all undelivered Equity Upfront Awards) ¹
Negative Group IBIT	If the Management Board determines that prior to delivery Group IBIT is negative	Next tranche of equity based deferred award due for delivery (applies also to cash based deferred award of MRTs) ²
Negative Divisional IBIT	If the Management Board determines that prior to delivery Divisional IBIT is negative	Next tranche of deferred award due for delivery (applies only to MRTs in Business Divisions excluding Postbank MRTs) ²
Forfeiture Provisions ³	<ul style="list-style-type: none"> – In the event of an internal policy or procedure breach, breach of any applicable laws or regulations, or a Control Failure – If any award was based on performance measures or assumptions that are later deemed to be materially inaccurate – Where a Significant Adverse Event occurs, and the Participant is considered sufficiently proximate – If forfeiture is required to comply with prevailing regulatory requirements 	Up to 100 % of undelivered awards

¹ For award types subject to cliff-vesting, the whole award will be forfeited if at quarter end prior to vesting or settlement the Group CET 1 ratio is below the threshold. For Equity Upfront Awards, the Group CET 1 Ratio is only assessed at the quarter end prior to delivery.

² For annual equity-based awards subject to cliff-vesting granted to Senior Management (defined as Deutsche Bank's "Senior Leadership Cadre"), a certain award proportion (20 %) will be forfeited in respect of a year, if the IBIT is negative for that year.

³ Forfeiture provisions here are not a complete list, other provisions apply as outlined in the respective plan rules.

Compensation Decisions for 2017

Retention Award Program (granted in January 2017)

As already outlined in last year's Employee Compensation Report, in the context of strategic considerations during the 2016 year-end process, a limited number of employees were granted a special long-term incentive ("Retention Award") in early 2017. In order to mitigate retention risks and to protect the franchise, the Management Board had decided to grant these Retention Awards irrespective of individual performance in the previous year to a targeted population of key employees who had been identified as critical to the bank's future success, who are in high demand in the market and who would be very difficult to replace.

Overall, Retention Awards were awarded to 5,522 employees or approximately 5 % of Deutsche Bank's global workforce. € 554 million were granted in deferred cash, and € 554 million were granted in deferred equity. The Retention Awards are fully deferred over a period of three to five years and are subject to the same measures of ex-post risk-adjustment as described in the chapter "Ex-post Risk Adjustment of Variable Compensation". The earliest pay-out date for parts of these awards is therefore early 2018 for non-Material Risk Takers, as a pro rata vesting over three years, and 2021 for MRTs, respectively. The equity awards for MRTs are subject to an additional retention period of 12 months, meaning that those awards are only fully delivered after six years.

To further align the awards with the long-term health of our bank and the interests of our shareholders, this equity portion will not vest if Deutsche Bank's share price does not reach a certain share price target. If the share price target is met, the equity portion is delivered after three and a half years for non-MRTs, and after five to six years for MRTs taking into account the additional retention period. In line with any other outstanding equity awards, the share price target and number of outstanding shares for unsettled Retention Awards have been adjusted with respect to our rights issue in April 2017.

Although not performance-based, Retention Awards are considered variable compensation pursuant to Section 5 InstVV. For the ratio of 1:1 or 1:2 with regard to fixed to variable remuneration components, Deutsche Bank considers Retention Awards on a pro-rated basis over the deferral period in line with the InstVV. To benefit from these awards, Retention Award recipients need to stay with our bank. If they leave for a competitor, any undelivered portion of an award will be forfeited. At the end of 2017, the attrition rate for employees who have been granted a Retention Award has been lower than the attrition rate for employees who received other deferred awards.

Overview of the structure of the Retention Award Program

Population	Weighting	Proportion	Deferral Period
Material Risk Takers	100 % deferred	50 % cash (RIA)	50 % vest on March 1, 2021, 50 % vest on March 1, 2022
		50 % equity (REA)	50 % vest on March 1, 2021 (plus 12 months retention period), 50 % vest on March 1, 2022 (plus 12 months retention period)
Non-Material Risk Takers	100 % deferred	50 % cash (RIA)	3 year pro rata vesting (March 1, 2018, March 1, 2019, March 1, 2020)
		50 % equity (REA)	Cliff vesting after 3.5 years (due to vest on August 1, 2020)

Year-end considerations and decisions for 2017

For the determination of the total amount of VC for the performance-year 2017, the Management Board had to consider many factors such as the performance at Group and divisional level. However, the assessment of performance has to be complemented by other key factors such as the ongoing focus on achieving the bank's strategic objectives, the impact of competitive positioning on retaining and motivating employees, and a sustainable balance between shareholder and employee interests as required by the bank's "Compensation Strategy".

For the financial year 2017, Deutsche Bank's pre-tax earnings amounted to approximately € 1.2 billion, with solid revenues in many parts of our bank. However, after taxes the bank incurred a loss of € (0.7) billion. The main reason for this loss was the U.S. tax reform which resulted in a one-time tax charge of € 1.4 billion in the fourth quarter of 2017. This tax charge only had a limited impact on the fully-loaded Common Equity Tier 1.

The financial year 2017, as expected, has been strongly influenced by the pursuit of our strategic objectives. As such, restructuring and severance costs as well as litigation charges have continued to affect the full year results. Overall, noticeable progress has been made: We have concluded negotiations on significant litigation items, have continued with our efforts to build a more efficient infrastructure, have invested in digitalisation, and advanced both the integration of Postbank and the partial initial public offering (IPO) of Deutsche Asset Management.

Against this backdrop, the SECC has monitored the affordability of Variable Compensation throughout 2017. It has concluded that, despite Deutsche Bank's overall negative result, the bank's capital and liquidity positions remain comfortably above regulatory minimum requirements, and that therefore affordability parameters are met. In addition, the bank's 2017 financial statements and targets for the financial years 2018 and 2019 exceed both internal risk appetite metrics and expected regulatory minimum requirements.

The determination of the total amount of VC for the performance-year does not only look at the impact on the current year but also on future years. In considering the overall shareholder return, we therefore carefully balance the short-term and long-term return, acknowledging the fact that we are still in the midst of laying the foundations for growth and future success. This includes the required investments in our staff in order to sustain the momentum that has been built over the past years.

After the decision to severely restrict total VC for 2016, another year with drastically reduced variable compensation or no specific recognition of individual performance would have led to attrition risk with respect to both key employees that are critical to our future success as well as many other employees who all worked hard to help our bank navigate through times of continuous change. We have clearly stated multiple times throughout the year that we wanted to return to a normal system of variable remuneration for 2017, including both a "Group VC Component" and "Individual VC Component" of Variable Compensation.

In the context of the above considerations, in line with regulatory requirements, and taking into account the risk-adjusted financial performance, the Management Board has determined a total amount of year-end performance-based VC for 2017 of € 2.2 billion (including the Individual VC Component, the Group VC Component, and Recognition Awards). The Variable Compensation for the Management Board of Deutsche Bank AG is not included in this amount, as it is determined by our Supervisory Board in a separate process. The remuneration of the Management Board for 2017 is detailed in the "Management Board Compensation Report". However, it is also included in the tables and charts below.

As part of the overall 2017 VC awards to be granted in March 2018, the "Group VC Component" was awarded to all eligible employees in line with the assessment of the defined four KPIs, as outlined in the chapter "Total Compensation Framework". The Management Board recognizing the considerable contribution of employees and at its discretion determined a target achievement rate of 55 % for 2017.

Compared to 2016, the Total Fixed Pay for 2017 decreased by approximately 4 % from € 8.3 billion to € 8.0 billion, mainly due to headcount reductions. As established by our compensation framework, Fixed Pay continues to remain the primary compensation component for the majority of our employees, especially those at the lower seniority levels.

Disclosure of Total Compensation for 2017

Deutsche Bank decided in 2017 to move infrastructure employees to the divisions they service in order to increase the overall efficiency and collaboration within the Group. This helped to increase our business divisions' responsibility and autonomy with respect to their organisational decisions and processes and led to a significant increase of the number of employees associated with the business divisions compared to 2016 – in particular in the Corporate & Investment Bank as well as in Deutsche Asset Management. Independent Control Functions generally remained in central areas.

As outlined earlier, the Retention Awards granted in January 2017 are not part of the Variable Compensation granted to employees for their performance in 2017.

Compensation awards for 2017 – all employees

	2017					2016
in € m. (unless stated otherwise) ¹	CIB	PCB ²	Deutsche AM	Independent Control Functions ³	Corporate Functions ⁴	Group Total
Number of employees (full-time equivalent) at period end	17,251	43,460	3,803	13,478	19,542	97,535
Total Compensation	3,881	3,121	635	1,320	1,313	10,270
Fixed Compensation	2,463	2,834	417	1,131	1,150	7,995
Year-end performance-based VC	1,341	279	195	186	160	2,161
Other VC ⁵	77	8	23	3	2	113
Variable Compensation ⁶	1,418	287	218	189	163	2,275
Retention Award Program (Jan 2017) ⁷						961
						N/A

N/A – Not applicable

¹ The table may contain marginal rounding differences.

² For this table only, PCB figures also include employees of Postbank Group (17,441 employees) as well as Postbank Fixed Pay figures (€ 971 million). Variable Compensation granted by Postbank Group is not included in the above variable amount. For Postbank Group, a total amount of variable remuneration of € 95 million is envisaged.

³ In accordance with regulatory guidance, "Independent Control Functions" for the purposes of this table include the areas of the Chief Risk Officer, Group Audit, Compliance, Anti-Financial Crime, and Human Resources (Central and Regional). Additionally, the bank considers the following infrastructure functions as "Independent Control Functions": Legal, Global Governance, Group Incident & Investigation Management, Chief Information Security Office, Group Finance, Group Tax, and Regulatory Affairs. All of these functions are subject to a fixed to variable remuneration ratio of 1:1.

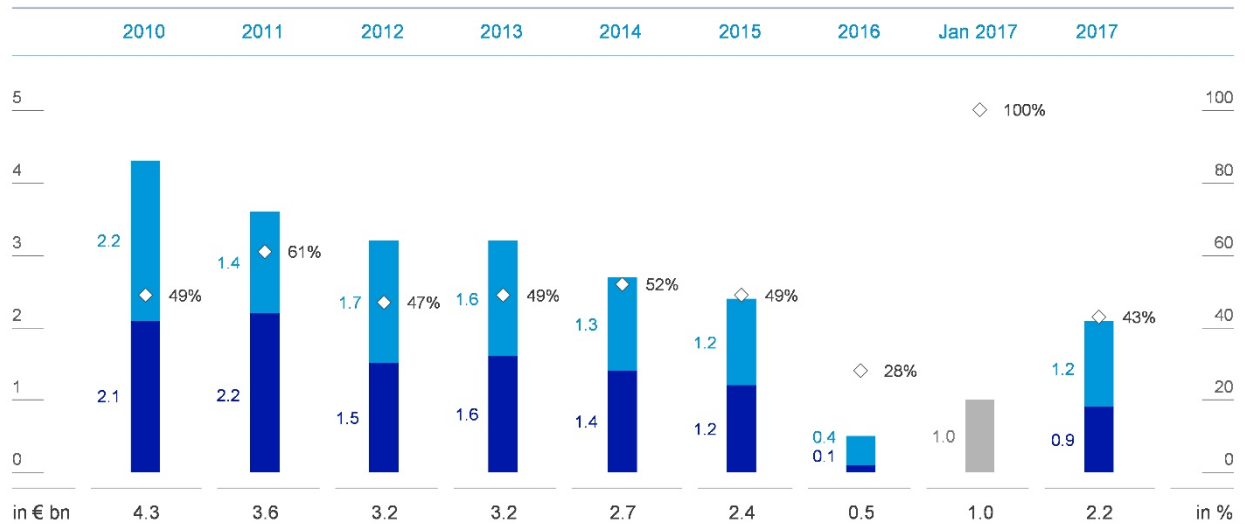
⁴ "Corporate Functions" comprise any infrastructure function that is neither captured as an Independent Control Function nor part of any division for the purposes of this table. This includes, for instance, the areas of the Chief Operating Officer and Corporate Social Responsibility. "Corporate Functions" also includes the remuneration of the Management Board of Deutsche Bank AG.

⁵ "Other VC" includes other contractual VC commitments in the period such as sign-on awards.

⁶ "Variable Compensation" includes Deutsche Bank's year-end performance-based VC awards for the period and the other VC commitments in the relevant period. € 60 million buyouts for new hires (replacement awards for lost entitlements from previous employers) are not included.

⁷ "Retention Award Program (Jan 2017)" amount includes forfeitures and is FX-adjusted for 2017 (grant value in January 2017 based on 2016 FX: € 1,108 million).

Year-end performance-based Variable Compensation and deferral rates year over year



■ Cash

■ Deferred

■ Retention Award Program granted in January 2017 (€ 1.0 billion) including forfeitures (original grant value: € 1.1 billion), 100 % deferred. Retention Awards are not based on performance

◇ Deferral rate in % (i.e. the proportion of the total Variable Compensation that is delivered in deferred awards)

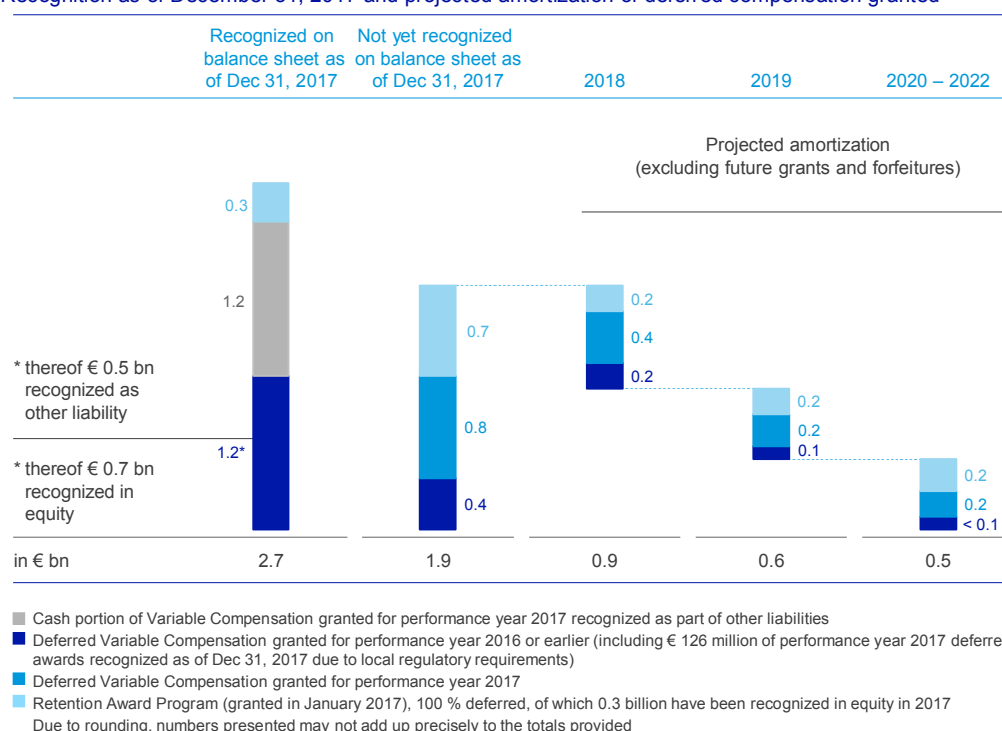
Due to rounding, numbers presented may not add up precisely to the totals provided

Recognition and Amortization of Variable Compensation

As of December 31, 2017, including both awards for financial year 2017 granted in early March 2018 and the Retention Award Program granted in January 2017, unamortized deferred VC expenses amount to approximately € 1.9 billion. The following graph visualizes the amount of VC recognized on the balance sheet for 2017 and the projected future amortization of outstanding VC over the next financial years (future grants and forfeitures excluded).

Year-end performance-based Variable Compensation and Retention Award Program

Recognition as of December 31, 2017 and projected amortization of deferred compensation granted



Of the year-end performance-based VC for 2017, and taking into account the Retention Award Program granted in January 2017, € 1.6 billion is charged to the income statement for 2017 and € 1.5 billion will be charged to future years. In addition, the income statement for 2017 was charged with a VC of € 0.7 billion stemming from prior years' deferrals.

Material Risk Taker Compensation Disclosure

On a global basis, 1,795 employees were identified as Material Risk Takers according to InstVV for financial year 2017, compared to 3,056 employees for 2016. The decline can mainly be attributed to the limited total amount of VC granted for 2016, affecting the quantitative criteria as stipulated under the Commission Delegated Regulation (EU) No. 604/2014.

The remuneration elements for all MRTs identified according to InstVV are detailed in the table below in accordance with Section 16 InstVV and Article 450 CRR. Material Risk Takers and high earners (employees receiving a Total Pay of € 1 million or more) from Postbank are not part of this disclosure and instead included in the compensation report of Postbank. The quantitative disclosure for Material Risk Takers also reflects the employee transfers from infrastructure to business divisions as outlined in the chapter "Compensation Decisions for 2017", and includes the full value of the Retention Award Program granted to MRTs.

Aggregate remuneration for Material Risk Takers according to InstVV

	2017						2016
	Business Units						
in € m. (unless stated otherwise) ¹	Senior Management ²	CIB	PCB	Deutsche AM	Independent Control Functions ³	Corporate Functions ⁴	Group Total
Number of MRTs (headcount)	231	990	188	82	239	65	3,056
Number of MRTs (FTE)	226	984	183	82	232	65	3,047
Total Pay	477	1,468	136	101	130	47	1,648
Total Fixed Pay	208	583	58	35	75	23	1,438
Total Variable Pay for period	269	886	78	67	56	23	210
thereof:							
Retention Award Program (Jan 2017) ⁵							540
thereof:							
in cash	133	444	40	27	29	12	683
in shares	136	442	39	33	27	11	689
in other types of instruments	0	0	0	6	0	0	6
Total Variable Pay for period, deferred	217	733	47	45	31	14	1,087
thereof:							
in cash	106	367	24	16	15	7	535
in shares	110	367	24	23	15	7	545
in other types of instruments	0	0	0	6	0	0	6
Article 450 (1) h(iii) of the CRR in conjunction with article 450 (1) h(iv) of the CRR on deferred variable remuneration from previous years and on explicit risk adjustments							
Total amount of variable pay still outstanding at the beginning of the year that was deferred in previous years	476	997	108	130	45	26	1,783
thereof:							
vested	171	424	39	34	23	13	704
unvested	306	573	69	96	22	13	1,079
Deferred Variable Pay awarded, paid out or reduced during period							
awarded during period	158	497	33	38	24	12	762
paid out during period	118	415	39	33	22	12	639
reduced through explicit risk adjustments ⁶	0	3	0	0	0	0	3
Article 450 (1) h(v) of the CRR on hiring bonuses							
Number of beneficiaries of guaranteed variable remuneration (hiring bonuses)	3	18	0	1	4	1	27
Total amount of guaranteed variable pay (hiring bonuses)	1	18	0	1	1	1	21
Article 450 (1) h(v) and (vi) of the CRR on severance payments							
Total amount of severance payments granted ⁷	2	12	3	0	0	2	21
Number of beneficiaries of severance payments granted by headcount	2	35	6	2	4	4	53
Highest severance payment granted to an individual	2	5	2	0	0	1	5

¹ Figures may include rounding differences. Buyouts not included; Postbank employees and remuneration not included.

² Refers to Management Board members (including Deutsche Bank AG) and Executive Directors of significant institutions within the meaning of Section 17 InstVV and any other members of the "Senior Leadership Cadre". Supervisory Board Members / Non-Executive Directors of significant institutions are also included in "Senior Management" headcount (thereof 60) and FTE (thereof 58). In case they have only been identified as MRTs due to their Supervisory Board role, they are not included in any other lines as they receive no variable remuneration elements for these activities and as their fixed compensation elements for this role are not meaningful. However, Deutsche Bank AG Supervisory Board members are included in "Senior Management" Total Fixed Pay.

³ In accordance with regulatory guidance, "Independent Control Functions" for the purposes of this table include the areas of the Chief Risk Officer, Group Audit, Compliance, Anti-Financial Crime, and Human Resources (Central and Regional). Additionally, Deutsche Bank considers the following infrastructure functions as "Independent Control Functions": Legal, Global Governance, Group Incident & Investigation Management, Chief Information Security Office, Group Finance, Group Tax, and Regulatory Affairs. All of these functions are subject to a fixed to variable remuneration ratio of 1:1.

⁴ "Corporate Functions" comprise any infrastructure function that is neither captured as an Independent Control Function nor part of any division for the purposes of this table. This includes, for instance, the areas of the Chief Operating Officer and Corporate Social Responsibility.

⁵ The Retention Award Program is included in the Variable Pay figures in this table.

⁶ Taking into account risk adjustments and resignations, outstanding Variable Pay for MRTs amounting to € 122 million was forfeited in 2017.

⁷ Severance payments are generally paid out in the year in which they have been granted.

Remuneration of high earners

in €	2017
	Number of employees (excluding Retention Award Program) ¹
Total Pay	
1,000,000 to 1,499,999	330
1,500,000 to 1,999,999	155
2,000,000 to 2,499,999	85
2,500,000 to 2,999,999	56
3,000,000 to 3,499,999	29
3,500,000 to 3,999,999	21
4,000,000 to 4,499,999	10
4,500,000 to 4,999,999	8
5,000,000 to 5,999,999	4
6,000,000 to 6,999,999	4
7,000,000 to 7,999,999	3
8,000,000 to 8,999,999	0
9,000,000 to 9,999,999	0
10,000,000 to 10,999,999	0
Total	705

¹ Postbank employees not included. Buyouts not included. When considering the Retention Award Program with the full amount granted in January 2017, the total of high earners for 2017 would amount to 1,098 employees.

In total, 705 employees received a Total Pay of € 1 million or more for 2017, compared to 316 employees in 2016 and 756 employees in 2015.

Compensation System for Supervisory Board Members

The compensation principles for Supervisory Board members are set forth in our Articles of Association, which our shareholders amend from time to time at the Annual General Meeting. Such compensation provisions, which were newly conceived in 2013, were last amended by resolution of the Annual General Meeting on May 18, 2017 and became effective on October 5, 2017. Accordingly, the following provisions apply:

The members of the Supervisory Board receive fixed annual compensation ("Supervisory Board Compensation"). The annual base compensation amounts to € 100,000 for each Supervisory Board member. The Supervisory Board Chairman receives twice that amount and the Deputy Chairperson one and a half times that amount.

Members and chairs of the committees of the Supervisory Board are paid additional fixed annual compensation as follows:

Committee in €	Dec 31, 2017	
	Chairperson	Member
Audit Committee	200,000	100,000
Risk Committee	200,000	100,000
Nomination Committee	100,000	50,000
Mediation Committee	0	0
Integrity Committee	200,000	100,000
Chairman's Committee	100,000	50,000
Compensation Control Committee	100,000	50,000

75 % of the compensation determined is disbursed to each Supervisory Board member after submitting invoices within the first three month of the following year. The other 25 % is converted by the company at the same time into company shares based on the average closing price on the Frankfurt Stock Exchange (Xetra or successor system) during the last ten trading days of the preceding January, calculated to three digits after the decimal point. The share value of this number of shares is paid to the respective Supervisory Board member in February of the year following his departure from the Supervisory Board or the expiration of his term of office, based on the average closing price on the Frankfurt Stock Exchange (Xetra or successor system) during the last ten trading days of the preceding January, provided that the member does not leave the Supervisory Board due to important cause which would have justified dismissal.

In case of a change in Supervisory Board membership during the year, compensation for the financial year will be paid on a pro rata basis, rounded up/down to full months. For the year of departure, the entire compensation is paid in cash; a forfeiture regulation applies to 25 % of the compensation for that financial year.

The company reimburses the Supervisory Board members for the cash expenses they incur in the performance of their office, including any value added tax (VAT) on their compensation and reimbursements of expenses. Furthermore, any employer contributions to social security schemes that may be applicable under foreign law to the performance of their Supervisory Board work shall be paid for each Supervisory Board member affected. Finally, the Chairman of the Supervisory Board will be appropriately reimbursed for travel expenses incurred in performing representative tasks that his function requires and for the costs of security measures required on account of his function.

In the interest of the company, the members of the Supervisory Board will be included in an appropriate amount, with a deductible, in any financial liability insurance policy held by the company. The premiums for this are paid by the company.

Supervisory Board Compensation for the 2017 Financial Year

Individual members of the Supervisory Board received the following compensation for the 2017 financial year (excluding value added tax).

Members of the Supervisory Board in €	Compensation for fiscal year 2017		Compensation for fiscal year 2016	
	Fixed	Thereof payable in 1st quarter 2018	Fixed	Thereof payable in February 2017
Dr. Paul Achleitner ¹	800,000	683,333	800,000	600,000
Stefan Rudschäfski ²	300,000	225,000	0	0
Alfred Herling ³	0	0	300,000	300,000
Wolfgang Böhr	200,000	150,000	141,667	106,250
Frank Bsirske	250,000	187,500	250,000	187,500
Dina Dublon	300,000	225,000	300,000	225,000
Jan Duscheck ⁴	100,000	75,000	41,667	31,250
Gerhard Eschelbeck ⁵	58,333	43,750	0	0
Katherine Garrett-Cox ⁶	200,000	150,000	125,000	104,167
Timo Heider	200,000	150,000	200,000	150,000
Sabine Irrgang	200,000	150,000	200,000	150,000
Prof. Dr. Henning Kagermann	250,000	187,500	250,000	187,500
Martina Klee	200,000	150,000	200,000	150,000
Peter Löscher ⁷	83,333	83,333	200,000	150,000
Henriette Mark	200,000	150,000	200,000	150,000
Richard Meddings	400,000	300,000	400,000	300,000
Louise Parent	400,000	300,000	333,333	250,000
Gabriele Platscher	200,000	150,000	200,000	150,000
Bernd Rose	200,000	150,000	200,000	150,000
Gerd Alexander Schütz ⁸	58,333	43,750	0	0
Prof. Dr. Stefan Simon ⁹	216,667	162,500	33,333	25,000
Rudolf Stockem ¹⁰	0	0	116,667	116,667
Dr. Johannes Teyssen	250,000	187,500	216,667	162,500
Georg Thoma ¹¹	0	0	108,333	108,333
Prof. Dr. Klaus Rüdiger Trützschler ¹²	83,333	83,333	200,000	150,000
Total	5,150,000	3,987,500	5,016,667	3,904,167

¹ Member was re-elected on May 18, 2017.

² Member since January 1, 2017.

³ Member until December 31, 2016.

⁴ Member since August 2, 2016.

⁵ Member since May 18, 2017.

⁶ Member was re-elected on May 19, 2016.

⁷ Member until May 18, 2017.

⁸ Member since May 18, 2017.

⁹ Member since August 23, 2016.

¹⁰ Member until July 31, 2016.

¹¹ Member until May 28, 2016.

¹² Member until May 18, 2017.

Following the submission of invoices in February 2018, 25 % of the compensation determined for each Supervisory Board member for the 2017 financial year was converted into notional shares of the company on the basis of a share price of € 15.458 (average closing price on the Frankfurt Stock Exchange (Xetra) during the last ten trading days of January 2018, calculated to three digits after the decimal point). Members who left the Supervisory Board in 2017 were paid the entire amount of compensation in cash. For members whose term of office ended in 2017, the total compensation for the period until then, was paid fully in cash.

The following table shows the number of notional shares of the Supervisory Board members, to three digits after the decimal point, that were awarded in the first three months of 2018 as part of their 2017 compensation as well as the number of notional shares accrued from previous years 2013 to 2016 accumulated during the respective membership in the Supervisory Board and the total amounts paid out in February 2018 for departed or re-elected members.

Members of the Supervisory Board	Number of notional shares			
	Converted in February 2018 as part of the compensation 2017	Total prior-year amounts from 2013 to 2016	Total (cumulative)	In February 2018 payable in € ¹
Dr. Paul Achleitner ²	7,547.235	34,842.354	42,389.589	538,593
Stefan Rudschäfski ³	4,851.794	0	4,851.794	0
Wolfgang Böhr	3,234.529	2,039.332	5,273.861	0
Frank Bsirske	4,043.162	9,812.535	13,855.697	0
Dina Dublon	4,851.794	10,445.634	15,297.428	0
Jan Duscheck ⁴	1,617.265	564.436	2,181.701	0
Gerhard Eschelbeck ⁵	943.404	0	943.404	0
Katherine Garrett-Cox ⁶	3,234.529	1,128.872	4,363.401	0
Timo Heider	3,234.529	7,870.476	11,105.005	0
Sabine Irrgang	3,234.529	7,870.476	11,105.005	0
Prof. Dr. Henning Kagermann	4,043.162	10,517.526	14,560.688	0
Martina Klee	3,234.529	8,152.472	11,387.001	0
Peter Löscher ⁷	0	8,152.472	8,152.472	126,021
Henriette Mark	3,234.529	8,896.223	12,130.752	0
Richard Meddings	6,469.058	6,861.587	13,330.645	0
Louise Parent	6,469.058	8,294.024	14,763.082	0
Gabriele Platscher	3,234.529	8,614.226	11,848.755	0
Bernd Rose	3,234.529	8,332.230	11,566.759	0
Gerd Alexander Schütz ⁸	943.404	0	943.404	0
Prof. Dr. Stefan Simon ⁹	3,504.073	451.549	3,955.622	0
Dr. Johannes Teyssen	4,043.162	6,972.511	11,015.673	0
Prof. Dr. Klaus Rüdiger Trützschler ¹⁰	0	8,896.223	8,896.223	137,518
Total	75,202.803	158,715.158	233,917.961	802,132

¹ At a value of € 15.458 based on the average closing price on the Frankfurt Stock Exchange (Xetra or successor system) during the last ten trading days of January 2018.

² Member was re-elected on May 18, 2017.

³ Member since January 1, 2017.

⁴ Member since August 2, 2016.

⁵ Member since May 18, 2017.

⁶ Member was re-elected on May 19, 2016.

⁷ Member until May 18, 2017.

⁸ Member since May 18, 2017.

⁹ Member since August 23, 2016.

¹⁰ Member until May 18, 2017.

All employee representatives on the Supervisory Board, with the exception of Frank Bsirske and Jan Duscheck, are employed by us. In the 2017 financial year, we paid such members a total amount of € 1.13 million in the form of salary, retirement and pension compensation in addition to their Supervisory Board compensation.

We do not provide members of the Supervisory Board with any benefits after they have left the Supervisory Board, though members who are or were employed by us are entitled to the benefits associated with the termination of such employment. During 2017, we set aside € 0.12 million for pension, retirement or similar benefits for the members of the Supervisory Board who are or were employed by us.

With the agreement of the Bank's Management Board, Dr. Paul Achleitner performs representative functions in various ways on an unpaid basis for the Bank and participates in opportunities for referrals of business for the Bank. These tasks are related to the functional responsibilities of the Chairman of the Supervisory Board of Deutsche Bank AG. In this respect, the reimbursement of costs is provided for in the Articles of Association. On the basis of a separate contractual agreement, the Bank provides Dr. Paul Achleitner with infrastructure and support services free of charge for his services in the interest of the Bank. He is therefore entitled to avail himself of internal resources for preparing and carrying out these activities. The Bank's security and car services are available for Dr. Paul Achleitner for use free of charge for these tasks. The Bank also reimburses travel expenses and attendance fees and covers the taxes for any non-cash benefits provided. On September 24, 2012, the Chairman's Committee approved the conclusion of this agreement. The provisions apply for the duration of Dr. Paul Achleitner's tenure as Chairman of the Supervisory Board and are reviewed on an annual basis for appropriateness. Under this agreement between Deutsche Bank and Dr. Achleitner, support services equivalent to € 248,000 (2016: € 225,000) were provided and reimbursements for expenses amounting to € 197,679 (2016: € 234,488) were paid during the 2017 financial year.

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Employees

Group Headcount

As of December 31, 2017, we employed a total of 97,535 staff members compared to 99,744 as of December 31, 2016. We calculate our employee figures on a full-time equivalent basis, meaning we include proportionate numbers of part-time employees.

The following table shows our numbers of full-time equivalent employees as of December 31, 2017, 2016 and 2015.

Employees ¹	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015
Germany	42,526	44,600	45,757
Europe (outside Germany), Middle East and Africa	23,543	24,062	23,767
Asia/Pacific	20,861	20,099	20,144
North America ²	10,358	10,611	10,842
Latin America	247	373	595
Total employees	97,535	99,744	101,104

¹ Full-time equivalent employees.

² Primarily the United States.

The number of our employees decreased in 2017 by 2,209 or 2.2% driven by implementation of our targets originally announced in October 2015:

- Germany (-2,073; -4.6%) driven by the implementation of restructuring measures, primarily in Private & Commercial Bank and in infrastructure functions;
- North America (-254; -2.4%) driven by reductions mostly in COO/GTO and in Finance;
- Latin America (-126; -33.7%) as a result of the implementation of our footprint strategy;
- EMEA ex Germany (-518; -2.2%) driven by reductions mainly in Italy, Poland, Luxembourg, the Netherlands and Spain;
- Asia/Pacific primarily (+762; +3.8%) due to insourcing of business critical external roles, primarily in COO, and due to strengthening CIB related infrastructure functions.

Employees	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015
Corporate & Investment Bank	17.7 %	17.2 %	17.0 %
Private & Commercial Bank	44.5 %	45.2 %	46.1 %
Deutsche Asset Management	3.9 %	3.9 %	3.9 %
Non-Core Operations Unit	0.0 %	0.1 %	0.1 %
Infrastructure / Regional Management	33.9 %	33.6 %	32.9 %

- Corporate & Investment Bank (+122; +0.7%) driven by CIB related infrastructure functions partly related to insourcing of business critical external roles;
- Private & Commercial Bank (-1,584; -3.5%) driven by reductions primarily in Germany and in western European countries;
- Deutsche Asset Management (-86; -2.2%) particularly a result of the divestment of Sal Oppenheim in Luxembourg;
- Non-Core Operations Unit (-116; -100.0%) has been closed;
- Infrastructure functions (-545; -1.6%) mainly driven by reductions in most functions partly offset by insourcing of business critical external roles (primarily in COO) and due to strengthening of regulatory functions, predominantly Anti-Financial Crime and Audit.

Labor Relations

In Germany, labor unions and employers' associations generally negotiate collective bargaining agreements on salaries and benefits for employees below the management level. Many companies in Germany, including ourselves and our material German subsidiaries, are members of employers' associations and are bound by collective bargaining agreements.

Each year, our employers' association, the Arbeitgeberverband des privaten Bankgewerbes e.V., ordinarily renegotiates the collective bargaining agreements that cover many of our employees. The current agreement reached in July 2016 includes the period from May 2016 onwards. After five months without any pay raise, a first pay raise of 1.5% takes place from October 2016 on, a second pay rise of 1.1% from January 2018 on, and a third pay raise of 1.1% from November 2018 on. The existing collective bargaining agreement will last until January 31, 2019.

Our employers' association negotiates with the following unions:

- ver.di (Vereinigte Dienstleistungsgewerkschaft), a union formed in July 2001 resulting from the merger of five unions, including the former bank unions Deutsche Angestellten Gewerkschaft and Gewerkschaft Handel, Banken und Versicherungen;
- Deutscher Bankangestellten Verband (DBV – Gewerkschaft der Finanzdienstleister);
- Deutscher Handels- und Industrieangestellten Verband (DHV – Die Berufsgewerkschaft);
- Komba Gewerkschaft (public service union, only relevant for Postbank);
- DPVKom – Die Kommunikationsgewerkschaft (only relevant for Postbank).

German law prohibits us from asking our employees whether they are members of labor unions. Therefore, we do not know how many of our employees are union members. Approximately 15% of the employees in the German banking industry are unionized. We estimate that less than 15% of our employees in Germany are unionized (excluding Postbank, which itself traditionally has a significantly higher unionization rate of approximately 60%). On a worldwide basis, we estimate that approximately 15% of our employees are members of labor unions (including Postbank, less than 25%).

As of December 31, 2017, 32% of Postbank staff members in Germany are civil servants (full-time equivalent basis), compared to 32% as of December 31, 2016.

Post-Employment Benefit Plans

We sponsor a number of post-employment benefit plans on behalf of our employees, both defined contribution plans and defined benefit plans.

In our globally coordinated accounting process covering defined benefit plans with a defined benefit obligation exceeding € 2 million our global actuary reviews the valuations provided by locally appointed actuaries in each country.

By applying our global principles for determining the financial and demographic assumptions we ensure that the assumptions are best-estimate, unbiased and mutually compatible, and that they are globally consistent.

For a further discussion on our employee benefit plans see Note 35 "Employee Benefits" to our consolidated financial statements.

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2- Consolidated Financial Statements

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Consolidated Statement of Income

in € m.	Notes	2017	2016	2015
Interest and similar income	5	24,092	25,636	25,967
Interest expense	5	11,714	10,929	10,086
Net interest income	5	12,378	14,707	15,881
Provision for credit losses	20	525	1,383	956
Net interest income after provision for credit losses		11,853	13,324	14,925
Commissions and fee income	6	11,002	11,744	12,765
Net gains (losses) on financial assets/liabilities at fair value through profit or loss	5	2,926	1,401	3,842
Net gains (losses) on financial assets available for sale	7	479	653	203
Net income (loss) from equity method investments	17	137	455	164
Other income (loss)	8	(475)	1,053	669
Total noninterest income		14,070	15,307	17,644
Compensation and benefits	35	12,253	11,874	13,293
General and administrative expenses	9	11,973	15,454	18,632
Policyholder benefits and claims		0	374	256
Impairment of goodwill and other intangible assets	25	21	1,256	5,776
Restructuring activities	10	447	484	710
Total noninterest expenses		24,695	29,442	38,667
Income (loss) before income taxes		1,228	(810)	(6,097)
Income tax expense	36	1,963	546	675
Net income (loss)		(735)	(1,356)	(6,772)
Net income attributable to noncontrolling interests		15	45	21
Net income (loss) attributable to Deutsche Bank shareholders and additional equity components		(751)	(1,402)	(6,794)

Earnings per Share

in € m.	Notes	2017	2016	2015
Earnings per share:^{1,2}	11			
Basic		(€ 0.53)	(€ 1.08)	(€ 4.52)
Diluted		(€ 0.53)	(€ 1.08)	(€ 4.52)
Number of shares in million:¹				
Denominator for basic earnings per share – weighted-average shares outstanding		1,967.7	1,555.3	1,555.1
Denominator for diluted earnings per share – adjusted weighted-average shares after assumed conversions ³		1,967.7	1,555.3	1,555.1

¹ The number of average basic and diluted shares outstanding has been adjusted for all periods before April 2017 in order to reflect the effect of the bonus component of subscription rights issued in April 2017 in connection with the capital increase.

² Earnings were adjusted by € 298 and € 276 and € 228 million net of tax for the coupons paid on Additional Tier 1 Notes in April 2017, April 2016 and April 2015.

³ Due to the net loss situation for 2017, 2016 and 2015 potentially dilutive shares are generally not considered for the earnings per share calculation, because to do so would decrease the net loss per share. Under a net income situation however, the number of adjusted weighted average shares after assumed conversion would have been increased by 62 million shares for 2017, 27 million shares for 2016 and 27 million shares for 2015.

The accompanying notes are an integral part of the Consolidated Financial Statements.

Consolidated Statement of Comprehensive Income

in € m.	2017	2016	2015
Net income (loss) recognized in the income statement	(735)	(1,356)	(6,772)
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurement gains (losses) related to defined benefit plans, before tax	(69)	(861)	203
Total of income tax related to items that will not be reclassified to profit or loss	(23)	344	(213)
Items that are or may be reclassified to profit or loss			
Financial assets available for sale			
Unrealized net gains (losses) arising during the period, before tax	197	(2)	(242)
Realized net (gains) losses arising during the period (reclassified to profit or loss), before tax	(523)	(571)	(163)
Derivatives hedging variability of cash flows			
Unrealized net gains (losses) arising during the period, before tax	(34)	62	1
Realized net (gains) losses arising during the period (reclassified to profit or loss), before tax	(137)	(2)	20
Assets classified as held for sale			
Unrealized net gains (losses) arising during the period, before tax	(162)	529	662
Realized net (gains) losses arising during the period (reclassified to profit or loss), before tax	162	(1,191)	0
Foreign currency translation			
Unrealized net gains (losses) arising during the period, before tax	(2,699)	203	2,156
Realized net (gains) losses arising during the period (reclassified to profit or loss), before tax	20	(2)	4
Equity Method Investments			
Net gains (losses) arising during the period	(36)	11	48
Total of income tax related to items that are or may be reclassified to profit or loss	146	117	19
Other comprehensive income (loss), net of tax	(3,157)	(1,364)	2,493
Total comprehensive income (loss), net of tax	(3,892)	(2,721)	(4,278)
Attributable to:			
Noncontrolling interests	(20)	52	45
Deutsche Bank shareholders and additional equity components	(3,872)	(2,773)	(4,323)

The accompanying notes are an integral part of the Consolidated Financial Statements.

Consolidated Balance Sheet

in € m.	Notes	Dec 31, 2017	Dec 31, 2016
Assets:			
Cash and central bank balances		225,655	181,364
Interbank balances (w/o central banks)		9,265	11,606
Central bank funds sold and securities purchased under resale agreements	21, 22	9,971	16,287
Securities borrowed	21, 22	16,732	20,081
Financial assets at fair value through profit or loss			
Trading assets		184,661	171,044
Positive market values from derivative financial instruments		361,032	485,150
Financial assets designated at fair value through profit or loss		91,276	87,587
Total financial assets at fair value through profit or loss	12, 13, 21, 22, 37	636,970	743,781
Financial assets available for sale	15, 21, 22	49,397	56,228
Equity method investments	17	866	1,027
Loans	19, 20, 21, 22	401,699	408,909
Securities held to maturity	16	3,170	3,206
Property and equipment	23	2,663	2,804
Goodwill and other intangible assets	25	8,839	8,982
Other assets	26, 27	101,491	126,045
Assets for current tax	36	1,215	1,559
Deferred tax assets	36	6,799	8,666
Total assets		1,474,732	1,590,546
Liabilities and equity:			
Deposits	28	580,812	550,204
Central bank funds purchased and securities sold under repurchase agreements	21, 22	18,105	25,740
Securities loaned	21, 22	6,688	3,598
Financial liabilities at fair value through profit or loss	12, 37		
Trading liabilities		71,462	57,029
Negative market values from derivative financial instruments		342,726	463,858
Financial liabilities designated at fair value through profit or loss		63,874	60,492
Investment contract liabilities		574	592
Total financial liabilities at fair value through profit or loss		478,636	581,971
Other short-term borrowings	31	18,411	17,295
Other liabilities	26, 27	132,208	155,440
Provisions	20, 29	5,219	10,973
Liabilities for current tax	36	1,001	1,329
Deferred tax liabilities	36	346	486
Long-term debt	32	159,715	172,316
Trust preferred securities	32	5,491	6,373
Obligation to purchase common shares		0	0
Total liabilities		1,406,633	1,525,727
Common shares, no par value, nominal value of € 2.56	34	5,291	3,531
Additional paid-in capital		39,918	33,765
Retained earnings		17,454	18,987
Common shares in treasury, at cost	34	(9)	0
Equity classified as obligation to purchase common shares		0	0
Accumulated other comprehensive income (loss), net of tax		520	3,550
Total shareholders' equity		63,174	59,833
Additional equity components		4,675	4,669
Noncontrolling interests		250	316
Total equity		68,099	64,819
Total liabilities and equity		1,474,732	1,590,546

The accompanying notes are an integral part of the Consolidated Financial Statements.

Consolidated Statement of Changes in Equity

in € m.	Common shares (no par value)	Additional paid-in capital	Retained earnings	Common shares in treasury, at cost	Equity classified as obligation to purchase common shares	Unrealized net gains (losses) on financial assets available for sale, net of applicable tax and other ²
Balance as of December 31, 2014	3,531	33,626	29,279	(8)	0	1,675
Total comprehensive income, net of tax ¹	0	0	(6,794)	0	0	(291)
Common shares issued	0	0	0	0	0	0
Cash dividends paid	0	0	(1,034)	0	0	0
Coupon on additional equity components, net of tax	0	0	(228)	0	0	0
Remeasurement gains (losses) related to defined benefit plans, net of tax	0	0	(10)	0	0	0
Net change in share awards in the reporting period	0	(80)	0	0	0	0
Treasury shares distributed under share-based compensation plans	0	0	0	880	0	0
Tax benefits related to share-based compensation plans	0	0	0	0	0	0
Additions to Equity classified as obligation to purchase common shares	0	0	0	0	0	0
Deductions from Equity classified as obligation to purchase common shares	0	0	0	0	0	0
Option premiums and other effects from options on common shares	0	(34)	0	0	0	0
Purchases of treasury shares	0	0	0	(9,177)	0	0
Sale of treasury shares	0	0	0	8,295	0	0
Net gains (losses) on treasury shares sold	0	(3)	0	0	0	0
Other	0	63	(31)	0	0	0
Balance as of December 31, 2015	3,531	33,572	21,182	(10)	0	1,384
Total comprehensive income, net of tax ¹	0	0	(1,402)	0	0	(472)
Common shares issued	0	0	0	0	0	0
Cash dividends paid	0	0	0	0	0	0
Coupon on additional equity components, net of tax	0	0	(276)	0	0	0
Remeasurement gains (losses) related to defined benefit plans, net of tax	0	0	(517)	0	0	0
Net change in share awards in the reporting period	0	64	0	0	0	0
Treasury shares distributed under share-based compensation plans	0	0	0	239	0	0
Tax benefits related to share-based compensation plans	0	2	0	0	0	0
Additions to Equity classified as obligation to purchase common shares	0	0	0	0	0	0
Deductions from Equity classified as obligation to purchase common shares	0	0	0	0	0	0
Option premiums and other effects from options on common shares	0	(129)	0	0	0	0
Purchases of treasury shares	0	0	0	(5,264)	0	0
Sale of treasury shares	0	0	0	5,035	0	0
Net gains (losses) on treasury shares sold	0	(7)	0	0	0	0
Other	0	263	0	0	0	0
Balance as of December 31, 2016	3,531	33,765	18,987	0	0	912
Total comprehensive income, net of tax ¹	0	0	(751)	0	0	(223)
Common shares issued	1,760	6,277	0	0	0	0
Cash dividends paid	0	0	(392)	0	0	0
Coupon on additional equity components, net of tax	0	0	(298)	0	0	0
Remeasurement gains (losses) related to defined benefit plans, net of tax	0	0	(91)	0	0	0
Net change in share awards in the reporting period	0	(51)	0	0	0	0
Treasury shares distributed under share-based compensation plans	0	0	0	424	0	0
Tax benefits related to share-based compensation plans	0	3	0	0	0	0
Additions to Equity classified as obligation to purchase common shares	0	0	0	0	0	0
Deductions from Equity classified as obligation to purchase common shares	0	0	0	0	0	0
Option premiums and other effects from options on common shares	0	(104)	0	0	0	0
Purchases of treasury shares	0	0	0	(7,912)	0	0
Sale of treasury shares	0	0	0	7,479	0	0
Net gains (losses) on treasury shares sold	0	6	0	0	0	0
Other	0	22	0	0	0	0
Balance as of December 31, 2017	5,291	39,918	17,454	(9)	0	689

¹ Excluding remeasurement gains (losses) related to defined benefit plans, net of tax.

² Excluding unrealized net gains (losses) from equity method investments.

Unrealized net gains (losses) on derivatives hedging variability of cash flows, net of tax ²	Unrealized net gains (losses) on assets classified as held for sale, net of tax ²	Foreign currency translation, net of tax ²	Unrealized net gains (losses) from equity method investments	Accumulated other comprehensive income, net of tax ¹	Total shareholders' equity	Additional equity components ³	Noncontrolling interests	Total equity
79	0	151	18	1,923	68,351	4,619	253	73,223
18	662	2,044	48	2,481	(4,313)	0	45	(4,269)
0	0	0	0	0	0	0	0	0
0	0	0	0	0	(1,034)	0	(10)	(1,044)
0	0	0	0	0	(228)	0	0	(228)
0	0	0	0	0	(10)	0	0	(10)
0	0	0	0	0	(80)	0	0	(80)
0	0	0	0	0	880	0	0	880
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	(34)	0	0	(34)
0	0	0	0	0	(9,177)	0	0	(9,177)
0	0	0	0	0	8,295	0	0	8,295
0	0	0	0	0	(3)	0	0	(3)
0	0	0	0	0	33	56 ⁴	(17)	72
97	662	2,196	66	4,404	62,678	4,675	270	67,624
46	(662)	223	11	(854)	(2,256)	0	52	(2,204)
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	(11)	(11)
0	0	0	0	0	(276)	0	0	(276)
0	0	0	0	0	(517)	0	0	(517)
0	0	0	0	0	64	0	0	64
0	0	0	0	0	239	0	0	239
0	0	0	0	0	2	0	0	2
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	(129)	0	0	(129)
0	0	0	0	0	(5,264)	0	0	(5,264)
0	0	0	0	0	5,035	0	0	5,035
0	0	0	0	0	(7)	0	0	(7)
0	0	0	0	0	263	(6) ⁴	4	262
143	0	2,418	77	3,550	59,833	4,669	316	64,819
(125)	0	(2,646)	(36)	(3,030)	(3,781)	0	(20)	(3,800)
0	0	0	0	0	8,037	0	0	8,037
0	0	0	0	0	(392)	0	(11)	(403)
0	0	0	0	0	(298)	0	0	(298)
0	0	0	0	0	(91)	0	0	(91)
0	0	0	0	0	(51)	0	0	(51)
0	0	0	0	0	424	0	0	424
0	0	0	0	0	3	0	0	3
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	(104)	0	0	(104)
0	0	0	0	0	(7,912)	0	0	(7,912)
0	0	0	0	0	7,479	0	0	7,479
0	0	0	0	0	6	0	0	6
0	0	0	0	0	22	6 ⁴	(36)	(9)
18	0	(227)	40	520	63,174	4,675	250	68,099

³ Includes Additional Tier 1 Notes, which constitute unsecured and subordinated notes of Deutsche Bank and are classified as equity in accordance with IFRS.

⁴ Includes net proceeds from purchase and sale of Additional Equity Components.

The accompanying notes are an integral part of the Consolidated Financial Statements.

Consolidated Statement of Cash Flows

in € m.	2017	2016	2015
Net Income (loss)	(735)	(1,356)	(6,772)
Cash flows from operating activities:			
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Provision for credit losses	525	1,383	956
Restructuring activities	447	484	710
Gain on sale of financial assets available for sale, equity method investments, and other	(575)	(899)	(430)
Deferred income taxes, net	1,234	(312)	(987)
Impairment, depreciation and other amortization, and accretion	2,159	3,745	8,908
Share of net income from equity method investments	(141)	(183)	(708)
Income (loss) adjusted for noncash charges, credits and other items	2,914	2,862	1,677
Adjustments for net change in operating assets and liabilities:			
Interest-earning time deposits with central banks and banks	966	(2,814)	30,096
Central bank funds sold, securities purchased under resale agreements, securities borrowed	8,560	19,440	(10,108)
Financial assets designated at fair value through profit or loss	(6,721)	20,337	12,935
Loans	2,759	18,190	(14,015)
Other assets	21,970	(7,847)	26,756
Deposits	34,601	(15,237)	26,537
Financial liabilities designated at fair value through profit or loss and investment contract liabilities	5,461	8,686	6,101
Central bank funds purchased, securities sold under repurchase agreements, securities loaned	(3,355)	16,362	(1,120)
Other short-term borrowings	1,148	(10,632)	(16,149)
Other liabilities	(23,107)	(12,888)	(14,177)
Senior long-term debt	(12,728)	12,328	13,536
Trading assets and liabilities, positive and negative market values from derivative financial instruments, net	1,596	30,341	13,788
Other, net	5,512	(8,518)	(8,605)
Net cash provided by (used in) operating activities	39,576	70,610	67,252
Cash flows from investing activities:			
Proceeds from:			
Sale of financial assets available for sale	10,657	26,855	18,027
Maturities of financial assets available for sale	6,798	6,029	3,986
Maturities of securities held to maturity	0	0	0
Sale of equity method investments	80	50	165
Sale of property and equipment	113	206	272
Purchase of:			
Financial assets available for sale	(13,472)	(21,639)	(29,665)
Securities held to maturity	0	0	0
Equity method investments	(12)	(81)	(95)
Property and equipment	(485)	(725)	(432)
Net cash received in (paid for) business combinations/divestitures	82	2,023	555
Other, net	(1,328)	(1,479)	(1,055)
Net cash provided by (used in) investing activities	2,433	11,239	(8,242)
Cash flows from financing activities:			
Issuances of subordinated long-term debt	881 ²	815	2,942
Repayments and extinguishments of subordinated long-term debt	(176) ²	(1,102)	(2,043)
Issuances of trust preferred securities	266 ³	121	788
Repayments and extinguishments of trust preferred securities	(666) ³	(840)	(5,114)
Common shares issued	8,037	0	0
Purchases of treasury shares	(7,912)	(5,264)	(9,177)
Sale of treasury shares	7,471	4,983	8,316
Additional Equity Components (AT1) issued	0	0	0
Purchases of Additional Equity Components (AT1)	(205)	(207)	(407)
Sale of Additional Equity Components (AT1)	217	202	442
Coupon on additional equity components, pre tax	(335)	(333)	(269)
Dividends paid to noncontrolling interests	(11)	(11)	(10)
Net change in noncontrolling interests	(37)	(13)	(17)
Cash dividends paid to Deutsche Bank shareholders	(392)	0	(1,034)
Net cash provided by (used in) financing activities	7,138	(1,649)	(5,583)

in € m.	2017	2016	2015
Net effect of exchange rate changes on cash and cash equivalents	(5,772)	(28)	94
Net increase (decrease) in cash and cash equivalents	43,376	80,172	53,521
Cash and cash equivalents at beginning of period	185,649	105,478	51,960
Cash and cash equivalents at end of period	229,025	185,649	105,478
Net cash provided by (used in) operating activities include			
Income taxes paid (received), net	689	1,572	902
Interest paid	11,784	10,808	10,608
Interest received	21,095	22,579	21,749
Dividends received	3,006	3,256	4,428
Cash and cash equivalents comprise			
Cash and central bank balances (not included: Interest-earning time deposits with central banks)	222,451	178,105 ¹	94,923
Interbank balances (w/o central banks) (not included: time deposits with banks of € 5,896 m. as of December 31, 2017, € 7,079 m. as of December 31, 2016 and € 4,304 m as of December 31, 2015)	6,574	7,544 ¹	10,555
Total	229,025	185,649¹	105,478

¹ Prior year number restated.

² Non-cash changes for Subordinated Long Term Debt are € (367) million in total and driven by FX movements of € (372) million.

³ Non-cash changes for Trust Preferred Securities are € (481) million in total and driven by FX movements of € (444) million and FV changes of € (51) million.

The accompanying notes are an integral part of the Consolidated Financial Statements.

Notes to the Consolidated Financial Statements

01 – Significant Accounting Policies and Critical Accounting Estimates

Basis of Accounting

Deutsche Bank Aktiengesellschaft (“Deutsche Bank” or the “Parent”) is a stock corporation organized under the laws of the Federal Republic of Germany. Deutsche Bank together with all entities in which Deutsche Bank has a controlling financial interest (the “Group”) is a global provider of a full range of corporate and investment banking, private clients and asset management products and services.

The accompanying consolidated financial statements are stated in euros, the presentation currency of the Group. All financial information presented in million euros has been rounded to the nearest million. The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”) and endorsed by the European Union (“EU”). The Group’s application of IFRS results in no differences between IFRS as issued by the IASB and IFRS as endorsed by the EU.

Some IFRS disclosures incorporated in the Management Report are an integral part of the Consolidated Financial Statements. These disclosures include Segmental Results of Operations and Entity Wide disclosures on Net Revenue Components under IFRS 8, “Operating Segments” provided in the Operating and Financial Review of the Management Report. Additionally the Risk Report includes disclosures about the nature and the extent of risks arising from financial instruments as required by IFRS 7, “Financial Instruments: Disclosures” and capital disclosures as required under IAS 1, “Presentation of Financial Statements”. These audited disclosures are identified by bracketing in the margins of the Management Report. In addition, with respect to the table entitled “Transitional template for regulatory capital, RWA and capital ratios” set forth in the Risk Report within the section “Risk and Capital Performance: Capital and Leverage Ratio: Development of regulatory capital”, the columns captioned “CRR/CRD 4” for each of December 31, 2017 and December 31, 2016 (but not the columns captioned “CRR/CRD 4 fully loaded”) are also an integral part of the Consolidated Financial Statements, notwithstanding that they are not identified by bracketing in the margins. These disclosures are also audited.

Discount Rate for Defined Benefit Pension Plans

In 2017 the Group moved to a more standardized, simpler approach to set its discount rate used to value its defined benefit plans in the Eurozone; similar approaches are generally accepted and are already used for the Group’s other major pension plans in the United Kingdom and the United States. The refinement resulted in no change in the discount rate and so no effect on the Group’s Consolidated Statement of Comprehensive Income in 2017.

Adjustment of Impairment Methodology for Shipping Loans

In the third quarter of 2017, the Group adjusted the parameters for shipping loans being assessed for impairment under a going concern or gone concern scenario. This change in parameters resulted in an increase in the estimated impairment charge of € 70 million. The Group also revised its general haircut applied to shipping loans with gone concern exposures, which also resulted in an increase in the estimated impairment charge of an additional € 36 million. These changes in estimates are reflected in the allowance for credit losses.

Critical Accounting Estimates

The preparation of financial statements under IFRS requires management to make estimates and assumptions for certain categories of assets and liabilities. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet date, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from management’s estimates. The Group’s significant accounting policies are described in “Significant Accounting Policies”.

Certain of the Group's accounting policies require critical accounting estimates that involve complex and subjective judgments and the use of assumptions, some of which may be for matters that are inherently uncertain and susceptible to change. Such critical accounting estimates could change from period to period and may have a material impact on the Group's financial condition, changes in financial condition or results of operations. Critical accounting estimates could also involve estimates where management could have reasonably used another estimate in the current accounting period. The Group has identified the following significant accounting policies that involve critical accounting estimates:

- the impairment of associates (see "Associates" below)
- the impairment of financial assets available for sale (see "Financial Assets and Liabilities – Financial Assets Classified as Available for Sale" below)
- the determination of fair value (see "Financial Assets and Liabilities – Determination of Fair Value" below)
- the recognition of trade date profit (see "Financial Assets and Liabilities – Recognition of Trade Date Profit" below)
- the impairment of loans and provisions for off-balance sheet positions (see "Impairment of Loans and Provision for Off-balance Sheet Positions" below)
- the impairment of goodwill and other intangibles (see "Goodwill and Other Intangible Assets" below)
- the recognition and measurement of deferred tax assets (see "Income Taxes" below)
- the accounting for legal and regulatory contingencies and uncertain tax positions (see "Provisions" below)

Significant Accounting Policies

The following is a description of the significant accounting policies of the Group. Other than as previously described, these policies have been consistently applied for 2015, 2016 and 2017.

Principles of Consolidation

The financial information in the Consolidated Financial Statements includes the parent company, Deutsche Bank AG, together with its consolidated subsidiaries, including certain structured entities presented as a single economic unit.

Subsidiaries

The Group's subsidiaries are those entities which it directly or indirectly controls. Control over an entity is evidenced by the Group's ability to exercise its power in order to affect any variable returns that the Group is exposed to through its involvement with the entity.

The Group sponsors the formation of structured entities and interacts with structured entities sponsored by third parties for a variety of reasons, including allowing clients to hold investments in separate legal entities, allowing clients to invest jointly in alternative assets, for asset securitization transactions, and for buying or selling credit protection.

When assessing whether to consolidate an entity, the Group evaluates a range of control factors, namely:

- the purpose and design of the entity
- the relevant activities and how these are determined
- whether the Group's rights result in the ability to direct the relevant activities
- whether the Group has exposure or rights to variable returns
- whether the Group has the ability to use its power to affect the amount of its returns

Where voting rights are relevant, the Group is deemed to have control where it holds, directly or indirectly, more than half of the voting rights over an entity unless there is evidence that another investor has the practical ability to unilaterally direct the relevant activities.

Potential voting rights that are deemed to be substantive are also considered when assessing control.

Likewise, the Group also assesses existence of control where it does not control the majority of the voting power but has the practical ability to unilaterally direct the relevant activities. This may arise in circumstances where the size and dispersion of holdings of the shareholders give the Group the power to direct the activities of the investee.

Subsidiaries are consolidated from the date on which control is transferred to the Group and are deconsolidated from the date that control ceases.

The Group reassesses the consolidation status at least at every quarterly reporting date. Therefore, any changes in the structure leading to a change in one or more of the control factors, require reassessment when they occur. This includes changes in decision making rights, changes in contractual arrangements, changes in the financing, ownership or capital structure as well as changes following a trigger event which was anticipated in the original documentation.

All intercompany transactions, balances and unrealized gains on transactions between Group companies are eliminated on consolidation.

Consistent accounting policies are applied throughout the Group for the purposes of consolidation. Issuances of a subsidiary's stock to third parties are treated as noncontrolling interests. Profit or loss attributable to noncontrolling interests are reported separately in the Consolidated Statement of Income and Consolidated Statement of Comprehensive Income.

At the date that control of a subsidiary is lost, the Group a) derecognizes the assets (including attributable goodwill) and liabilities of the subsidiary at their carrying amounts, b) derecognizes the carrying amount of any noncontrolling interests in the former subsidiary, c) recognizes the fair value of the consideration received and any distribution of the shares of the subsidiary, d) recognizes any investment retained in the former subsidiary at its fair value and e) recognizes any resulting difference of the above items as a gain or loss in the income statement. Any amounts recognized in prior periods in other comprehensive income in relation to that subsidiary would be reclassified to the Consolidated Statement of Income or transferred directly to retained earnings if required by other IFRS Standards.

Associates

An associate is an entity in which the Group has significant influence, but not a controlling interest, over the operating and financial management policy decisions of the entity. Significant influence is generally presumed when the Group holds between 20 % and 50 % of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered in assessing whether the Group has significant influence. Among the other factors that are considered in determining whether the Group has significant influence are representation on the board of directors (supervisory board in the case of German stock corporations) and material intercompany transactions. The existence of these factors could require the application of the equity method of accounting for a particular investment even though the Group's investment is less than 20 % of the voting stock.

Investments in associates are accounted for under the equity method of accounting. The Group's share of the results of associates is adjusted to conform to the accounting policies of the Group and is reported in the Consolidated Statement of Income as Net income (loss) from equity method investments. The Group's share in the associate's profits and losses resulting from intercompany sales is eliminated on consolidation.

If the Group previously held an equity interest in an entity (for example, as available for sale) and subsequently gained significant influence, the previously held equity interest is remeasured to fair value and any gain or loss is recognized in the Consolidated Statement of Income. Any amounts previously recognized in other comprehensive income associated with the equity interest would be reclassified to the Consolidated Statement of Income at the date the Group gains significant influence, as if the Group had disposed of the previously held equity interest.

Under the equity method of accounting, the Group's investments in associates and jointly controlled entities are initially recorded at cost including any directly related transaction costs incurred in acquiring the associate, and subsequently increased (or decreased) to reflect both the Group's pro-rata share of the post-acquisition net income (or loss) of the associate or jointly controlled entity and other movements included directly in the equity of the associate or jointly controlled entity. Goodwill arising on the acquisition of an associate or a jointly controlled entity is included in the carrying value of the investment (net of any accumulated impairment loss). As goodwill is not reported separately it is not specifically tested for impairment. Rather, the entire equity method investment is tested for impairment at each balance sheet date.

If there is objective evidence of impairment, an impairment test is performed by comparing the investment's recoverable amount, which is the higher of its value in use and fair value less costs to sell, with its carrying amount. An impairment loss recognized in prior periods is only reversed if there has been a change in the estimates used to determine the investment's recoverable amount since the last impairment loss was recognized. If this is the case the carrying amount of the investment is increased to its higher recoverable amount. The increased carrying amount of the investment in associate attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined had no impairment loss been recognised for the investment in prior years.

At the date that the Group ceases to have significant influence over the associate or jointly controlled entity the Group recognizes a gain or loss on the disposal of the equity method investment equal to the difference between the sum of the fair value of any retained investment and the proceeds from disposing of the associate and the carrying amount of the investment. Amounts recognized in prior periods in other comprehensive income in relation to the associate are accounted for on the same basis as would have been required if the investee had directly disposed of the related assets or liabilities.

Critical Accounting Estimates: As the assessment of whether there is objective evidence of impairment may require significant management judgment and the estimates for impairment could change from period to period based on future events that may or may not occur, the Group considers this to be a critical accounting estimate.

Foreign Currency Translation

The Consolidated Financial Statements are prepared in euro, which is the presentation currency of the Group. Various entities in the Group use a different functional currency, being the currency of the primary economic environment in which the entity operates.

An entity records foreign currency revenues, expenses, gains and losses in its functional currency using the exchange rates prevailing at the dates of recognition.

Monetary assets and liabilities denominated in currencies other than the entity's functional currency are translated at the period end closing rate. Foreign exchange gains and losses resulting from the translation and settlement of these items are recognized in the Consolidated Statement of Income as net gains (losses) on financial assets/liabilities at fair value through profit or loss in order to align the translation amounts with those recognized from foreign currency related transactions (derivatives) which hedge these monetary assets and liabilities.

Nonmonetary items that are measured at historical cost are translated using the historical exchange rate at the date of the transaction. Translation differences on nonmonetary items which are held at fair value through profit or loss are recognized in profit or loss. Translation differences on available for sale nonmonetary items (equity securities) are included in other comprehensive income and recognized in the Consolidated Statement of Income when the non-monetary item is sold as part of the overall gain or loss on sale of the item.

For purposes of translation into the presentation currency, assets and liabilities of foreign operations are translated at the period end closing rate and items of income and expense are translated into euros at the rates prevailing on the dates of the transactions, or average rates of exchange where these approximate actual rates. The exchange differences arising on the translation of a foreign operation are included in other comprehensive income. For foreign operations that are subsidiaries, the amount of exchange differences attributable to any noncontrolling interests is recognized in noncontrolling interests.

Upon disposal of a foreign subsidiary and associate (which results in loss of control or significant influence over that operation) the total cumulative exchange differences recognized in other comprehensive income are reclassified to profit or loss.

Upon partial disposal of a foreign operation that is a subsidiary and which does not result in loss of control, the proportionate share of cumulative exchange differences is reclassified from other comprehensive income to noncontrolling interests as this is deemed a transaction with equity holders. For a partial disposal of an associate which does not result in a loss of significant influence, the proportionate share of cumulative exchange differences is reclassified from other comprehensive income to profit or loss.

Interest, Commissions and Fees

Revenue is recognized when the amount of revenue and associated costs can be reliably measured, it is probable that economic benefits associated with the transaction will be realized and the stage of completion of the transaction can be reliably measured. This concept is applied to the key revenue generating activities of the Group as follows.

Net Interest Income – Interest from all interest-bearing assets and liabilities is recognized as net interest income using the effective interest method. The effective interest rate is a method of calculating the amortized cost of a financial asset or a financial liability and of allocating the interest income or expense over the relevant period using the estimated future cash flows. The estimated future cash flows used in this calculation include those determined by the contractual terms of the asset or liability, all fees that are considered to be integral to the effective interest rate, direct and incremental transaction costs and all other premiums or discounts.

Once an impairment loss has been recognized on a loan, held-to-maturity investment or available for sale debt instruments, although the accrual of interest in accordance with the contractual terms of the instrument is discontinued, interest income is recognized based on the rate of interest that was used to discount future cash flows for the purpose of measuring the impairment loss. For a loan and held to maturity investment this would be the original effective interest rate, but a new effective interest rate would be established each time an available for sale debt instrument is impaired as impairment is measured to fair value and would be based on a current market rate.

The Group recognises income from government grants which are associated to interest-bearing assets and liabilities in net interest income when there is reasonable assurance that it will receive the grants and will comply with the conditions attached to the grants.

Commissions and Fee Income – The recognition of fee revenue (including commissions) is determined by the purpose of the fees and the basis of accounting for any associated financial instruments. If there is an associated financial instrument, fees that are an integral part of the effective interest rate of that financial instrument are included within the effective yield calculation. However, if the financial instrument is carried at fair value through profit or loss, any associated fees are recognized in profit or loss when the instrument is initially recognized, provided there are no significant unobservable inputs used in determining its fair value. Fees earned from services that are provided over a specified service period are recognized over that service period. Fees earned for the completion of a specific service or significant event are recognized when the service has been completed or the event has occurred.

Loan commitment fees related to commitments that are accounted off-balance sheet are recognized in commissions and fee income over the life of the commitment if it is unlikely that the Group will enter into a specific lending arrangement. If it is probable that the Group will enter into a specific lending arrangement, the loan commitment fee is deferred until the origination of a loan and recognized as an adjustment to the loan's effective interest rate.

Performance-linked fees or fee components are recognized when the performance criteria are fulfilled.

The following fee income is predominantly earned from services that are provided over a period of time: investment fund management fees, fiduciary fees, custodian fees, portfolio and other management and advisory fees, credit-related fees and commission income. Fees predominantly earned from providing transaction-type services include underwriting fees, corporate finance fees and brokerage fees.

Expenses that are directly related and incremental to the generation of fee income are presented net in Commissions and Fee Income.

Arrangements involving multiple services or products – If the Group contracts to provide multiple products, services or rights to a counterparty, an evaluation is made as to whether an overall fee should be allocated to the different components of the arrangement for revenue recognition purposes. The assessment considers the value of items or services delivered to ensure that the Group's continuing involvement in other aspects of the arrangement are not essential to the items delivered. It also assesses the value of items not yet delivered and, if there is a right of return on delivered items, the probability of future delivery of remaining items or services. If it is determined that it is appropriate to look at the arrangements as separate components, the amounts received are allocated based on the relative value of each component.

If there is no objective and reliable evidence of the value of the delivered item or an individual item is required to be recognized at fair value then the residual method is used. The residual method calculates the amount to be recognized for the delivered component as being the amount remaining after allocating an appropriate amount of revenue to all other components.

Financial Assets and Liabilities

The Group classifies its financial assets and liabilities into the following categories: financial assets and liabilities at fair value through profit or loss, loans, held-to-maturity, financial assets available for sale ("AFS") and other financial liabilities. Appropriate classification of financial assets and liabilities is determined at the time of initial recognition or when reclassified in the Consolidated Balance Sheet.

Financial assets and financial liabilities classified at fair value through profit or loss and financial assets classified as AFS are recognized or derecognized on trade date if a regular way period for the instrument exist. Trade date is the date on which the Group commits to purchase or sell the asset or issue or repurchase the financial liability. Financial instruments measured at amortised cost are recognised on a settlement date basis.

Financial Assets and Liabilities at Fair Value through Profit or Loss

The Group classifies certain financial assets and financial liabilities as either held for trading or designated at fair value through profit or loss. They are carried at fair value and presented as financial assets at fair value through profit or loss and financial liabilities at fair value through profit or loss, respectively. Related realized and unrealized gains and losses are included in net gains (losses) on financial assets/liabilities at fair value through profit or loss. Interest on interest earning assets such as trading loans and debt securities and dividends on equity instruments are presented in interest and similar income for financial instruments at fair value through profit or loss.

Trading Assets and Liabilities – Financial instruments are classified as held for trading if they have been originated, acquired or incurred principally for the purpose of selling or repurchasing them in the near term, or they form part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking. Trading assets include debt and equity securities, derivatives held for trading purposes, commodities and trading loans. Trading liabilities consist primarily of derivative liabilities and short positions.

Financial Instruments Designated at Fair Value through Profit or Loss – Certain financial assets and liabilities that do not meet the definition of trading assets and liabilities are designated at fair value through profit or loss using the fair value option. To be designated at fair value through profit or loss, financial assets and liabilities must meet one of the following criteria: (1) the designation eliminates or significantly reduces a measurement or recognition inconsistency; (2) a group of financial assets or liabilities or both is managed and its performance is evaluated on a fair value basis in accordance with a documented risk management or investment strategy; or (3) the instrument contains one or more embedded derivatives unless: (a) the embedded derivative does not significantly modify the cash flows that otherwise would be required by the contract; or (b) it is clear with little or no analysis that separation is prohibited. In addition, the Group allows the fair value option to be designated only for those financial instruments for which a reliable estimate of fair value can be obtained. Financial assets and liabilities which are designated at fair value through profit or loss, under the fair value option, include repurchase and reverse repurchase agreements, certain loans and loan commitments, debt and equity securities and structured note liabilities.

Non-Participating Investment Contracts (“Investment Contracts”) – All of the Group’s investment contracts are unit-linked and do not contain significant insurance risk or discretionary participation features. The contract liabilities are determined using current unit prices multiplied by the number of units attributed to the contract holders as of the balance sheet date. As this amount represents fair value, the liabilities have been classified as financial liabilities at fair value through profit or loss. Deposits collected under investment contracts are accounted for as an adjustment to the investment contract liabilities. Investment income attributable to investment contracts is included in the Consolidated Statement of Income. Investment contract claims reflect the excess of amounts paid over the account balance released. Investment contract policyholders are charged fees for policy administration, investment management, surrenders or other contract services.

Loan Commitments

Certain loan commitments are classified as derivatives held for trading or designated at fair value through profit or loss under the fair value option. All other loan commitments remain off-balance sheet. Therefore, the Group does not recognize and measure changes in fair value of these off-balance sheet loan commitments that result from changes in market interest rates or credit spreads. However, as specified in the discussion “Impairment of Loans and Provision for Off-Balance sheet positions”, these off-balance sheet loan commitments are assessed for impairment individually and where appropriate, collectively.

Loans

Loans include originated and purchased non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and which are not classified as financial assets at fair value through profit or loss, held-to-maturity or financial assets AFS. An active market exists when quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency and those prices represent actual and regularly occurring market transactions on an arm’s length basis.

Loans not acquired in a business combination or in an asset purchase are initially recognized at their transaction price representing the fair value, which is the cash amount advanced to the borrower. In addition, the net of direct and incremental transaction costs and fees are included in the initial carrying amount of loans. These loans are subsequently measured at amortized cost using the effective interest method less impairment.

Loans which have been acquired as either part of a business combination or as an asset purchase are initially recognized at fair value at the acquisition date. This includes loans for which an impairment loss had been established by the acquiree before their initial recognition by the Group. The fair value at the acquisition date incorporates expected cash flows which consider the credit quality of these loans including any incurred losses and becomes the new amortized cost base. Interest income is recognized using the effective interest method. Subsequent to the acquisition date the Group assesses whether there is objective evidence of impairment in line with the policies described in the section entitled “Impairment of Loans and Provision for Off-

Balance Sheet Positions". If the loans are determined to be impaired then a loan loss allowance is recognized with a corresponding charge to the provision for credit losses line in the Consolidated Statement of Income. Releases of such loan loss allowances established after their initial recognition are included in the provision for credit losses line. Subsequent improvements in the credit quality of such loans for which no loss allowance had been recorded are recognized immediately through an adjustment to the current carrying value and a corresponding gain is recognized in interest income.

Financial Instruments Held-to-Maturity

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and a fixed maturity that the Group has the positive intention and ability to hold to maturity and which are not classified as financial assets at fair value through profit or loss, loans or financial assets AFS.

Held-to-maturity investments are initially recorded at fair value plus any directly attributable transaction costs and are subsequently measured at amortized cost using the effective interest method. Subsequent to the acquisition date, the Group assesses whether there is objective evidence of impairment in line with the policies described in the section entitled "Impairment of Loans and Provision for Off-Balance Sheet provisions". If a held-to-maturity investment is considered impaired, then an impairment loss is recognized in the Consolidated Statement of Income.

Financial Assets Classified as Available for Sale

Financial assets that are classified as AFS are initially recognized at its fair value plus transaction costs that are directly attributable to the acquisition of the financial asset. The amortization of premiums and accretion of discount are recorded in net interest income. Financial assets classified as AFS are carried at fair value with the changes in fair value reported in other comprehensive income, unless the asset is subject to a fair value hedge, in which case changes in fair value resulting from the risk being hedged are recorded in other income. For monetary financial assets classified as AFS (debt instruments), changes in carrying amounts relating to changes in foreign exchange rate are recognized in the Consolidated Statement of Income and other changes in carrying amount are recognized in other comprehensive income as indicated above. For financial assets classified as AFS that are nonmonetary items (equity instruments), the fair value gain or loss is recognized in other comprehensive income, which also includes any related foreign exchange component.

Equity investments classified as AFS are assessed for impairment if objective evidence demonstrates a significant or prolonged decline in the fair value of the investment below cost. In the case of debt securities classified as AFS, impairment is assessed based on the same criteria as for loans.

If there is evidence of impairment, any amounts previously recognized in other comprehensive income are recognized in the Consolidated Statement of Income for the period, reported in net gains (losses) on financial assets available for sale. This impairment loss for the period is determined as the difference between the acquisition cost (net of any principal repayments and amortization) and current fair value of the asset less any impairment loss on that investment previously recognized in the Consolidated Statement of Income.

When an AFS debt security is impaired, any subsequent decreases in fair value are recognized in the Consolidated Statement of Income as it is considered further impairment. Any subsequent increases are also recognized in the Consolidated Statement of Income until the asset is no longer considered impaired. When the fair value of the AFS debt security recovers to at least amortized cost it is no longer considered impaired and subsequent changes in fair value are reported in other comprehensive income.

Reversals of impairment losses on equity investments classified as AFS are not reversed through the Consolidated Statement of Income; increases in their fair value after impairment are recognized in other comprehensive income.

Realized gains and losses are reported in net gains (losses) on financial assets available for sale. Generally, the weighted-average cost method is used to determine the cost of financial assets. Unrealized gains and losses recorded in other comprehensive income are transferred to the Consolidated Statement of Income on disposal of an available for sale asset and reported in net gains (losses) on financial assets available for sale.

Critical Accounting Estimates – Because the assessment of objective evidence of impairment require significant management judgment and the estimate of impairment could change from period to period based upon future events that may or may not occur, the Group considers the impairment of Financial Assets classified as Available for Sale to be a critical accounting estimate. For additional information see Note 7 "Net Gains (Losses) on Financial Assets Available for Sale".

Financial Liabilities

Except for financial liabilities at fair value through profit or loss, financial liabilities are measured at amortized cost using the effective interest method.

Financial liabilities include long-term and short-term debt issued which are initially measured at fair value, which is the consideration received, net of transaction costs incurred. Repurchases of issued debt in the market are treated as extinguishments and any related gain or loss is recorded in the Consolidated Statement of Income. A subsequent sale of own bonds in the market is treated as a reissuance of debt.

Reclassification of Financial Assets

The Group may reclassify certain financial assets out of the financial assets at fair value through profit or loss classification (trading assets) and the AFS classification into the loans or held-to-maturity classification. For assets to be reclassified there must be a clear change in management intent with respect to the assets since initial recognition and the financial asset must meet the definition of a loan or held-to-maturity investment at the reclassification date. Additionally, there must be an intent and ability to hold the asset for the foreseeable future at the reclassification date. For held-to-maturity investments there must be a positive intention and ability to hold the asset until maturity.

Financial assets are reclassified at their fair value at the reclassification date. Any gain or loss already recognized in the Consolidated Statement of Income is not reversed. The fair value of the instrument at reclassification date becomes the new amortized cost of the instrument. The expected cash flows on the financial instruments are estimated at the reclassification date and these estimates are used to calculate a new effective interest rate for the instruments. If there is a subsequent increase in expected future cash flows on reclassified assets as a result of increased recoverability, the effect of that increase is recognized as an adjustment to the effective interest rate from the date of the change in estimate rather than as an adjustment to the carrying amount of the asset at the date of the change in estimate. If there is a subsequent decrease in expected future cash flows the asset would be assessed for impairment as discussed in the section entitled "Impairment of Loans and Provision for Off-Balance Sheet Positions". Any changes in the timing of the cash flows of reclassified assets which are not deemed impaired are recorded as an adjustment to the carrying amount of the asset.

For instruments reclassified from AFS to loans or held-to-maturity, any unrealized gain or loss recognized in other comprehensive income is subsequently amortized into interest income using the effective interest rate of the instrument. If the instrument is subsequently impaired, any unrealized loss which is held in accumulated other comprehensive income for that instrument at that date is immediately recognized in the Consolidated Statement of Income.

To the extent that assets categorized as loans are repaid, restructured or eventually sold and the amount received is less than the carrying value at that time, then a loss would be recognized in the Consolidated Statement of Income as a component of the provision for credit losses, if the loan is impaired, or otherwise in other Income, if the loan is not impaired.

Offsetting of Financial Instruments

Financial assets and liabilities are offset, with the net amount presented in the Consolidated Balance Sheet, only if the Group holds a currently enforceable legal right to set off the recognized amounts and there is an intention to settle on a net basis or to realize an asset and settle the liability simultaneously. The legal right to set off the recognized amounts must be enforceable in both the normal course of business and in the event of default, insolvency or bankruptcy of both the Group and its counterparty. In all other situations they are presented gross. When financial assets and financial liabilities are offset in the Consolidated Balance Sheet, the associated income and expense items will also be offset in the Consolidated Statement of Income, unless specifically prohibited by an applicable accounting standard.

The majority of the offsetting applied by the Group relates to derivatives and repurchase and reverse repurchase agreements. A significant portion of offsetting is applied to interest rate derivatives and related cash margin balances, which are cleared through central clearing parties such as the London Clearing House. The Group also offsets repurchase and reverse repurchase agreements for which the Group has the right to set off and has the intent to settle on a net basis or to realize an asset and settle a liability simultaneously. For further information please refer to Note 18 "Offsetting Financial Assets and Financial Liabilities".

Determination of Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an arm's length transaction between market participants at the measurement date. The fair value of instruments that are quoted in active markets is determined using the quoted prices where they represent those at which regularly and recently occurring transactions take place. The Group measures certain portfolios of financial assets and financial liabilities on the basis of their net risk exposures when the following criteria are met:

- The group of financial assets and liabilities is managed on the basis of its net exposure to a particular market risk (or risks) or to the credit risk of a particular counterparty, in accordance with a documented risk management strategy,
- the fair values are provided to key management personnel, and
- the financial assets and liabilities are measured at fair value through profit or loss.

This portfolio valuation approach is consistent with how the Group manages its net exposures to market and counterparty credit risks.

Critical Accounting Estimates – The Group uses valuation techniques to establish the fair value of instruments where prices quoted in active markets are not available. Therefore, where possible, parameter inputs to the valuation techniques are based on observable data derived from prices of relevant instruments traded in an active market. These valuation techniques involve some level of management estimation and judgment, the degree of which will depend on the price transparency for the instrument or market and the instrument's complexity.

In reaching estimates of fair value management judgment needs to be exercised. The areas requiring significant management judgment are identified, documented and reported to senior management as part of the valuation control process and the standard monthly reporting cycle. The specialist model validation and valuation control groups focus attention on the areas of subjectivity and judgment.

The level of management judgment required in establishing fair value of financial instruments for which there is a quoted price in an active market is usually minimal. Similarly there is little subjectivity or judgment required for instruments valued using valuation models which are standard across the industry and where all parameter inputs are quoted in active markets.

The level of subjectivity and degree of management judgment required is more significant for those instruments valued using specialized and sophisticated models and where some or all of the parameter inputs are less liquid or less observable. Management judgment is required in the selection and application of appropriate parameters, assumptions and modelling techniques. In particular, where data are obtained from infrequent market transactions then extrapolation and interpolation techniques must be applied. Where no market data are available for a particular instrument then pricing inputs are determined by assessing other relevant sources of information such as historical data, fundamental analysis of the economics of the transaction and proxy information from similar transactions, and making appropriate adjustment to reflect the actual instrument being valued and current market conditions. Where different valuation techniques indicate a range of possible fair values for an instrument then management has to decide what point within the range of estimates appropriately represents the fair value. Further, some valuation adjustments may require the exercise of management judgment to achieve fair value.

Under IFRS, the financial assets and liabilities carried at fair value are required to be disclosed according to the inputs to the valuation method that are used to determine their fair value. Specifically, segmentation is required between those valued using quoted market prices in an active market (level 1), valuation techniques based on observable parameters (level 2) and valuation techniques using significant unobservable parameters (level 3). Management judgment is required in determining the category to which certain instruments should be allocated. This specifically arises when the valuation is determined by a number of parameters, some of which are observable and others are not. Further, the classification of an instrument can change over time to reflect changes in market liquidity and therefore price transparency.

The Group provides a sensitivity analysis of the impact upon the level 3 financial instruments of using a reasonably possible alternative for the unobservable parameter. The determination of reasonably possible alternatives requires significant management judgment.

For financial instruments measured at amortized cost (which includes loans, deposits and short and long term debt issued) the Group discloses the fair value. Generally there is limited or no trading activity in these instruments and therefore the fair value determination requires significant management judgment.

For further discussion of the valuation methods and controls and quantitative disclosures with respect to the determination of fair value, please refer to Note 13 "Financial Instruments carried at Fair Value" and Note 14 "Fair Value of Financial Instruments not carried at Fair Value".

Recognition of Trade Date Profit

If there are significant unobservable inputs used in the valuation technique, the financial instrument is recognized at the transaction price and any profit implied from the valuation technique at trade date is deferred.

Using systematic methods, the deferred amount is recognized over the period between trade date and the date when the market is expected to become observable, or over the life of the trade (whichever is shorter). Such methodology is used because it reflects the changing economic and risk profile of the instrument as the market develops or as the instrument itself progresses to maturity. Any remaining trade date deferred profit is recognized in the Consolidated Statement of Income when the transaction becomes observable or the Group enters into off-setting transactions that substantially eliminate the instrument's risk. In the rare circumstances that a trade date loss arises, it would be recognized at inception of the transaction to the extent that it is probable that a loss has been incurred and a reliable estimate of the loss amount can be made.

Critical Accounting Estimates – Management judgment is required in determining whether there exist significant unobservable inputs in the valuation technique. Once deferred, the decision to subsequently recognize the trade date profit requires a careful assessment of the then current facts and circumstances supporting observability of parameters and/or risk mitigation.

Derivatives and Hedge Accounting

Derivatives are used to manage exposures to interest rate, foreign currency, credit and other market price risks, including exposures arising from forecast transactions. All freestanding contracts that are considered derivatives for accounting purposes are carried at fair value on the Consolidated Balance Sheet regardless of whether they are held for trading or nontrading purposes.

The changes in fair value on derivatives held for trading are included in net gains (losses) on financial assets/liabilities at fair value through profit or loss.

Embedded Derivatives

Some hybrid contracts contain both a derivative and a non-derivative component. In such cases, the derivative component is termed an embedded derivative, with the non-derivative component representing the host contract. If the economic characteristics and risks of embedded derivatives are not closely related to those of the host contract and the hybrid contract itself is not carried at fair value through profit or loss, the embedded derivative is bifurcated and reported at fair value, with gains and losses recognized in net gains (losses) on financial assets/liabilities at fair value through profit or loss. The host contract will continue to be accounted for in accordance with the appropriate accounting standard. The carrying amount of an embedded derivative is reported in the same Consolidated Balance Sheet line item as the host contract. Certain hybrid instruments have been designated at fair value through profit or loss using the fair value option.

Hedge Accounting

For accounting purposes there are three possible types of hedges: (1) hedges of changes in the fair value of assets, liabilities or unrecognized firm commitments (fair value hedges); (2) hedges of the variability of future cash flows from highly probable forecast transactions and floating rate assets and liabilities (cash flow hedges); and (3) hedges of the translation adjustments resulting from translating the functional currency financial statements of foreign operations into the presentation currency of the parent (hedges of net investments in foreign operations).

When hedge accounting is applied, the Group designates and documents the relationship between the hedging instrument and the hedged item as well as its risk management objective and strategy for undertaking the hedging transactions and the nature of the risk being hedged. This documentation includes a description of how the Group will assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. Hedge effectiveness is assessed at inception and throughout the term of each hedging relationship. Hedge effectiveness is always assessed, even when the terms of the derivative and hedged item are matched.

Hedging derivatives are reported as other assets and other liabilities. In the event that a derivative is subsequently de-designated from a hedging relationship, it is transferred to financial assets/liabilities at fair value through profit or loss.

For hedges of changes in fair value, the changes in the fair value of the hedged asset, liability or unrecognized firm commitment, or a portion thereof, attributable to the risk being hedged, are recognized in the Consolidated Statement of Income along with changes in the entire fair value of the derivative. When hedging interest rate risk, any interest accrued or paid on both the derivative and the hedged item is reported in interest income or expense and the unrealized gains and losses from the hedge accounting fair value adjustments are reported in other income. When hedging the foreign exchange risk of an AFS security, the fair value adjustments related to the security's foreign exchange exposures are also recorded in other income. Hedge ineffectiveness is reported in other income and is measured as the net effect of changes in the fair value of the hedging instrument

and changes in the fair value of the hedged item arising from changes in the market rate or price related to the risk(s) being hedged.

If a fair value hedge of a debt instrument is discontinued prior to the instrument's maturity because the derivative is terminated or the relationship is de-designated, any remaining interest rate-related fair value adjustments made to the carrying amount of the debt instrument (basis adjustments) are amortized to interest income or expense over the remaining term of the original hedging relationship. For other types of fair value adjustments and whenever a fair value hedged asset or liability is sold or otherwise derecognized, any basis adjustments are included in the calculation of the gain or loss on derecognition.

For hedges of variability in future cash flows, there is no change to the accounting for the hedged item and the derivative is carried at fair value, with changes in value reported initially in other comprehensive income to the extent the hedge is effective. These amounts initially recorded in other comprehensive income are subsequently reclassified into the Consolidated Statement of Income in the same periods during which the forecast transaction affects the Consolidated Statement of Income. Thus, for hedges of interest rate risk, the amounts are amortized into interest income or expense at the same time as the interest is accrued on the hedged transaction.

Hedge ineffectiveness is recorded in other income and is measured as changes in the excess (if any) in the absolute cumulative change in fair value of the actual hedging derivative over the absolute cumulative change in the fair value of the hypothetically perfect hedge.

When hedges of variability in cash flows attributable to interest rate risk are discontinued, amounts remaining in accumulated other comprehensive income are amortized to interest income or expense over the remaining life of the original hedge relationship, unless the hedged transaction is no longer expected to occur in which case the amount will be reclassified into other income immediately. When hedges of variability in cash flows attributable to other risks are discontinued, the related amounts in accumulated other comprehensive income are reclassified into either the same Consolidated Statement of Income caption and period as profit or loss from the forecast transaction, or into other income when the forecast transaction is no longer expected to occur.

For hedges of the translation adjustments resulting from translating the functional currency financial statements of foreign operations (hedges of net investments in foreign operations) into the functional currency of the parent, the portion of the change in fair value of the derivative due to changes in the spot foreign exchange rates is recorded as a foreign currency translation adjustment in other comprehensive income to the extent the hedge is effective; the remainder is recorded as other income in the Consolidated Statement of Income.

Changes in fair value of the hedging instrument relating to the effective portion of the hedge are subsequently recognized in profit or loss on disposal of the foreign operations.

Impairment of Loans and Provision for Off-Balance Sheet Positions

The Group first assesses whether objective evidence of impairment exists individually for loans that are individually significant. It then assesses collectively for loans that are not individually significant and loans which are significant but for which there is no objective evidence of impairment under the individual assessment.

To allow management to determine whether a loss event has occurred on an individual basis, all significant counterparty relationships are reviewed periodically. This evaluation considers current information and events related to the counterparty, such as the counterparty experiencing significant financial difficulty or a breach of contract, for example, default or delinquency in interest or principal payments.

If there is evidence of impairment leading to an impairment loss for an individual counterparty relationship, then the amount of the loss is determined as the difference between the carrying amount of the loan(s), including accrued interest, and the present value of expected future cash flows discounted at the loan's original effective interest rate or the effective interest rate established upon reclassification to loans, including cash flows that may result from foreclosure less costs for obtaining and selling the collateral. The carrying amount of the loans is reduced by the use of an allowance account and the amount of the loss is recognized in the Consolidated Statement of Income as a component of the provision for credit losses.

The collective assessment of impairment is to establish an allowance amount relating to loans that are either individually significant but for which there is no objective evidence of impairment, or are not individually significant but for which there is, on a portfolio basis, a loss amount that is probable of having occurred and is reasonably estimable. The loss amount has three components. The first component is an amount for transfer and currency convertibility risks for loan exposures in countries where there are serious doubts about the ability of counterparties to comply with the repayment terms due to the economic or political situation prevailing in the respective country of domicile. This amount is calculated using ratings for country risk and transfer risk which are established and regularly reviewed for each country in which the Group does business. The second component is an allowance amount representing the incurred losses on the portfolio of smaller-balance homogeneous loans, which are loans to

individuals and small business customers of the private and retail business. The loans are grouped according to similar credit risk characteristics and the allowance for each group is determined using statistical models based on historical experience. The third component represents an estimate of incurred losses inherent in the group of loans that have not yet been individually identified or measured as part of the smaller-balance homogeneous loans. Loans that were found not to be impaired when evaluated on an individual basis are included in the scope of this component of the allowance.

Once a loan is identified as impaired, although the accrual of interest in accordance with the contractual terms of the loan is discontinued, the accretion of the net present value of the written down amount of the loan due to the passage of time is recognized as interest income based on the original effective interest rate of the loan.

At each balance sheet date, all impaired loans are reviewed for changes to the present value of expected future cash flows discounted at the loan's original effective interest rate. Any change to the previously recognized impairment loss is recognized as a change to the allowance account and recorded in the Consolidated Statement of Income as a component of the provision for credit losses.

When it is considered that there is no realistic prospect of recovery and all collateral has been realized or transferred to the Group, the loan and any associated allowance is charged off (the loan and the related allowance are removed from the balance sheet). Individually significant loans where specific loan loss provisions are in place are evaluated at least quarterly on a case-by-case basis. For this category of loans, the number of days past due is an indicator for a charge-off but is not a determining factor. A charge-off will only take place after considering all relevant information, such as the occurrence of a significant change in the borrower's financial position such that the borrower can no longer pay the obligation, or the proceeds from the collateral are insufficient to completely satisfy the current carrying amount of the loan.

For collectively assessed loans, which are primarily mortgages and consumer finance loans, the timing of a charge-off depends on whether there is any underlying collateral and the Group's estimate of the amount collectible and the legal requirements in the jurisdiction in which the loan is originated.

Subsequent recoveries, if any, are credited to the allowance account and are recorded in the Consolidated Statement of Income as a component of the provision for credit losses.

The process to determine the provision for off-balance sheet positions is similar to the methodology used for loans. Any loss amounts are recognized as an allowance in the Consolidated Balance Sheet within provisions and charged to the Consolidated Statement of Income as a component of the provision for credit losses.

If in a subsequent period the amount of a previously recognized impairment loss decreases and the decrease is due to an event occurring after the impairment was recognized, the impairment loss is reversed by reducing the allowance account accordingly. Such reversal is recognized in profit or loss.

Critical Accounting Estimates – The accounting estimates and judgments related to the impairment of loans and provision for off-balance sheet positions is a critical accounting estimate because the underlying assumptions used for both the individually and collectively assessed impairment can change from period to period and may significantly affect the Group's results of operations.

In assessing assets for impairments, management judgment is required, particularly in circumstances of economic and financial uncertainty, such as those of the recent financial crisis, when developments and changes to expected cash flows can occur both with greater rapidity and less predictability. The actual amount of the future cash flows and their timing may differ from the estimates used by management and consequently may cause actual losses to differ from reported allowances.

For those loans which are deemed to be individually significant, the determination of the impairment allowance often requires the use of considerable judgment concerning such matters as local economic conditions, the financial performance of the counterparty and the value of any collateral held, for which there may not be a readily accessible market.

The determination of the allowance for portfolios of loans of smaller balance homogeneous loans and for those loans which are individually significant but for which no objective evidence of impairment exists is calculated using statistical models. Such statistical models incorporate numerous estimates and judgments. The Group performs a regular review of the models and underlying data and assumptions. The probability of defaults, loss recovery rates and judgments concerning ability of borrowers in foreign countries to transfer the foreign currency necessary to comply with debt repayments, amongst other things, are incorporated into this review.

The quantitative disclosures are provided in Note 19 "Loans" and Note 20 "Allowance for Credit Losses".

Derecognition of Financial Assets and Liabilities

Financial Asset Derecognition

A financial asset is considered for derecognition when the contractual rights to the cash flows from the financial asset expire, or the Group has either transferred the contractual right to receive the cash flows from that asset, or has assumed an obligation to pay those cash flows to one or more recipients, subject to certain criteria.

The Group derecognizes a transferred financial asset if it transfers substantially all the risks and rewards of ownership.

The Group enters into transactions in which it transfers previously recognized financial assets but retains substantially all the associated risks and rewards of those assets; for example, a sale to a third party in which the Group enters into a concurrent total return swap with the same counterparty. These types of transactions are accounted for as secured financing transactions.

In transactions in which substantially all the risks and rewards of ownership of a financial asset are neither retained nor transferred, the Group derecognizes the transferred asset if control over that asset is not retained, i.e., if the transferee has the practical ability to sell the transferred asset. The rights and obligations retained in the transfer are recognized separately as assets and liabilities, as appropriate. If control over the asset is retained, the Group continues to recognize the asset to the extent of its continuing involvement, which is determined by the extent to which it remains exposed to changes in the value of the transferred asset.

The derecognition criteria are also applied to the transfer of part of an asset, rather than the asset as a whole, or to a group of similar financial assets in their entirety, when applicable. If transferring a part of an asset, such part must be a specifically identified cash flow, a fully proportionate share of the asset, or a fully proportionate share of a specifically-identified cash flow.

If an existing financial asset is replaced by another asset from the same counterparty on substantially different terms, or if the terms of the financial asset are substantially modified (due to forbearance measures or otherwise), the existing financial asset is derecognized and a new asset is recognized. Any difference between the respective carrying amounts is recognized in the Consolidated Statement of Income.

Securitization

The Group securitizes various consumer and commercial financial assets, which is achieved via the transfer of these assets to a structured entity, which issues securities to investors to finance the acquisition of the assets. Financial assets awaiting securitization are classified and measured as appropriate under the policies in the “Financial Assets and Liabilities” section. If the structured entity is not consolidated then the transferred assets may qualify for derecognition in full or in part, under the policy on derecognition of financial assets. Synthetic securitization structures typically involve derivative financial instruments for which the policies in the “Derivatives and Hedge Accounting” section would apply. Those transfers that do not qualify for derecognition may be reported as secured financing or result in the recognition of continuing involvement liabilities. The investors and the securitization vehicles generally have no recourse to the Group’s other assets in cases where the issuers of the financial assets fail to perform under the original terms of those assets.

Interests in the securitized financial assets may be retained in the form of senior or subordinated tranches, interest only strips or other residual interests (collectively referred to as “retained interests”). Provided the Group’s retained interests do not result in consolidation of a structured entity, nor in continued recognition of the transferred assets, these interests are typically recorded in financial assets at fair value through profit or loss and carried at fair value. Consistent with the valuation of similar financial instruments, the fair value of retained tranches or the financial assets is initially and subsequently determined using market price quotations where available or internal pricing models that utilize variables such as yield curves, prepayment speeds, default rates, loss severity, interest rate volatilities and spreads. The assumptions used for pricing are based on observable transactions in similar securities and are verified by external pricing sources, where available. Where observable transactions in similar securities and other external pricing sources are not available, management judgment must be used to determine fair value. The Group may also periodically hold interests in securitized financial assets and record them at amortized cost.

In situations where the Group has a present obligation (either legal or constructive) to provide financial support to an unconsolidated securitization entity a provision will be created if the obligation can be reliably measured and it is probable that there will be an outflow of economic resources required to settle it.

When an asset is derecognized a gain or loss equal to the difference between the consideration received and the carrying amount of the transferred asset is recorded. When a part of an asset is derecognized, gains or losses on securitization depend in part on the carrying amount of the transferred financial assets, allocated between the financial assets derecognized and the retained interests based on their relative fair values at the date of the transfer.

Derecognition of Financial Liabilities

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. If an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of the existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the Consolidated Statement of Income.

Repurchase and Reverse Repurchase Agreements

Securities purchased under resale agreements ("reverse repurchase agreements") and securities sold under agreements to repurchase ("repurchase agreements") are treated as collateralized financings and are recognized initially at fair value, being the amount of cash disbursed and received, respectively. The party disbursing the cash takes possession of the securities serving as collateral for the financing and having a market value equal to, or in excess of, the principal amount loaned. The securities received under reverse repurchase agreements and securities delivered under repurchase agreements are not recognized on, or derecognized from, the balance sheet, because the risks and rewards of ownership are not obtained nor relinquished. Securities delivered under repurchase agreements which are not derecognized from the balance sheet and where the counterparty has the right by contract or custom to sell or repledge the collateral are disclosed in Note 22 "Assets Pledged and Received as Collateral".

The Group has chosen to apply the fair value option to certain repurchase and reverse repurchase portfolios that are managed on a fair value basis.

Interest earned on reverse repurchase agreements and interest incurred on repurchase agreements is reported as interest income and interest expense, respectively.

Securities Borrowed and Securities Loaned

Securities borrowed transactions generally require the Group to deposit cash with the securities lender. In a securities loaned transaction, the Group generally receives either cash collateral, in an amount equal to or in excess of the market value of securities loaned, or securities. The Group monitors the fair value of securities borrowed and securities loaned and additional collateral is disbursed or obtained, if necessary.

The amount of cash advanced or received is recorded as securities borrowed and securities loaned, respectively, in the Consolidated Balance Sheet.

The securities borrowed are not themselves recognized in the financial statements. If they are sold to third parties, the obligation to return the securities is recorded as a financial liability at fair value through profit or loss and any subsequent gain or loss is included in the Consolidated Statement of Income in net gains (losses) on financial assets/liabilities at fair value through profit or loss. Securities lent to counterparties are also retained on the Consolidated Balance Sheet.

Fees received or paid are reported in interest income and interest expense, respectively. Securities lent to counterparties which are not derecognized from the Consolidated Balance Sheet and where the counterparty has the right by contract or custom to sell or repledge the collateral are disclosed in Note 22 "Assets Pledged and Received as Collateral".

Goodwill and Other Intangible Assets

Goodwill arises on the acquisition of subsidiaries and associates and represents the excess of the aggregate of the cost of an acquisition and any noncontrolling interests in the acquiree over the fair value of the identifiable net assets acquired at the date of the acquisition.

For the purpose of calculating goodwill, fair values of acquired assets, liabilities and contingent liabilities are determined by reference to market values or by discounting expected future cash flows to present value. This discounting is either performed using market rates or by using risk-free rates and risk-adjusted expected future cash flows. Any noncontrolling interests in the acquiree is measured either at fair value or at the noncontrolling interests' proportionate share of the acquiree's identifiable net assets (this is determined for each business combination).

Goodwill on the acquisition of subsidiaries is capitalized and reviewed for impairment annually or more frequently if there are indications that impairment may have occurred. For the purposes of impairment testing, goodwill acquired in a business combination is allocated to cash-generating units ("CGUs"), which are the smallest identifiable groups of assets that generate cash inflows largely independent of the cash inflows from other assets or groups of assets and that are expected to benefit from the synergies of the combination and considering the business level at which goodwill is monitored for internal management purposes. In identifying whether cash inflows from an asset (or a group of assets) are largely independent of the cash inflows from other assets (or groups of assets) various factors are considered, including how management monitors the entity's operations or makes decisions about continuing or disposing of the entity's assets and operations.

If goodwill has been allocated to a CGU and an operation within that unit is disposed of, the attributable goodwill is included in the carrying amount of the operation when determining the gain or loss on its disposal.

Certain non-integrated investments are not allocated to a CGU. Impairment testing is performed individually for each of these assets.

Corporate assets are allocated to a CGU when the allocation can be done on a reasonable and consistent basis. If this is not possible, the individual CGU is tested without the corporate assets. They are then tested on the level of the minimum collection of CGUs to which they can be allocated on a reasonable and consistent basis.

Intangible assets are recognized separately from goodwill when they are separable or arise from contractual or other legal rights and their fair value can be measured reliably. Intangible assets that have a finite useful life are stated at cost less any accumulated amortization and accumulated impairment losses. Customer-related intangible assets that have a finite useful life are amortized over periods of between 1 and 20 years on a straight-line basis based on their expected useful life. These assets are tested for impairment and their useful lives reaffirmed at least annually.

Certain intangible assets have an indefinite useful life and hence are not amortized, but are tested for impairment at least annually or more frequently if events or changes in circumstances indicate that impairment may have occurred.

Costs related to software developed or obtained for internal use are capitalized if it is probable that future economic benefits will flow to the Group and the cost can be measured reliably. Capitalized costs are amortized using the straight-line method over the asset's useful life which is deemed to be either three, five or ten years. Eligible costs include external direct costs for materials and services, as well as payroll and payroll-related costs for employees directly associated with an internal-use software project. Overhead costs, as well as costs incurred during the research phase or after software is ready for use, are expensed as incurred. Capitalized software costs are tested for impairment either annually if still under development or any time when there is an indication of impairment once the software is in use.

Critical Accounting Estimates – The determination of the recoverable amount in the impairment assessment of non-financial assets requires estimates based on quoted market prices, prices of comparable businesses, present value or other valuation techniques, or a combination thereof, necessitating management to make subjective judgments and assumptions. Because these estimates and assumptions could result in significant differences to the amounts reported if underlying circumstances were to change, the Group considers these estimates to be critical.

The quantitative disclosures are provided in Note 25 "Goodwill and Other Intangible Assets".

Provisions

Provisions are recognized if the Group has a present legal or constructive obligation as a result of past events, if it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation as of the balance sheet date, taking into account the risks and uncertainties surrounding the obligation.

If the effect of the time value of money is material, provisions are discounted and measured at the present value of the expenditure expected to be required to settle the obligation, using a pre-tax rate that reflects the current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognized as interest expense.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party (for example, because the obligation is covered by an insurance policy), an asset is recognized if it is virtually certain that reimbursement will be received.

Critical Accounting Estimates – The use of estimates is important in determining provisions for potential losses that may arise from litigation, regulatory proceedings and uncertain income tax positions. The Group estimates and provides for potential losses that may arise out of litigation, regulatory proceedings and uncertain income tax positions to the extent that such losses are probable and can be estimated, in accordance with IAS 37, “Provisions, Contingent Liabilities and Contingent Assets” or IAS 12, “Income Taxes”, respectively. Significant judgment is required in making these estimates and the Group’s final liabilities may ultimately be materially different.

Contingencies in respect of legal matters are subject to many uncertainties and the outcome of individual matters is not predictable with assurance. Significant judgment is required in assessing probability and making estimates in respect of contingencies, and the Group’s final liability may ultimately be materially different. The Group’s total liability in respect of litigation, arbitration and regulatory proceedings is determined on a case-by-case basis and represents an estimate of probable losses after considering, among other factors, the progress of each case, the Group’s experience and the experience of others in similar cases, and the opinions and views of legal counsel. Predicting the outcome of the Group’s litigation matters is inherently difficult, particularly in cases in which claimants seek substantial or indeterminate damages. See Note 29 “Provisions” for information on the Group’s judicial, regulatory and arbitration proceedings.

Income Taxes

The Group recognizes the current and deferred tax consequences of transactions that have been included in the consolidated financial statements using the provisions of the respective jurisdictions’ tax laws. Current and deferred taxes are recognized in profit or loss except to the extent that the tax relates to items that are recognized directly in equity or other comprehensive income in which case the related tax is recognized either directly in equity or other comprehensive income accordingly.

Deferred tax assets and liabilities are recognized for future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, unused tax losses and unused tax credits. Deferred tax assets are recognized only to the extent that it is probable that sufficient taxable profit will be available against which those unused tax losses, unused tax credits and deductible temporary differences can be utilized.

Deferred tax assets and liabilities are measured based on the tax rates that are expected to apply in the period that the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date.

Current tax assets and liabilities are offset when (1) they arise from the same tax reporting entity or tax group of reporting entities, (2) the legally enforceable right to offset exists and (3) they are intended to be settled net or realized simultaneously.

Deferred tax assets and liabilities are offset when the legally enforceable right to offset current tax assets and liabilities exists and the deferred tax assets and liabilities relate to income taxes levied by the same taxing authority on either the same tax reporting entity or tax group of reporting entities.

Deferred tax liabilities are provided on taxable temporary differences arising from investments in subsidiaries, branches and associates and interests in joint ventures except when the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the difference will not reverse in the foreseeable future. Deferred income tax assets are provided on deductible temporary differences arising from such investments only to the extent that it is probable that the differences will reverse in the foreseeable future and sufficient taxable income will be available against which those temporary differences can be utilized.

Deferred tax related to fair value re-measurement of AFS investments, cash flow hedges and other items, which are charged or credited directly to other comprehensive income, is also credited or charged directly to other comprehensive income and subsequently recognized in the Consolidated Statement of Income once the underlying transaction or event to which the deferred tax relates is recognized in the Consolidated Statement of Income.

For share-based payment transactions, the Group may receive a tax deduction related to the compensation paid in shares. The amount deductible for tax purposes may differ from the cumulative compensation expense recorded. At any reporting date, the Group must estimate the expected future tax deduction based on the current share price. The associated current and deferred tax consequences are recognized as income or expense in the Consolidated Statement of Income for the period. If the amount deductible, or expected to be deductible, for tax purposes exceeds the cumulative compensation expense, the excess tax benefit is recognized directly in equity.

Critical Accounting Estimates – In determining the amount of deferred tax assets, the Group uses historical tax capacity and profitability information and, if relevant, forecasted operating results based upon approved business plans, including a review of the eligible carry-forward periods, available tax planning opportunities and other relevant considerations. Each quarter, the Group re-evaluates its estimate related to deferred tax assets, including its assumptions about future profitability.

The Group believes that the accounting estimate related to the deferred tax assets is a critical accounting estimate because the underlying assumptions can change from period to period and requires significant management judgment. For example, tax law changes or variances in future projected operating performance could result in a change of the deferred tax asset. If the Group was not able to realize all or part of its net deferred tax assets in the future, an adjustment to its deferred tax assets would be charged to income tax expense or directly to equity in the period such determination was made. If the Group was to recognize previously unrecognized deferred tax assets in the future, an adjustment to its deferred tax asset would be credited to income tax expense or directly to equity in the period such determination was made.

For further information on the Group's deferred taxes (including quantitative disclosures on recognized deferred tax assets) see Note 36 "Income Taxes".

Business Combinations and Noncontrolling Interests

The Group uses the acquisition method to account for business combinations. At the date the Group obtains control of the subsidiary, the cost of an acquisition is measured at the fair value of the consideration given, including any cash or non cash consideration (equity instruments) transferred, any contingent consideration, any previously held equity interest in the acquiree and liabilities incurred or assumed. The excess of the aggregate of the cost of an acquisition and any noncontrolling interests in the acquiree over the Group's share of the fair value of the identifiable net assets acquired is recorded as goodwill. If the aggregate of the acquisition cost and any noncontrolling interests is below the fair value of the identifiable net assets (negative goodwill), a gain is reported in other income. Acquisition-related costs are recognized as expenses in the period in which they are incurred.

In business combinations achieved in stages ("step acquisitions"), a previously held equity interest in the acquiree is remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognized in profit or loss. Amounts recognized in prior periods in other comprehensive income associated with the previously held investment would be recognized on the same basis as would be required if the Group had directly disposed of the previously held equity interest.

Noncontrolling interests are shown in the consolidated balance sheet as a separate component of equity, which is distinct from the Group's shareholders' equity. The net income attributable to noncontrolling interests is separately disclosed on the face of the Consolidated Statement of Income. Changes in the ownership interest in subsidiaries which do not result in a change of control are treated as transactions between equity holders and are reported in additional paid-in capital ("APIC").

Non-Current Assets Held for Sale

Individual non-current non-financial assets (and disposal groups) are classified as held for sale if they are available for immediate sale in their present condition subject only to the customary sales terms of such assets (and disposal groups) and their sale is considered highly probable. For a sale to be highly probable, management must be committed to a sales plan and actively looking for a buyer. Furthermore, the assets (and disposal groups) must be actively marketed at a reasonable sales price in relation to their current fair value and the sale should be expected to be completed within one year. Non-current non-financial assets (and disposal groups) which meet the criteria for held for sale classification are measured at the lower of their carrying amount and fair value less costs to sell and are presented within "Other assets" and "Other liabilities" in the balance sheet. The comparatives are not represented when non-current assets (and disposal groups) are classified as held for sale. If the disposal group contains financial instruments, no adjustment to their carrying amounts is permitted.

Property and Equipment

Property and equipment includes own-use properties, leasehold improvements, furniture and equipment and software (operating systems only). Own-use properties are carried at cost less accumulated depreciation and accumulated impairment losses. Depreciation is generally recognized using the straight-line method over the estimated useful lives of the assets. The range of estimated useful lives is 25 to 50 years for property and 3 to 10 years for furniture and equipment (including initial improvements to purchased buildings). Leasehold improvements are capitalized and subsequently depreciated on a straight-line basis over the shorter of the term of the lease and the estimated useful life of the improvement, which generally ranges from 3 to 18 years. Depreciation of property and equipment is included in general and administrative expenses. Maintenance and repairs are also charged to general and administrative expenses. Gains and losses on disposals are included in other income.

Property and equipment are assessed for any indication of impairment at each quarterly reporting date. If such indication exists, the recoverable amount, which is the higher of fair value less costs to sell and value in use, must be estimated and an impairment charge is recorded to the extent the recoverable amount is less than its carrying amount. Value in use is the present value of the future cash flows expected to be derived from the asset. After the recognition of impairment of an asset, the depreciation charge is adjusted in future periods to reflect the asset's revised carrying amount. If an impairment is later reversed, the depreciation charge is adjusted prospectively.

Properties leased under a finance lease are capitalized as assets in property and equipment and depreciated over the terms of the leases.

Financial Guarantees

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument.

The Group has chosen to apply the fair value option to certain written financial guarantees that are managed on a fair value basis. Financial guarantees that the Group has not designated at fair value are recognized initially in the financial statements at fair value on the date the guarantee is given. Subsequent to initial recognition, the Group's liabilities under such guarantees are measured at the higher of the amount initially recognized, less cumulative amortization, and the best estimate of the expenditure required to settle any financial obligation as of the balance sheet date. These estimates are determined based on experience with similar transactions and history of past losses, and management's determination of the best estimate.

Any increase in the liability relating to guarantees is recorded in the Consolidated Statement of Income in provision for credit losses.

Leasing Transactions

The Group enters into lease contracts, predominantly for premises, as a lessee. The terms and conditions of these contracts are assessed and the leases are classified as operating leases or finance leases according to their economic substance at inception of the lease.

Assets held under finance leases are initially recognized on the consolidated balance sheet at an amount equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated balance sheet as a finance lease obligation. The discount rate used in calculating the present value of the minimum lease payments is either the interest rate implicit in the lease, if it is practicable to determine, or the incremental borrowing rate. Contingent rentals are recognized as an expense in the periods in which they are incurred.

Operating lease rentals payable are recognized as an expense on a straight-line basis over the lease term, which commences when the lessee controls the physical use of the property. Lease incentives are treated as a reduction of rental expense and are also recognized over the lease term on a straight-line basis. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

Employee Benefits

Pension Benefits

The Group provides a number of pension plans. In addition to defined contribution plans, there are retirement benefit plans accounted for as defined benefit plans. The assets of all the Group's defined contribution plans are held in independently administered funds. Contributions are generally determined as a percentage of salary and are expensed based on employee services rendered, generally in the year of contribution.

All retirement benefit plans accounted for as defined benefit plans are valued using the projected unit-credit method to determine the present value of the defined benefit obligation and the related service costs. Under this method, the determination is based on actuarial calculations which include assumptions about demographics, salary increases and interest and inflation rates. Actuarial gains and losses are recognized in other comprehensive income and presented in equity in the period in which they occur. The majority of the Group's benefit plans is funded.

Other Post-Employment Benefits

In addition, the Group maintains unfunded contributory post-employment medical plans for a number of current and retired employees who are mainly located in the United States. These plans pay stated percentages of eligible medical and dental expenses of retirees after a stated deductible has been met. The Group funds these plans on a cash basis as benefits are due. Analogous to retirement benefit plans these plans are valued using the projected unit-credit method. Actuarial gains and losses are recognized in full in the period in which they occur in other comprehensive income and presented in equity.

Refer to Note 35 “Employee Benefits” for further information on the accounting for pension benefits and other post-employment benefits.

Termination benefits

Termination benefits arise when employment is terminated by the Group before the normal retirement date or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognizes termination benefits as a liability and an expense if the Group is demonstrably committed to a detailed formal plan without realistic possibility of withdrawal. In the case of an offer made to encourage voluntary redundancy, termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than twelve months after the end of the reporting period are discounted to their present value. The discount rate is determined by reference to market yields on high-quality corporate bonds.

Share-Based Compensation

Compensation expense for awards classified as equity instruments is measured at the grant date based on the fair value of the share-based award. For share awards, the fair value is the quoted market price of the share reduced by the present value of the expected dividends that will not be received by the employee and adjusted for the effect, if any, of restrictions beyond the vesting date. In case an award is modified such that its fair value immediately after modification exceeds its fair value immediately prior to modification, a remeasurement takes place and the resulting increase in fair value is recognized as additional compensation expense.

The Group records the offsetting amount to the recognized compensation expense in additional paid-in capital (“APIC”). Compensation expense is recorded on a straight-line basis over the period in which employees perform services to which the awards relate or over the period of the tranches for those awards delivered in tranches. Estimates of expected forfeitures are periodically adjusted in the event of actual forfeitures or for changes in expectations. The timing of expense recognition relating to grants which, due to early retirement provisions, include a nominal but non-substantive service period are accelerated by shortening the amortization period of the expense from the grant date to the date when the employee meets the eligibility criteria for the award, and not the vesting date. For awards that are delivered in tranches, each tranche is considered a separate award and amortized separately.

Compensation expense for share-based awards payable in cash is remeasured to fair value at each balance sheet date and recognized over the vesting period in which the related employee services are rendered. The related obligations are included in other liabilities until paid.

Obligations to Purchase Common Shares

Forward purchases of Deutsche Bank shares, and written put options where Deutsche Bank shares are the underlying, are reported as obligations to purchase common shares if the number of shares is fixed and physical settlement for a fixed amount of cash is required. At inception, the obligation is recorded at the present value of the settlement amount of the forward or option. For forward purchases and written put options of Deutsche Bank shares, a corresponding charge is made to shareholders' equity and reported as equity classified as an obligation to purchase common shares.

The liabilities are accounted for on an accrual basis, and interest costs, which consist of time value of money and dividends, on the liability are reported as interest expense. Upon settlement of such forward purchases and written put options, the liability is extinguished and the charge to equity is reclassified to common shares in treasury.

Deutsche Bank common shares subject to such forward contracts are not considered to be outstanding for purposes of basic earnings per share calculations, but are for dilutive earnings per share calculations to the extent that they are, in fact, dilutive.

Option and forward contracts on Deutsche Bank shares are classified as equity if the number of shares is fixed and physical settlement is required. All other contracts in which Deutsche Bank shares are the underlying are recorded as financial assets or liabilities at fair value through profit or loss.

Consolidated Statement of Cash Flows

For purposes of the consolidated statement of cash flows, the Group's cash and cash equivalents include highly liquid investments that are readily convertible into cash and which are subject to an insignificant risk of change in value. Such investments include cash and balances at central banks and demand deposits with banks.

The Group's assignment of cash flows to the operating, investing or financing category depends on the business model ("management approach"). For the Group the primary operating activity is to manage financial assets and financial liabilities. Therefore, the issuance and management of long-term borrowings is a core operating activity which is different than for a non-financial company, where borrowing is not a principal revenue producing activity and thus is part of the financing category.

The Group views the issuance of senior long-term debt as an operating activity. Senior long-term debt comprises structured notes and asset-backed securities, which are designed and executed by Corporate & Investment Bank business lines and which are revenue generating activities. The other component is debt issued by Treasury, which is considered interchangeable with other funding sources; all of the funding costs are allocated to business activities to establish their profitability.

Cash flows related to subordinated long-term debt and trust preferred securities are viewed differently than those related to senior-long term debt because they are managed as an integral part of the Group's capital, primarily to meet regulatory capital requirements. As a result they are not interchangeable with other operating liabilities, but can only be interchanged with equity and thus are considered part of the financing category.

The amounts shown in the consolidated statement of cash flows do not precisely match the movements in the consolidated balance sheet from one period to the next as they exclude non-cash items such as movements due to foreign exchange translation and movements due to changes in the group of consolidated companies.

Movements in balances carried at fair value through profit or loss represent all changes affecting the carrying value. This includes the effects of market movements and cash inflows and outflows. The movements in balances carried at fair value are usually presented in operating cash flows.

02 – Recently Adopted and New Accounting Pronouncements

New Accounting Pronouncements

The following accounting pronouncements were not effective as of December 31, 2017 and therefore have not been applied in preparing these financial statements.

IFRS 2 Share-based Payments

In June 2016, the IASB issued narrow-scope amendments to IFRS 2, "Share-based Payment" which clarify the accounting for certain types of share-based payment transactions. The amendments which were developed through the IFRS Interpretations Committee clarify the accounting for cash-settled share-based payment transactions that include a performance condition, the classification of share-based payment transactions with net settlement features and the accounting for modifications of share-based payment transactions from cash-settled to equity-settled. They are effective for annual periods beginning on or after January 1, 2018. The amendments will not have a material impact on the Group's consolidated financial statements. The amendments have been endorsed by the EU.

IFRS 9 Financial Instruments

In July 2014, the IASB issued the final version of IFRS 9 "Financial Instruments", which replaces IAS 39, "Financial Instruments: Recognition and Measurement". IFRS 9 introduces new requirements on how an entity should classify and measure financial assets, requires changes to the reporting of 'own credit' with respect to issued debt liabilities that are designated at fair value, replaces the current rules for impairment of financial assets and amends the requirements for hedge accounting. The standard also requires entities to provide users of financial statements with more informative and relevant disclosures. IFRS 9 is effective for annual periods beginning on or after January 1, 2018. The standard has been endorsed by the EU, except for the Amendment to IFRS 9 "Prepayment features with negative compensation" as discussed below.

The Group estimates the adoption of IFRS 9 to lead to an overall reduction in the Group's total shareholders' equity of € 0.9 billion before tax. € 0.7 billion of this impact is driven by the new impairment requirements of IFRS 9. These higher loan loss provisions and classification and measurement effects are partially offset by a €0.2 billion tax impact resulting in a post-tax impact on the Group's total shareholders' equity of € 0.7 billion. This translates to a reduction in the Group's CET 1 capital ratio of 8 basis points.

This estimate may change as a result of completion of the activities noted in the implementation program sections below and upon the Group filing its 2018 audited financial statements.

Implementation program

The Group has run a centrally managed IFRS 9 program sponsored by the Group's chief financial officer which has included business functions and subject matter experts on methodology, data sourcing and modelling, IT processing and reporting. The Group's implementation of IFRS 9 has covered performing an assessment of the population of financial instruments impacted by the classification and measurement requirements of IFRS 9 and developing an impairment methodology to support the calculation of the Expected Credit Loss allowance. The Group commenced in 2015 the development of an approach for reviewing business models and methodology for testing the Solely Payments of Principal and Interest criteria of IFRS 9. Concurrently, the Group also developed its approach for assessing significant increase in credit risk, incorporating forward looking information, including macro-economic factors (implemented in 2017), preparing the required IT systems and process architecture, as well as development of a related IFRS 9 governance and control framework. The Group has performed a final parallel run based on December 31, 2017 data.

Overall governance of the program's implementation has been through the Group's IFRS 9 Steering Committee and includes representation from Finance, Risk and IT. Guidance and training on IFRS 9 across the Group have been delivered across businesses and functions as part of the Group's control process and implementation program. The Group enhanced its governance environment to ensure an updated framework for classification and measurement, and impairment by implementing appropriate validations and controls over new key processes and significant areas of judgment. The specific process and business controls under this updated framework are being incorporated and finalized. Governance over the Expected Credit Loss calculation process is shared across Risk and Finance functions.

Classification and Measurement of Financial Assets and Liabilities

IFRS 9 requires that an entity's business model and a financial instrument's contractual cash flows will determine its classification and measurement in the financial statements. Upon initial recognition each financial asset will be classified as either fair value through profit or loss ('FVTPL'), amortized cost, or fair value through Other Comprehensive Income ('FVOCI'). As the requirements under IFRS 9 are different than the assessments under the existing IAS 39 rules, there will be some differences from the classification and measurement of financial assets under IAS 39, including whether to elect the fair value option on certain assets. The classification and measurement of financial liabilities remain largely unchanged under IFRS 9 from current requirements.

In 2015, the Group made an initial determination of business models and assessed the contractual cash flow characteristics of the financial assets within such business models to determine the potential classification and measurement changes as a result of IFRS 9. As a result of the initial analysis performed, in 2016 the Group identified a population of financial assets which are to be measured at either amortized cost or fair value through other comprehensive income, which will be subject to the IFRS 9 impairment rules. In 2017, the Group updated its business model assessments and completed outstanding classification decisions. On initial recognition of an equity investment not held for trading, the Group may on an investment-by-investment basis, irrevocably elect to present subsequent fair value changes in OCI. The Group has not made any such elections.

Where issued debt liabilities are designated at fair value, the fair value movements attributable to an entity's own credit risk will be recognized in Other Comprehensive Income rather than in the Statement of Income. The standard also allows the Group the option to elect to apply early the presentation of fair value movements of an entity's credit risk in Other Comprehensive Income prior to adopting IFRS 9 in full. The Group did not early adopt this requirement.

Impairment of Financial Assets

The impairment requirements of IFRS 9 apply to debt instruments that are measured at amortized cost or FVOCI, and off balance sheet lending commitments such as loan commitments and financial guarantees (hereafter collectively referred to in this note as "financial assets").

The determination of impairment losses and allowance moves from an incurred credit loss model whereby credit losses are recognized when a defined loss event occurs under IAS 39, to an expected loss model under IFRS 9, where provisions are taken upon initial recognition of the financial asset (or the date that the Group becomes a party to the loan commitment or financial guarantee), based on expectations of potential credit losses at that time under IFRS 9. Under IAS 39, the Group first evaluates individually whether objective evidence of impairment exists for loans that are individually significant. It then collectively assesses loans that are not individually significant and loans which are significant but for which there is no objective evidence of impairment available under the individual assessment.

Under IFRS 9 for financial assets originated or purchased, the Group recognises a loss allowance at an amount equal to 12-month expected credit losses, if the credit risk at the reporting date has not increased significantly since initial recognition (Stage 1). This amount represents the expected credit losses resulting from default events that are possible within the next 12 months.

IFRS 9 requires the recognition of credit losses over the remaining life of the financial assets ('lifetime expected losses') which are considered to have experienced a significant increase in credit risk (Stage 2) and for financial assets that are credit impaired at the reporting date (Stage 3). As the primary definition for credit impaired financial assets moving to Stage 3, the Group applies the default definition as laid out in CRR Article 178. Forward-looking information, including macro-economic factors, must be taken into account to measure IFRS 9 compliant expected credit losses.

The lifetime expected credit losses represent default events over the expected life of a financial instrument. The Group measures expected credit losses considering the risk of default over the maximum contractual period (including any borrower's extension options) over which it is exposed to credit risk, even if, for risk management purposes, the Group considers a longer period. The determination of the maximum contractual period considers the date at which the Group has the right to require repayment of an advance or terminate a loan commitment or guarantee.

Retail overdrafts, credit card facilities and certain corporate revolving facilities typically include both a loan and an undrawn commitment component, and in these cases the Group's contractual ability to demand repayment and cancel the undrawn commitment does not limit the Group's credit loss exposure to the facility's contractual term. These facilities do not have a fixed term or repayment structure and are managed on a collective basis. While the Group has the ability to cancel these facilities with immediate effect, this contractual right is not enforced in normal day-to-day credit risk management process, but only when the Group becomes aware of an increase in credit risk on the facility. Consequently, for such facilities, the Group measures expected credit losses over a period longer than the maximum contractual term. This longer period is estimated taking into consideration credit risk management actions which the Group expects to take to mitigate credit losses. These credit risk management actions include reducing limits and facility cancellation.

The Group uses three main components to measure expected credit losses which are a probability of default ('PD'), a loss given default ('LGD') and the exposure at default ('EAD'). Therefore, the Group has leveraged existing parameters used for determination of capital demand under Basel IRBA and internal risk management practices as much as possible on a transaction level. For the purpose of IFRS 9 the allowance for credit losses is affected by a variety of key characteristics, such as, but not limited to, the expected balance at default and the related amortization profile as well as the expected life of the financial asset. As a consequence, the allowance for credit losses for Stage 2 financial assets increases based on the expected lifetime or the expected EAD. Incorporating forecasts of future economic conditions into the measurement of expected credit losses additionally causes an impact on the allowance for credit losses for each stage. In order to calculate lifetime expected credit losses, the Group's calculation includes deriving the corresponding lifetime PDs from migration matrices that reflect the economic forecasts. One or more triggers that have a detrimental impact on the estimated future cash flows must be identified to determine whether a financial asset is credit impaired and thus must be classified as Stage 3.

Under IFRS 9, when determining whether the credit risk (i.e. risk of default) of a financial instrument has increased significantly since initial recognition, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes quantitative and qualitative information based on the Group's historical experience, credit risk assessment and forward-looking information (including macro-economic factors), which is discussed further below.

The Group has established a framework which incorporates both quantitative and qualitative processes to determine whether the credit risk on a particular financial instrument has increased significantly since initial recognition. The Group's framework aligns with internal credit risk management process. The Group's quantitative processes compare actual lifetime PD at the reporting date, with initial expectations at the date of initial recognition. If for the remaining lifetime the PD of a transaction given current expectations exceeds the PD of the threshold rating based on the initial expectations, the transaction is considered as significantly deteriorated. The threshold rating, which is determined on a portfolio basis and validated annually, corresponds to a quantile of the forward rating distribution derived from the initial rating of the transaction and the forward-looking information available at inception. The Group's qualitative processes leverage existing risk management indicators (e.g. watch lists, management by the workout department and forbearance triggers) which allow the Group to identify whether the credit risk of financial assets has significantly increased. Furthermore, financial assets are transferred to Stage 2 if 30 days past due.

Under IFRS 9, when the terms of a financial asset are modified and the modification does not result in derecognition, a gain or loss is recognised in the income statement as the difference between the original contractual cash flows and the modified cash flows discounted at the original Effective Interest Rate ("EIR"). For modified financial assets the determination of whether the asset's credit risk has increased significantly reflects comparison of:

- the remaining lifetime PD at the reporting date based on the modified terms; with
- the remaining lifetime PD estimated based on data on initial recognition and the original contractual terms.

Generally, forbearance is a qualitative indicator of default and credit impairment and expectations of forbearance are relevant to assessing whether there is a significant increase in credit risk. Following forbearance, a customer needs to demonstrate consistently good payment behaviour over a period of time before the exposure is no longer considered to be in Stage 3 or the PD is considered to have decreased such that the exposure reverts back to be measured Stage 1.

IFRS 9 does not distinguish between individually significant or not individually significant financial assets. Therefore, the Group decided to measure the allowance for credit losses on an individual transaction basis. Similarly, the assessment for transferring financial assets between Stages 1, 2 and 3 is also made on an individual transaction basis. For detailed information on the current impairment approach under IAS 39 please refer to Note 1 “Significant Accounting Policies and Critical Accounting Estimates”. As a result of IFRS 9, there is an increase in subjectivity as the allowance for credit losses is based on reasonable and supportable forward-looking information which take into consideration future macro-economic scenarios as provided by Deutsche Bank Research. These macro-economic scenarios are continuously monitored and in addition to being used for the Group’s expected credit loss calculation, this information also forms the basis for performing the Group’s capital planning and stress-testing. This information provided by Deutsche Bank Research is used to generate possible future scenarios by utilizing the Group’s stress testing infrastructure with appropriate modifications to align with IFRS 9 requirements. The Group has identified certain synergies with the capital forecasting and stress-testing processes and continues to consider opportunities that may exist. The transition impact and effects resulting from the continuous application of IFRS 9 are reflected in the Group’s capital planning for 2018 and onwards. The general use of forward-looking information, including macro-economic factors, as well as adjustments taking into account extraordinary factors, are monitored by the Group’s Risk and Finance Credit Loss Provision Forum.

A financial asset is considered credit-impaired on purchase or origination if there is objective evidence of impairment at the point of initial recognition, i.e. rated as defaulted by credit risk management. Such defaulted financial assets are termed Purchased or Credit Impaired (POCI) financial assets and are initially recognised at their fair value (typically the purchase price which embeds expectations of lifetime expected credit losses) and therefore no separate credit loss allowance is recognised on initial recognition. Subsequently, POCI financial assets are measured to reflect lifetime expected credit losses, and all subsequent changes in lifetime expected credit losses, whether positive or negative, are recognised in the income statement as a component of the provision for credit losses. POCI financial assets can only be classified in Stage 3.

For financial assets in Stage 1 and Stage 2, the Group calculates interest income by applying the EIR to the gross carrying amount (i.e. without deduction for expected credit losses). Interest income for financial assets in Stage 3 is calculated by applying the EIR to the amortised cost (i.e. the gross carrying amount less the loss allowance). For financial assets classified as POCI only, interest income is calculated by applying a credit-adjusted EIR (based on an initial expectation of further credit losses) to the amortised cost of these POCI assets. As a result of the amendments to IAS 1 following IFRS 9, the Group will present separately in the income statement, interest revenue calculated using the effective interest method.

IFRS 9 results in an increase in the overall level of allowances for credit losses as noted above. This estimated increase is driven by the requirement to record an allowance equal to 12 months expected credit losses on those instruments whose credit risk has not significantly increased since initial recognition as well as the larger population of financial assets to which lifetime expected losses must be applied.

Hedge accounting

IFRS 9 also incorporates new hedge accounting rules that intend to align hedge accounting with risk management practices. Generally, some restrictions under current rules have been removed and a greater variety of hedging instruments and hedged items become available for hedge accounting. IFRS 9 includes an accounting policy choice to defer the adoption of IFRS 9 hedge accounting and to continue with IAS 39 hedge accounting. The Group has decided to exercise this accounting policy choice and therefore will not adopt IFRS 9 hedge accounting as of January 1, 2018, the effective date of IFRS 9. However, the Group will implement the revised hedge accounting disclosures that are required by the IFRS 9 related amendments to IFRS 7 “Financial Instruments: Disclosures”.

Amendments to IFRS 9 “Prepayment Features with Negative Compensation”

In October 2017, the IASB issued an amendment to IFRS 9 “Financial Instruments”, which allows entities to measure particular pre-payable financial assets with so-called negative compensation (also known as two way break clauses) at amortised cost or at fair value through other comprehensive income if the prepayment amount substantially represents unpaid principal and interest and reasonable compensation. Reasonable compensation may be positive or negative. Prior to this amendment financial assets with this negative compensation feature would have failed the solely payments of principal and interest test and be mandatorily measured at fair value through profit or loss. The amendment will be effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. The Group expects to early adopt this amendment during 2018 following endorsement by the EU. The amendment will not have a material impact on the Group’s consolidated financial statements.

IFRS 15 Revenue from Contracts with Customers

In May 2014, the IASB issued IFRS 15, “Revenue from Contracts with Customers”, which specifies how and when revenue is recognized, but does not impact income recognition related to financial instruments in scope of IAS 39/ IFRS 9. The IASB issued subsequent amendments to IFRS 15 in September 2015 and a further clarification to it in April 2016. The new requirements replace several other IFRS standards and interpretations that currently govern revenue recognition under IFRS and provide a single, principles-based five-step model to be applied to all contracts with customers. The standard and its amendments also require entities to provide users of financial statements with more informative and relevant disclosures. The Group has run a centrally managed IFRS 15 program which included subject matter experts from finance and business functions. The Group’s implementation of IFRS 15 consisted of a detailed analysis of each type of commission and fee income in line with the new five-step revenue recognition model. No material impact on the Group’s consolidated financial statements was identified. The requirements are effective for annual periods beginning on or after January 1, 2018. The standard and its amendments have been endorsed by the EU.

IFRS 16 Leases

In January 2016, the IASB issued IFRS 16, “Leases”, which introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. There will be only minor changes to the current accounting for lessors. The standard also requires entities to provide users of financial statements with more informative and relevant disclosures. IFRS 16 is effective for annual periods beginning on or after January 1, 2019. The Group is currently assessing the impact of IFRS 16. The standard has been endorsed by the EU.

IFRS 17 Insurance Contracts

In May 2017, the IASB issued IFRS 17, “Insurance Contracts”, which establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts within the scope of the standard. IFRS 17 replaces IFRS 4 which has given companies dispensation to carry on accounting for insurance contracts using national accounting standards, resulting in a multitude of different approaches. IFRS 17 solves the comparison problems created by IFRS 4 by requiring all insurance contracts to be accounted for in a consistent manner, benefiting both investors and insurance companies. Insurance obligations will be accounted for using current values – instead of historical cost. The information will be updated regularly, providing more useful information to users of financial statements. IFRS 17 is effective for annual periods beginning on or after January 1, 2021. Based on the Group’s current business activities it is initially estimated that IFRS 17 will not have a material impact on the Group’s consolidated financial statements. The standard has yet to be endorsed by the EU.

03 – Acquisitions and Dispositions

Business Combinations

During the years 2017, 2016 and 2015, the Group did not undertake any acquisitions accounted for as business combinations.

Acquisitions and Dispositions of Noncontrolling Interests while Retaining Control

During 2017 and 2016, the Group did not engage in acquisitions or dispositions of noncontrolling interests while retaining control over the related subsidiaries.

Dispositions

During 2017, 2016 and 2015, the Group finalized several dispositions of subsidiaries/businesses. These disposals are mainly of businesses the Group had previously classified as held for sale. Accordingly, disposals in 2017 included the Group's Argentine subsidiary Deutsche Bank S.A. and Sal. Oppenheim's Luxembourg-based fund administration and custody business. Divestitures in 2016 comprised the sale of Abbey Life and Maher Terminals Port Elizabeth. Dispositions in 2015 mainly consisted of the sale of the Canadian port operations of Maher Terminals. For more detail on these transactions, please refer to Note 26 "Non-Current Assets and Disposal Groups Held for Sale". The total cash consideration received for these dispositions in 2017, 2016 and 2015 was € 129 million, € 2.0 billion and € 555 million, respectively. The table below shows the assets and liabilities that were included in these disposals.

in € m.	2017	2016	2015
Cash and cash equivalents	47	0	0
All remaining assets	848	14,858	443
Total assets disposed	895	14,858	443
Total liabilities disposed	814	12,250	52

04 – Business Segments and Related Information

The Group's segmental information has been prepared in accordance with the "management approach", which requires presentation of the segments on the basis of the internal management reports of the entity which are regularly reviewed by the chief operating decision maker, which is the Deutsche Bank Management Board, in order to allocate resources to a segment and to assess its financial performance.

Business Segments

The Group's segment reporting follows the organizational structure as reflected in its internal management reporting systems, which are the basis for assessing the financial performance of the business segments and for allocating resources to the business segments. Generally, restatements due to changes in the organizational structure were implemented in the presentation of prior period comparables if they were considered in the Group's management reporting systems.

Beginning of the second quarter of 2017, in accordance with our strategy announcement on March 5, 2017, our business operations are reorganized under a new divisional structure comprising the following divisions:

- Corporate & Investment Bank ("CIB"),
- Private & Commercial Bank ("PCB"),
- Deutsche Asset Management ("Deutsche AM")

The key changes compared to Deutsche Bank's previously reported segmental information are outlined below.

Corporate & Investment Bank (CIB) - The new corporate division "Corporate & Investment Bank" combines the former segments "Global Markets" and "Corporate & Investment Banking". It comprises the Bank's Corporate Finance, Global Markets and Global Transaction Banking businesses.

Private & Commercial Bank (PCB) - The corporate division "Private & Commercial Bank" combines the businesses with private and commercial clients of Deutsche Bank and Postbank, which formerly had been reported separately, and the wealth management activities for wealthy clients, foundations and family offices.

Deutsche Asset Management (Deutsche AM) - The corporate division Deutsche Asset Management remains materially unchanged and contains the asset management activities of Deutsche Bank. It focuses on providing investment solutions to individual investors and institutions that serve them.

Certain Infrastructure functions previously reported under Consolidation & Adjustments, reflected in our business segments on an allocated basis, have been integrated more closely into our business divisions.

From 2017 onwards, Non-Core Operations Unit (NCOU) ceased to exist as a standalone division. The remaining legacy assets as of December 31, 2016 are now managed by the corresponding operating segments, predominately in Corporate & Investment Bank and Private & Commercial Bank.

Measurement of Segment Profit or Loss

Segment reporting requires a presentation of the segment results based on management reporting methods, including a reconciliation between the results of the business segments and the consolidated financial statements, which is presented in the "Management Report: Operating and Financial Review: Deutsche Bank Group: Corporate Divisions: Consolidation & Adjustments". The information provided about each segment is based on internal management reporting about segment profit or loss, assets and other information which is regularly reviewed by the chief operating decision maker. Segment assets are presented in the Group's internal management reporting based on a consolidated view, i.e., the amounts do not include intersegment balances.

Non-IFRS compliant accounting methods are rarely used in the Group's management reporting and represent either valuation or classification differences. The largest valuation differences relate to measurement at fair value in management reporting versus measurement at amortized cost under IFRS and to the recognition of trading results from own shares in revenues in management reporting (mainly in CIB) and in equity under IFRS. The major classification difference relates to noncontrolling interest, which represents the net share of minority shareholders in revenues, provision for credit losses, noninterest expenses and income tax expenses. Noncontrolling interest is reported as a component of pre-tax income for the businesses in management reporting (with a reversal in C&A) and a component of net income appropriation under IFRS.

Since the Group's business activities are diverse in nature and its operations are integrated, certain estimates and judgments have been made to apportion revenue and expense items among the business segments.

The management reporting systems allocate the Group's external net interest income according to the value of funding consumed or provided by each segment's activities, with transfer pricing referencing the Group's access to financing in the wholesale markets. Furthermore, to retain comparability with those competitors that have legally independent units with their own equity funding, the Group allocates a net notional interest credit on its consolidated capital, in line with each segment's proportion of average shareholders' equity.

Management uses certain measures for equity and related ratios as part of its internal reporting system because it believes that these measures provide it with a useful indication of the financial performance of the business segments. The Group discloses such measures to provide investors and analysts with further insight into how management operates the Group's businesses and to enable them to better understand the Group's results. These measures include:

Allocation of Average Shareholders' Equity - Starting 2017, the Group has refined its capital allocation methodology. Shareholders' equity is now fully allocated to the Group's segments based on the regulatory capital demand of each segment and is no longer capped at the amount of shareholders' equity required to meet the externally communicated targets for the Group's Common Equity Tier 1 ratio and the Group's Leverage ratio. Regulatory capital demand reflects the combined contribution of each segment to the Groups' Common Equity Tier 1 ratio, the Groups' Leverage ratio and the Group's Capital Loss under Stress. Contributions in each of the three dimensions are weighted to reflect their relative importance and level of constraint for the Group. Contributions to the Common Equity Tier 1 ratio and the Leverage ratio are measured through Risk-Weighted Assets (RWA) and Leverage Ratio Exposure (LRE) assuming full implementation of CRR/CRD 4 rules. The Group's Capital Loss under Stress is a measure of the Group's overall economic risk exposure under a defined stress scenario. Goodwill and other intangibles continue to be directly attributed to the Group's segments in order to allow the determination of allocated tangible shareholders' equity and the respective returns. Shareholders' equity and tangible shareholders' equity is allocated on a monthly basis and averaged across quarters and for the full year. All reported periods in 2015 and 2016 have been restated.

Segment average shareholders' equity in December 2015 represents the spot values for the period end. The difference between the spot values of the segments and the average Group amount is captured in C&A

For purposes of the 2017 average shareholders' equity allocation the Non-Core Operations Unit (NCOU) balances from year-end 2016 have been allocated to Consolidation & Adjustments (C&A) as Non-Core Operations Unit (NCOU) has ceased to exist as a separate corporate division from 2017 onwards.

Net interest income as a component of net revenue, income (loss) before income taxes and related ratios is presented on a fully taxable-equivalent basis for U.S. tax-exempt securities for Corporate & Investment Bank. This enables management to measure performance of taxable and tax-exempt securities on a comparable basis. This change in presentation resulted in an increase in Corporate & Investment Bank net interest income of € 113.6 million for full year 2017 (€ 126.4 million for full year 2016, € 122.8 million for full year 2015). This increase is offset in Group consolidated figures through a reversal in C&A. The tax rate used in determining the fully taxable-equivalent net interest income in respect of the majority of the US tax-exempt securities is 35 %.

Segmental Results of Operations

For the results of the business segments, including the reconciliation to the consolidated results of operations under IFRS please see “Management Report: Operating and Financial Review: Results of Operations: Segment Results of Operations”.

Entity-Wide Disclosures

The Group’s Entity-Wide Disclosures include net revenues from internal and external counterparties. Excluding revenues from internal counterparties would require disproportionate IT investment and is not in line with the Bank’s management approach. For detail on our Net Revenue Components please see “Management Report: Operating and Financial Review: Results of Operations: Corporate Divisions”.

The following table presents total net revenues (before provisions for credit losses) by geographic area for the years ended December 31, 2017, 2016 and 2015, respectively. The information presented for CIB, PCB, Deutsche AM and NCOU has been classified based primarily on the location of the Group’s office in which the revenues are recorded. The information for C&A is presented on a global level only, as management responsibility for C&A is held centrally.

in € m.	2017	2016	2015
Germany:			
Corporate & Investment Bank	1,503	1,924	1,942
Private & Commercial Bank	7,225	7,571	7,289
Deutsche Asset Management	1,009	888	963
Non-Core Operations Unit	0	221	105
Total Germany¹	9,737	10,604	10,299
UK:			
Corporate & Investment Bank	3,817	4,298	5,309
Private & Commercial Bank	34	83	77
Deutsche Asset Management	434	836	748
Non-Core Operations Unit	0	(322)	(73)
Total UK	4,284	4,895	6,061
Rest of Europe, Middle East and Africa:			
Corporate & Investment Bank	1,268	1,544	1,647
Private & Commercial Bank	2,037	2,360	2,111
Deutsche Asset Management	465	497	402
Non-Core Operations Unit	0	23	9
Total Rest of Europe, Middle East and Africa	3,770	4,425	4,169
Americas (primarily United States):			
Corporate & Investment Bank	4,999	5,928	6,209
Private & Commercial Bank	390	625	691
Deutsche Asset Management	492	578	727
Non-Core Operations Unit	0	(305)	754
Total Americas	5,881	6,826	8,381
Asia/Pacific:			
Corporate & Investment Bank	2,639	3,068	3,792
Private & Commercial Bank	491	451	469
Deutsche Asset Management	133	216	176
Non-Core Operations Unit	0	1	(0)
Total Asia/Pacific	3,263	3,735	4,436
Consolidation & Adjustments	(488)	(471)	179
Consolidated net revenues²	26,447	30,014	33,525

¹ All Postbank operations are disclosed as German operations subject to further systems integration

² Consolidated net revenues comprise interest and similar income, interest expenses and total noninterest income (including net commission and fee income). Revenues are attributed to countries based on the location in which the Group’s booking office is located. The location of a transaction on the Group’s books is sometimes different from the location of the headquarters or other offices of a customer and different from the location of the Group’s personnel who entered into or facilitated the transaction. Where the Group records a transaction involving its staff and customers and other third parties in different locations frequently depends on other considerations, such as the nature of the transaction, regulatory considerations and transaction processing considerations.

Notes to the Consolidated Income Statement

05 – Net Interest Income and Net Gains (Losses) on Financial Assets/Liabilities at Fair Value through Profit or Loss

Net Interest Income

in € m.	2017	2016	2015
Interest and similar income:			
Interest income on cash and central bank balances	1,070	433	88
Interest income on interbank balances (w/o central banks)	245	252	411
Central bank funds sold and securities purchased under resale agreements	292	359	377
Interest income on financial assets available for sale	1,083	1,313	1,292
Dividend income on financial assets available for sale	88	205	301
Loans	11,941	12,311	12,219
Interest income on securities held to maturity	68	67	0
Other	1,406	1,417	782
Total interest and similar income not at fair value through profit or loss	16,193	16,357	15,470
Financial assets at fair value through profit or loss	7,899	9,279	10,496
Total interest and similar income	24,092	25,636	25,967
Interest expense:			
Interest-bearing deposits	2,833	2,583	2,764
Central bank funds purchased and securities sold under repurchase agreements	431	255	153
Other short-term borrowings	135	179	229
Long-term debt	1,795	1,759	1,480
Trust preferred securities	413	437	568
Other	1,437	1,083	357
Total interest expense not at fair value through profit or loss	7,044	6,295	5,552
Financial liabilities at fair value through profit or loss	4,671	4,634	4,534
Total interest expense	11,714	10,929	10,086
Net interest income	12,378	14,707	15,881

Interest income recorded on impaired financial assets was € 61 million, € 63 million and € 67 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Other interest income for the year ended December 31, 2017 included € 116 million which were related to government grants under the Targeted Longer-Term Refinancing Operations II (TLTRO II)-program.

Net Gains (Losses) on Financial Assets/Liabilities at Fair Value through Profit or Loss

in € m.	2017	2016	2015
Trading income:			
Sales & Trading (Equity)	1,152	616	544
Sales & Trading (FIC)	3,969	3,448	3,750
Total Sales & Trading	5,122	4,064	4,294
Other trading income	(1,748)	(3,517)	(420)
Total trading income	3,374	547	3,874
Net gains (losses) on financial assets/liabilities designated at fair value through profit or loss:			
Breakdown by financial asset/liability category:			
Securities purchased/sold under resale/repurchase agreements	3	(3)	3
Securities borrowed/loaned	(1)	1	0
Loans and loan commitments	(32)	(109)	(453)
Deposits	(30)	(28)	0
Long-term debt ¹	(398)	303	761
Other financial assets/liabilities designated at fair value through profit or loss	10	691	(344)
Total net gains (losses) on financial assets/liabilities designated at fair value through profit or loss	(448)	854	(32)
Total net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,926	1,401	3,842

Combined Net Interest Income and Net Gains (Losses) on Financial Assets/Liabilities at Fair Value through Profit or Loss

in € m.	2017	2016	2015
Net interest income	12,378	14,707	15,881
Trading income ¹	3,374	547	3,874
Net gains (losses) on financial assets/liabilities designated at fair value through profit or loss	(448)	854	(32)
Total net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,926	1,401	3,842
Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss	15,304	16,108	19,723
Sales & Trading (Equity)	1,592	1,934	2,838
Sales & Trading (FIC)	4,707	5,210	5,987
Total Sales & Trading	6,299	7,144	8,826
Financing	1,641	1,839	1,523
Global Transaction Banking	1,937	2,098	2,218
Remaining Products	(800)	(309)	(219)
Corporate & Investment Bank	9,078	10,773	12,348
Private & Commercial Bank	6,158	6,420	6,573
Deutsche Asset Management	30	365	255
Non-Core Operations Unit	0	(1,307)	(362)
Consolidation & Adjustments	37	(143)	910
Total net interest income and net gains (losses) on financial assets/liabilities at fair value through profit or loss	15,304	16,108	19,723

¹ Trading income includes gains and losses from derivatives not qualifying for hedge accounting.

The Group's trading and risk management businesses include significant activities in interest rate instruments and related derivatives. Under IFRS, interest and similar income earned from trading instruments and financial instruments designated at fair value through profit or loss (i.e., coupon and dividend income), and the costs of funding net trading positions, are part of net interest income. The Group's trading activities can periodically drive income to either net interest income or to net gains (losses) of financial assets/liabilities at fair value through profit or loss depending on a variety of factors, including risk management strategies. The above table combines net interest income and net gains (losses) of financial assets/liabilities at fair value through profit or loss by business division and by product within Corporate & Investment Bank.

06 – Commissions and Fee Income

in € m.	2017	2016	2015
Commission and fee income and expense:			
Commission and fee income	14,102	14,999	16,412
Commission and fee expense	3,100	3,255	3,647
Net commissions and fee income	11,002	11,744	12,765

in € m.	2017	2016	2015
Net commissions and fee income:			
Net commissions and fees from fiduciary activities	4,320	4,287	4,480
Net commissions, brokers' fees, mark-ups on securities underwriting and other securities activities	2,985	3,305	4,134
Net fees for other customer services	3,698	4,152	4,151
Net commissions and fee income	11,002	11,744	12,765

07 – Net Gains (Losses) on Financial Assets Available for Sale

in € m.	2017	2016	2015
Net gains (losses) on financial assets available for sale:			
Net gains (losses) on debt securities:	114	229	48
Net gains (losses) from disposal	115	230	58
Impairments	(1)	(1)	(10)
Net gains (losses) on equity securities:	219	79	104
Net gains (losses) from disposal/remeasurement	219	96	156
Impairments	(1)	(17)	(52)
Net gains (losses) on loans:	37	6	52
Net gains (losses) from disposal	45	21	83
Impairments	(8)	(15)	(31)
Reversal of impairments	0	0	0
Net gains (losses) on other equity interests:	110	339	1
Net gains (losses) from disposal	137	348	14
Impairments	(27)	(9)	(13)
Total net gains (losses) on financial assets available for sale	479	653	203

Please also refer to Note 15 “Financial Assets Available for Sale” of this report.

08 – Other Income

in € m.	2017	2016	2015
Other income:			
Net gains (losses) on disposal of loans	19	(128)	237
Insurance premiums ¹	4	89	108
Net income (loss) from hedge relationships qualifying for hedge accounting	(609)	(370)	(910)
Consolidated investments	0	362	470
Remaining other income ²	112	1,100	763
Total other income (loss)	(475)	1,053	669

¹ Net of reinsurance premiums paid. The development is primarily driven by Abbey Life Assurance Company Limited which has been sold in 2016.

² Includes net gains (losses) of € (81) million, € 744 million and € 237 million for the years ended December 31, 2017, 2016 and 2015, respectively, that are related to non-current assets and disposal groups held for sale.

09 – General and Administrative Expenses

in € m.	2017	2016	2015
General and administrative expenses:			
IT costs	3,798	3,872	3,664
Occupancy, furniture and equipment expenses	1,849	1,972	1,944
Professional service fees	1,769	2,305	2,283
Communication and data services	686	761	807
Travel and representation expenses	405	450	505
Banking and transaction charges	744	664	598
Marketing expenses	309	285	294
Consolidated investments	0	334	406
Other expenses ¹	2,414	4,812	8,129
Total general and administrative expenses	11,973	15,454	18,632

¹ Includes litigation related expenses of € 213 million in 2017, € 2.4 billion in 2016 and € 5.2 billion in 2015. See Note 29 “Provisions”, for more detail on litigation.

10 – Restructuring

Restructuring forms part of the Group's multi-year strategy originally announced in October 2015 and further refined and amended in March 2017. To implement the strategy we have defined measures that aim to further strengthen the bank, position it for growth and simplify its organizational set-up. The measures also target to reduce adjusted costs through higher efficiency, by optimizing and streamlining processes, and by exploiting synergies.

Restructuring expense is comprised of termination benefits, additional expenses covering the acceleration of deferred compensation awards not yet amortized due to the discontinuation of employment and contract termination costs related to real estate.

in € m.	2017	2016	2015
Corporate & Investment Bank	(82)	(292)	(128)
Private & Commercial Bank	(360)	(141)	(585)
Deutsche Asset Management	(6)	(47)	2
Non-Core Operations Unit	0	(4)	1
Total Net Restructuring Charges	(447)	(484)	(710)

in € m.	2017	2016	2015
Restructuring – Staff related	(430)	(491)	(663)
thereof:			
Termination Benefits	(402)	(432)	(602)
Retention Acceleration	(26)	(54)	(61)
Social Security	(2)	(5)	(0)
Restructuring – Non Staff related	(17)	7	(46)
Total Net Restructuring Charges	(447)	(484)	(710)

Provisions for restructuring amounted to € 696 million and € 741 million and € 651 million as of December 31, 2017 and December 31, 2016 and December 31, 2015, respectively. The majority of the current provisions for restructuring are expected to be utilized in the next two years.

During 2017, 2,045 full-time equivalent staff was reduced through restructuring (2016: 1,451 and 2015: 662).

Full-time equivalent staff	2017	2016	2015
Corporate & Investment Bank	502	356	237
Private & Commercial Bank	1,054	453	141
Deutsche Asset Management	38	101	22
Non-Core Operations Unit	0	0	1
Infrastructure/Regional Management	451	541	261
Total full-time equivalent staff	2,045	1,451	662

11 – Earnings per Share

Basic earnings per share amounts are computed by dividing net income (loss) attributable to Deutsche Bank shareholders by the average number of common shares outstanding during the year. The average number of common shares outstanding is defined as the average number of common shares issued, reduced by the average number of shares in treasury and by the average number of shares that will be acquired under physically-settled forward purchase contracts, and increased by undistributed vested shares awarded under deferred share plans.

Diluted earnings per share assumes the conversion into common shares of outstanding securities or other contracts to issue common stock, such as share options, convertible debt, unvested deferred share awards and forward contracts. The aforementioned instruments are only included in the calculation of diluted earnings per share if they are dilutive in the respective reporting period.

Computation of basic and diluted earnings per share

in € m.	2017	2016	2015
Net income (loss) attributable to Deutsche Bank shareholders – numerator for basic earnings per share ¹	(1,049)	(1,678)	(7,022)
Effect of dilutive securities:			
Forwards and options	0	0	0
Convertible debt	0	0	0
Net income (loss) attributable to Deutsche Bank shareholders after assumed conversions – numerator for diluted earnings per share ¹	(1,049)	(1,678)	(7,022)
Number of shares in million			
Weighted-average shares outstanding – denominator for basic earnings per share	1,967.7	1,555.3	1,555.1
Effect of dilutive securities:			
Forwards	0.0	0.0	0.0
Employee stock compensation options	0.0	0.0	0.0
Deferred shares	0.0	0.0	0.0
Other (including trading options)	0.0	0.0	0.0
Dilutive potential common shares	0.0	0.0	0.0
Adjusted weighted-average shares after assumed conversions – denominator for diluted earnings per share	1,967.7	1,555.3	1,555.1

¹ Earnings were adjusted by € 298 million, € 276 million and € 228 million net of tax for the coupons paid on Additional Tier 1 Notes in April 2017, April 2016 and April 2015.

Earnings per share

in €	2017	2016	2015
Basic earnings per share	(0.53)	(1.08)	(4.52)
Diluted earnings per share	(0.53)	(1.08)	(4.52)

On April 7, 2017, Deutsche Bank AG completed a capital increase with subscription rights. As the subscription price of the new shares was lower than the market price of the existing shares, the capital increase included a bonus element. According to IAS 33, the bonus element is the result of an implicit change in the number of shares outstanding for all periods prior to the capital increase without a fully proportionate change in resources. As a consequence, the weighted average number of shares outstanding has been adjusted retrospectively.

Due to the net loss situation for 2017, 2016 and 2015 potentially dilutive shares are generally not considered for the earnings per share calculation, because to do so would have been anti-dilutive and hence decreased the net loss per share.

Instruments outstanding and not included in the calculation of diluted earnings per share¹

Number of shares in m.	2017	2016	2015
Call options sold	0.0	0.0	0.0
Employee stock compensation options	0.0	0.0	0.0
Deferred shares	104.4	69.6	52.5

¹ Not included in the calculation of diluted earnings per share, because to do so would have been anti-dilutive.

Notes to the Consolidated Balance Sheet

12 – Financial Assets/Liabilities at Fair Value through Profit or Loss

in € m.	Dec 31, 2017	Dec 31, 2016
Financial assets classified as held for trading:		
Trading assets:		
Trading securities	173,196	156,926
Other trading assets ¹	11,466	14,117
Total trading assets	184,661	171,044
Positive market values from derivative financial instruments	361,032	485,150
Total financial assets classified as held for trading	545,693	656,194
Financial assets designated at fair value through profit or loss:		
Securities purchased under resale agreements	57,843	47,404
Securities borrowed	20,254	21,136
Loans	4,802	7,505
Other financial assets designated at fair value through profit or loss	8,377	11,541
Total financial assets designated at fair value through profit or loss	91,276	87,587
Total financial assets at fair value through profit or loss	636,970	743,781

¹ Includes traded loans of € 10.9 billion and € 13.2 billion at December 31, 2017 and 2016 respectively.

in € m.	Dec 31, 2017	Dec 31, 2016
Financial liabilities classified as held for trading:		
Trading liabilities:		
Trading securities	71,148	56,592
Other trading liabilities	314	437
Total trading liabilities	71,462	57,029
Negative market values from derivative financial instruments	342,726	463,858
Total financial liabilities classified as held for trading:	414,189	520,887
Financial liabilities designated at fair value through profit or loss:		
Securities sold under repurchase agreements	53,840	50,397
Loan commitments	8	40
Long-term debt	6,439	6,473
Other financial liabilities designated at fair value through profit or loss	3,587	3,582
Total financial liabilities designated at fair value through profit or loss	63,874	60,492
Investment contract liabilities	574	592
Total financial liabilities at fair value through profit or loss	478,636	581,971

Financial Assets & Liabilities designated at Fair Value through Profit or Loss

The Group has designated various lending relationships at fair value through profit or loss. Lending facilities consist of drawn loan assets and undrawn irrevocable loan commitments. The maximum exposure to credit risk on a drawn loan is its fair value. The Group's maximum exposure to credit risk on drawn loans, including securities purchased under resale agreements and securities borrowed, was € 83 billion and € 76 billion as of December 31, 2017, and 2016, respectively. Exposure to credit risk also exists for undrawn irrevocable loan commitments and is predominantly counterparty credit risk.

The credit risk on the securities purchased under resale agreements and securities borrowed designated under the fair value option is mitigated by the holding of collateral. The valuation of these instruments takes into account the credit enhancement in the form of the collateral received. As such there is no material movement during the year or cumulatively due to movements in counterparty credit risk on these instruments.

Changes in fair value of loans¹ and loan commitments attributable to movements in counterparty credit risk²

in € m.	Dec 31, 2017		Dec 31, 2016	
	Loans	Loan commitments	Loans	Loan commitments
Notional value of loans and loan commitments exposed to credit risk	2,865	1,973	3,604	3,357
Annual change in the fair value reflected in the Statement of Income	7	14	9	45
Cumulative change in the fair value ³	10	30	9	37
Notional of credit derivatives used to mitigate credit risk	536	4,728	358	4,997
Annual change in the fair value reflected in the Statement of Income	(0)	(42)	(1)	(3)
Cumulative change in the fair value ³	1	(46)	(2)	(6)

¹ Where the loans are over-collateralized there is no material movement in valuation during the year or cumulatively due to movements in counterparty credit risk.

² Determined using valuation models that exclude the fair value impact associated with market risk.

³ Changes are attributable to loans and loan commitments held at reporting date, which may differ from those held in prior periods. No adjustments are made to prior year to reflect differences in the underlying population.

Changes in fair value of financial liabilities attributable to movements in the Group's credit risk¹

in € m.	Dec 31, 2017	Dec 31, 2016
Annual change in the fair value reflected in the Statement of Income	60	(73)
Cumulative change in the fair value	72	11

¹ The fair value of a financial liability incorporates the credit risk of that financial liability. Changes in the fair value of financial liabilities issued by consolidated structured entities have been excluded as this is not related to the Group's credit risk but to that of the legally isolated structured entity, which is dependent on the collateral it holds.

The excess of the contractual amount repayable at maturity over the carrying value of financial liabilities¹

in € m.	Dec 31, 2017	Dec 31, 2016
Including undrawn loan commitments ²	6,088	8,396
Excluding undrawn loan commitments	2,073	2,779

¹ Assuming the liability is extinguished at the earliest contractual maturity that the Group can be required to repay. When the amount payable is not fixed, it is determined by reference to conditions existing at the reporting date.

² The contractual cash flows at maturity for undrawn loan commitments assume full drawdown of the facility.

13 – Financial Instruments carried at Fair Value

Valuation Methods and Control

The Group has an established valuation control framework which governs internal control standards, methodologies, and procedures over the valuation process.

Prices Quoted in Active Markets – The fair value of instruments that are quoted in active markets are determined using the quoted prices where they represent prices at which regularly and recently occurring transactions take place.

Valuation Techniques – The Group uses valuation techniques to establish the fair value of instruments where prices, quoted in active markets, are not available. Valuation techniques used for financial instruments include modelling techniques, the use of indicative quotes for proxy instruments, quotes from recent and less regular transactions and broker quotes.

For some financial instruments a rate or other parameter, rather than a price, is quoted. Where this is the case then the market rate or parameter is used as an input to a valuation model to determine fair value. For some instruments, modelling techniques follow industry standard models, for example, discounted cash flow analysis and standard option pricing models. These models are dependent upon estimated future cash flows, discount factors and volatility levels. For more complex or unique instruments, more sophisticated modelling techniques are required, and may rely upon assumptions or more complex parameters such as correlations, prepayment speeds, default rates and loss severity.

Frequently, valuation models require multiple parameter inputs. Where possible, parameter inputs are based on observable data or are derived from the prices of relevant instruments traded in active markets. Where observable data is not available for parameter inputs, then other market information is considered. For example, indicative broker quotes and consensus pricing information are used to support parameter inputs where they are available. Where no observable information is available to support parameter inputs then they are based on other relevant sources of information such as prices for similar transactions, historic data, economic fundamentals, and research information, with appropriate adjustment to reflect the terms of the actual instrument being valued and current market conditions.

Valuation Adjustments – Valuation adjustments are an integral part of the valuation process. In making appropriate valuation adjustments, the Group follows methodologies that consider factors such as bid-offer spreads, counterparty/own credit and funding risk. Bid-offer spread valuation adjustments are required to adjust mid market valuations to the appropriate bid or offer valuation. The bid or offer valuation is the best representation of the fair value for an instrument, and therefore its fair value. The carrying value of a long position is adjusted from mid to bid, and the carrying value of a short position is adjusted from mid to offer. Bid-offer valuation adjustments are determined from bid-offer prices observed in relevant trading activity and in quotes from other broker-dealers or other knowledgeable counterparties. Where the quoted price for the instrument is already a bid-offer price then no additional bid-offer valuation adjustment is necessary. Where the fair value of financial instruments is derived from a modelling technique, then the parameter inputs into that model are normally at a mid-market level. Such instruments are generally managed on a portfolio basis and, when specified criteria are met, valuation adjustments are taken to reflect the cost of closing out the net exposure the Bank has to individual market or counterparty risks. These adjustments are determined from bid-offer prices observed in relevant trading activity and quotes from other broker-dealers.

Where complex valuation models are used, or where less-liquid positions are being valued, then bid-offer levels for those positions may not be available directly from the market, and therefore for the close-out cost of these positions, models and parameters must be estimated. When these adjustments are designed, the Group closely examines the valuation risks associated with the model as well as the positions themselves, and the resulting adjustments are closely monitored on an ongoing basis.

Counterparty Credit Valuation Adjustments (CVAs) are required to cover expected credit losses to the extent that the valuation technique does not already include an expected credit loss factor relating to the non-performance risk of the counterparty. The CVA amount is applied to all relevant over-the-counter (OTC) derivatives, and is determined by assessing the potential credit exposure to a given counterparty and taking into account any collateral held, the effect of any relevant netting arrangements, expected loss given default and the probability of default, based on available market information, including Credit Default Swap (CDS) spreads. Where counterparty CDS spreads are not available, relevant proxies are used.

The fair value of the Group's financial liabilities at fair value through profit or loss (i.e., OTC derivative liabilities and structured note liabilities designated at fair value through profit or loss) incorporates Debt Valuation Adjustments (DVA) to measure the change in the Group's own credit risk of the financial liability. For derivative liabilities the Group considers its own creditworthiness by assessing all counterparties' potential future exposure to the Group, taking into account any collateral posted by the Group, the effect of relevant netting arrangements, expected loss given default and the probability of default of the Group, based on the Group's market CDS level. The change in the Group's own credit risk for structured note liabilities is calculated by discounting the contractual cash flows of the instrument using the rate at which similar instruments would be issued at the measurement date as this reflects the value from the perspective of a market participant who holds the identical item as an asset.

When determining CVA and DVA, additional adjustments are made where appropriate to achieve fair value, due to the expected loss estimate of a particular arrangement, or where the credit risk being assessed differs in nature to that described by the available CDS instrument.

Funding Valuation Adjustments (FVA) are required to incorporate the market implied funding costs into the fair value of derivative positions. The FVA reflects a discounting spread applied to uncollateralized and partially collateralized derivatives and is determined by assessing the market-implied funding costs on both assets and liabilities.

Where there is uncertainty in the assumptions used within a modelling technique, an additional adjustment is taken to calibrate the model price to the expected market price of the financial instrument. Typically, such transactions have bid-offer levels which are less observable, and these adjustments aim to estimate the bid-offer by computing the liquidity-premium associated with the transaction. Where a financial instrument is of sufficient complexity that the cost of closing it out would be higher than the cost of closing out its component risks, then an additional adjustment is taken to reflect this.

Valuation Control – The Group has an independent specialized valuation control group within the Finance function which governs and develops the valuation control framework and manages the valuation control processes. The mandate of this specialist function includes the performance of the independent valuation control process for all businesses, the continued development of valuation control methodologies and techniques, as well as devising and governing the formal valuation control policy framework. Special attention of this independent valuation control group is directed to areas where management judgment forms part of the valuation process.

Results of the valuation control process are collected and analysed as part of a standard monthly reporting cycle. Variances of differences outside of preset and approved tolerance levels are escalated both within the Finance function and with Senior Business Management for review, resolution and, if required, adjustment.

For instruments where fair value is determined from valuation models, the assumptions and techniques used within the models are independently validated by an independent specialist model validation group that is part of the Group's Risk Management function.

Quotes for transactions and parameter inputs are obtained from a number of third party sources including exchanges, pricing service providers, firm broker quotes and consensus pricing services. Price sources are examined and assessed to determine the quality of fair value information they represent, with greater emphasis given to those possessing greater valuation certainty and relevance. The results are compared against actual transactions in the market to ensure the model valuations are calibrated to market prices.

Price and parameter inputs to models, assumptions and valuation adjustments are verified against independent sources. Where they cannot be verified to independent sources due to lack of observable information, the estimate of fair value is subject to procedures to assess its reasonableness. Such procedures include performing revaluation using independently generated models (including where existing models are independently recalibrated), assessing the valuations against appropriate proxy instruments and other benchmarks, and performing extrapolation techniques. Assessment is made as to whether the valuation techniques produce fair value estimates that are reflective of market levels by calibrating the results of the valuation models against market transactions where possible.

Fair Value Hierarchy

The financial instruments carried at fair value have been categorized under the three levels of the IFRS fair value hierarchy as follows:

Level 1 – Instruments valued using quoted prices in active markets are instruments where the fair value can be determined directly from prices which are quoted in active, liquid markets and where the instrument observed in the market is representative of that being priced in the Group's inventory.

These include: government bonds, exchange-traded derivatives and equity securities traded on active, liquid exchanges.

Level 2 – Instruments valued with valuation techniques using observable market data are instruments where the fair value can be determined by reference to similar instruments trading in active markets, or where a technique is used to derive the valuation but where all inputs to that technique are observable.

These include: many OTC derivatives; many investment-grade listed credit bonds; some CDS; many collateralized debt obligations (CDO); and many less-liquid equities.

Level 3 – Instruments valued using valuation techniques using market data which is not directly observable are instruments where the fair value cannot be determined directly by reference to market-observable information, and some other pricing technique must be employed. Instruments classified in this category have an element which is unobservable and which has a significant impact on the fair value.

These include: more-complex OTC derivatives; distressed debt; highly-structured bonds; illiquid asset-backed securities (ABS); illiquid CDO's (cash and synthetic); monoline exposures; some private equity placements; many commercial real estate (CRE) loans; illiquid loans; and some municipal bonds.

Carrying value of the financial instruments held at fair value¹

in € m.	Dec 31, 2017			Dec 31, 2016		
	Quoted prices in active market (Level 1)	Valuation technique observable parameters (Level 2)	Valuation technique unobservable parameters (Level 3)	Quoted prices in active market (Level 1)	Valuation technique observable parameters (Level 2)	Valuation technique unobservable parameters (Level 3)
Financial assets held at fair value:						
Trading assets	106,075	69,543	9,043	89,943	70,415	10,686
Trading securities	105,792	62,770	4,634	89,694	62,220	5,012
Other trading assets	283	6,773	4,409	248	8,195	5,674
Positive market values from derivative financial instruments	12,280	341,413	7,340	8,802 ⁵	466,551 ⁵	9,798
Financial assets designated at fair value through profit or loss	6,547	83,242	1,488	10,118	75,867	1,601
Financial assets available for sale	29,579	15,713	4,104	35,626 ⁴	16,449 ⁴	4,153
Other financial assets at fair value	0	3,258 ²	47	28	3,618 ²	33
Total financial assets held at fair value	154,480	513,169	22,022	144,517	632,900	26,271
Financial liabilities held at fair value:						
Trading liabilities	53,644	17,817	2	41,664	15,311	52
Trading securities	53,644	17,503	2	41,664	14,874	52
Other trading liabilities	0	314	0	0	437	0
Negative market values from derivative financial instruments	9,163	327,572	5,992	9,913 ⁶	445,089 ⁶	8,857
Financial liabilities designated at fair value through profit or loss	4	62,426	1,444	4	58,259	2,229
Investment contract liabilities	0	574	0	0	592	0
Other financial liabilities at fair value	0	1,294 ²	(298) ³	0	4,647 ²	(848) ³
Total financial liabilities held at fair value	62,810	409,683	7,139	51,581	523,898	10,290

¹ Amounts in this table are generally presented on a gross basis, in line with the Group's accounting policy regarding offsetting of financial instruments, as described in Note 1 "Significant Accounting Policies and Critical Accounting Estimates".

² Predominantly relates to derivatives qualifying for hedge accounting.

³ Relates to derivatives which are embedded in contracts where the host contract is held at amortized cost but for which the embedded derivative is separated. The separated embedded derivatives may have a positive or a negative fair value but have been presented in this table to be consistent with the classification of the host contract. The separated embedded derivatives are held at fair value on a recurring basis and have been split between the fair value hierarchy classifications.

⁴ Financial assets available for sale have been restated by € 6.9 billion in 'Quoted prices in active market (Level 1)' and negative € 6.9 billion in 'Valuation technique observable parameters (Level 2)'.

⁵ Reassessment of trades have resulted a restatement in positive market values for derivatives financial instrument by € 5.0 billion in 'Valuation technique observable parameters (Level 2)' and negative € 5.0 billion in 'Quoted prices in active market (Level 1)'.

⁶ Reassessment of trades have resulted a restatement in negative market values for derivatives financial instrument by € 3.7 billion in 'Valuation technique observable parameters (Level 2)' and negative € 3.7 billion in 'Quoted prices in active market (Level 1)'.

In 2017, there were transfers from Level 1 to Level 2 on financial assets available for sale (€ 1.0 billion of assets) due to changes in liquidity.

Valuation Techniques

The following is an explanation of the valuation techniques used in establishing the fair value of the different types of financial instruments that the Group trades.

Sovereign, Quasi-sovereign and Corporate Debt and Equity Securities – Where there are no recent transactions then fair value may be determined from the last market price adjusted for all changes in risks and information since that date. Where a close proxy instrument is quoted in an active market then fair value is determined by adjusting the proxy value for differences in the risk profile of the instruments. Where close proxies are not available then fair value is estimated using more complex modeling techniques. These techniques include discounted cash flow models using current market rates for credit, interest, liquidity and other risks. For equity securities modeling techniques may also include those based on earnings multiples.

Mortgage- and Other Asset-Backed Securities (MBS/ABS) include residential and commercial MBS and other ABS including CDOs. ABS have specific characteristics as they have different underlying assets and the issuing entities have different capital structures. The complexity increases further where the underlying assets are themselves ABS, as is the case with many of the CDO instruments.

Where no reliable external pricing is available, ABS are valued, where applicable, using either relative value analysis which is performed based on similar transactions observable in the market, or industry-standard valuation models making largest possible use of available observable inputs. The industry standard models calculate principal and interest payments for a given deal based on assumptions that can be independently price tested. The inputs include prepayment speeds, loss assumptions (timing and severity) and a discount rate (spread, yield or discount margin). These inputs/assumptions are derived from actual transactions, external market research and market indices where appropriate.

Loans – For certain loans fair value may be determined from the market price on a recently occurring transaction adjusted for all changes in risks and information since that transaction date. Where there are no recent market transactions then broker

quotes, consensus pricing, proxy instruments or discounted cash flow models are used to determine fair value. Discounted cash flow models incorporate parameter inputs for credit risk, interest rate risk, foreign exchange risk, loss given default estimates and amounts utilized given default, as appropriate. Credit risk, loss given default and utilization given default parameters are determined using information from the loan or other credit markets, where available and appropriate.

Leveraged loans can have transaction-specific characteristics which can limit the relevance of market-observed transactions. Where similar transactions exist for which observable quotes are available from external pricing services then this information is used with appropriate adjustments to reflect the transaction differences. When no similar transactions exist, a discounted cash flow valuation technique is used with credit spreads derived from the appropriate leveraged loan index, incorporating the industry classification, subordination of the loan, and any other relevant information on the loan and loan counterparty.

Over-The-Counter Derivative Financial Instruments – Market standard transactions in liquid trading markets, such as interest rate swaps, foreign exchange forward and option contracts in G7 currencies, and equity swap and option contracts on listed securities or indices are valued using market standard models and quoted parameter inputs. Parameter inputs are obtained from pricing services, consensus pricing services and recently occurring transactions in active markets wherever possible.

More complex instruments are modeled using more sophisticated modeling techniques specific for the instrument and are calibrated to available market prices. Where the model output value does not calibrate to a relevant market reference then valuation adjustments are made to the model output value to adjust for any difference. In less active markets, data is obtained from less frequent market transactions, broker quotes and through extrapolation and interpolation techniques. Where observable prices or inputs are not available, management judgment is required to determine fair values by assessing other relevant sources of information such as historical data, fundamental analysis of the economics of the transaction and proxy information from similar transactions.

Financial Liabilities Designated at Fair Value through Profit or Loss under the Fair Value Option – The fair value of financial liabilities designated at fair value through profit or loss under the fair value option incorporates all market risk factors including a measure of the Group's credit risk relevant for that financial liability. The financial liabilities include structured note issuances, structured deposits, and other structured securities issued by consolidated vehicles, which may not be quoted in an active market. The fair value of these financial liabilities is determined by discounting the contractual cash flows using the relevant credit-adjusted yield curve. The market risk parameters are valued consistently to similar instruments held as assets, for example, any derivatives embedded within the structured notes are valued using the same methodology discussed in the "Over-The-Counter Derivative Financial Instruments" section above.

Where the financial liabilities designated at fair value through profit or loss under the fair value option are collateralized, such as securities loaned and securities sold under repurchase agreements, the credit enhancement is factored into the fair valuation of the liability.

Investment Contract Liabilities – Assets which are linked to the investment contract liabilities are owned by the Group. The investment contract obliges the Group to use these assets to settle these liabilities. Therefore, the fair value of investment contract liabilities is determined by the fair value of the underlying assets (i.e., amount payable on surrender of the policies).

Analysis of Financial Instruments with Fair Value Derived from Valuation Techniques Containing Significant Unobservable Parameters (Level 3)

Some of the financial assets and financial liabilities in Level 3 of the fair value hierarchy have identical or similar offsetting exposures to the unobservable input. However, according to IFRS they are required to be presented gross.

Trading Securities – Certain illiquid emerging market corporate bonds and illiquid highly structured corporate bonds are included in this level of the hierarchy. In addition, some of the holdings of notes issued by securitization entities, commercial and residential MBS, collateralized debt obligation securities and other ABS are reported here. The decrease in the year is mainly due to a combination of sales, settlements and losses offset by purchases and transfers between Level 2 and Level 3 due to changes in the observability of input parameters used to value these instruments.

Positive and Negative Market Values from Derivative Instruments categorized in this level of the fair value hierarchy are valued based on one or more significant unobservable parameters. The unobservable parameters may include certain correlations, certain longer-term volatilities, certain prepayment rates, credit spreads and other transaction-specific parameters.

Level 3 derivatives includes certain options where the volatility is unobservable; certain basket options in which the correlations between the referenced underlying assets are unobservable; longer-term interest rate option derivatives; multi-currency foreign exchange derivatives; and certain credit default swaps for which the credit spread is not observable.

The decrease in assets was due to settlements and losses marginally offset by transfers between Level 2 and Level 3 due to changes in the observability of input parameters used to value these instruments. The decrease in liabilities was due to settlements, gains and transfers between Level 2 and Level 3.

Other Trading Instruments classified in Level 3 of the fair value hierarchy mainly consist of traded loans valued using valuation models based on one or more significant unobservable parameters. Level 3 loans comprise illiquid leveraged loans and illiquid residential and commercial mortgage loans. The balance decreased in the year due to sales, settlements and losses offset by purchases, issuances and transfers between Level 2 and Level 3 due to changes in the observability of input parameters used to value these instruments.

Financial Assets/Liabilities designated at Fair Value through Profit or Loss – Certain corporate loans and structured liabilities which were designated at fair value through profit or loss under the fair value option are categorized in this level of the fair value hierarchy. The corporate loans are valued using valuation techniques which incorporate observable credit spreads, recovery rates and unobservable utilization parameters. Revolving loan facilities are reported in the third level of the hierarchy because the utilization in the event of the default parameter is significant and unobservable.

In addition, certain hybrid debt issuances designated at fair value through profit or loss containing embedded derivatives are valued based on significant unobservable parameters. These unobservable parameters include single stock volatility correlations. Assets marginally decreased during the year due to sales, settlements, losses and transfers between Level 2 and Level 3 offset by purchases and issuances. Liabilities decreased in the year due to settlements, gains and transfers between Level 2 and Level 3 offset by issuances.

Financial Assets Available for Sale include non-performing loan portfolios where there is no trading intent and unlisted equity instruments where there is no close proxy and the market is very illiquid. The marginal decrease in assets in the year is due to sales and settlements offset by purchases, transfers between Level 2 and Level 3 and gains.

Reconciliation of financial instruments classified in Level 3

Reconciliation of financial instruments classified in Level 3

Dec 31, 2017

in € m.	Balance, beginning of year	Changes in the group of consoli- dated com- panies	Total gains/ losses ¹	Purchases	Sales	Issu- ances ²	Settle- ments ³	Transfers into Level 3 ⁴	Transfers out of Level 3 ⁴	Balance, end of year
Financial assets held at fair value:										
Trading securities	5,012	(1)	(153)	2,144	(1,660)	0	(818)	772	(662)	4,634
Positive market values from derivative financial instruments	9,798	(0)	(610)	0	0	0	(1,889)	2,298	(2,257)	7,340
Other trading assets	5,674	(7)	(283)	2,095	(2,328)	636	(1,803)	950	(524)	4,409
Financial assets designated at fair value through profit or loss	1,601	0	(78)	807	(118)	63	(710)	58	(134)	1,488
Financial assets available for sale	4,153	(40)	205 ⁵	722	(249)	0	(1,206)	539	(21)	4,104
Other financial assets at fair value	33	0	33	0	0	0	(26)	7	0	47
Total financial assets held at fair value	26,271	(47)	(886)^{6,7}	5,768	(4,356)	699	(6,453)	4,624	(3,598)	22,022
Financial liabilities held at fair value:										
Trading securities	52	0	(6)	0	0	0	(46)	1	0	2
Negative market values from derivative financial instruments	8,857	(5)	(64)	0	0	0	(1,827)	924	(1,892)	5,992
Other trading liabilities	0	0	(0)	0	0	0	0	0	0	0
Financial liabilities designated at fair value through profit or loss	2,229	(7)	(128)	0	0	146	(564)	154	(387)	1,444
Other financial liabilities at fair value	(848)	0	268	0	0	0	286	(18)	15	(298)
Total financial liabilities held at fair value	10,290	(12)	69^{6,7}	0	0	146	(2,151)	1,061	(2,265)	7,139

¹ Total gains and losses predominantly relate to net gains (losses) on financial assets/liabilities at fair value through profit or loss reported in the consolidated statement of income. The balance also includes net gains (losses) on financial assets available for sale reported in the consolidated statement of income and unrealized net gains (losses) on financial assets available for sale and exchange rate changes reported in other comprehensive income, net of tax. Further, certain instruments are hedged with instruments in Level 1 or Level 2 but the table above does not include the gains and losses on these hedging instruments. Additionally, both observable and unobservable parameters may be used to determine the fair value of an instrument classified within Level 3 of the fair value hierarchy; the gains and losses presented below are attributable to movements in both the observable and unobservable parameters.

² Issuances relate to the cash amount received on the issuance of a liability and the cash amount paid on the primary issuance of a loan to a borrower.

³ Settlements represent cash flows to settle the asset or liability. For debt and loan instruments this includes principal on maturity, principal amortizations and principal repayments. For derivatives all cash flows are presented in settlements.

⁴ Transfers in and transfers out of Level 3 are related to changes in observability of input parameters. During the year they are recorded at their fair value at the beginning of year. For instruments transferred into Level 3 the table shows the gains and losses and cash flows on the instruments as if they had been transferred at the beginning of the year. Similarly for instruments transferred out of Level 3 the table does not show any gains or losses or cash flows on the instruments during the year since the table is presented as if they have been transferred out at the beginning of the year.

⁵ Total gains and losses on available for sale include a gain of € 94 million recognized in other comprehensive income, net of tax, and a loss of € 8 million recognized in the income statement presented in net gains (losses) on financial assets available for sale.

⁶ This amount includes the effect of exchange rate changes. For total financial assets held at fair value this effect is a loss of € 565 million and for total financial liabilities held at fair value this is a gain of € 123 million. The effect of exchange rate changes is reported in other comprehensive income, net of tax.

⁷ For assets positive balances represent gains, negative balances represent losses. For liabilities positive balances represent losses, negative balances represent gains.

	Dec 31, 2016									
in € m.	Balance, beginning of year	Changes in the group of consoli- dated com- panies	Total gains/ losses ¹	Purchases	Sales	Issu- ances ²	Settle- ments ³	Transfers into Level 3 ⁴	Transfers out of Level 3 ⁴	Balance, end of year
Financial assets held at fair value:										
Trading securities	6,669	(0)	143	1,736	(3,605)	0	(990)	1,589	(528)	5,012
Positive market values from derivative financial instruments	9,445	(60)	(88)	0	0	0	(1,290)	4,158	(2,367)	9,798
Other trading assets	6,082	66	56	2,196	(3,606)	735	(1,527)	2,616	(944)	5,674
Financial assets designated at fair value through profit or loss	4,478	(509)	40	2	(273)	131	(1,073)	86	(1,282)	1,601
Financial assets available for sale	4,874	(1)	255 ⁵	920	(630)	0	(1,377)	187	(74)	4,153
Other financial assets at fair value ⁶	0	0	0	0	0	0	0	33	0	33
Total financial assets held at fair value	31,549	(504)	405^{6,7}	4,853	(8,114)	866	(6,257)	8,669	(5,195)	26,271
Financial liabilities held at fair value:										
Trading securities	18	0	0	0	0	0	34	0	(0)	52
Negative market values from derivative financial instruments	7,879	(317)	620	0	0	0	(508)	3,316	(2,134)	8,857
Other trading liabilities	0	0	0	0	0	0	0	0	0	0
Financial liabilities designated at fair value through profit or loss	3,053	0	(75)	0	0	587	(729)	245	(851)	2,229
Other financial liabilities at fair value	(1,146)	0	135	0	0	0	3	(26)	187	(848)
Total financial liabilities held at fair value	9,805	(317)	680^{6,7}	0	0	587	(1,200)	3,534	(2,799)	10,290

¹ Total gains and losses predominantly relate to net gains (losses) on financial assets/liabilities at fair value through profit or loss reported in the consolidated statement of income. The balance also includes net gains (losses) on financial assets available for sale reported in the consolidated statement of income and unrealized net gains (losses) on financial assets available for sale and exchange rate changes reported in other comprehensive income, net of tax. Further, certain instruments are hedged with instruments in Level 1 or Level 2 but the table above does not include the gains and losses on these hedging instruments. Additionally, both observable and unobservable parameters may be used to determine the fair value of an instrument classified within Level 3 of the fair value hierarchy; the gains and losses presented below are attributable to movements in both the observable and unobservable parameters.

² Issuances relate to the cash amount received on the issuance of a liability and the cash amount paid on the primary issuance of a loan to a borrower.

³ Settlements represent cash flows to settle the asset or liability. For debt and loan instruments this includes principal on maturity, principal amortizations and principal repayments. For derivatives all cash flows are presented in settlements.

⁴ Transfers in and transfers out of Level 3 are related to changes in observability of input parameters. During the year they are recorded at their fair value at the beginning of year. For instruments transferred into Level 3 the table shows the gains and losses and cash flows on the instruments as if they had been transferred at the beginning of the year. Similarly for instruments transferred out of Level 3 the table does not show any gains or losses or cash flows on the instruments during the year since the table is presented as if they have been transferred out at the beginning of the year.

⁵ Total gains and losses on available for sale include a loss of € 94 million recognized in other comprehensive income, net of tax, and a gain of € 187 million recognized in the income statement presented in net gains (losses) on financial assets available for sale.

⁶ This amount includes the effect of exchange rate changes. For total financial assets held at fair value this effect is a gain of € 4 million and for total financial liabilities held at fair value this is a gain of € 50 million. The effect of exchange rate changes is reported in other comprehensive income, net of tax.

⁷ For assets positive balances represent gains, negative balances represent losses. For liabilities positive balances represent losses, negative balances represent gains.

Sensitivity Analysis of Unobservable Parameters

Where the value of financial instruments is dependent on unobservable parameter inputs, the precise level for these parameters at the balance sheet date might be drawn from a range of reasonably possible alternatives. In preparing the financial statements, appropriate levels for these unobservable input parameters are chosen so that they are consistent with prevailing market evidence and in line with the Group's approach to valuation control detailed above. Were the Group to have marked the financial instruments concerned using parameter values drawn from the extremes of the ranges of reasonably possible alternatives then as of December 31, 2017 it could have increased fair value by as much as € 1.6 billion or decreased fair value by as much as € 1.0 billion. As of December 31, 2016 it could have increased fair value by as much as € 1.8 billion or decreased fair value by as much as € 1.0 billion.

The changes in sensitive amounts from December 31, 2016 to December 31, 2017 show a material reduction to the positive fair value movement, and a smaller reduction to the negative fair value movement from using reasonable possible alternatives.

These moves are primarily driven by the overall reduction in the Level 3 population in the same period (e.g. Group Level 3 assets down from € 26.3 billion at the end of 2016 to € 22.0 billion at the end of 2017), with this largely the result of de-risking / asset sales. The reduction in positive fair value movement moved in line with the reduction in the Level 3 population, whilst the reduction in negative fair value movement was proportionally smaller due to idiosyncratic factors across a number of trades.

Our sensitivity calculation of unobservable parameters for Level 3 aligns to the approach used to assess valuation uncertainty for Prudent Valuation purposes. Prudent Valuation is a capital requirement for assets held at fair value. It provides a mechanism for quantifying and capitalising valuation uncertainty in accordance with the European Commission Delegated Regulation (EU) 2016/101, which supplements Article 34 of Regulation (EU) No. 575/2013 (CRR), requiring institutions to apply as a deduction from CET 1 for the amount of any additional value adjustments on all assets measured at fair value calculated in accordance with Article 105(14). This utilises exit price analysis performed for the relevant assets and liabilities in the Prudent Valuation assessment. The downside sensitivity may be limited in some cases where the fair value is already demonstrably prudent.

This disclosure is intended to illustrate the potential impact of the relative uncertainty in the fair value of financial instruments for which valuation is dependent on unobservable input parameters. However, it is unlikely in practice that all unobservable parameters would be simultaneously at the extremes of their ranges of reasonably possible alternatives. Hence, the estimates disclosed above are likely to be greater than the true uncertainty in fair value at the balance sheet date. Furthermore, the disclosure is neither predictive nor indicative of future movements in fair value.

For many of the financial instruments considered here, in particular derivatives, unobservable input parameters represent only a subset of the parameters required to price the financial instrument, the remainder being observable. Hence for these instruments the overall impact of moving the unobservable input parameters to the extremes of their ranges might be relatively small compared with the total fair value of the financial instrument. For other instruments, fair value is determined based on the price of the entire instrument, for example, by adjusting the fair value of a reasonable proxy instrument. In addition, all financial instruments are already carried at fair values which are inclusive of valuation adjustments for the cost to close out that instrument and hence already factor in uncertainty as it reflects itself in market pricing. Any negative impact of uncertainty calculated within this disclosure, then, will be over and above that already included in the fair value contained in the financial statements.

Breakdown of the sensitivity analysis by type of instrument¹

in € m.	Dec 31, 2017		Dec 31, 2016	
	Positive fair value movement from using reasonable possible alternatives	Negative fair value movement from using reasonable possible alternatives	Positive fair value movement from using reasonable possible alternatives	Negative fair value movement from using reasonable possible alternatives
Securities:				
Debt securities	126	90	213	137
Commercial mortgage-backed securities	6	6	13	12
Mortgage and other asset-backed securities	26	28	46	40
Corporate, sovereign and other debt securities	94	56	154	85
Equity securities	95	67	116	68
Derivatives:				
Credit	155	125	238	158
Equity	164	138	209	150
Interest related	340	173	429	187
Foreign Exchange	65	12	32	21
Other	106	73	143	92
Loans:				
Loans	504	320	377	227
Other	0	0	0	0
Total	1,556	999	1,758	1,040

¹ Where the exposure to an unobservable parameter is offset across different instruments then only the net impact is disclosed in the table.

Quantitative Information about the Sensitivity of Significant Unobservable Inputs

The behaviour of the unobservable parameters on Level 3 fair value measurement is not necessarily independent, and dynamic relationships often exist between the other unobservable parameters and the observable parameters. Such relationships, where material to the fair value of a given instrument, are explicitly captured via correlation parameters, or are otherwise controlled via pricing models or valuation techniques. Frequently, where a valuation technique utilizes more than one input, the choice of a certain input will bound the range of possible values for other inputs. In addition, broader market factors (such as interest rates, equity, credit or commodity indices or foreign exchange rates) can also have effects.

The range of values shown below represents the highest and lowest inputs used to value the significant exposures within Level 3. The diversity of financial instruments that make up the disclosure is significant and therefore the ranges of certain parameters can be large. For example, the range of credit spreads on mortgage backed securities represents performing, more liquid positions with lower spreads than the less liquid, non-performing positions which will have higher credit spreads. As Level 3 contains the less liquid fair value instruments, the wide ranges of parameters seen is to be expected, as there is a high degree of pricing differentiation within each exposure type to capture the relevant market dynamics. There follows a brief description of each of the principal parameter types, along with a commentary on significant interrelationships between them.

Credit Parameters are used to assess the creditworthiness of an exposure, by enabling the probability of default and resulting losses of a default to be represented. The credit spread is the primary reflection of creditworthiness, and represents the premium or yield return above the benchmark reference instrument (typically LIBOR, or relevant Treasury Instrument, depending upon the asset being assessed), that a bond holder would require to allow for the credit quality difference between that entity and the reference benchmark. Higher credit spreads will indicate lower credit quality, and lead to a lower value for a given bond or other loan-asset that is to be repaid to the holder or lender by the borrower. Recovery Rates represent an estimate of the amount a lender would receive in the case of a default of a loan, or a bond holder would receive in the case of default of the bond. Higher recovery rates will give a higher valuation for a given bond position, if other parameters are held constant. Constant Default Rate (CDR) and Constant Prepayment Rate (CPR) allow more complex loan and debt assets to be assessed, as these parameters estimate the ongoing defaults arising on scheduled repayments and coupons, or whether the borrower is making additional (usually voluntary) prepayments. These parameters are particularly relevant when forming a fair value opinion for mortgage or other types of lending, where repayments are delivered by the borrower through time, or where the borrower may pre-pay the loan (seen for example in some residential mortgages). Higher CDR will lead to lower valuation of a given loan or mortgage as the lender will ultimately receive less cash.

Interest rates, credit spreads, inflation rates, foreign exchange rates and equity prices are referenced in some option instruments, or other complex derivatives, where the payoff a holder of the derivative will receive is dependent upon the behaviour of these underlying references through time. Volatility parameters describe key attributes of option behaviour by enabling the variability of returns of the underlying instrument to be assessed. This volatility is a measure of probability, with higher volatilities denoting higher probabilities of a particular outcome occurring. The underlying references (interest rates, credit spreads etc.) have an effect on the valuation of options, by describing the size of the return that can be expected from the option. Therefore the value of a given option is dependent upon the value of the underlying instrument, and the volatility of that instrument, representing the size of the payoff, and the probability of that payoff occurring. Where volatilities are high, the option holder will see a higher option value as there is greater probability of positive returns. A higher option value will also occur where the payoff described by the option is significant.

Correlations are used to describe influential relationships between underlying references where a derivative or other instrument has more than one underlying reference. Behind some of these relationships, for example commodity correlation and interest rate-foreign exchange correlations, typically lie macroeconomic factors such as the impact of global demand on groups of commodities, or the pricing parity effect of interest rates on foreign exchange rates. More specific relationships can exist between credit references or equity stocks in the case of credit derivatives and equity basket derivatives, for example. Credit correlations are used to estimate the relationship between the credit performance of a range of credit names, and stock correlations are used to estimate the relationship between the returns of a range of equities. A derivative with a correlation exposure will be either long- or short-correlation. A high correlation suggests a strong relationship between the underlying references is in force, and this will lead to an increase in value of a long-correlation derivative. Negative correlations suggest that the relationship between underlying references is opposing, i.e., an increase in price of one underlying reference will lead to a reduction in the price of the other.

An EBITDA ('earnings before interest, tax, depreciation and amortization') multiple approach can be used in the valuation of less liquid securities. Under this approach the enterprise value ('EV') of an entity can be estimated via identifying the ratio of the EV to EBITDA of a comparable observable entity and applying this ratio to the EBITDA of the entity for which a valuation is being estimated. Under this approach a liquidity adjustment is often applied due to the difference in liquidity between the generally listed comparable used and the company under valuation. A higher EV/EBITDA multiple will result in a higher fair value.

Financial instruments classified in Level 3 and quantitative information about unobservable inputs

Dec 31, 2017

Dec 31, 2017

in € m. (unless stated otherwise)	Fair value		Valuation technique(s) ¹	Significant unobservable input(s) (Level 3)	Range	
	Assets	Liabilities				
Financial instruments held at fair value – held for trading, designated at fair value and available-for-sale:						
Mortgage and other asset backed securities held for trading:						
Commercial mortgage-backed securities	79	0	Price based Discounted cash flow	Price Credit spread (bps)	0 % 136	102 % 2,217
Mortgage- and other asset-backed securities	714	0	Price based Discounted cash flow	Price Credit spread (bps) Recovery rate Constant default rate Constant prepayment rate	0 % 12 0 % 0 % 0 %	102 % 2,000 90 % 25 % 29 %
Total mortgage- and other asset-backed securities	793	0				
Debt securities and other debt obligations	3,870	1,307	Price based	Price	0 %	176 %
Held for trading	3,559	2	Discounted cash flow	Credit spread (bps)	34	500
Corporate, sovereign and other debt securities	3,559					
Available-for-sale	267					
Designated at fair value	44	1,305				
Equity securities	913	0	Market approach	Price per net asset value	60 %	100 %
Held for trading	282	0		Enterprise value/EBITDA (multiple)	1	14
Available-for-sale	480		Discounted cash flow	Weighted average cost capital	8 %	20 %
Designated at fair value	151					
Loans	7,397	0	Price based	Price	0 %	161 %
Held for trading	4,376	0	Discounted cash flow	Credit spread (bps)	190	1,578
Designated at fair value	338			Constant default rate	–	–
Available-for-sale	2,684			Recovery rate	40 %	40 %
Loan commitments	0	8	Discounted cash flow	Credit spread (bps)	5	261
				Recovery rate	37 %	75 %
			Loan pricing model	Utilization	0 %	100 %
Other financial instruments	1,710 ²	131 ³	Discounted cash flow	IRR	1 %	24 %
				Repo rate (bps)	224	254
Total non-derivative financial instruments held at fair value	14,683	1,446				

¹ Valuation technique(s) and subsequently the significant unobservable input(s) relate to the respective total position.

² Other financial assets include € 34 million of other trading assets, € 956 million of other financial assets designated at fair value and € 674 million other financial assets available for sale.

³ Other financial liabilities include € 131 million of securities sold under repurchase agreements designated at fair value.

	Dec 31, 2017					
	Fair value					
in € m. (unless stated otherwise)	Assets	Liabilities	Valuation technique(s)	Significant unobservable input(s) (Level 3)	Range	
Financial instruments held at fair value:						
Market values from derivative						
financial instruments:						
Interest rate derivatives	4,466	2,250	Discounted cash flow	Swap rate (bps)	(72)	1,036
				Inflation swap rate	(3) %	11 %
				Constant default rate	0 %	16 %
				Constant prepayment rate	2 %	38 %
			Option pricing model	Inflation volatility	0 %	5 %
				Interest rate volatility	0 %	103 %
				IR - IR correlation	(25) %	100 %
				Hybrid correlation	(85) %	90 %
Credit derivatives	630	909	Discounted cash flow	Credit spread (bps)	0	17,957
				Recovery rate	0 %	94 %
			Correlation pricing model	Credit correlation	37 %	90 %
Equity derivatives	728	1,347	Option pricing model	Stock volatility	6 %	90 %
				Index volatility	7 %	53 %
				Index - index correlation	–	–
				Stock - stock correlation	2 %	93 %
				Stock Forwards	0 %	7 %
				Index Forwards	0 %	95 %
FX derivatives	1,113	1,058	Option pricing model	Volatility	(6) %	31 %
Other derivatives	402	129 ¹	Discounted cash flow	Credit spread (bps)	–	–
			Option pricing model	Index volatility	0 %	79 %
				Commodity correlation	10 %	75 %
Total market values from derivative						
financial instruments	7,340	5,693				

¹ Includes derivatives which are embedded in contracts where the host contract is held at amortized cost but for which the embedded derivative is separated.

	Dec 31, 2016					
	Fair value					
in € m. (unless stated otherwise)	Assets	Liabilities	Valuation technique(s) ¹	Significant unobservable input(s) (Level 3)	Range	
Financial instruments held at fair value – held for trading, designated at fair value and available-for-sale:						
Mortgage and other asset backed securities held for trading:						
Commercial mortgage-backed securities	294	0	Price based Discounted cash flow	Price Credit spread (bps)	0 % 119	103 % 2,000
Mortgage- and other asset-backed securities	1,071	0	Price based Discounted cash flow	Price Credit spread (bps) Recovery rate Constant default rate Constant prepayment rate	0 % 105 0 % 0 % 0 %	110 % 2,000 100 % 18 % 29 %
Total mortgage- and other asset-backed securities	1,365	0				
Debt securities and other debt obligations	3,626	1,757	Price based	Price	0 %	169 %
Held for trading	3,373	52	Discounted cash flow	Credit spread (bps)	26	882
Corporate, sovereign and other debt securities	3,373					
Available-for-sale	253					
Designated at fair value	0	1,705				
Equity securities	937	0	Market approach	Price per net asset value Enterprise value/EBITDA (multiple) Weighted average cost capital	60 % 1 8 %	100 % 12 22 %
Held for trading	274	0				
Available-for-sale	633		Discounted cash flow			
Designated at fair value	30					
Loans	7,571	0	Price based	Price	0 %	180 %
Held for trading	4,105	0	Discounted cash flow	Credit spread (bps) Constant default rate Recovery rate	180 0 % 25 %	4,612 24 % 80 %
Designated at fair value	980					
Available-for-sale	2,486					
Loan commitments	0	40	Discounted cash flow	Credit spread (bps) Recovery rate Loan pricing model Utilization	0 30 % 0 %	481 99 % 100 %
Other financial instruments	2,974 ²	485 ³	Discounted cash flow	IRR Repo rate (bps)	3 % 178	24 % 214
Total non-derivative financial instruments held at fair value	16,474	2,282				

¹ Valuation technique(s) and subsequently the significant unobservable input(s) relate to the respective total position.

² Other financial assets include € 1.6 billion of other trading assets, € 592 million of other financial assets designated at fair value and € 780 million other financial assets available for sale.

³ Other financial liabilities include € 444 million of securities sold under repurchase agreements designated at fair value and € 41 million of other financial liabilities designated at fair value.

	Dec 31, 2016					
	Fair value					
in € m. (unless stated otherwise)	Assets	Liabilities	Valuation technique(s)	Significant unobservable input(s) (Level 3)	Range	
Financial instruments held at fair value:						
Market values from derivative financial instruments:						
Interest rate derivatives	5,587	3,446	Discounted cash flow	Swap rate (bps)	(0)	2,309
				Inflation swap rate	(1) %	16 %
				Constant default rate	0 %	15 %
				Constant prepayment rate	0 %	19 %
			Option pricing model	Inflation volatility	0 %	5 %
				Interest rate volatility	0 %	123 %
				IR - IR correlation	(12) %	99 %
				Hybrid correlation	(50) %	93 %
Credit derivatives	829	1,126	Discounted cash flow	Credit spread (bps)	0	8,427
				Recovery rate	0 %	100 %
			Correlation pricing model	Credit correlation	13 %	85 %
Equity derivatives	1,142	2,098	Option pricing model	Stock volatility	10 %	67 %
				Index volatility	10 %	44 %
				Index - index correlation	73 %	88 %
				Stock - stock correlation	8 %	88 %
				Stock Forwards	0 %	8 %
				Index Forwards	0 %	20 %
FX derivatives	1,654	1,780	Option pricing model	Volatility	(8) %	39 %
Other derivatives	586	(441) ¹	Discounted cash flow	Credit spread (bps)	0	0
			Option pricing model	Index volatility	5 %	110 %
				Commodity correlation	(21) %	85 %
Total market values from derivative financial instruments						
	9,798	8,008				

¹ Includes derivatives which are embedded in contracts where the host contract is held at amortized cost but for which the embedded derivative is separated.

Unrealized Gains or Losses on Level 3 Instruments held or in Issue at the Reporting Date

The unrealized gains or losses on Level 3 Instruments are not due solely to unobservable parameters. Many of the parameter inputs to the valuation of instruments in this level of the hierarchy are observable and the gain or loss is partly due to movements in these observable parameters over the period. Many of the positions in this level of the hierarchy are economically hedged by instruments which are categorized in other levels of the fair value hierarchy. The offsetting gains and losses that have been recorded on all such hedges are not included in the table below, which only shows the gains and losses related to the Level 3 classified instruments themselves held at the reporting date in accordance with IFRS 13. The unrealized gains and losses on Level 3 instruments are included in both net interest income and net gains on financial assets/liabilities at fair value through profit or loss in the consolidated income statement.

in € m.	Dec 31, 2017	Dec 31, 2016
Financial assets held at fair value:		
Trading securities	(15)	28
Positive market values from derivative financial instruments	171	1,597
Other trading assets	55	(80)
Financial assets designated at fair value through profit or loss	2	(1)
Financial assets available for sale	123	90
Other financial assets at fair value	33	(6)
Total financial assets held at fair value	368	1,628
Financial liabilities held at fair value:		
Trading securities	3	(2)
Negative market values from derivative financial instruments	(740)	(1,001)
Other trading liabilities	0	(0)
Financial liabilities designated at fair value through profit or loss	4	59
Other financial liabilities at fair value	(249)	(139)
Total financial liabilities held at fair value	(981)	(1,082)
Total	(613)	547

Recognition of Trade Date Profit

If there are significant unobservable inputs used in a valuation technique, the financial instrument is recognized at the transaction price and any trade date profit is deferred. The table below presents the year-to-year movement of the trade date profits deferred due to significant unobservable parameters for financial instruments classified at fair value through profit or loss. The balance is predominantly related to derivative instruments.

in € m.	2017	2016
Balance, beginning of year	916	955
New trades during the period	277	454
Amortization	(282)	(297)
Matured trades	(140)	(158)
Subsequent move to observability	(71)	(39)
Exchange rate changes	(11)	0
Balance, end of year	690	916

14 – Fair Value of Financial Instruments not carried at Fair Value

The valuation techniques used to establish fair value for the Group's financial instruments which are not carried at fair value in the balance sheet and their respective IFRS fair value hierarchy categorization are consistent with those outlined in Note 13 "Financial Instruments carried at Fair Value".

Other financial instruments not carried at fair value are not managed on a fair value basis, for example, retail loans and deposits and credit facilities extended to corporate clients. For these instruments fair values are calculated for disclosure purposes only and do not impact the balance sheet or income statement. Additionally, since the instruments generally do not trade there is significant management judgment required to determine these fair values.

Short-term financial instruments – The carrying value represents a reasonable estimate of fair value for the following financial instruments which are predominantly short-term:

Assets	Liabilities
Cash and central bank balances	Deposits
Interbank balances (w/o central banks)	Central bank funds purchased and securities sold under repurchase agreements
Central bank funds sold and securities purchased under resale agreements	Securities loaned
Securities borrowed	Other short-term borrowings
Other financial assets	Other financial liabilities

For longer-term financial instruments within these categories, fair value is determined by discounting contractual cash flows using rates which could be earned for assets with similar remaining maturities and credit risks and, in the case of liabilities, rates at which the liabilities with similar remaining maturities could be issued, at the balance sheet date.

Loans – Fair value is determined using discounted cash flow models that incorporate parameter inputs for credit risk, interest rate risk, foreign exchange risk, loss given default estimates and amounts utilized given default, as appropriate. Credit risk, loss given default and utilization given default parameters are determined using information from the loan agreement or credit default swap markets, where available and appropriate.

For retail lending portfolios with a large number of homogenous loans (i.e. German residential mortgages), the fair value is calculated on a portfolio basis by discounting the portfolio's contractual cash flows using own new interest rates on this type of loan. For similar retail lending portfolios outside Germany, the fair value is calculated on a portfolio basis by discounting the portfolio's contractual cash flows using risk-free interest rates. This present value calculation is then adjusted for credit risk by discounting at the margins which could be earned on similar loans if issued at the balance sheet date. For other portfolios the present value calculation is adjusted for credit risk by calculating the expected loss over the estimated life of the loan based on various parameters including probability of default and loss given default and level of collateralization. The fair value of corporate lending portfolios is estimated by discounting a projected margin over expected maturities using parameters derived from the current market values of collateralized loan obligation ("CLO") transactions collateralized with loan portfolios that are similar to the Group's corporate lending portfolio.

Securities purchased under resale agreements, securities borrowed, securities sold under repurchase agreements and securities loaned – Fair value is derived from valuation techniques by discounting future cash flows using the appropriate credit risk-adjusted discount rate. The credit risk-adjusted discount rate includes consideration of the collateral received or pledged in the transaction. These products are typically short-term and highly collateralized, therefore the fair value is not significantly different to the carrying value.

Long-term debt and trust preferred securities – Fair value is determined from quoted market prices, where available. Where quoted market prices are not available, fair value is estimated using a valuation technique that discounts the remaining contractual cash at a rate at which an instrument with similar characteristics could be issued at the balance sheet date.

Estimated fair value of financial instruments not carried at fair value on the balance sheet¹

Dec 31, 2017					
in € m.	Carrying value	Fair value	Quoted prices in active market (Level 1)	Valuation technique observable parameters (Level 2)	Valuation technique unobservable parameters (Level 3)
Financial assets:					
Cash and central bank balances	225,655	225,655	225,655	0	0
Interbank balances (w/o central banks)	9,265	9,265	76	9,189	0
Central bank funds sold and securities purchased under resale agreements	9,971	9,973	0	9,973	0
Securities borrowed	16,732	16,732	0	16,732	0
Loans	401,699	403,842	0	24,643 ²	379,199 ²
Securities held to maturity	3,170	3,238	3,238	0	0
Other financial assets	88,936	88,939	0	88,939	0
Financial liabilities:					
Deposits	580,812	580,945	2,108	578,837	(0)
Central bank funds purchased and securities sold under repurchase agreements	18,105	18,103	0	18,103	0
Securities loaned	6,688	6,688	0	6,688	0
Other short-term borrowings	18,411	18,412	0	18,412	0
Other financial liabilities	117,366	117,366	1,875	115,491	0
Long-term debt	159,715	161,829	0	152,838	8,991
Trust preferred securities	5,491	5,920	0	5,920	0

Dec 31, 2016					
in € m.	Carrying value	Fair value	Quoted prices in active market (Level 1)	Valuation technique observable parameters (Level 2)	Valuation technique unobservable parameters (Level 3)
Financial assets:					
Cash and central bank balances	181,364	181,364	181,364	0	0
Interbank balances (w/o central banks)	11,606	11,606	58	11,548	0
Central bank funds sold and securities purchased under resale agreements	16,287	16,287	0	16,287	0
Securities borrowed	20,081	20,081	0	20,081	0
Loans	408,909	407,834	0	28,703	379,132
Securities held to maturity	3,206	3,305	3,305	0	0
Other financial assets	112,479	112,468	0	112,468	0
Financial liabilities:					
Deposits	550,204	550,402	2,232	548,170	0
Central bank funds purchased and securities sold under repurchase agreements	25,740	25,739	0	25,739	0
Securities loaned	3,598	3,598	0	3,598	0
Other short-term borrowings	17,295	17,289	0	17,268	21
Other financial liabilities	135,273	135,273	1,282	133,991	0
Long-term debt	172,316	171,178	0	161,976	9,201
Trust preferred securities	6,373	6,519	0	6,263	257

¹ Amounts generally presented on a gross basis, in line with the Group's accounting policy regarding offsetting of financial instruments as described in Note 1 "Significant Accounting Policies and Critical Accounting Estimates".

² Finance supply chain loan portfolio of € 9.2 billion was reclassified from "Valuation technique unobservable parameters (Level 3)" to "Valuation technique observable parameters (Level 2)" following a valuation review in fourth quarter 2017.

Loans – The difference between fair value and carrying value arose predominantly due to an increase in expected default rates and reduction in liquidity as implied from market pricing since initial recognition. These reductions in fair value are offset by an increase in fair value due to interest rate movements on fixed rate instruments.

Long-term debt and trust preferred securities – The difference between fair value and carrying value is due to the effect of changes in the rates at which the Group could issue debt with similar maturity and subordination at the balance sheet date compared to when the instrument was issued.

15 – Financial Assets Available for Sale

in € m.	Dec 31, 2017	Dec 31, 2016
Debt securities:		
German government	8,131	9,405
U.S. Treasury and U.S. government agencies	8,092	7,652
U.S. local (municipal) governments	2,436	3,261
Other foreign governments	19,275	23,779
Corporates	6,775	6,849
Other asset-backed securities	1	84
Mortgage-backed securities, including obligations of U.S. federal agencies	11	17
Other debt securities	359	470
Total debt securities	45,081	51,516
Equity securities:		
Equity shares	897	1,027
Investment certificates and mutual funds	97	122
Total equity securities	994	1,149
Other equity interests	636	804
Loans	2,685	2,759
Total financial assets available for sale	49,397	56,228

Please also refer to Note 7 “Net Gains (Losses) on Financial Assets Available for Sale” of this report.

16 – Financial Instruments Held to Maturity

In the first quarter of 2016, the Group began to use the Held to Maturity category to more appropriately present income and capital volatility in its banking book. In addition to managing the Group's existing banking book exposure to interest rates, this accounting classification supports certain of the Group's asset liability management objectives, e.g. maturity transformation.

The Group reclassified € 3.2 billion of securities held Available for Sale to Held to Maturity investments effective January 4, 2016. All reclassified assets are high quality Government, supranational and agency bonds and are managed by Group Treasury as part of the Group's Strategic Liquidity Reserve.

Carrying values and fair values of financial assets reclassified from Available for Sale to Held to Maturity

in € m.	Dec 31, 2017		Dec 31, 2016	
	Carrying value (CV)	Fair Value (FV)	Carrying value (CV)	Fair Value (FV)
Debt securities reclassified:				
G7 Government bonds	423	434	428	446
Other Government, supranational and agency bonds	2,747	2,804	2,778	2,859
Total financial assets reclassified to Held-to-Maturity	3,170	3,238	3,206	3,305

17 – Equity Method Investments

Investments in associates and jointly controlled entities are accounted for using the equity method of accounting.

The Group holds interests in 77 (2016: 92) associates and 13 (2016: 14) jointly controlled entities. There are no individually material investments in associates and joint ventures.

Aggregated financial information on the Group's share in associates and joint ventures that are individually immaterial

in € m.	Dec 31, 2017	Dec 31, 2016
Carrying amount of all associates that are individually immaterial to the Group	866	1,027
Aggregated amount of the Group's share of profit (loss) from continuing operations	141	183
Aggregated amount of the Group's share of post-tax profit (loss) from discontinued operations	0	0
Aggregated amount of the Group's share of other comprehensive income	(36)	11
Aggregated amount of the Group's share of total comprehensive income	105	194

18 – Offsetting Financial Assets and Financial Liabilities

The Group is eligible to present certain financial assets and financial liabilities on a net basis on the balance sheet pursuant to criteria described in Note 1 “Significant Accounting Policies and Critical Accounting Estimates: Offsetting Financial Instruments”.

The following tables provide information on the impact of offsetting on the consolidated balance sheet, as well as the financial impact of netting for instruments subject to an enforceable master netting arrangement or similar agreement as well as available cash and financial instrument collateral.

Assets

in € m.	Dec 31, 2017						
	Gross amounts of financial assets	Gross amounts set off on the balance sheet	Net amounts of financial assets presented on the balance sheet	Amounts not set off on the balance sheet			Net amount
				Impact of Master Netting Agreements	Cash collateral	Financial instrument collateral ¹	
Central bank funds sold and securities purchased under resale agreements (enforceable)	8,136	(455)	7,681	0	0	(7,675)	7
Central bank funds sold and securities purchased under resale agreements (non-enforceable)	2,290	0	2,290	0	0	(2,239)	51
Securities borrowed (enforceable)	14,987	0	14,987	0	0	(14,093)	894
Securities borrowed (non-enforceable)	1,744	0	1,744	0	0	(1,661)	83
Financial assets at fair value through profit or loss							
Trading assets	185,127	(465)	184,661	0	(81)	(86)	184,495
Positive market values from derivative financial instruments (enforceable)	363,859	(18,237)	345,622	(285,421)	(41,842)	(7,868)	10,490
Positive market values from derivative financial instruments (non-enforceable)	15,410	0	15,410	0	(1,811)	(1,276)	12,323
Financial assets designated at fair value through profit or loss (enforceable)	125,869	(64,003)	61,865	(728)	(773)	(56,410)	3,954
Financial assets designated at fair value through profit or loss (non-enforceable)	29,411	0	29,411	0	0	(20,534)	8,876
Total financial assets at fair value through profit or loss	719,676	(82,706)	636,970	(286,149)	(44,508)	(86,174)	220,138
Loans	401,699	0	401,699	0	(12,642)	(40,775)	348,282
Other assets	112,023	(10,531)	101,491	(29,854)	(569)	(94)	70,975
thereof: Positive market values from derivatives qualifying for hedge accounting (enforceable)	3,859	(706)	3,153	(2,461)	(565)	(94)	33
Remaining assets not subject to netting	307,869	0	307,869	0	(390)	(70)	307,409
Total assets	1,568,425	(93,692)	1,474,732	(316,003)	(58,109)	(152,782)	947,839

¹ Excludes real estate and other non-financial instrument collateral.

Liabilities

Dec 31, 2017

in € m.	Amounts not set off on the balance sheet						Net amount
	Gross amounts of financial liabilities	Gross amounts set off on the balance sheet	Net amounts of financial liabilities presented on the balance sheet	Impact of Master Netting Agreements	Cash collateral	Financial instrument collateral	
Deposits	580,812	0	580,812	0	0	0	580,812
Central bank funds purchased and securities sold under repurchase agreements (enforceable)	13,318	(455)	12,863	0	0	(12,863)	0
Central bank funds purchased and securities sold under repurchase agreements (non-enforceable)	5,242	0	5,242	0	0	(4,985)	257
Securities loaned (enforceable)	6,688	0	6,688	0	0	(6,688)	0
Securities loaned (non-enforceable)	0	0	0	0	0	0	0
Financial liabilities at fair value through profit or loss							
Trading liabilities	72,106	(643)	71,462	0	0	0	71,462
Negative market values from derivative financial instruments (enforceable)	347,496	(17,928)	329,568	(286,720)	(25,480)	(6,124)	11,244
Negative market values from derivative financial instruments (non-enforceable)	13,158	0	13,158	0	(1,913)	(615)	10,630
Financial liabilities designated at fair value through profit or loss (enforceable)	104,594	(63,360)	41,234	(728)	0	(40,506)	0
Financial liabilities designated at fair value through profit or loss (non-enforceable)	23,214	0	23,214	0	1,111	(13,646)	10,679
Total financial liabilities at fair value through profit or loss	560,568	(81,932)	478,636	(287,448)	(26,282)	(60,891)	104,015
Other liabilities	143,514	(11,306)	132,208	(44,815)	(31)	(87)	87,275
thereof: Negative market values from derivatives qualifying for hedge accounting (enforceable)	1,841	(547)	1,294	(1,162)	(31)	(87)	15
Remaining liabilities not subject to netting	190,183	0	190,183	0	0	0	190,183
Total liabilities	1,500,326	(93,692)	1,406,633	(332,263)	(26,314)	(85,514)	962,543

Effective November 30, 2017, the Group elected to convert its interest rate swaps (IRS) transacted with the London Clearing House from the previous collateral model to a settlement model. The IRS are now legally settled on a daily basis resulting in derecognition of the associated assets and liabilities. Previously, the Group applied the principles of IAS 32 offsetting to present net the positive (negative) carrying amounts of the IRS and associated variation margin payables (receivables). As a result, Gross amounts of financial assets and financial liabilities and corresponding Gross amounts set off on the balance sheet decreased by € 87.3 billion as of December 31, 2017, with no change to the Net amounts of financial assets and financial liabilities presented on the balance sheet.

Assets

in € m.	Dec 31, 2016						
	Amounts not set off on the balance sheet						Net amount
	Gross amounts of financial assets	Gross amounts set off on the balance sheet	Net amounts of financial assets presented on the balance sheet	Impact of Master Netting Agreements	Cash collateral	Financial instrument collateral ¹	
Central bank funds sold and securities purchased under resale agreements (enforceable)	17,755	(4,020)	13,735	0	0	(13,719)	16
Central bank funds sold and securities purchased under resale agreements (non-enforceable)	2,552	0	2,552	0	0	(2,225)	327
Securities borrowed (enforceable)	18,470	0	18,470	0	0	(17,637)	832
Securities borrowed (non-enforceable)	1,611	0	1,611	0	0	(1,555)	56
Financial assets at fair value through profit or loss							
Trading assets	171,520	(477)	171,044	0	(101)	(884)	170,059
Positive market values from derivative financial instruments (enforceable)	592,048	(126,523)	465,525	(386,727)	(51,790)	(9,349)	17,658
Positive market values from derivative financial instruments (non-enforceable)	19,625	0	19,625	0	(2,055)	(1,244)	16,327
Financial assets designated at fair value through profit or loss (enforceable)	95,802	(40,998)	54,804	(2,748)	(928)	(46,670)	4,457
Financial assets designated at fair value through profit or loss (non-enforceable)	32,783	0	32,783	0	0	(21,074)	11,709
Total financial assets at fair value through profit or loss	911,778	(167,998)	743,781	(389,475)	(54,874)	(79,221)	220,211
Loans	408,909	0	408,909	0	(13,039)	(47,703)	348,167
Other assets	153,732	(27,686)	126,045	(39,567)	(589)	(104)	85,786
thereof: Positive market values from derivatives qualifying for hedge accounting (enforceable)	8,830	(5,314)	3,516	(2,719)	(589)	(104)	104
Remaining assets not subject to netting	275,442	0	275,442	0	(423)	(307)	274,712
Total assets	1,790,249	(199,704)	1,590,546	(429,042)	(68,925)	(162,473)	930,106

¹ Excludes real estate and other non-financial instrument collateral.

Liabilities

in € m.	Dec 31, 2016						
	Amounts not set off on the balance sheet						Net amount
	Gross amounts of financial liabilities	Gross amounts set off on the balance sheet	Net amounts of financial liabilities presented on the balance sheet	Impact of Master Netting Agreements	Cash collateral	Financial instrument collateral	
Deposits	550,204	0	550,204	0	0	0	550,204
Central bank funds purchased and securities sold under repurchase agreements (enforceable)	21,209	(4,020)	17,189	0	0	(17,189)	0
Central bank funds purchased and securities sold under repurchase agreements (non-enforceable)	8,551	0	8,551	0	0	(8,403)	149
Securities loaned (enforceable)	3,524	0	3,524	0	0	(3,524)	0
Securities loaned (non-enforceable)	75	0	75	0	0	(50)	25
Financial liabilities at fair value through profit or loss							
Trading liabilities	57,902	(873)	57,029	0	0	0	57,029
Negative market values from derivative financial instruments (enforceable)	569,064	(124,325)	444,739	(386,612)	(35,124)	(9,325)	13,678
Negative market values from derivative financial instruments (non-enforceable)	19,119	0	19,119	0	(1,721)	(897)	16,501
Financial liabilities designated at fair value through profit or loss (enforceable)	82,421	(39,031)	43,390	(2,748)	0	(40,642)	0
Financial liabilities designated at fair value through profit or loss (non-enforceable)	17,694	0	17,694	0	(7,910)	(7,664)	2,120
Total financial liabilities at fair value through profit or loss	746,200	(164,228)	581,971	(389,360)	(44,755)	(58,528)	89,328
Other liabilities	186,896	(31,456)	155,440	(56,679)	(1,298)	0	97,463
thereof: Negative market values from derivatives qualifying for hedge accounting (enforceable)	5,793	(1,200)	4,593	(2,834)	(1,297)	0	463
Remaining liabilities not subject to netting	208,773	0	208,773	0	0	0	208,773
Total liabilities	1,725,431	(199,704)	1,525,727	(446,039)	(46,053)	(87,693)	945,942

The column ‘Gross amounts set off on the balance sheet’ discloses the amounts offset in accordance with all the criteria described in Note 1 “Significant Accounting Policies and Critical Accounting Estimates: Offsetting Financial Instruments”.

The column ‘Impact of Master Netting Agreements’ discloses the amounts that are subject to master netting agreements but were not offset because they did not meet the net settlement/simultaneous settlement criteria; or because the rights of set off are conditional upon the default of the counterparty only. The amounts presented for other assets and other liabilities include cash margin receivables and payables respectively.

The columns ‘Cash collateral’ and ‘Financial instrument collateral’ disclose the cash and financial instrument collateral amounts received or pledged in relation to the total amounts of assets and liabilities, including those that were not offset.

Non-enforceable master netting agreements or similar agreements refer to contracts executed in jurisdictions where the rights of set off may not be upheld under the local bankruptcy laws.

The cash collateral received against the positive market values of derivatives and the cash collateral pledged towards the negative mark-to-market values of derivatives are booked within the ‘Other liabilities’ and ‘Other assets’ balances respectively.

The Cash and Financial instrument collateral amounts disclosed reflect their fair values. The rights of set off relating to the cash and financial instrument collateral are conditional upon the default of the counterparty.

19 – Loans

Loans by industry classification

in € m.	Dec 31, 2017	Dec 31, 2016 ¹
Financial intermediation	52,204	49,618
Manufacturing	27,478	29,290
thereof:		
Basic metals and fabricated metal products	4,211	4,027
Electrical and optical equipment	3,386	4,680
Transport equipment	3,374	3,655
Chemicals and chemical products	3,623	3,906
Machinery and equipment	3,191	2,461
Food products	2,907	3,214
Households (excluding mortgages)	36,524	37,093
Households – mortgages	150,205	150,776
Public sector	13,711	15,740
Wholesale and retail trade	19,252	16,744
Commercial real estate activities	29,247	27,369
Lease financing	384	561
Fund management activities	18,708	26,129
Other	58,167	60,223
thereof:		
Renting of machinery and other business activities	26,559	22,298
Transport, storage and communication	9,243	12,005
Mining and quarrying of energy-producing materials	2,553	3,365
Electricity, gas and water supply	3,552	4,369
Gross loans	405,879	413,544
(Deferred expense)/unearned income	259	88
Loans less (deferred expense)/unearned income	405,621	413,455
Less: Allowance for loan losses	3,921	4,546
Total loans	401,699	408,909

¹ Prior to 2010, the Group reclassified certain financial assets, originally classified as Trading assets and Financial assets available for sale. The carrying value and fair value of Trading assets previously reclassified into loans are € 441 million (2016: € 514 million) and € 342 million (2016: € 414 million) and Financial assets available for sale previously reclassified into loans are € 22 million (2016: € 105 million) and € 22 million (2016: € 105 million) respectively

20 – Allowance for Credit Losses

The allowance for credit losses consists of an allowance for loan losses and an allowance for off-balance sheet positions.

Breakdown of the movements in the Group's allowance for loan losses

in € m.	2017			2016			2015		
	Individually assessed	Collectively assessed	Total	Individually assessed	Collectively assessed	Total	Individually assessed	Collectively assessed	Total
Allowance, beginning of year	2,071	2,475	4,546	2,252	2,776	5,028	2,364	2,849	5,212
Provision for loan losses	299	253	552	743	604	1,347	334	548	882
Net charge-offs:	(487)	(532)	(1,019)	(894)	(870)	(1,764)	(482)	(612)	(1,094)
Charge-offs	(541)	(605)	(1,146)	(979)	(972)	(1,951)	(538)	(717)	(1,255)
Recoveries	54	73	127	85	101	187	56	105	161
Other Changes	(117)	(41)	(158)	(30)	(35)	(65)	36	(8)	28
Allowance, end of year	1,766	2,155	3,921	2,071	2,475	4,546	2,252	2,776	5,028

Activity in the Group's allowance for off-balance sheet positions (contingent liabilities and lending commitments)

in € m.	2017			2016			2015		
	Individually assessed	Collectively assessed	Total	Individually assessed	Collectively assessed	Total	Individually assessed	Collectively assessed	Total
Allowance, beginning of year	162	183	346	144	168	312	85	141	226
Provision for off-balance sheet positions	(23)	(4)	(27)	24	12	36	58	16	74
Usage	0	0	0	0	0	0	0	0	0
Other changes	(18)	(16)	(34)	(5)	3	(2)	1	10	11
Allowance, end of year	122	163	285	162	183	346	144	168	312

21 – Transfers of Financial Assets

The Group enters into transactions in which it transfers financial assets held on the balance sheet and as a result may either be eligible to derecognize the transferred asset in its entirety or must continue to recognize the transferred asset to the extent of any continuing involvement, depending on certain criteria. These criteria are discussed in Note 1 "Significant Accounting Policies and Critical Accounting Estimates".

Where financial assets are not eligible to be derecognized, the transfers are viewed as secured financing transactions, with any consideration received resulting in a corresponding liability. The Group is not entitled to use these financial assets for any other purposes. The most common transactions of this nature entered into by the Group are repurchase agreements, securities lending agreements and total return swaps, in which the Group retains substantially all of the associated credit, equity price, interest rate and foreign exchange risks and rewards associated with the assets as well as the associated income streams.

Information on asset types and associated transactions that did not qualify for derecognition

in € m.	Dec 31, 2017	Dec 31, 2016 ¹
Carrying amount of transferred assets		
Trading securities not derecognized due to the following transactions:		
Repurchase agreements	39,973	34,045
Securities lending agreements	58,076	64,661
Total return swaps	2,390	2,079
Other	12,661	10,830
Total trading securities	113,101	111,615
Other trading assets	71	85
Financial assets available for sale	711	241
Loans	131 ²	191 ²
Total	114,014	112,132
Carrying amount of associated liabilities	48,885	41,536

¹ Prior year numbers have been restated following reassessments of certain repurchase, securities lending, loans and other transactions.

² Loans where the associated liability is recourse only to the transferred assets had a carrying value and fair value of € 108 million at December 31, 2017 and € 123 million at December 31, 2016. The associated liabilities had the same carrying value and fair value which resulted in a net position of 0.

Carrying value of assets transferred in which the Group still accounts for the asset to the extent of its continuing involvement

in € m.	Dec 31, 2017	Dec 31, 2016
Carrying amount of the original assets transferred:		
Financial assets at fair value through profit or loss	291	0
Financial assets available for sale	386	332
Loans	0	40
Carrying amount of the assets continued to be recognized:		
Financial assets at fair value through profit or loss	15	0
Financial assets available for sale	96	263
Loans	0	16
Carrying amount of associated liabilities	54	58

The Group could retain some exposure to the future performance of a transferred asset either through new or existing contractual rights and obligations and still be eligible to derecognize the asset. This on-going involvement will be recognized as a new instrument which may be different from the original financial asset that was transferred. Typical transactions include retaining senior notes of non-consolidated securitizations to which originated loans have been transferred; financing arrangements with structured entities to which the Group has sold a portfolio of assets; or sales of assets with credit-contingent swaps. The Group's exposure to such transactions is not considered to be significant as any substantial retention of risks associated with the transferred asset will commonly result in an initial failure to derecognize. Transactions not considered to result in an on-going involvement include normal warranties on fraudulent activities that could invalidate a transfer in the event of legal action, qualifying pass-through arrangements and standard trustee or administrative fees that are not linked to performance.

The impact on the Group's Balance Sheet of on-going involvement associated with transferred assets derecognized in full

in € m.	Dec 31, 2017			Dec 31, 2016		
	Carrying value	Fair value	Maximum Exposure to Loss ¹	Carrying value	Fair value	Maximum Exposure to Loss ¹
Loans:						
Securitization notes	270	270	270	3	3	57
Other	13	13	13	12	12	12
Total Loans	284	284	284	15	15	69
Financial assets held at Fair Value through the P&L:						
Non-standard Interest Rate, cross-currency or inflation-linked swap	36	36	36	47 ²	47 ²	47 ²
Total Financial assets held at Fair Value through the P&L	36	36	36	47	47	47
Total financial assets representing on-going involvement	320	320	320	61	61	116
Financial liabilities held at Fair Value through the P&L:						
Non-standard Interest Rate, cross-currency or inflation-linked swap	67	67	0	64	64	0
Total financial liabilities representing on-going involvement	67	67	0	64	64	0

¹ The maximum exposure to loss is defined as the carrying value plus the notional value of any undrawn loan commitments not recognized as liabilities.

² Prior year numbers have been restated to reflect a reassessment of a transaction in 2017.

The impact on the Group's Statement of Income of on-going involvement associated with transferred assets derecognized in full

in € m.	Dec 31, 2017			Dec 31, 2016		
	Year-to-date P&L	Cumulative P&L	Gain/(loss) on disposal	Year-to-date P&L	Cumulative P&L	Gain/(loss) on disposal
Securitization notes	3	3	79	0	6	0 ¹
Non-standard Interest Rate, cross-currency or inflation-linked swap	46	510	0	122 ²	458 ²	0
Net gains/(losses) recognized from on-going involvement in derecognized assets	49	513	79	123	465	0

¹ Typically, sales of assets into securitization vehicles were of assets that were classified as Fair Value through P&L, therefore any gain or loss on disposal is immaterial.

² Prior year numbers have been restated to reflect a reassessment of a transaction in 2017.

22 – Assets Pledged and Received as Collateral

The Group pledges assets primarily as collateral against secured funding and for repurchase agreements, securities borrowing agreements as well as other borrowing arrangements and for margining purposes on OTC derivative liabilities. Pledges are generally conducted under terms that are usual and customary for standard securitized borrowing contracts and other transactions described.

Carrying value of the Group's assets pledged as collateral for liabilities or contingent liabilities¹

in € m.	Dec 31, 2017	Dec 31, 2016 ²
Financial assets at fair value through profit or loss	51,082	40,684
Financial assets available for sale	6,469	16,081
Loans	71,404	73,649
Other	417	376
Total	129,372	130,790

¹ Excludes assets pledged as collateral from transactions that do not result in liabilities or contingent liabilities.

² Prior period results have been restated due to a refined approach to determine assets pledged

Total assets pledged to creditors available for sale or repledge¹

in € m.	Dec 31, 2017	Dec 31, 2016
Financial assets at fair value through profit or loss	55,882	51,397
Financial assets available for sale	0	13,814
Total	55,882	65,211

¹ Includes assets pledged as collateral from transactions that do not result in liabilities or contingent liabilities.

² Prior period results have been restated due to a refined approach to determine assets pledged

The Group receives collateral primarily in reverse repurchase agreements, securities lending agreements, derivatives transactions, customer margin loans and other transactions. These transactions are generally conducted under terms that are usual and customary for standard secured lending activities and the other transactions described. The Group, as the secured party, has the right to sell or re-pledge such collateral, subject to the Group returning equivalent securities upon completion of the transaction. This right is used primarily to cover short sales, securities loaned and securities sold under repurchase agreements.

Fair Value of collateral received

in € m.	Dec 31, 2017	Dec 31, 2016 ¹
Securities and other financial assets accepted as collateral	365,492	310,272
thereof:		
collateral sold or repledged	307,224	252,758

¹ Prior period results have been restated due to a refined approach to determine collateral received and collateral re-pledged

23 – Property and Equipment

in € m.	Owner occupied properties	Furniture and equipment	Leasehold improvements	Construction- in-progress	Total
Cost of acquisition:					
Balance as of January 1, 2016	1,432	3,060	2,662	130	7,284
Changes in the group of consolidated companies	(0)	24	(1)	0	23
Additions	134	199	111	281	725
Transfers	35	(4)	144	(171)	4
Reclassifications (to)/from "held for sale"	(17)	0	0	(0)	(17)
Disposals	67	908	117	(0)	1,092
Exchange rate changes	(1)	34	21	1	55
Balance as of December 31, 2016	1,516	2,406	2,820	240	6,982
Changes in the group of consolidated companies	0	(8)	(1)	0	(9)
Additions	12	165	117	191	485
Transfers	18	75	191	(288)	(4)
Reclassifications (to)/from "held for sale"	(61)	0	0	0	(61)
Disposals	96	97	291	0	484
Exchange rate changes	(3)	(67)	(92)	(4)	(166)
Balance as of December 31, 2017	1,387	2,473	2,743	139	6,743
Accumulated depreciation and impairment:					
Balance as of January 1, 2016	464	2,257	1,716	0	4,438
Changes in the group of consolidated companies	(0)	19	(6)	0	12
Depreciation	28	226	191	0	445
Impairment losses	87	6	0	0	93
Reversals of impairment losses	0	(0)	0	0	0
Transfers	39	(14)	6	(0)	30
Reclassifications (to)/from "held for sale"	(0)	(1)	(1)	0	(2)
Disposals	46	803	42	0	891
Exchange rate changes	(2)	31	23	0	52
Balance as of December 31, 2016	572	1,720	1,886	0	4,178
Changes in the group of consolidated companies	0	(8)	(1)	0	(9)
Depreciation	37	211	193	0	441
Impairment losses	15	3	2	0	19
Reversals of impairment losses	0	(1)	0	0	(1)
Transfers	1	17	(22)	0	(4)
Reclassifications (to)/from "held for sale"	(0)	0	0	0	(0)
Disposals	44	90	284	0	418
Exchange rate changes	(1)	(54)	(72)	0	(128)
Balance as of December 31, 2017	579	1,800	1,702	0	4,080
Carrying amount:					
Balance as of December 31, 2016	944	685	934	240	2,804
Balance as of December 31, 2017	809	673	1,041	139	2,663

Impairment losses on property and equipment are recorded within general and administrative expenses for the income statement.

The carrying value of items of property and equipment on which there is a restriction on sale was € 40 million as of December 31, 2017.

Commitments for the acquisition of property and equipment were € 41 million at year-end 2017.

24 – Leases

The Group is lessee under lease arrangements covering property and equipment.

Finance Lease Commitments

Most of the Group's finance lease arrangements are made under usual terms and conditions.

Net Carrying Value of Leasing Assets Held under finance leases

in € m.	Dec 31, 2017	Dec 31, 2016
Land and buildings	14	12
Furniture and equipment	4	2
Other	0	0
Net carrying value	18	14

Future Minimum Lease Payments Required under the Group's Finance Leases

in € m.	Dec 31, 2017	Dec 31, 2016
Future minimum lease payments:		
Not later than one year	8	6
Later than one year and not later than five years	20	18
Later than five years	70	67
Total future minimum lease payments	98	91
Less: Future interest charges	70	63
Present value of finance lease commitments	28	28
Future minimum lease payments to be received	0	3
Contingent rent recognized in the income statement¹	0	0

¹ The contingent rent is based on market interest rates, such as three months EURIBOR; below a certain rate the Group receives a rebate.

Operating Lease Commitments

The Group leases the majority of its offices and branches under long-term agreements. Most of the lease contracts are made under usual terms and conditions, which means they include options to extend the lease by a defined amount of time, price adjustment clauses and escalation clauses in line with general office rental market conditions. However, the lease agreements do not include any clauses that impose any restriction on the Group's ability to pay dividends, engage in debt financing transactions or enter into further lease agreements. The Group has one significant lease contract which contains five options to extend the lease each for a period of five years and there is no purchase option in this specific lease.

Future Minimum Lease Payments Required under the Group's Operating Leases

in € m.	Dec 31, 2017	Dec 31, 2016
Future minimum rental payments:		
Not later than one year	684	707
Later than one year and not later than five years	1,979	2,092
Later than five years	1,901	1,093
Total future minimum rental payments	4,564	3,893
Less: Future minimum rentals to be received	58	89
Net future minimum rental payments	4,506	3,804

As of December 31, 2017, the total future minimum rental payments included € 305 million for the Group headquarters in Frankfurt am Main that was sold and leased back on December 1, 2011. The Group entered into a 181 months leaseback arrangement for the entire facility in connection with the transaction.

In 2017, the rental payments for lease and sublease agreements amounted to € 790 million. This included charges of € 800 million for minimum lease payments and € 6 million for contingent rents as well as € 15 million related to sublease rentals received.

25 – Goodwill and Other Intangible Assets

Goodwill

Changes in Goodwill

The changes in the carrying amount of goodwill, as well as gross amounts and accumulated impairment losses of goodwill, for the years ended December 31, 2017, and December 31, 2016, are shown below by cash-generating units (“CGU”). As of January 1, 2016, the structure of the primary CGUs had been changed as a result of the reorganization of business operations under an amended segment structure. In the second quarter of 2017 and in accordance with the strategy announcement made on March 5, 2017, the Group’s business operations were reorganized under a new divisional structure, which also reconfigured the existing Global Markets, Corporate Finance and Global Transaction Banking businesses into a single division, Corporate & Investment Bank (CIB). A review of CIB confirmed the previous assessment of two separate CGUs. Consequently, the former primary CGUs “Global Markets” and “Corporate & Investment Banking” have been grouped as “Sales & Trading” (S&T) and “Global Transaction Banking, Global Capital Markets & Corporate Finance” (GTB, GCM & CF). Please also refer to Note 4, “Business Segments and Related Information” for more information regarding changes in the presentation of segment disclosures.

Goodwill allocated to cash-generating units

in € m.	Sales & Trading	Global Transaction Banking, Global Capital Markets & Corporate Finance	Private and Commercial Clients	Wealth Management	Postbank	Deutsche Asset Management	Non-Core Operations Unit ¹	Others	Total
Balance as of January 1, 2016	0	519	0	530	0	3,839	0	1	4,890
Goodwill acquired during the year	0	0	0	0	0	0	0	0	0
Purchase accounting adjustments	0	0	0	0	0	0	0	0	0
Transfers	285	0	0	0	0	(285)	0	0	0
Reclassification from (to) “held for sale”	0	0	0	0	0	(12)	0	0	(12)
Goodwill related to dispositions without being classified as “held for sale”	0	0	0	0	0	0	0	0	0
Impairment losses ²	(285)	0	0	0	0	(500)	0	0	(785)
Exchange rate changes/other	0	13	0	33	0	(37)	0	0	10
Balance as of December 31, 2016	0	532	0	564	0	3,006	0	1	4,103
Gross amount of goodwill	2,953	1,553	998	564	1,763	3,506	669	1	12,007
Accumulated impairment losses	(2,953)	(1,021)	(998)	0	(1,763)	(500)	(669)	0	(7,904)
Balance as of January 1, 2017	0	532	0	564	0	3,006	0	1	4,103
Goodwill acquired during the year	0	0	0	0	0	0	0	0	0
Purchase accounting adjustments	0	0	0	0	0	0	0	0	0
Transfers	6	(6)	0	0	0	0	0	0	0
Reclassification from (to) “held for sale”	0	(3)	0	0	0	0	0	0	(3)
Goodwill related to dispositions without being classified as “held for sale”	0	0	0	0	0	(6)	0	0	(6)
Impairment losses ²	(6)	0	0	0	0	0	0	0	(6)
Exchange rate changes/other	0	(52)	0	(22)	0	(231)	0	0	(306)
Balance as of December 31, 2017	0	471	0	541	0	2,768	0	1	3,782
Gross amount of goodwill	2,780	1,485	1,077	541	2,086	3,232	0	1	11,203
Accumulated impairment losses	(2,780)	(1,014)	(1,077)	0	(2,086)	(464)	0	0	(7,422)

¹ Includes primary CGUs NCOU Wholesale Assets and NCOU Operating Assets. From 2017 onwards, the NCOU ceased to exist as a standalone division. Accordingly, in 2017 the gross balances for goodwill and accumulated impairments of the former NCOU CGUs have been allocated among other primary CGUs.

² Impairment losses of goodwill are recorded as impairment of goodwill and other intangible assets in the income statement.

In addition to the primary CGUs, the segment CIB includes goodwill resulting from the acquisition of a nonintegrated investment which is not allocated to the respective segment's primary CGU. Such goodwill is summarized as "Others" in the table above.

In 2017, changes in goodwill mainly reflected exchange rate fluctuations, predominantly related to the translation of goodwill held in USD.

In 2016, changes in goodwill mainly included impairments of € 785 million in Sales & Trading (S&T) (€ 285 million) and Deutsche AM (€ 500 million). The impairment in S&T was the result of a transfer of certain businesses from Deutsche AM to S&T in the second quarter 2016. The transfer resulted in the reassignment of € 285 million of goodwill from Deutsche AM based on relative values in accordance with IFRS. The subsequent impairment review of S&T led to an impairment loss of € 285 million of the reassigned goodwill. The goodwill impairment in Deutsche AM was recorded in the fourth quarter 2016 in relation to the sale of the Abbey Life business and the formation of a disposal group held for sale. Immediately before its initial classification as a disposal group, the carrying amounts of all assets and liabilities included in the Abbey Life disposal group were measured and recognized in accordance with applicable IFRS. With the sale of Abbey Life to close for an amount lower than its carrying amount, the proportion of Deutsche AM CGU goodwill attributable to the Abbey Life business was not expected to be recovered upon sale of the disposal group. Accordingly, the allocated goodwill amount of € 500 million as well as other intangible assets (value of business acquired, VOBA) of € 515 million included in the disposal group were considered impaired and written-off through Impairment of goodwill and other intangible assets.

In 2015, changes in goodwill (other than those related to exchange rate changes) mainly included impairments of € 4,933 million recorded in the third quarter 2015. These were reported in the former CGUs CB&S (€ 2,168 million) and PBC (€ 2,765 million). Following the re-segmentation of the Group in the first quarter 2016, the impairment amounts were restated to the amended segments/CGUs GM/CIB and PW&CC/Postbank, based on the goodwill balances related to these business units prior to the third quarter 2015 impairment. Accordingly, of the impairment amount of € 4,933 million, € 1,568 million were allocated to former CGU GM, € 600 million to former CGU CIB, € 1,002 million to PCC and € 1,763 million to Postbank. These charges had been the result of the goodwill impairment test conducted in the third quarter 2015. The test was triggered by the further substantiation of our strategy in the third quarter 2015, largely driven by the impact of the then expected higher regulatory capital requirements for both former segments CB&S and PBC as well as the disposal expectations in PBC. In connection with the sale of the Canadian port operations of Maher Terminals, goodwill of € 138 million was allocated to the disposal group classified as held for sale in the first quarter 2015.

Goodwill Impairment Test

For the purposes of impairment testing, goodwill acquired in a business combination is allocated to CGUs. On the basis as described in Note 1 "Significant Accounting Policies and Critical Accounting Estimates", the Group's primary CGUs are as outlined above. "Other" goodwill is tested individually for impairment on the level of each of the nonintegrated investments. Goodwill is tested for impairment annually in the fourth quarter by comparing the recoverable amount of each goodwill-carrying CGU with its carrying amount. In addition, in accordance with IAS 36, the Group tests goodwill whenever a triggering event is identified. The recoverable amount is the higher of a CGU's fair value less costs of disposal and its value in use.

The annual goodwill impairment tests conducted in 2017 and 2016 did not result in an impairment loss on the Group's primary goodwill-carrying CGUs as the recoverable amounts of these CGUs were higher than the respective carrying amounts.

A review of the Group's strategy or certain political or global risks for the banking industry such as a return of the European sovereign debt crisis, uncertainties regarding the implementation of already adopted regulation and the introduction of legislation that is already under discussion as well as a slowdown of GDP growth may negatively impact the performance forecasts of certain of the Group's CGUs and, thus, could result in an impairment of goodwill in the future.

Carrying Amount

The carrying amount of a primary CGU is derived using a capital allocation model based on the Shareholders' Equity Allocation Framework of the Group (please refer to Note 4, "Business Segments and Related Information" for more details). The allocation uses the Group's total equity at the date of valuation, including Additional Tier 1 Notes ("AT1 Notes"), which constitute unsecured and subordinated notes of Deutsche Bank and which are classified as Additional equity components in accordance with IFRS. Total equity is adjusted for specific effects related to nonintegrated investments, which are tested separately for impairment as outlined above, and for an add-on adjustment for goodwill attributable to noncontrolling interests.

Recoverable Amount

The Group determines the recoverable amounts of its primary CGUs on the basis of fair value less costs of disposal (Level 3 of the fair value hierarchy) and employs a discounted cash flow (DCF) model, which reflects the specifics of the banking business and its regulatory environment. The model calculates the present value of the estimated future earnings that are distributable to shareholders after fulfilling the respective regulatory capital requirements. The recoverable amounts also include the fair value of the AT1 Notes, allocated to the primary CGUs consistent to their treatment in the carrying amount.

The DCF model uses earnings projections and respective capitalization assumptions based on five-year financial plans as well as longer term expectations on the impact of regulatory developments, which are discounted to their present value. Estimating future earnings and capital requirements involves judgment and the consideration of past and current performances as well as expected developments in the respective markets, and in the overall macroeconomic and regulatory environments. Earnings projections beyond the initial five-year period are, where applicable, adjusted to derive a sustainable level and the cash flow to equity is assumed to increase by or converge towards a constant long-term growth rate of up to 3.2 % (2016: 2.8 %). This is based on projected revenue forecasts of the CGUs as well as expectations for the development of gross domestic product and inflation, and is captured in the terminal value.

Key Assumptions and Sensitivities

Key Assumptions: The DCF value of a CGU is sensitive to the earnings projections, to the discount rate (cost of equity) applied and, to a much lesser extent, to the long-term growth rate. The discount rates applied have been determined based on the capital asset pricing model and comprise a risk-free interest rate, a market risk premium and a factor covering the systematic market risk (beta factor). The values for the risk-free interest rate, the market risk premium and the beta factors are determined using external sources of information. CGU-specific beta factors are determined based on a respective group of peer companies. Variations in all of these components might impact the discount rates.

Primary goodwill-carrying cash-generating units

	Discount rate (post-tax)	
	2017	2016
Global Transaction Banking, Global Capital Markets & Corporate Finance	8.8 %	8.8 %
Wealth Management	9.1 %	8.4 %
Deutsche Asset Management	10.0 %	9.9 %

Management determined the values for the key assumptions in the following table based on a combination of internal and external analysis. Estimates for efficiency and the cost reduction program are based on progress made to date and scheduled future projects and initiatives.

Primary goodwill-carrying cash-generating unit	Description of key assumptions	Uncertainty associated with key assumptions and potential events/circumstances that could have a negative effect
Wealth Management	<ul style="list-style-type: none"> - Strategy continuously informed by market trends and developments, including global wealth creation and concentration, digitalization, aging population, transfer to next generation, product trends as well as competitor activity and benchmarking - Focus shifting from protect and transform agenda increasingly towards growth (eg. aspiration to hire >100 FTE front-office) - Continued focus on expanding business with high net worth and ultra high net worth clients with strong coverage in selected developed and emerging markets - Building out of global discretionary portfolio management and investment advisory solutions as well as increasing revenues from collaboration between divisions (esp. CIB) - Continue to deploy balance sheet for WM lending proposition - Extend home market leadership in Germany combined with strong organic growth strategy in Asia/Pacific, selected EMEA markets (e.g. UK, MEA) and Americas - Ambition to increased market share in the fragmented competitive landscape - Benefiting from cost savings coming through from operating platform optimization and transformation measures - Targeted investment in further platform enhancements, investment solutions and building out digital capabilities 	<ul style="list-style-type: none"> - Major industry threats, i.e., market and exchange rate volatility, sovereign debt burden, increasing costs from compliance of upcoming regulations, technological developments - Continued low interest rate environment - Investors continue to hold assets out of the markets, retreat to cash or simpler, lower fee products, and reduce trading activity - Business/execution risks, i.e., under achievement of net new money targets from market uncertainty, franchise instability, DB reputation, loss of high quality relationship managers - Difficulties in executing organic growth strategies through certain restrictions, e.g., unable to hire relationship managers, longer product development cycle - Cost savings following efficiency gains and expected IT/process improvements are not realized to the extent planned
	<ul style="list-style-type: none"> - Deliver strong investment product performance - Expand product suite in growth areas (e.g., alternatives, multi-asset, passive, ESG investment schemes) while rationalizing non-core strategies - Consistent net flows leveraging market share leadership in Germany and the rest of Europe and continued growth in Asia/Pacific and Americas - Diversification of intermediary coverage toward high growth channels and deployment of digital solutions to serve new channels - Further efficiency through improved core operating processes, platform optimization and product rationalization - Anticipated margin compression from regulation (MIFID II) 	<ul style="list-style-type: none"> - Challenging market environment and volatility unfavorable to our investment strategies - Unfavorable margin development and adverse competition levels in key markets and products beyond expected levels - Business/execution risks, e.g., under achievement of net flow targets from market uncertainty, loss of high quality client facing employees, lower than expected efficiency gains - Uncertainty around regulation and its potential implications not yet anticipated
Global Transaction Banking, Global Capital Markets and Corporate Finance	<ul style="list-style-type: none"> - Maximizing client driven franchise offering suite of investment banking products in Debt and Equity Origination as well as Advisory combined with Trade, Cash, and Trust, Agency and Security Services in transaction banking - Macroeconomic outlook is positive with key economies in Europe supporting trade growth and interest rate increase, supporting the growth in Cash and Trade businesses - Advisory assumes rebuilding sector gaps in Coverage teams, improving in sell-side mix and increasing coverage of cross border M&A deals - Debt and Equity Origination fee pool expected to remain elevated. Equity markets valuation, positive macro outlook and particularly in Debt where a refinancing maturity wall is expected through the medium term - Mitigate regulatory driven Capital increases through portfolio management and re-investing to enhance return through chosen client segments and relationships - Recalibrating incentive model structure to drive revenues with clients that generate higher returns through greater product density - Continued investment into technology improvements and platform enhancements; self-funded through internal cost efficiencies 	<ul style="list-style-type: none"> - Macro environment remains challenging, particularly in Europe - Risk from the exit process of the U.K. from the European Union - Initiatives to optimize the portfolio through resource re-allocation may not generate the expected revenue growth and reductions in the client, country and product perimeter may have a greater than expected impact on revenues - Further potential margin compression - Decline in costs expected from strategic initiatives does not materialize in the planned time frame - Potential adverse macroeconomic and geopolitical developments impacting trade volumes, interest rates and foreign exchange movements - Resource constraints in the form of capital, headcount and technology investment, impacting the potential to generate expected level of returns

Sensitivities: In order to test the resilience of the recoverable amount, key assumptions used in the DCF model (for example, the discount rate and the earnings projections) are sensitized. Management believes that reasonable possible changes in key assumptions could cause impairment losses in GTB, GCM & CF and WM, for which the recoverable amounts exceeded the respective carrying amounts by 18 % or € 2.5 billion (GTB, GCM & CF) and 18 % or € 0.5 billion (WM).

Change in certain key assumptions to cause the recoverable amount to equal the carrying amount

Change in Key Assumptions	GTB, GCM & CF	WM
Discount rate (post tax) increase from/to	8.8 %/10.4 %	9.1 %/9.9 %
Projected future earnings in each period	(14) %	(9) %
Long term growth rates	N/M	0.6 %

N/M – Not meaningful, as a rate of 0 % would still lead to a recoverable amount in excess of the carrying amount.

Other Intangible Assets

Changes of other intangible assets by asset classes for the years ended December 31, 2017, and December 31, 2016

in € m.	Unamortized		Purchased intangible assets					Internally generated intangible assets	Total other intangible assets
	Retail investment management agreements	Other	Total unamortized purchased intangible assets	Customer-related intangible assets	Value of business acquired	Contract-based intangible assets	Software and other	Amortized	
Cost of acquisition/manufacture:									
Balance as of January 1, 2016	1,061	440	1,501	1,559	941	795	1,112	4,407	10,755
Additions	0	0	0	27	0	0	49	76	1,575
Changes in the group of consolidated companies	0	0	0	(155)	(806)	0	(13)	(974)	(975)
Disposals	0	0	0	1	0	0	148	149	272
Reclassifications from (to) "held for sale"	0	0	0	0	0	(747)	(203)	(950)	(950)
Transfers	0	0	0	0	0	0	65	65	36
Exchange rate changes	33	0	33	1	(135)	22	9	(103)	(28)
Balance as of December 31, 2016	1,094	440	1,534	1,431	0	70	871	2,372	10,140
Additions	0	0	0	15	0	0	48	63	1,423
Changes in the group of consolidated companies	0	0	0	0	0	0	(35)	(35)	(206)
Disposals	0	0	0	0	0	0	21	21	142
Reclassifications from (to) "held for sale"	0	0	0	(6)	0	0	0	(6)	(6)
Transfers	0	(0)	(0)	1	0	0	50	51	9
Exchange rate changes	(131)	(1)	(132)	(77)	0	0	(12)	(89)	(457)
Balance as of December 31, 2017	963	439	1,402	1,364	0	70	901	2,335	10,761
Accumulated amortization and impairment:									
Balance as of January 1, 2016	268	418	686	1,476	300	429	893	3,098	5,567
Amortization for the year	0	0	0	39	37	24	36	136	815 ¹
Changes in the group of consolidated companies	0	0	0	(155)	(808)	0	(15)	(978)	(988)
Disposals	0	0	0	1	0	0	146	147	246
Reclassifications from (to) "held for sale"	0	0	0	0	0	(359)	(94)	(453)	(453)
Impairment losses	0	6	6	0	515	0	0	515	580 ²
Reversals of impairment losses	0	0	0	0	0	39	10	49	49 ³
Transfers	0	0	0	3	0	0	45	48	28
Exchange rate changes	8	0	8	1	(43)	10	6	(26)	7
Balance as of December 31, 2016	276	424	700	1,363	0	65	715	2,143	5,261
Amortization for the year	0	0	0	34	0	4	27	65	935 ⁴
Changes in the group of consolidated companies	0	0	0	0	0	0	(35)	(35)	(206)
Disposals	0	0	0	0	0	0	18	18	99
Reclassifications from (to) "held for sale"	0	0	0	(4)	0	0	0	(4)	(4)
Impairment losses	0	15	15	0	0	0	0	0	57 ⁵
Reversals of impairment losses	0	0	0	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	41	41	6
Exchange rate changes	(33)	0	(33)	(72)	0	0	(12)	(84)	(246)
Balance as of December 31, 2017	243	439	682	1,321	0	69	718	2,108	5,704
Carrying amount:									
As of December 31, 2016	818	15	833	68	0	5	156	229	4,879
As of December 31, 2017	719	1	720	43	0	1	183	227	5,057

¹ The € 815 million were included in general and administrative expenses.

² Of which € 521 million were included in impairment of goodwill and other intangible assets, consisting of impairments of an unamortized trademark intangible asset (€ 6 million) as well as the write-off of the Value of business acquired (VOBA; € 515 million). Furthermore, € 60 million of impairments related to self-developed software, which were recorded in general and administrative expenses.

³ € 49 million were recorded as reversal of a prior year's impairment related to the sale of Maher Terminals LLC (NCOU) and are included under impairment of goodwill and other intangible assets.

⁴ The € 935 million were included in general and administrative expenses.

⁵ Of which € 42 million were related to the impairment of self-developed software, recorded in general and administrative expenses, and € 15 million referring to the impairment of a non-amortizing trade-mark intangible asset which is included under impairment of goodwill and other intangible assets.

Amortizing Intangible Assets

In 2017, amortizing other intangible assets increased by a net € 291 million. This was mainly driven by additions to internally generated intangible assets of € 1.4 billion, representing the capitalization of expenses incurred in conjunction with the Group's development of own-used software. Offsetting were amortization expenses of € 935 million, in particular for the scheduled consumption of capitalized software (€ 897 million). The reassessment of current platform software as well as software under construction led to the impairment of self-developed software (€ 42 million). Furthermore, the strengthening of the Euro accounted for negative exchange rate changes of € 113 million reducing the net book value of amortizing intangible assets.

In 2016, amortizing other intangible assets decreased by a net € 327 million. Main components of this development included increases due to additions to internally generated intangible assets of € 1.5 billion, which represent the capitalization of expenses incurred in conjunction with the Group's development of own-used software. These were offset by amortization expenses of € 815 million, mostly related to the scheduled asset consumption of self-developed software (€ 679 million), and impairment charges of € 580 million, mainly reflecting the write-off of the value of business acquired (VOBA; € 515 million) as a consequence of the Abbey Life disposal (Deutsche AM). Furthermore, the reassessment of current platform software as well as software under construction, led to the writedown of self-developed software (€ 60 million). In advance of the sale of the NCOU legacy investment in Maher Terminals' Port Elizabeth operation in the fourth quarter 2016, its reclassification to the held-for-sale category in the third quarter 2016 had led to a net reduction of € 497 million in contract-based and trade name other intangible assets.

During 2015, the main changes in amortizing other intangible assets included additions to internally generated intangible assets of € 1.2 billion, which represent the capitalization of expenses incurred in conjunction with the Group's activities related to the development of own-used software. On the other hand and as a result of the reassessment of current platform software as well as software under construction, the Group recorded impairments of self-developed software of € 191 million. On April 27, 2015, Deutsche Bank had announced its new strategic roadmap, in which the sale of Postbank was an integral part. The Group's further updating of its new Strategy constituted a triggering event upon which goodwill and all other non-financial assets included in the former CGU PBC had to be tested for impairment. The valuation performed in the third quarter 2015 on the new strategic plan resulted in an impairment of the former CGU PBC. After allocation of the impairment to fully write-off the former PBC goodwill (€ 2.8 billion), an impairment loss of € 837 million related to other intangible assets within the former CGU PBC was recognized (of which € 834 million related to the Postbank CGU), reflecting the change in strategic intent and the then expected deconsolidation of Postbank. The impairment was based on a fair value less costs of disposal model (Level 3 of the fair value hierarchy). Of that impairment amount, € 427 million related to amortizing intangible assets, mainly comprising write-offs of customer-related intangible assets (€ 397 million), BHW trademark intangibles (€ 16 million) and contract-based intangible assets (€ 14 million). The remainder was allocated to write-off the unamortizing Postbank trademark intangible asset (€ 410 million; see below).

Other intangible assets with finite useful lives are generally amortized over their useful lives based on the straight-line method.

Useful lives of other amortized intangible assets by asset class

	Useful lives in years
Internally generated intangible assets:	
Software	up to 10
Purchased intangible assets:	
Customer-related intangible assets	up to 20
Contract-based intangible assets	up to 8
Other	up to 80

Unamortized Intangible Assets

Within this asset class, the Group recognizes certain contract-based and marketing-related intangible assets, which are deemed to have an indefinite useful life.

In particular, the asset class comprises the below detailed investment management agreements related to retail mutual funds and certain trademarks. Due to the specific nature of these intangible assets, market prices are ordinarily not observable and, therefore, the Group values such assets based on the income approach, using a post-tax DCF-methodology.

Retail investment management agreements: These assets, amounting to € 719 million, relate to the Group's U.S. retail mutual fund business and are allocated to the Deutsche AM CGU. Retail investment management agreements are contracts that give DWS Investments the exclusive right to manage a variety of mutual funds for a specified period. Since these contracts are easily renewable, the cost of renewal is minimal, and they have a long history of renewal, these agreements are not expected to have a foreseeable limit on the contract period. Therefore, the rights to manage the associated assets under management are expected to generate cash flows for an indefinite period of time. This intangible asset was recorded at fair value based upon a valuation provided by a third party at the date of the Group's acquisition of Zurich Scudder Investments, Inc. in 2002.

The recoverable amount of the asset of € 719 million was calculated as fair value less costs of disposal using the multi-period excess earnings method and the fair value measurement was categorized as Level 3 in the fair value hierarchy. The key assumptions in determining the fair value less costs of disposal include the asset mix, the flows forecast and the effective fee rate. The discount rates (cost of equity) applied in the calculation were 10.5 % in 2017 and 10.7 % in 2016. The reviews of the valuation for the years 2017, 2016 and 2015 neither resulted in any impairment nor a reversal of prior impairments.

Trademarks: The other unamortized intangible assets had included the Postbank (allocated to CGU Postbank) and the Sal. Oppenheim (allocated to CGU WM) trademarks, which were both acquired in 2010. The Postbank trademark was initially recognized in 2010 at € 382 million. In finalizing the purchase price allocation in 2011, the fair value of the Postbank trademark increased to € 410 million. The Sal. Oppenheim trademark was recognized at € 27 million. Since both trademarks were expected to generate cash flows for an indefinite period of time, they were classified as unamortized intangible assets. Both trademarks were recorded at fair value at the acquisition date, based on third party valuations. The recoverable amounts were calculated as the fair value less costs of disposal of the trademarks based on the income approach using the relief-from-royalty method. Reflecting the change in strategic intent and the expected deconsolidation of Postbank, the Postbank trademark (€ 410 million) was fully written off in the third quarter 2015. Following a review of the valuation model for the Sal. Oppenheim trademark, a write-down of € 6 million was recorded in the fourth quarter 2015. The discontinuation of its use outside the German market led to a further write-down of € 6 million recorded in the fourth quarter 2016. As the Group had announced on October 26, 2017 its intention to integrate the Sal. Oppenheim franchise into Deutsche Bank during 2018 and to no longer maintain the Sal. Oppenheim brand, the book value of the trademark (€ 15 million) was considered impaired and fully written off in the fourth quarter 2017.

26 – Non-Current Assets and Disposal Groups Held for Sale

Within the balance sheet, non-current assets and disposal groups held for sale are included in other assets and other liabilities.

in € m.	Dec 31, 2017	Dec 31, 2016
Cash, due and deposits with banks, Central bank funds sold and securities purchased under resale agreements	0	243
Trading assets, Derivatives, Financial assets designated at fair value through P&L	0	30
Financial assets available for sale	4	29
Loans	0	46
Property and equipment	15	174
Other assets	26	42
Total assets classified as held for sale	45	563
Deposits, Central bank funds purchased and securities sold under resale agreements	0	570
Trading liabilities, Derivatives, Financial liabilities designated at fair value through P&L	0	29
Long-term debt	0	0
Other liabilities	16	102
Total liabilities classified as held for sale	16	701

As of December 31, 2017 and December 31, 2016, no unrealized gains (losses) relating to non-current assets classified as held for sale were recognized directly in accumulated other comprehensive income (loss) (net of tax).

Sale of Argentine subsidiary Deutsche Bank S.A.

On June 5, 2017, the Group announced the completion of the sale of its Argentine subsidiary Deutsche Bank S.A. to Banco Comafi S.A. With outstanding substantial regulatory approvals received in May 2017, the entity had been classified as a disposal group held for sale prior to its disposal in June 2017. The disposal resulted in a pre-tax loss on sale of € 190 million, including the realization of a currency translation adjustment, which was recorded in the second quarter 2017 and mainly included in C&A.

Disposals in 2017

Division	Disposal	Financial impact ¹	Date of the disposal
Deutsche Asset Management	In the fourth quarter 2016, the Group had classified its fund administration and custody business of Sal. Oppenheim Luxembourg as a disposal group held for sale. The transaction was subject to customary closing conditions and regulatory approvals and was completed on December 1, 2017.	Up until its disposal, the revaluation of the unit resulted in an additional impairment loss of € 5 million recorded in Other income of 2017.	Fourth quarter 2017

¹ Impairment losses and reversals of impairment losses are included in Other income.

Non-Current Assets and Disposal Groups Held for Sale as of December 31, 2016

Division	Non-current assets and disposal groups held for sale	Financial impact ¹	Additional information
Deutsche Asset Management	On December 22, 2016, Deutsche Bank announced that it had reached an agreement to sell its fund administration and custody business of Sal. Oppenheim Luxembourg to private bank Hauck & Aufhäuser. Accordingly, the balance sheet of the related business was classified as a disposal group held for sale. The completion of the transaction, which comprises the sale of two Luxembourg entities and its staff, is subject to customary closing conditions and regulatory approvals and is expected to close within twelve months.	The revaluation of the disposal group resulted in an impairment loss of € 34 million recorded in Other income of the fourth quarter 2016.	Disposed of in fourth quarter 2017

¹ Impairment losses and reversals of impairment losses are included in Other income.

Disposals in 2016

Division	Disposal	Financial impact ¹	Date of the disposal
Non-Core Operations Unit	On April 15, 2016, the Group announced that it had reached an agreement with Macquarie Infrastructure Partners III ("MIP III"), a fund managed by Macquarie Infrastructure and Real Assets ("MIRA"), to sell Maher Terminals USA, LLC ("Maher Terminals"), a multi-user container terminal in Port Elizabeth, New Jersey. Under the transaction, MIP III agreed to acquire 100 % of Maher Terminals, subject to regulatory approvals. Following on from further progress made in the third quarter 2016, as of September 30, 2016, Maher Terminals had been classified as a disposal group held for sale. The reclassification did not result in an impairment loss. Prior to its reclassification, Maher Terminals had been accounted for as a consolidated legacy investment held within the NCOU. The sale was successfully completed on November 16, 2016.	None	Fourth quarter 2016
Deutsche Asset Management	On September 28, 2016, Deutsche Bank announced that it had reached an agreement with Phoenix Life Holdings Limited ("Phoenix Life"), a subsidiary of Phoenix Group Holdings ("Phoenix Group"), to sell its Abbey Life business (Abbey Life Assurance Company Limited, Abbey Life Trustee Services Limited and Abbey Life Trust Securities Limited) which were held within Deutsche AM. Under the terms of the transaction, Phoenix Life agreed to acquire 100 % of the Abbey Life business for a purchase price, net of certain adjustments, of GBP 933 million (€ 1,087 million, based on year-end exchange rate) and an indemnity protection for up to GBP 175 million covering for a period of up to 8 years for potential outcomes in relation to an impending review by the Financial Conduct Authority (FCA). The transaction was subject to regulatory approvals including that of the Prudential Regulatory Authority (PRA), as well as to a vote of the shareholders of Phoenix Group and the completion of a rights issue by Phoenix Group to fund the transaction. With Phoenix Group shareholders voting to approve the transaction on October 24, 2016 and the rights issue completed on November 8, 2016, Phoenix Group announced on December 13, 2016 that the PRA had given its consent to the acquisition of Abbey Life. Closing of the transaction has occurred on December 30, 2016. Accordingly, the Abbey Life entities were deconsolidated from the Group's balance sheet at year-end 2016.	With all requirements fulfilled and prior to the closing date of the transaction, the Abbey Life entities became subject to the held-for-sale accounting rules. Therefore and immediately before its initial classification as held-for-sale, the disposal group, which also contained intangible assets of € 1,015 million (comprised of goodwill of € 500 million allocated from the disposing cash-generating unit Deutsche AM as well as the VOBA of € 515 million (value of business acquired), was initially measured and recognized in accordance with applicable accounting rules. A comparison of the fair value less costs to sell and net assets of the disposal group resulted in an initial impairment of € 1,015 million recorded in Deutsche AM's segment P&L of the fourth quarter 2016 as an impairment of goodwill and other intangible assets. Upon closing of the sale, cumulative losses of € 500 million stemming from the termination of the Abbey Life business' cash flow hedge program, which were previously a component of other comprehensive income, were released to profit or loss. This was offset by other income items leading to € 515 million of net positive revenues as a result of the sale. Together with the € 1,015 million intangibles impairment already recognized, in the fourth quarter 2016, the Group recorded an overall pre-tax loss on the transaction of € 1,015 million.	Fourth quarter 2016

Division	Disposal	Financial impact ¹	Date of the disposal
Private & Commercial Bank	On December 28, 2015, Deutsche Bank agreed to sell its entire 19.99 % stake in Hua Xia Bank Company Limited ("Hua Xia") to PICC Property and Casualty Company Limited ("PICC Property & Casualty"). Accordingly and as of year-end 2015, the equity method investment in Hua Xia of € 3.3 billion was reclassified to the held-for-sale category. The completion of the transaction was subject to customary closing conditions and regulatory approvals, including that of the China Banking Regulatory Commission, which granted its approval for PICC Property and Casualty in the fourth quarter 2016 to acquire Deutsche Bank's stake in Hua Xia.	Due to revaluation of the held-for-sale investment and up until its disposal in the fourth quarter 2016, the Group recorded revaluation losses of € 122 million during 2016 on the non-current asset, marking it down to € 3.1 billion. The revaluation losses recorded in other income were largely a result of the decline in the share price of Hua Xia and an adverse exchange rate development. Due to the agreed consideration for the Hua Xia stake, other transaction-related effects partly compensated the decline in the share price. In addition, accumulated other comprehensive income of € 662 million related to the investment was reclassified to the income statement. The overall transaction related net gain in 2016 amounted to € 624 million.	Fourth quarter 2016
Private & Commercial Bank	Deutsche Bank completed the previously announced definitive agreement to sell its U.S. Private Client Services (PCS) business to Raymond James Financial, Inc. as of September 6, 2016.	None	Third quarter 2016
Deutsche Asset Management	In August 2015, Deutsche Bank had announced that it had entered into an agreement to sell its Indian asset management business to Pramerica Asset Managers Pvt. Ltd. In March 2016, all regulatory approvals have been obtained and the sale was completed.	None	First quarter 2016

¹ Impairment losses and reversals of impairment losses are included in Other income.

27 – Other Assets and Other Liabilities

in € m.	Dec 31, 2017	Dec 31, 2016
Other assets:		
Brokerage and securities related receivables		
Cash/margin receivables	46,519	57,924
Receivables from prime brokerage	12,638	9,859
Pending securities transactions past settlement date	3,929	6,409
Receivables from unsettled regular way trades	19,930	30,908
Total brokerage and securities related receivables	83,015	105,100
Accrued interest receivable	2,374	2,433
Assets held for sale	45	563
Other	16,057	17,950
Total other assets	101,491	126,045

in € m.	Dec 31, 2017	Dec 31, 2016
Other liabilities:		
Brokerage and securities related payables		
Cash/margin payables	58,865	70,706
Payables from prime brokerage	25,042	20,155
Pending securities transactions past settlement date	2,562	2,668
Payables from unsettled regular way trades	20,274	28,490
Total brokerage and securities related payables	106,742	122,019
Accrued interest payable	2,623	2,712
Liabilities held for sale	16	701
Other	22,827	30,008
Total other liabilities	132,208	155,440

For further details on the assets and liabilities held for sale, please refer to Note 26 “Non-Current Assets and Disposal Groups Held for Sale”.

28 – Deposits

in € m.	Dec 31, 2017	Dec 31, 2016
Noninterest-bearing demand deposits	226,339	200,122
Interest-bearing deposits		
Demand deposits	133,280	129,654
Time deposits	133,952	130,299
Savings deposits	87,241	90,129
Total interest-bearing deposits	354,473	350,082
Total deposits	580,812	550,204

29 – Provisions

Movements by Class of Provisions

in € m.	Home Savings Business	Operational Risk	Civil Litigations	Regulatory Enforcement	Re-structuring	Mortgage Repurchase Demands	Other	Total ¹
Balance as of January 1, 2016	1,132	315	1,418	4,048	656	409	922	8,900
Changes in the group of consolidated companies	0	(0)	0	0	(8)	0	(66)	(74)
New provisions	213	123	1,192	1,616	535	25	582	4,286
Amounts used	213	23	403	82	333	273	545	1,872
Unused amounts reversed	37	93	278	34	110	10	131	693
Effects from exchange rate fluctuations/								
Unwind of discount	(36)	0	12	84	4	13	5	82
Transfers	0	(13)	72	(24)	(1)	0	(31)	3
Balance as of December 31, 2016	1,059	309	2,014	5,607	741	164	735	10,629
Changes in the group of consolidated companies	0	0	(5)	(0)	(1)	0	5	(1)
New provisions	194	84	745	306	601	0	847	2,778
Amounts used	169	53	1,611	3,576	458	71	688	6,626
Unused amounts reversed	16	49	134	711	182	0	118	1,210
Effects from exchange rate fluctuations/								
Unwind of discount	28	(15)	(86)	(575)	(4)	(20)	(18)	(690)
Transfers	14	(2)	193	(153)	(0)	0	3	56
Balance as of December 31, 2017	1,110	275	1,115	897	696	73	766	4,934

¹ For the remaining portion of provisions as disclosed on the consolidated balance sheet, please see Note 20 "Allowance for Credit Losses", in which allowances for credit related off-balance sheet positions are disclosed.

Classes of Provisions

Home Savings provisions arise out of the home savings business of Deutsche Postbank Group and Deutsche Bank Bauspar-Aktiengesellschaft. In home savings, a customer enters into a building loan agreement, whereby the customer becomes entitled to borrow on a building loan once the customer has on deposit with the lending bank a targeted amount of money. In connection with the building loan agreement, arrangement fees are charged and interest is paid on deposited amounts at a rate that is typically lower than that paid on other bank deposits. In the event the customer determines not to make the borrowing, the customer becomes entitled to a retroactive interest bonus, reflecting the difference between the low contract savings interest rate and a fixed interest rate, currently substantially above market rate. The home savings provision relates to the potential interest bonus and arrangement fee reimbursement liability. The model for the calculation of the potential interest bonus liability includes parameters for the percentage of customer base impacted, applicable bonus rate, customer status and timing of payment. Other factors impacting the provision are available statistical data relating to customer behavior and the general environment likely to affect the business in the future.

Operational provisions arise out of operational risk and exclude civil litigation and regulatory enforcement provisions, which are presented as separate classes of provisions.

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. The definition used for the purposes of determining operational provisions differs from the risk management definition, as it excludes risk of loss resulting from civil litigation and regulatory enforcement matters. For risk management purposes, operational risk includes legal risk, as payments to customers, counterparties and regulatory bodies in civil litigations or regulatory enforcement matters constitute loss events for operational shortcomings, but excludes business and reputational risk.

Civil Litigation provisions arise out of current or potential claims or proceedings alleging non-compliance with contractual or other legal or regulatory responsibilities, which have resulted or may result in demands from customers, counterparties or other parties in civil litigations.

Regulatory Enforcement provisions arise out of current or potential claims or proceedings alleging non-compliance with legal or regulatory responsibilities, which have resulted or may result in an assessment of fines or penalties by governmental regulatory agencies, self-regulatory organizations or other enforcement authorities.

Restructuring provisions arise out of restructuring activities. The Group aims to enhance its long-term competitiveness through major reductions in costs, duplication and complexity in the years ahead. For details see Note 10 “Restructuring”.

Mortgage Repurchase Demands provisions arise out of Deutsche Bank’s U.S. residential mortgage loan business. From 2005 through 2008, as part of Deutsche Bank’s U.S. residential mortgage loan business, Deutsche Bank sold approximately U.S.\$ 84 billion of private label securities and U.S.\$ 71 billion of loans through whole loan sales. Deutsche Bank has been presented with demands to repurchase loans from purchasers, investors and financial insurers based on alleged material breaches of representations and warranties or to indemnify such persons with respect to losses allegedly caused thereby. Deutsche Bank’s general practice is to process valid repurchase demands that are presented in compliance with contractual rights.

As of December 31, 2017, Deutsche Bank has approximately U.S.\$ 485 million of mortgage repurchase demands outstanding and not subject to agreements to rescind (based on original principal balance of the loans). These demands consist primarily of demands made in respect of private label securitizations by the trustees or servicers thereof. Against these outstanding demands, Deutsche Bank recorded provisions of U.S.\$ 88 million (€ 73 million) as of December 31, 2017. Deutsche Bank is the beneficiary of indemnity agreements from the originators or sellers of certain of the mortgage loans subject to these demands, with respect to which Deutsche Bank has recognized receivables of U.S.\$ 64 million (€ 53 million) as of December 31, 2017. The net provisions against these demands following deduction of such receivables were U.S.\$ 24 million (€ 20 million) as of December 31, 2017.

As of December 31, 2017, Deutsche Bank has completed repurchases, obtained agreements to rescind, settled or rejected as untimely claims on loans with an original principal balance of approximately U.S.\$ 9.2 billion. In connection with those repurchases, agreements and settlements, Deutsche Bank has obtained releases for potential claims on approximately U.S.\$ 98.4 billion of loans sold by Deutsche Bank as described above.

Additional mortgage repurchase demands may be made in respect of mortgage loans that Deutsche Bank has sold, but Deutsche Bank cannot reliably estimate their timing or amount. On June 11, 2015, the New York State Court of Appeals issued a ruling affirming dismissal of mortgage repurchase claims asserted in litigation relating to a residential mortgage-backed security issued by Deutsche Bank on the grounds that the action was not timely commenced. The court held that the repurchase claims, which alleged breaches of contractual representations and warranties pertaining to the loans at issue, accrued as of the closing date of the securitization and, thus, were time-barred under New York’s six-year statute of limitations. This and related decisions could impact the extent to which future repurchase demands are made to Deutsche Bank and the likelihood of success of any such claims.

Deutsche Bank did not act as servicer for the loans sold to third parties as whole loans (which constitute almost half of all U.S. residential mortgage loans sold from 2005 through 2008) and, once sold, Deutsche Bank ceased to have access to information about their performance. While loan performance is publicly available on the mortgage loans that Deutsche Bank securitized, no direct correlation has been observed between their performance and repurchase demands received. Demands have been received on loans that have defaulted, as well as loans that are current and loans that have been repaid in full.

Other provisions include several specific items arising from a variety of different circumstances, including the provision for the reimbursement of loan processing fees, deferred sales commissions and provisions for bank levies.

Provisions and Contingent Liabilities

The Group recognizes a provision for potential loss only when there is a present obligation arising from a past event that is probable to result in an economic outflow that can be reliably estimated. Where a reliable estimate cannot be made for such an obligation, no provision is recognized and the obligation is deemed a contingent liability. Contingent liabilities also include possible obligations for which the possibility of future economic outflow is more than remote but less than probable. Where a provision has been taken for a particular claim, no contingent liability is recorded; for matters or sets of matters consisting of more than one claim, however, provisions may be recorded for some claims, and contingent liabilities (or neither a provision nor a contingent liability) may be recorded for others.

The Group operates in a legal and regulatory environment that exposes it to significant litigation risks. As a result, the Group is involved in litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, including the United States. In recent years, regulation and supervision in a number of areas have increased, and regulators, governmental bodies and others have sought to subject financial services providers to increasing oversight and scrutiny, which in turn has led to additional regulatory investigations and enforcement actions which are often followed by civil litigation. This trend has accelerated markedly as a result of the global financial crisis.

In determining for which of the claims the possibility of a loss is probable, or less than probable but more than remote, and then estimating the possible loss for those claims, the Group takes into consideration a number of factors, including but not limited to the nature of the claim and its underlying facts, the procedural posture and litigation history of each case, rulings by the courts or tribunals, the Group's experience and the experience of others in similar cases (to the extent this is known to the Group), prior settlement discussions, settlements by others in similar cases (to the extent this is known to the Group), available indemnities and the opinions and views of legal counsel and other experts.

The provisions the Group has recognized for civil litigation and regulatory enforcement matters as of December 31, 2017 and December 31, 2016 are set forth in the table above. For some matters for which the Group believes an outflow of funds is probable, no provisions were recognized as the Group could not reliably estimate the amount of the potential outflow.

For the matters for which a reliable estimate can be made, the Group currently estimates that, as of December 31, 2017, the aggregate future loss of which the possibility is more than remote but less than probable is approximately € 2.4 billion for civil litigation matters (December 31, 2016: € 1.5 billion) and € 0.3 billion for regulatory enforcement matters (December 31, 2016: € 0.8 billion). These figures include matters where the Group's potential liability is joint and several and where the Group expects any such liability to be paid by a third party. For other significant civil litigation and regulatory enforcement matters, the Group believes the possibility of an outflow of funds is more than remote but less than probable but the amount is not reliably estimable, and accordingly such matters are not included in the contingent liability estimates. For still other significant civil litigation and regulatory enforcement matters, the Group believes the possibility of an outflow of funds is remote and therefore has neither recognized a provision nor included them in the contingent liability estimates.

This estimated possible loss, as well as any provisions taken, is based upon currently available information and is subject to significant judgment and a variety of assumptions, variables and known and unknown uncertainties. These uncertainties may include inaccuracies in or incompleteness of the information available to the Group, particularly at the preliminary stages of matters, and assumptions by the Group as to future rulings of courts or other tribunals or the likely actions or positions taken by regulators or adversaries may prove incorrect. Moreover, estimates of possible loss for these matters are often not amenable to the use of statistical or other quantitative analytical tools frequently used in making judgments and estimates, and are subject to even greater degrees of uncertainty than in many other areas where the Group must exercise judgment and make estimates. The estimated possible loss, as well as any provisions taken, can be and often are substantially less than the amount initially requested by regulators or adversaries or the maximum potential loss that could be incurred were the matters to result in a final adjudication adverse to the Group. Moreover, in several regions in which the Group operates, an adversary often is not required to set forth the amount it is seeking, and where it is, the amount may not be subject to the same requirements that generally apply to pleading factual allegations or legal claims.

The matters for which the Group determines that the possibility of a future loss is more than remote will change from time to time, as will the matters as to which a reliable estimate can be made and the estimated possible loss for such matters. Actual results may prove to be significantly higher or lower than the estimate of possible loss in those matters where such an estimate was made. In addition, loss may be incurred in matters with respect to which the Group believed the likelihood of loss was remote. In particular, the estimated aggregate possible loss does not represent the Group's potential maximum loss exposure for those matters.

The Group may settle litigation or regulatory proceedings or investigations prior to a final judgment or determination of liability. It may do so to avoid the cost, management efforts or negative business, regulatory or reputational consequences of continuing to contest liability, even when the Group believes it has valid defenses to liability. It may also do so when the potential consequences of failing to prevail would be disproportionate to the costs of settlement. Furthermore, the Group may, for similar reasons, reimburse counterparties for their losses even in situations where it does not believe that it is legally compelled to do so.

Current Individual Proceedings

Set forth below are descriptions of civil litigation and regulatory enforcement matters or groups of matters for which the Group has taken material provisions, or for which there are material contingent liabilities that are more than remote, or for which there is the possibility of material business or reputational risk; similar matters are grouped together and some matters consist of a number of proceedings or claims. The disclosed matters include matters for which the possibility of a loss is more than remote but for which the Group cannot reliably estimate the possible loss.

Esch Funds Litigation. Sal. Oppenheim jr. & Cie. AG & Co. KGaA ("Sal. Oppenheim") was prior to its acquisition by Deutsche Bank in 2010 involved in the marketing and financing of participations in closed end real estate funds. These funds were structured as Civil Law Partnerships under German law. Usually, Josef Esch Fonds-Projekt GmbH performed the planning and project development. Sal. Oppenheim held an indirect interest in this company via a joint-venture. In relation to this business a number of civil claims have been filed against Sal. Oppenheim. Some but not all of these claims are also directed against former managing partners of Sal. Oppenheim and other individuals. The claims brought against Sal. Oppenheim relate to investments of originally approximately € 1.1 billion. After certain claims have either been dismissed or settled, claims relating to investments of originally approximately € 140 million are still pending. Currently, the aggregate amounts claimed in the pending proceedings are approximately € 190 million. The investors are seeking to unwind their fund participation and to be indemnified against potential losses and debt related to the investment. The claims are based in part on an alleged failure of Sal. Oppenheim to provide adequate information on related risks and other material aspects important for the investors' investment decision. Based on the facts of the individual cases, some courts have decided in favor and some against Sal. Oppenheim. Appeals are pending. The Group has recorded provisions and contingent liabilities with respect to these cases but has not disclosed the amounts thereof because it has concluded that such disclosure can be expected to prejudice seriously their outcome.

FX Investigations and Litigations. Deutsche Bank has received requests for information from certain regulatory and law enforcement agencies globally who investigated trading in, and various other aspects of, the foreign exchange market. Deutsche Bank cooperated with these investigations. Relatedly, Deutsche Bank has conducted its own internal global review of foreign exchange trading and other aspects of its foreign exchange business.

On October 19, 2016, the U.S. Commodity Futures Trading Commission (CFTC), Division of Enforcement issued a letter ("CFTC Letter") notifying Deutsche Bank that the CFTC "is not taking any further action at this time and has closed the foreign exchange investigation of Deutsche Bank." As is customary, the CFTC Letter states that the CFTC "maintains the discretion to decide to reopen the investigation at any time in the future." The CFTC Letter has no binding impact on other regulatory and law enforcement agency investigations regarding Deutsche Bank's foreign exchange trading and practices, which remain pending.

On December 7, 2016, it was announced that Deutsche Bank reached an agreement with CADE, the Brazilian antitrust enforcement agency, to settle an investigation into conduct by a former Brazil-based Deutsche Bank trader. As part of that settlement, Deutsche Bank paid a fine of BRL 51 million and agreed to continue to comply with the CADE's administrative process until it is concluded. This resolves CADE's administrative process as it relates to Deutsche Bank, subject to Deutsche Bank's continued compliance with the settlement terms.

On February 13, 2017, the U.S. Department of Justice (DOJ), Criminal Division, Fraud Section, issued a letter (“DOJ Letter”) notifying Deutsche Bank that the DOJ has closed its criminal inquiry “concerning possible violations of federal criminal law in connection with the foreign exchange markets.” As is customary, the DOJ Letter states that the DOJ may reopen its inquiry if it obtains additional information or evidence regarding the inquiry. The DOJ Letter has no binding impact on other regulatory and law enforcement agency investigations regarding Deutsche Bank’s foreign exchange trading and practices, which remain pending.

On April 20, 2017, it was announced that Deutsche Bank AG, DB USA Corporation and Deutsche Bank AG New York Branch reached an agreement with the Board of Governors of the Federal Reserve System to settle an investigation into Deutsche Bank’s foreign exchange trading and practices. Under the terms of the settlement, Deutsche Bank entered into a cease-and-desist order, and agreed to pay a civil monetary penalty of U.S.\$ 137 million. In addition, the Federal Reserve ordered Deutsche Bank to “continue to implement additional improvements in its oversight, internal controls, compliance, risk management and audit programs” for its foreign exchange business and other similar products, and to periodically report to the Federal Reserve on its progress.

Investigations conducted by certain other regulatory agencies are ongoing, and Deutsche Bank has cooperated with these investigations.

Additionally, there are currently four U.S. putative class actions pending against Deutsche Bank. The first pending action is a consolidated action brought on behalf of a putative class of over-the-counter traders and a putative class of central-exchange traders, who are domiciled in or traded in the United States or its territories, and alleges illegal agreements to restrain competition with respect to and to manipulate both benchmark rates and spot rates, particularly the spreads quoted on those spot rates; the complaint further alleges that those supposed conspiracies, in turn, resulted in artificial prices on centralized exchanges for foreign exchange futures and options. On September 29, 2017, plaintiffs filed a motion seeking preliminary approval of a settlement with Deutsche Bank in the amount of U.S.\$190 million, which the court preliminarily approved on the same day. A final fairness hearing for all settlements in this action, including Deutsche Bank’s, is currently scheduled for May 23, 2018. A second action tracks the allegations in the consolidated action and asserts that such purported conduct gave rise to, and resulted in a breach of, defendants’ fiduciary duties under the U.S. Employment Retirement Income Security Act of 1974. On August 24, 2016, the court granted defendants’ motion to dismiss. Plaintiffs in that action have filed a notice of appeal in the U.S. Court of Appeals for the Second Circuit, which is pending. The third putative class action was filed in the same court on December 21, 2015, by Axiom Investment Advisors, LLC alleging that Deutsche Bank rejected FX orders placed over electronic trading platforms through the application of a function referred to as “Last Look” and that these orders were later filled at prices less favorable to putative class members. Plaintiffs have asserted claims for breach of contract, quasi-contractual claims, and claims under New York statutory law. On February 13, 2017, Deutsche Bank’s motion to dismiss was granted in part and denied in part. Plaintiffs filed a motion for class certification on January 15, 2018, which Deutsche Bank will oppose. This matter remains pending. The fourth putative class action (the “Indirect Purchasers” action), which was filed on September 26, 2016, amended on March 24, 2017, and later consolidated with a similar action that was filed on April 28, 2017, tracks the allegations in the consolidated action and asserts that such purported conduct injured “indirect purchasers” of FX instruments. These claims are brought pursuant to the Sherman Act and various states’ consumer protection statutes. Deutsche Bank’s motion to dismiss this action is pending. Discovery has not yet commenced in the Indirect Purchasers action.

Deutsche Bank also has been named as a defendant in two Canadian class proceedings brought in the provinces of Ontario and Quebec. Filed on September 10, 2015, these class actions assert factual allegations similar to those made in the consolidated action in the United States and seek damages pursuant to the Canadian Competition Act as well as other causes of action.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to prejudice seriously their outcome.

Interbank Offered Rates Matters. Regulatory and Law Enforcement Matters. Deutsche Bank has received requests for information from various regulatory and law enforcement agencies, in connection with industry-wide investigations concerning the setting of the London Interbank Offered Rate (LIBOR), Euro Interbank Offered Rate (EURIBOR), Tokyo Interbank Offered Rate (TIBOR) and other interbank offered rates. Deutsche Bank is cooperating with these investigations.

As previously reported, Deutsche Bank reached a settlement with the European Commission on December 4, 2013 as part of a collective settlement to resolve the European Commission's investigations in relation to anticompetitive conduct in the trading of Euro interest rate derivatives and Yen interest rate derivatives. Under the terms of the settlement agreement, Deutsche Bank agreed to pay € 725 million in total. This fine has been paid in full and does not form part of the Bank's provisions.

Also as previously reported, on April 23, 2015, Deutsche Bank entered into separate settlements with the DOJ, the CFTC, the UK Financial Conduct Authority (FCA), and the New York State Department of Financial Services (DFS) to resolve investigations into misconduct concerning the setting of LIBOR, EURIBOR, and TIBOR. Under the terms of these agreements, Deutsche Bank agreed to pay penalties of U.S.\$ 2.175 billion to the DOJ, CFTC and DFS and GBP 226.8 million to the FCA. As part of the resolution with the DOJ, DB Group Services (UK) Ltd. (an indirectly-held, wholly-owned subsidiary of Deutsche Bank) pled guilty to one count of wire fraud in the U.S. District Court for the District of Connecticut and Deutsche Bank entered into a Deferred Prosecution Agreement with a three year term pursuant to which it agreed (among other things) to the filing of an Information in the U.S. District Court for the District of Connecticut charging Deutsche Bank with one count of wire fraud and one count of price fixing in violation of the Sherman Act. The fines referred to above, which include a U.S.\$ 150 million fine paid in April 2017 following the March 28, 2017 sentencing of DB Group Services (UK) Ltd., have been paid in full and do not form part of the Bank's provisions.

On November 29, 2016, the U.S. Securities and Exchange Commission staff informed Deutsche Bank that it has concluded its IBOR investigation and that it does not intend to recommend an enforcement action by the Commission.

On December 21, 2016, the Swiss Competition Commission, WEKO, formally announced its IBOR-related settlement decisions addressing various banks, including Deutsche Bank AG, relating to EURIBOR and Yen LIBOR. On March 20, 2017, Deutsche Bank paid a fine of CHF 5.0 million with respect to Yen LIBOR and approximately CHF 0.4 million for WEKO's fees. Deutsche Bank received full immunity from fines for EURIBOR in return for being the first party to notify such conduct to WEKO. The settlement amount was already fully reflected in the existing litigation provisions.

On October 25, 2017, Deutsche Bank entered into a settlement with a working group of U.S. state attorneys general resolving their interbank offered rate investigation. Among other conditions, Deutsche Bank agreed to make a settlement payment of U.S.\$ 220 million. The settlement amount has been paid in full and does not form part of the Bank's provisions.

Other investigations of Deutsche Bank concerning the setting of various interbank offered rates remain ongoing, and Deutsche Bank remains exposed to further action.

The Group has not disclosed whether it has established a provision or contingent liability with respect to the remaining investigations because it has concluded that such disclosure can be expected to prejudice seriously their outcome.

Overview of Civil Litigations. Deutsche Bank is party to 43 U.S. civil actions concerning alleged manipulation relating to the setting of various Interbank Offered Rates which are described in the following paragraphs, as well as one action pending in the UK. Most of the civil actions, including putative class actions, are pending in the U.S. District Court for the Southern District of New York (SDNY), against Deutsche Bank and numerous other defendants. All but four of the U.S. civil actions were filed on behalf of parties who allege losses as a result of manipulation relating to the setting of U.S. dollar LIBOR. The four civil actions pending against Deutsche Bank that do not relate to U.S. dollar LIBOR are also pending in the SDNY, and include one action concerning EURIBOR, one consolidated action concerning Pound Sterling (GBP) LIBOR, one action concerning Swiss franc (CHF) LIBOR, and one action concerning two Singapore Dollar (SGD) benchmark rates, the Singapore Interbank Offered Rate (SIBOR) and the Swap Offer Rate (SOR).

Claims for damages for all 43 of the U.S. civil actions discussed have been asserted under various legal theories, including violations of the U.S. Commodity Exchange Act, federal and state antitrust laws, the U.S. Racketeer Influenced and Corrupt Organizations Act, and other federal and state laws. In all but five cases, the amount of damages has not been formally articulated by the plaintiffs. The five cases that allege a specific amount of damages are individual actions consolidated in the U.S. dollar LIBOR multidistrict litigation and seek a minimum of more than U.S.\$ 1.25 billion in damages in the aggregate from all defendants including Deutsche Bank. The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to prejudice seriously their outcome.

U.S. dollar LIBOR. With one exception, all of the U.S. civil actions concerning U.S. dollar LIBOR are being coordinated as part of a multidistrict litigation (the “U.S. dollar LIBOR MDL”) in the SDNY. In light of the large number of individual cases pending against Deutsche Bank and their similarity, the civil actions included in the U.S. dollar LIBOR MDL are now subsumed under the following general description of the litigation pertaining to all such actions, without disclosure of individual actions except when the circumstances or the resolution of an individual case is material to Deutsche Bank.

Following a series of decisions in the U.S. dollar LIBOR MDL between March 2013 and December 2016 narrowing their claims, plaintiffs are currently asserting antitrust claims, claims under the U.S. Commodity Exchange Act and state law fraud, contract, unjust enrichment and other tort claims. The court has also issued decisions dismissing certain plaintiffs’ claims for lack of personal jurisdiction and on statute of limitations grounds.

On December 20, 2016, the district court issued a ruling dismissing certain antitrust claims while allowing others to proceed. Multiple plaintiffs have filed appeals of the district court’s December 20, 2016 ruling to the U.S. Court of Appeals for the Second Circuit, and those appeals are proceeding in parallel with the ongoing proceedings in the district court. On November 13, 2017, plaintiffs filed their opening briefs.

Discovery is underway in several of the cases. Motions for class certification were fully briefed on November 10, 2017, and the court heard oral argument on January 18, 2018. On February 28, 2018, the court issued its decision on plaintiffs’ motions for class certification. The court denied motions to certify (i) a class of purchasers of Eurodollar futures and options traded on the Chicago Mercantile Exchange (*Metzler Investment GmbH v. Credit Suisse Group AG*) and (ii) a class of lending institutions that originated, held, purchased, or sold loans tied to U.S. dollar LIBOR (*Berkshire Bank v. Bank of America Corp.*). The court granted a motion to certify a class of plaintiffs that transacted in U.S. dollar LIBOR-linked financial instruments purchased over the counter directly from LIBOR panel banks with respect to those plaintiffs’ remaining antitrust claims against two domestic-bank defendants (*Mayor & City Council of Baltimore v. Credit Suisse AG*), but denied a motion to certify a class with respect to those same plaintiffs’ state-law contract and unjust enrichment claims.

On July 13, 2017, Deutsche Bank executed a settlement agreement in the amount of U.S.\$ 80 million with plaintiffs to resolve a putative class action pending as part of the U.S. dollar LIBOR MDL asserting claims based on alleged transactions in Eurodollar futures and options traded on the Chicago Mercantile Exchange (*Metzler Investment GmbH v. Credit Suisse Group AG*). The settlement agreement was submitted to the court for preliminary approval on October 11, 2017. The settlement amount is already fully reflected in existing litigation provisions and no additional provisions have been taken for this settlement. The settlement agreement is subject to further review and approval by the court.

On February 6, 2018, Deutsche Bank executed a settlement agreement in the amount of U.S.\$ 240 million with plaintiffs to resolve a putative class action pending as part of the U.S. dollar LIBOR MDL asserting claims based on alleged transactions in U.S. dollar LIBOR-linked financial instruments purchased over the counter directly from LIBOR panel banks (*Mayor & City Council of Baltimore v. Credit Suisse AG*). The settlement agreement was submitted to the court for preliminary approval on February 27, 2018. The settlement amount is already fully reflected in existing litigation provisions and no additional provisions have been taken for this settlement. The settlement agreement is subject to further review and approval by the court.

Finally, one of the actions in the U.S. dollar LIBOR MDL has been dismissed in its entirety, including (as to Deutsche Bank and other foreign defendants) on personal jurisdiction and merits grounds, and plaintiffs have filed an appeal to the U.S. Court of Appeals for the Second Circuit. The appeal was fully briefed, and oral argument was held on September 25, 2017. On February 23, 2018, the Second Circuit affirmed in part and vacated in part the district court's decision. Among other things, the Court held that plaintiffs had established a prima facie case of personal jurisdiction with respect to Deutsche Bank and another foreign defendant for certain state law claims concerning direct transactions with plaintiffs and granted plaintiffs leave to amend their allegations concerning several other defendants and their agency and conspiracy theories of jurisdiction. The Second Circuit otherwise affirmed the district court's decision on personal jurisdiction. The Second Circuit also affirmed the district court's dismissal on the merits of plaintiffs' claims concerning fixed-rate instruments, but reversed the district court's dismissal of certain of plaintiffs' claims under the U.S. Securities Exchange Act of 1934 and for unjust enrichment.

Plaintiffs in the non-MDL case proceeding in the SDNY have moved to amend their complaint following a dismissal of their claims, and a decision on that motion to amend is pending.

There is a further UK civil action regarding U.S. dollar LIBOR, in which a claim for damages has been asserted pursuant to Article 101 of The Treaty on the Functioning of the European Union, Section 2 of Chapter 1 of the UK Competition Act 1998 and U.S. state laws. Deutsche Bank is defending this action.

Yen LIBOR and Euroyen TIBOR. On July 21, 2017, Deutsche Bank executed a settlement agreement in the amount of U.S.\$ 77 million with plaintiffs to resolve two putative class actions pending in the SDNY alleging manipulation of Yen LIBOR and Euroyen TIBOR (*Laydon v. Mizuho Bank, Ltd. and Sonterra Capital Master Fund Ltd. v. UBS AG*). The agreement was submitted to the court for approval, and the court granted final approval of the settlement on December 7, 2017. Accordingly, these two actions are not included in the total number of actions above. The settlement amount, which Deutsche Bank paid on August 1, 2017, is no longer reflected in Deutsche Bank's litigation provisions.

EURIBOR. On May 10, 2017, Deutsche Bank executed a settlement agreement in the amount of U.S.\$ 170 million with plaintiffs to resolve a putative class action pending in the SDNY alleging manipulation of EURIBOR (*Sullivan v. Barclays PLC*). The agreement was submitted to the court for preliminary approval on June 12, 2017. The court granted preliminary approval on July 7, 2017. The settlement agreement is subject to further review and final approval by the court. Under the terms of the settlement, Deutsche Bank has paid U.S.\$170 million, and is no longer reflecting that amount in its litigation provisions.

GBP LIBOR. A putative class action alleging manipulation of the Pound Sterling (GBP) LIBOR remains pending in the SDNY. It is the subject of a fully briefed motion to dismiss. The court held argument on August 4, 2017.

CHF LIBOR. On September 25, 2017, the court in the SDNY dismissed the plaintiffs' putative class action alleging manipulation of the Swiss Franc (CHF) LIBOR in full, but gave plaintiffs an opportunity to file an amended complaint. Plaintiffs filed that amended complaint on November 6, 2017. Defendants moved to dismiss the amended complaint on February 7, 2018.

SIBOR and SOR. On August 18, 2017, the court in the SDNY dismissed the plaintiffs' putative class action alleging manipulation of the Singapore Interbank Offered Rate (SIBOR) and Swap Offer Rate (SOR) in part, but gave plaintiffs an opportunity to file an amended complaint. Plaintiffs filed their amended complaint on September 18, 2017, and it is the subject of a fully briefed motion to dismiss.

Investigations Into Referral Hiring Practices and Certain Business Relationships. Certain regulators and law enforcement authorities in various jurisdictions, including the U.S. Securities and Exchange Commission and the DOJ, are investigating, among other things, Deutsche Bank's compliance with the U.S. Foreign Corrupt Practices Act and other laws with respect to the Bank's hiring practices related to candidates referred by clients, potential clients and government officials, and the Bank's engagement of finders and consultants. Deutsche Bank is responding to and continuing to cooperate with these investigations. Certain regulators in other jurisdictions have also been briefed on these investigations. The Group has recorded a provision with respect to certain of these regulatory investigations. The Group has not disclosed the amount of this provision because it has concluded that such disclosure can be expected to prejudice seriously the outcome of these regulatory investigations. Based on the facts currently known, it is not practicable at this time for the Bank to predict the timing of a resolution.

Kirch. The public prosecutor's office in Munich (Staatsanwaltschaft München I) has conducted and is currently conducting criminal investigations in connection with the Kirch case inter alia with regard to former Deutsche Bank Management Board members. The Kirch case involved several civil proceedings between Deutsche Bank AG and Dr. Leo Kirch as well as media companies controlled by him. The key issue was whether an interview given by Dr. Rolf Breuer, then Spokesman of Deutsche Bank's Management Board, in 2002 with Bloomberg television, during which Dr. Breuer commented on Dr. Kirch's (and his companies') inability to obtain financing, caused the insolvency of the Kirch companies. In February 2014, Deutsche Bank and the Kirch heirs reached a comprehensive settlement, which has ended all legal disputes between them.

The allegations of the public prosecutor are that the relevant former Management Board members failed to correct in a timely manner factual statements made by Deutsche Bank's litigation counsel in submissions filed in one of the civil cases between Kirch and Deutsche Bank AG before the Munich Higher Regional Court and the Federal Court of Justice, after allegedly having become aware that such statements were not correct, and/or made incorrect statements in such proceedings, respectively.

On April 25, 2016, following the trial before the Munich District Court regarding the main investigation involving Jürgen Fitschen and four other former Management Board members, the Munich District Court acquitted all of the accused, as well as the Bank, which was a secondary participant in such proceedings. On April 26, 2016, the public prosecutor filed an appeal. An appeal is limited to a review of legal errors rather than facts. On October 18, 2016, a few weeks after the written judgment was served, the public prosecutor provided notice that it will uphold its appeal only with respect to former Management Board members Jürgen Fitschen, Dr. Rolf Breuer and Dr. Josef Ackermann and that it will withdraw its appeal with respect to former Management Board members Dr. Clemens Börsig and Dr. Tessen von Heydebreck for whom the acquittal thereby becomes binding. On January 24, 2018, the Attorney General's Office applied to convene an oral hearing before the Federal Supreme Court to decide about the Munich public prosecutor's appeal.

The other investigations by the public prosecutor (which also deal with attempted litigation fraud in the Kirch civil proceedings) are ongoing. Deutsche Bank is fully cooperating with the Munich public prosecutor's office.

The Group does not expect these proceedings to have significant economic consequences for it and has not recorded a provision or contingent liability with respect thereto.

KOSPI Index Unwind Matters. Following the decline of the Korea Composite Stock Price Index 200 (the "KOSPI 200") in the closing auction on November 11, 2010 by approximately 2.7 %, the Korean Financial Supervisory Service ("FSS") commenced an investigation and expressed concerns that the fall in the KOSPI 200 was attributable to a sale by Deutsche Bank of a basket of stocks, worth approximately € 1.6 billion, that was held as part of an index arbitrage position on the KOSPI 200. On February 23, 2011, the Korean Financial Services Commission, which oversees the work of the FSS, reviewed the FSS' findings and recommendations and resolved to take the following actions: (i) to file a criminal complaint to the Korean Prosecutor's Office for alleged market manipulation against five employees of the Deutsche Bank group and Deutsche Bank's subsidiary Deutsche Securities Korea Co. (DSK) for vicarious corporate criminal liability; and (ii) to impose a suspension of six months, commencing April 1, 2011 and ending September 30, 2011, of DSK's business for proprietary trading of cash equities and listed derivatives and DMA (direct market access) cash equities trading, and the requirement that DSK suspend the employment of one named employee for six months. There was an exemption to the business suspension which permitted DSK to continue acting as liquidity provider for existing derivatives linked securities. On August 19, 2011, the Korean Prosecutor's Office announced its decision to indict DSK and four employees of the Deutsche Bank group on charges of spot/futures linked market manipulation. The criminal trial commenced in January 2012. On January 25, 2016, the Seoul Central District Court rendered a guilty verdict against a DSK trader and a guilty verdict against DSK. A criminal fine of KRW 1.5 billion (less than € 2.0 million) was imposed on DSK. The Court also ordered forfeiture of the profits generated on the underlying trading activity. The Group disgorged the profits on the underlying trading activity in 2011. The criminal trial verdict has been appealed by both the prosecutor and the defendants.

In addition, a number of civil actions have been filed in Korean courts against Deutsche Bank and DSK by certain parties who allege they incurred losses as a consequence of the fall in the KOSPI 200 on November 11, 2010. First instance court decisions were rendered against the Bank and DSK in some of these cases starting in the fourth quarter of 2015. The outstanding known claims have an aggregate claim amount of less than € 50 million (at present exchange rates). The Group has recorded a provision with respect to these outstanding civil matters. The Group has not disclosed the amount of this provision because it has concluded that such disclosure can be expected to prejudice seriously the outcome of these matters.

Mortgage-Related and Asset-Backed Securities Matters and Investigation. Regulatory and Governmental Matters. Deutsche Bank, along with certain affiliates (collectively referred in these paragraphs to as “Deutsche Bank”), have received subpoenas and requests for information from certain regulators and government entities, including members of the Residential Mortgage-Backed Securities Working Group of the U.S. Financial Fraud Enforcement Task Force, concerning its activities regarding the origination, purchase, securitization, sale, valuation and/or trading of mortgage loans, residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), collateralized debt obligations (CDOs), other asset-backed securities and credit derivatives. Deutsche Bank is cooperating fully in response to those subpoenas and requests for information.

On December 23, 2016, Deutsche Bank announced that it reached a settlement-in-principle with the DOJ to resolve potential claims related to its RMBS business conducted from 2005 to 2007. The settlement became final and was announced by the DOJ on January 17, 2017. Under the settlement, Deutsche Bank paid a civil monetary penalty of U.S.\$ 3.1 billion and agreed to provide U.S.\$ 4.1 billion in consumer relief.

In September 2016, Deutsche Bank received administrative subpoenas from the Maryland Attorney General seeking information concerning Deutsche Bank’s RMBS and CDO businesses from 2002 to 2009. On June 1, 2017, Deutsche Bank and the Maryland Attorney General reached a settlement to resolve the matter for U.S.\$ 15 million in cash and U.S.\$ 80 million in consumer relief (to be allocated from the overall U.S.\$ 4.1 billion consumer relief obligation agreed to as part of Deutsche Bank’s settlement with the DOJ).

The Group has recorded provisions with respect to some of the outstanding regulatory investigations but not others, a portion of which relates to the consumer relief being provided under the DOJ settlement. The Group has not disclosed the amount of these provisions because it has concluded that such disclosure can be expected to prejudice seriously the resolution of these matters.

Issuer and Underwriter Civil Litigation. Deutsche Bank has been named as defendant in numerous civil litigations brought by private parties in connection with its various roles, including issuer or underwriter, in offerings of RMBS and other asset-backed securities. These cases, described below, allege that the offering documents contained material misrepresentations and omissions, including with regard to the underwriting standards pursuant to which the underlying mortgage loans were issued, or assert that various representations or warranties relating to the loans were breached at the time of origination. The Group has recorded provisions with respect to several of these civil cases, but has not recorded provisions with respect to all of these matters. The Group has not disclosed the amount of these provisions because it has concluded that such disclosure can be expected to prejudice seriously the resolution of these matters.

Deutsche Bank is a defendant in a class action relating to its role as one of the underwriters of six RMBS offerings issued by Novastar Mortgage Corporation. No specific damages are alleged in the complaint. The lawsuit was brought by plaintiffs representing a class of investors who purchased certificates in those offerings. The parties reached a settlement to resolve the matter for a total of U.S.\$ 165 million, a portion of which was paid by the Bank. The settlement is subject to final court approval. On August 30, 2017, FHFA/Freddie Mac filed an objection to the settlement.

Deutsche Bank is a defendant in three actions related to RMBS offerings brought by the Federal Deposit Insurance Corporation (FDIC) as receiver for: (a) Colonial Bank (alleging no less than U.S.\$ 189 million in damages against all defendants), (b) Guaranty Bank (alleging no less than U.S.\$ 901 million in damages against all defendants), and (c) Citizens National Bank and Strategic Capital Bank (alleging no less than U.S.\$ 66 million in damages against all defendants). In each of these actions, the appellate courts have reinstated claims previously dismissed on statute of limitations grounds. In the case concerning Colonial Bank, petitions for rehearing and certiorari to the U.S. Supreme Court were denied, and on June 21, 2017, the FDIC filed a second amended complaint, which defendants moved to dismiss on September 7, 2017. In the case concerning Guaranty Bank, petitions for rehearing and certiorari to the U.S. Supreme Court were denied, fact discovery is almost complete, and expert work is ongoing. Also, on September 14, 2017, the court granted in part Deutsche Bank’s motion for summary judgment regarding the proper method of calculating pre-judgment interest. In the case concerning Citizens National Bank and Strategic Capital Bank, petitions for rehearing and certiorari to the U.S. Supreme Court were denied, and on July 31, 2017, the FDIC filed a second amended complaint, which defendants moved to dismiss on September 14, 2017.

On November 3, 2016, Deutsche Bank reached a settlement to resolve claims brought by the Federal Home Loan Bank of San Francisco on two resecuritizations of RMBS certificates for an amount not material to the Bank. Following this settlement and two other previous partial settlements of claims, Deutsche Bank remained a defendant with respect to one RMBS offering, for which Deutsche Bank, as an underwriter, was provided contractual indemnification. On January 23, 2017, a settlement agreement was executed to resolve the claims relating to that RMBS offering, and the matter has been dismissed.

Deutsche Bank is a defendant in an action brought by Royal Park Investments (as purported assignee of claims of a special-purpose vehicle created to acquire certain assets of Fortis Bank) alleging common law claims related to the purchase of RMBS. The complaint did not specify the amount of damages sought. On April 17, 2017, the court dismissed the complaint, and on February 13, 2018, the plaintiff filed its appeal.

In June 2014, HSBC, as trustee, brought an action in New York state court against Deutsche Bank to revive a prior action, alleging that Deutsche Bank failed to repurchase mortgage loans in the ACE Securities Corp. 2006-SL2 RMBS offering. The revival action was stayed during the pendency of an appeal of the dismissal of a separate action wherein HSBC, as trustee, brought an action against Deutsche Bank alleging breaches of representations and warranties made by Deutsche Bank concerning the mortgage loans in the same offering. On March 29, 2016, the court dismissed the revival action, and on April 29, 2016, plaintiff filed a notice of appeal. Plaintiff's appeal has been adjourned in light of a case pending in the New York Court of Appeals involving similar legal issues.

On February 3, 2016, Lehman Brothers Holding, Inc. (Lehman) instituted an adversary proceeding in United States Bankruptcy Court for the Southern District of New York against, among others, MortgageIT, Inc. (MIT) and Deutsche Bank AG, as alleged successor to MIT, asserting breaches of representations and warranties set forth in certain 2003 and 2004 loan purchase agreements concerning 63 mortgage loans that MIT sold to Lehman, which Lehman in turn sold to the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). The complaint seeks indemnification for losses incurred by Lehman in connection with settlements entered into with Fannie Mae and Freddie Mac as part of the Lehman bankruptcy proceedings to resolve claims concerning those loans. On January 31, 2018, the parties reached a settlement to resolve the litigation. On February 6, 2018, the court ordered a voluntary stipulation of dismissal.

In the actions against Deutsche Bank solely as an underwriter of other issuers' RMBS offerings, Deutsche Bank has contractual rights to indemnification from the issuers, but those indemnity rights may in whole or in part prove effectively unenforceable where the issuers are now or may in the future be in bankruptcy or otherwise defunct.

Trustee Civil Litigation. Deutsche Bank is a defendant in eight separate civil lawsuits brought by various groups of investors concerning its role as trustee of certain RMBS trusts. The actions generally allege claims for breach of contract, breach of fiduciary duty, breach of the duty to avoid conflicts of interest, negligence and/or violations of the U.S. Trust Indenture Act of 1939, based on the trustees' alleged failure to perform adequately certain obligations and/or duties as trustee for the trusts. The eight actions include two putative class actions brought by a group of investors, including funds managed by BlackRock Advisors, LLC, PIMCO-Advisors, L.P., and others (the "BlackRock Class Actions"), two putative class actions brought by Royal Park Investments SA/NV, and four individual lawsuits. One of the BlackRock Class Actions is pending in the U.S. District Court for the Southern District of New York in relation to 62 trusts, which allegedly suffered total realized collateral losses of U.S.\$ 9.8 billion, although the complaint does not specify a damage amount. On January 23, 2017, the court granted in part and denied in part the trustees' motion to dismiss. On February 3, 2017, the court entered an order dismissing plaintiffs' representations and warranties claims as to 21 trusts whose originators or sponsors had entered bankruptcy. The only claims that remain are for violation of the U.S. Trust Indenture Act of 1939 and breach of contract. On March 27, 2017, the trustees filed an answer to the complaint. On January 26, 2018, BlackRock filed a motion for class certification. Discovery is ongoing. The second BlackRock Class Action is pending in the Superior Court of California in relation to 465 trusts, which allegedly suffered total realized collateral losses of U.S.\$ 75.7 billion, although the complaint does not specify a damage amount. The trustees filed a demurrer seeking to dismiss the tort claims asserted by plaintiffs and a motion to strike certain elements of the breach of contract claim, and on October 18, 2016, the court sustained the trustees' demurrer, dismissing the tort claims, but denied the motion to strike. On December 19, 2016, the trustees filed an answer to the complaint. On January 17, 2018, BlackRock filed a motion for class certification. Discovery is ongoing. The putative class action brought by Royal Park Investments SA/NV is pending in the U.S. District Court for the Southern District of New York and concerns ten trusts, which allegedly suffered total realized collateral losses of more than U.S.\$ 3.1 billion, although the complaint does not specify a damage amount. Royal Park filed a renewed motion for class certification on May 1, 2017, and the motion is pending. Discovery is ongoing. On August 4, 2017, Royal Park filed a separate, additional class action complaint against the trustee in the same court asserting claims for breach of contract, unjust enrichment, conversion, breach of trust, equitable accounting and declaratory and injunctive relief arising out of the payment from

trust funds of the trustee's legal fees and expenses in the other, ongoing Royal Park litigation. On October 10, 2017, the trustee filed a motion to dismiss that complaint.

The four individual lawsuits include actions by (a) the National Credit Union Administration Board ("NCUA"), as an investor in 97 trusts, which allegedly suffered total realized collateral losses of U.S.\$ 17.2 billion, although the complaint does not specify a damage amount; (b) certain CDOs (collectively, "Phoenix Light") that hold RMBS certificates issued by 43 RMBS trusts, and seeking "hundreds of millions of dollars in damages"; (c) Commerzbank AG, as an investor in 50 RMBS trusts, seeking recovery for alleged "hundreds of millions of dollars in losses;" and (d) IKB International, S.A. in Liquidation and IKB Deutsche Industriebank AG (collectively, "IKB"), as an investor in 30 RMBS trusts, seeking more than U.S.\$ 268 million of damages. In the NCUA case, the trustee's motion to dismiss for failure to state a claim is pending and discovery is stayed. In the Phoenix Light case, the plaintiffs filed an amended complaint on September 27, 2017, and the trustees filed an answer to the complaint on November 13, 2017; discovery is ongoing. In the Commerzbank case, the plaintiff filed an amended complaint on November 30, 2017, and the trustees filed an answer to the complaint on January 29, 2018; discovery is ongoing. In the IKB case, the court heard oral argument on the trustee's motion to dismiss on May 3, 2017, but has not yet issued a decision. On June 20, 2017, the IKB plaintiffs stipulated to the dismissal with prejudice of all claims asserted against Deutsche Bank concerning four trusts. Discovery is ongoing. Deutsche Bank was also a defendant in a lawsuit brought by the Western and Southern Life Insurance Company and five related entities, but on September 28, 2017, plaintiffs filed a notice of voluntary dismissal of their claims, without prejudice.

The Group believes a contingent liability exists with respect to these eight cases, but at present the amount of the contingent liability is not reliably estimable.

Postbank Voluntary Public Takeover Offer. On September 12, 2010, Deutsche Bank announced the decision to make a voluntary takeover offer for the acquisition of all shares in Deutsche Postbank AG (Postbank). On October 7, 2010, the Bank published the official offer document. In its takeover offer, Deutsche Bank offered Postbank shareholders consideration of € 25 for each Postbank share. The takeover offer was accepted for a total of approximately 48.2 million Postbank shares.

In November 2010, a former shareholder of Postbank, Effecten-Spiegel AG, which had accepted the takeover offer, brought a claim against Deutsche Bank alleging that the offer price was too low and was not determined in accordance with the applicable law of the Federal Republic of Germany. The plaintiff alleges that Deutsche Bank had been obliged to make a mandatory takeover offer for all shares in Postbank, at the latest, in 2009. The plaintiff avers that, at the latest in 2009, the voting rights of Deutsche Post AG in Postbank had to be attributed to Deutsche Bank AG pursuant to Section 30 of the German Takeover Act. Based thereon, the plaintiff alleges that the consideration offered by Deutsche Bank AG for the shares in Postbank in the 2010 voluntary takeover offer needed to be raised to € 57.25 per share.

The Cologne District Court dismissed the claim in 2011 and the Cologne appellate court dismissed the appeal in 2012. The Federal Court set aside the Cologne appellate court's judgment and referred the case back to the appellate court. In its judgment, the Federal Court stated that the appellate court had not sufficiently considered the plaintiff's allegation that Deutsche Bank AG and Deutsche Post AG "acted in concert" in 2009.

Starting in 2014, additional former shareholders of Postbank, who accepted the 2010 tender offer, brought similar claims as Effecten-Spiegel AG against Deutsche Bank which are pending with the Cologne District Court and the Higher Regional Court of Cologne, respectively. On October 20, 2017, the Cologne District Court handed down a decision granting the claims in a total of 14 cases which were combined in one proceeding. The Cologne District Court took the view that Deutsche Bank was obliged to make a mandatory takeover offer already in 2008 so that the appropriate consideration to be offered in the takeover offer should have been € 57.25 per share. Taking the consideration paid into account, the additional consideration per share owed to shareholders which have accepted the takeover offer would thus amount to € 32.25. Deutsche Bank appealed this decision and the appeal has been assigned to the 13th Senate of the Higher Regional Court of Cologne, which also is hearing the appeal of Effecten-Spiegel AG.

On November 8, 2017, a hearing took place before the Higher Regional Court of Cologne in the Effecten-Spiegel case. In that hearing, the Higher Regional Court indicated that it disagreed with the conclusions of the Cologne District Court and took the preliminary view that Deutsche Bank was not obliged to make a mandatory takeover offer in 2008 or 2009. Initially the Higher Regional Court resolved to announce a decision on December 13, 2017. However, this was postponed to February 2018 because the plaintiff challenged the three members of the 13th Senate of the Higher Regional Court of Cologne for alleged prejudice. The challenge was rejected by the Higher Regional Court of Cologne at the end of January 2018. In February 2018, the court granted a motion by Effecten-Spiegel AG to re-open the hearing and scheduled a further hearing for June 29, 2018.

Deutsche Bank has been served with a material number of additional lawsuits filed against Deutsche Bank shortly before the end of the year 2017 and these claims are now pending with the District Court of Cologne. Some of the new plaintiffs allege that the consideration offered by Deutsche Bank AG for the shares in Postbank in the 2010 voluntary takeover should be raised to € 64.25 per share.

The claims for payment against Deutsche Bank in relation to these matters total almost € 700 million (excluding interest). In February 2018, a law firm representing some plaintiffs in the above-mentioned civil actions also filed a criminal complaint with the public prosecutor in Frankfurt am Main against certain Deutsche Bank personnel alleging that they engaged in fraudulent conduct in connection with the takeover offer.

The Group has established a contingent liability with respect to these matters but the Group has not disclosed the amount of this contingent liability because it has concluded that such disclosure can be expected to prejudice seriously the outcome of these matters.

Further Proceedings Relating to the Postbank Takeover. In September 2015, former shareholders of Postbank filed in the Cologne District Court shareholder actions against Postbank to set aside the squeeze-out resolution taken in the shareholders meeting of Postbank in August 2015. Among other things, the plaintiffs allege that Deutsche Bank was subject to a suspension of voting rights with respect to its shares in Postbank based on the allegation that Deutsche Bank failed to make a mandatory takeover offer at a higher price in 2009. The squeeze out is final and the proceeding itself has no reversal effect, but may result in damage payments. The claimants in this proceeding refer to legal arguments similar to those asserted in the Effecten-Spiegel proceeding described above. In a decision on October 20, 2017, the Cologne District Court declared the squeeze-out resolution to be void. The court, however, did not rely on a suspension of voting rights due to an alleged failure of Deutsche Bank to make a mandatory takeover offer, but argued that Postbank violated information rights of Postbank shareholders in Postbank's shareholders meeting in August 2015. Postbank has appealed this decision.

The legal question whether Deutsche Bank had been obliged to make a mandatory takeover offer for all Postbank shares prior to its 2010 voluntary takeover may also impact two pending appraisal proceedings (Spruchverfahren). These proceedings were initiated by former Postbank shareholders with the aim to increase the cash compensation offered in connection with the squeeze-out of Postbank shareholders in 2015 and the cash compensation offered and annual guaranteed dividend paid in connection with the execution of a domination and profit and loss transfer agreement (Beherrschungs- und Gewinnabführungsvertrag) between DB Finanz-Holding AG (now DB Beteiligungs-Holding GmbH) and Postbank in 2012. The Cologne District Court issued resolutions indicating that it is inclined to consider a potential obligation of Deutsche Bank to make a mandatory takeover offer for Postbank at an offer price of € 57.25 when determining the adequate cash compensation in the appraisal proceedings. The cash compensation paid in connection with the domination and profit and loss transfer agreement was € 25.18 and was accepted for approximately 0.5 million shares. The squeeze-out compensation paid in 2015 was € 35.05 and approximately 7 million shares were squeezed-out.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this matter because it has concluded that such disclosure can be expected to prejudice seriously its outcome.

Russia/UK Equities Trading Investigation. Deutsche Bank has investigated the circumstances around equity trades entered into by certain clients with Deutsche Bank in Moscow and London that offset one another. The total volume of transactions reviewed is significant. Deutsche Bank's internal investigation of potential violations of law, regulation and policy and into the related internal control environment has concluded, and Deutsche Bank is assessing the findings identified during the investigation; to date it has identified certain violations of Deutsche Bank's policies and deficiencies in Deutsche Bank's control environment. Deutsche Bank has advised regulators and law enforcement authorities in several jurisdictions (including Germany, Russia, the UK and U.S.) of this investigation. Deutsche Bank has taken disciplinary measures with regards to certain individuals in this matter and will continue to do so with respect to others as warranted.

On January 30 and 31, 2017, the DFS and the FCA announced settlements with the Bank related to their investigations into this matter. The settlements conclude the DFS and the FCA's investigations into the Bank's anti-money laundering (AML) control function in its investment banking division, including in relation to the equity trading described above. Under the terms of the settlement agreement with the DFS, Deutsche Bank entered into a consent order, and agreed to pay civil monetary penalties of U.S.\$ 425 million and to engage an independent monitor for a term of up to two years. Under the terms of the settlement agreement with the FCA, Deutsche Bank agreed to pay civil monetary penalties of approximately GBP 163 million. On May 30, 2017, the Federal Reserve announced its settlement with the Bank resolving this matter as well as additional AML issues identified by the Federal Reserve. Deutsche Bank paid a penalty of U.S. \$ 41 million. Deutsche Bank also agreed to retain independent third parties to assess its Bank Secrecy Act/AML program and review certain foreign correspondent banking activity of its subsidiary Deutsche Bank Trust Company Americas. The Bank is also required to submit written remediation plans and programs. The DFS, FCA and Federal Reserve settlement amounts were already materially reflected in existing litigation provisions.

Deutsche Bank continues to cooperate with regulators and law enforcement authorities, including the DOJ, which has its own ongoing investigation into these securities trades. The Group has recorded a provision with respect to the remaining investigation. The Group has not disclosed the amount of this provision because it has concluded that such disclosure can be expected to prejudice seriously the outcome of this matter.

Sovereign, Supranational and Agency Bonds (SSA) Investigations and Litigations. Deutsche Bank has received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to SSA bond trading. Deutsche Bank is cooperating with these investigations.

Deutsche Bank is a defendant in several putative class action complaints filed in the U.S. District Court for the Southern District of New York alleging violations of U.S. antitrust law and common law related to alleged manipulation of the secondary trading market for SSA bonds. Deutsche Bank has reached an agreement to settle the actions for the amount of U.S.\$48.5 million. The settlement remains subject to court approval.

Deutsche Bank is also a defendant in a putative class action complaint filed on November 7, 2017 in the Ontario Superior Court of Justice alleging violations of Canadian and foreign anti-trust law, and commons law. The complaint relies on allegations similar to those in the U.S. class actions, and seeks punitive damages. The case is in its early stages.

The Group has not disclosed whether it has established provisions with respect to other matters referred to above or contingent liability with respect to those matters because it has concluded that such disclosure can be expected to prejudice seriously their outcome.

Trust Preferred Securities Litigation. Deutsche Bank and certain of its affiliates and former officers are the subject of a consolidated putative class action, filed in the United States District Court for the Southern District of New York, asserting claims under the federal securities laws on behalf of persons who purchased certain trust preferred securities issued by Deutsche Bank and its affiliates between October 2006 and May 2008. In a series of opinions, the court dismissed all claims as to four of the six offerings at issue, but allowed certain alleged omissions claims relating to the November 2007 and February 2008 offerings to proceed. On November 17, 2016, plaintiffs moved for class certification as to the November 2007 offering. On January 20, 2017, plaintiffs amended their motion for class certification to include the February 2008 offering and seek to add an additional individual as a proposed class representative. The court stayed all proceedings pending a decision by the Supreme Court of the United States in *California Public Employees' Retirement System v. ANZ Securities* in which the Supreme Court was expected to consider whether the filing of a putative class action serves to toll the three-year time limitation in Section 13 of the Securities Act with respect to the claims of putative class members. This related to claims relating to the February 2008 offering. On June 26, 2017, the Supreme Court issued its opinion, holding that the three year provision in Section 13 is a statute of repose and is not subject to equitable tolling. On October 16, 2017, the court struck plaintiffs' motion for class action certification, holding that claims by the additional individual proposed as a class representative were barred by the statute of repose. The court also ruled that the original plaintiffs had standing to prosecute claims on both the November 2007 and February 2008 offerings. Class action certification and merits discovery is ongoing. On February 21, 2018, defendants moved for an order denying class certification as to both offerings.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this matter because it has concluded that such disclosure can be expected to prejudice seriously its outcome.

U.S. Embargoes-Related Matters. Deutsche Bank has received requests for information from certain U.S. regulatory and law enforcement agencies concerning its historical processing of U.S. dollar payment orders through U.S. financial institutions for parties from countries subject to U.S. embargo laws in connection with investigations into whether such processing complied with U.S. federal and state laws. In 2006, Deutsche Bank voluntarily decided that it would not engage in new U.S. dollar business with counterparties in Iran, Sudan, North Korea and Cuba and with certain Syrian banks, and to exit existing U.S. dollar business with such counterparties to the extent legally possible. In 2007, Deutsche Bank decided that it would not engage in any new business, in any currency, with counterparties in Iran, Syria, Sudan and North Korea and to exit existing business, in any currency, with such counterparties to the extent legally possible; it also decided to limit its non-U.S. dollar business with counterparties in Cuba. On November 3, 2015, Deutsche Bank entered into agreements with the New York State Department of Financial Services and the Federal Reserve Bank of New York to resolve their investigations of Deutsche Bank. Deutsche Bank paid the two agencies U.S.\$ 200 million and U.S.\$ 58 million, respectively, and agreed not to rehire certain former employees. In addition, the New York State Department of Financial Services ordered Deutsche Bank to terminate certain employees and Deutsche Bank agreed to retain an independent monitor for one year, and the Federal Reserve Bank of New York ordered certain remedial measures including ensuring an effective OFAC compliance program and an annual review of such program by an independent party until the Federal Reserve Bank of New York is satisfied as to its effectiveness.

The Group has not disclosed whether it has established a provision or contingent liability with respect to this matter because it has concluded that such disclosure can be expected to prejudice seriously its outcome.

U.S. Treasury Securities Investigations and Litigations. Deutsche Bank has received inquiries from certain regulatory and law enforcement authorities, including requests for information and documents, pertaining to U.S. Treasuries auctions, trading, and related market activity. Deutsche Bank is cooperating with these investigations.

Deutsche Bank's subsidiary Deutsche Bank Securities Inc. (DBSI) was a defendant in several putative class actions alleging violations of U.S. antitrust law, the U.S. Commodity Exchange Act and common law related to the alleged manipulation of the U.S. Treasury securities market. These cases have been consolidated in the Southern District of New York. On November 16, 2017, plaintiffs filed a consolidated amended complaint, which did not name DBSI as a defendant. On December 11, 2017, the court dismissed DBSI from the class action without prejudice.

The Group has not disclosed whether it has established a provision or contingent liability with respect to these matters because it has concluded that such disclosure can be expected to prejudice seriously their outcome.

30 – Credit related Commitments and Contingent Liabilities

Irrevocable lending commitments and lending related contingent liabilities

In the normal course of business the Group regularly enters into irrevocable lending commitments, including fronting commitments as well as contingent liabilities consisting of financial and performance guarantees, standby letters of credit and indemnity agreements on behalf of its customers. Under these contracts the Group is required to perform under an obligation agreement or to make payments to the beneficiary based on third party's failure to meet its obligations. For these instruments it is not known to the Group in detail if, when and to what extent claims will be made. In the event that the Group has to pay out cash in respect of its fronting commitments, the Group would immediately seek reimbursement from the other syndicate lenders. The Group considers all the above instruments in monitoring the credit exposure and may require collateral to mitigate inherent credit risk. If the credit risk monitoring provides sufficient perception about a loss from an expected claim, a provision is established and recorded on the balance sheet.

The following table shows the Group's irrevocable lending commitments and lending related contingent liabilities without considering collateral or provisions. It shows the maximum potential utilization of the Group in case all these liabilities entered into must be fulfilled. The table therefore does not show the expected future cash flows from these liabilities as many of them will expire without being drawn and arising claims will be honored by the customers or can be recovered from proceeds of arranged collateral.

Irrevocable lending commitments and lending related contingent liabilities

in € m.	Dec 31, 2017	Dec 31, 2016
Irrevocable lending commitments	158,253	166,063
Contingent liabilities	48,212	52,341
Total	206,464	218,404

Government Assistance

In the course of its business, the Group regularly applies for and receives government support by means of Export Credit Agency ("ECA") guarantees covering transfer and default risks for the financing of exports and investments into Emerging Markets and to a lesser extent, developed markets for Structured Trade & Export Finance and short- and medium-term Trade Finance business. Almost all export-oriented states have established such ECAs to support their domestic exporters. The ECAs act in the name and on behalf of the government of their respective country and are either constituted directly as governmental departments or organized as private companies vested with the official mandate of the government to act on its behalf. Terms and conditions of such ECA guarantees are broadly similar due to the fact that most of the ECAs act within the scope of the Organization for Economic Cooperation and Development ("OECD") consensus rules. The OECD consensus rules, an intergovernmental agreement of the OECD member states, define benchmarks intended to ensure that a fair competition between different exporting nations will take place.

In some countries dedicated funding programs with governmental support are offered for ECA-covered financings. The Group makes use of such programs to assist its clients in the financing of exported goods and services. In certain financings, the Group also receives government guarantees from national and international governmental institutions as collateral to support financings in the interest of the respective governments. The majority of such ECA guarantees received by the Group were issued either by the Euler-Hermes Kreditversicherungs-AG acting on behalf of the Federal Republic of Germany, by the Korean Export Credit Agencies (Korea Trade Insurance Corporation and The Export-Import Bank of Korea) acting on behalf of the Republic of Korea or by Chinese Export Credit Agency (China Export & Insurance Corporation (Sinosure)) acting on behalf of the People's Republic of China.

Irrevocable payment commitments with regard to levies

Irrevocable payment commitments related to bank levy according to Bank Recovery and Resolution Directive (BRRD), the Single Resolution Fund (SRF) and the German statutory deposit protection amounted to € 412.3 million as of December 31, 2017, and to € 280.4 million as of December 31, 2016.

31 – Other Short-Term Borrowings

in € m.	Dec 31, 2017	Dec 31, 2016
Other short-term borrowings:		
Commercial paper	5,274	3,219
Other	13,137	14,076
Total other short-term borrowings	18,411	17,295

32 – Long-Term Debt and Trust Preferred Securities

Long-Term Debt by Earliest Contractual Maturity

in € m.	Due in 2018	Due in 2019	Due in 2020	Due in 2021	Due in 2022	Due after 2022	Total Dec 31, 2017	Total Dec 31, 2016
Senior debt:								
Bonds and notes:								
Fixed rate	12,259	10,843	9,691	12,939	10,045	20,509	76,285	84,924
Floating rate	5,321	8,549	4,156	4,282	4,433	6,469	33,210	37,082
Subordinated debt:								
Bonds and notes:								
Fixed rate	257	28	1,096	0	0	4,112	5,493	4,882
Floating rate	277	20	0	0	0	1,441	1,738	1,906
Other	28,289	1,778	1,836	738	706	9,641	42,988	43,523
Total long-term debt	46,403	21,218	16,779	17,958	15,185	42,172	159,715	172,316

The Group did not have any defaults of principal, interest or other breaches with respect to its liabilities in 2017 and 2016.

Trust Preferred Securities¹

in € m.	Dec 31, 2017	Dec 31, 2016
Fixed rate	4,462	5,302
Floating rate	1,030	1,071
Total trust preferred securities	5,491	6,373

¹ Perpetual instruments, redeemable at specific future dates at the Group's option.

33 – Maturity Analysis of the earliest contractual undiscounted cash flows of Financial Liabilities

	Dec 31, 2017				
in € m.	On demand	Due within 3 months	Due between 3 and 12 months	Due between 1 and 5 years	Due after 5 years
Noninterest bearing deposits	226,339	0	0	0	0
Interest bearing deposits	133,378	146,145	45,633	18,699	12,166
Trading liabilities ¹	71,457	0	0	0	0
Negative market values from derivative financial instruments ¹	342,726	0	0	0	0
Financial liabilities designated at fair value through profit or loss	29,207	29,360	4,847	2,599	5,951
Investment contract liabilities ²	0	0	574	0	0
Negative market values from derivative financial instruments qualifying for hedge accounting ³	0	69	336	672	218
Central bank funds purchased	174	83	0	0	0
Securities sold under repurchase agreements	14,152	2,525	1,348	491	23
Securities loaned	6,684	3	0	0	1
Other short-term borrowings	11,859	2,326	3,600	0	0
Long-term debt	4	7,409	41,820	78,063	41,926
Trust preferred securities	0	1,710	3,328	688	0
Other financial liabilities	112,961	3,483	554	373	4
Off-balance sheet loan commitments	153,700	0	0	0	0
Financial guarantees	19,883	0	0	0	0
Total⁴	1,122,525	193,113	102,040	101,585	60,287

¹ Trading liabilities and derivatives not qualifying for hedge accounting balances are recorded at fair value. The Group believes that this best represents the cash flow that would have to be paid if these positions had to be closed out. Trading liabilities and derivatives not qualifying for hedge accounting balances are shown within "on demand" which Group's management believes most accurately reflects the short-term nature of trading activities. The contractual maturity of the instruments may however extend over significantly longer periods.

² These are investment contracts where the policy terms and conditions result in their redemption value equaling fair value. See Note 42 "Insurance and Investment Contracts" for more detail on these contracts.

³ Derivatives designated for hedge accounting are recorded at fair value and are shown in the time bucket at which the hedged relationship is expected to terminate.

⁴ The balances in the table do not agree to the numbers in the Group's balance sheet as the cash flows included in the table are undiscounted. This analysis represents the worst case scenario for the Group if the Group was required to repay all liabilities earlier than expected. The Group believes that the likelihood of such an event occurring is remote.

	Dec 31, 2016				
in € m.	On demand	Due within 3 months	Due between 3 and 12 months	Due between 1 and 5 years	Due after 5 years
Noninterest bearing deposits	200,122	0	0	0	0
Interest bearing deposits	129,704	147,531	46,176	17,027	11,247
Trading liabilities ¹	57,029	0	0	0	0
Negative market values from derivative financial instruments ¹	463,858	0	0	0	0
Financial liabilities designated at fair value through profit or loss	18,949	38,641	4,343	2,676	6,460
Investment contract liabilities ²	0	0	592	0	0
Negative market values from derivative financial instruments qualifying for hedge accounting ³	0	573	737	2,427	856
Central bank funds purchased	353	0	0	0	0
Securities sold under repurchase agreements	19,980	2,401	2,386	715	0
Securities loaned	4,168	11	0	0	0
Other short-term borrowings	13,322	1,995	1,802	0	0
Long-term debt	6	7,462	24,440	118,607	46,812
Trust preferred securities	0	78	2,539	4,361	0
Other financial liabilities	128,400	2,642	583	407	3,246
Off-balance sheet loan commitments	160,099	0	0	0	0
Financial guarantees	20,966	0	0	0	0
Total⁴	1,216,955	201,334	83,599	146,219	68,621

¹ Trading liabilities and derivatives not qualifying for hedge accounting balances are recorded at fair value. The Group believes that this best represents the cash flow that would have to be paid if these positions had to be closed out. Trading liabilities and derivatives not qualifying for hedge accounting balances are shown within "on demand" which Group's management believes most accurately reflects the short-term nature of trading activities. The contractual maturity of the instruments may however extend over significantly longer periods.

² These are investment contracts where the policy terms and conditions result in their redemption value equaling fair value. See Note 42 "Insurance and Investment Contracts" for more detail on these contracts.

³ Derivatives designated for hedge accounting are recorded at fair value and are shown in the time bucket at which the hedged relationship is expected to terminate.

⁴ The balances in the table do not agree to the numbers in the Group's balance sheet as the cash flows included in the table are undiscounted. This analysis represents the worst case scenario for the Group if the Group was required to repay all liabilities earlier than expected. The Group believes that the likelihood of such an event occurring is remote.

Additional Notes

34 – Common Shares

Common Shares

Deutsche Bank's share capital consists of common shares issued in registered form without par value. Under German law, each share represents an equal stake in the subscribed capital. Therefore, each share has a nominal value of € 2.56, derived by dividing the total amount of share capital by the number of shares.

Number of shares	Issued and fully paid	Treasury shares	Outstanding
Common shares, January 1, 2016	1,379,273,131	(374,864)	1,378,898,267
Shares issued under share-based compensation plans	0	0	0
Capital increase	0	0	0
Shares purchased for treasury	0	(355,069,462)	(355,069,462)
Shares sold or distributed from treasury	0	355,240,884	355,240,884
Common shares, December 31, 2016	1,379,273,131	(203,442)	1,379,069,689
Shares issued under share-based compensation plans	0	0	0
Capital increase	687,500,000	0	687,500,000
Shares purchased for treasury	0	(490,690,358)	(490,690,358)
Shares sold or distributed from treasury	0	490,522,710	490,522,710
Common shares, December 31, 2017	2,066,773,131	(371,090)	2,066,402,041

There are no issued ordinary shares that have not been fully paid.

Shares purchased for treasury mainly consist of shares purchased with the intention of being resold in the short-term as well as held by the Group for a period of time. In addition, the Group has bought back shares for equity compensation purposes. All such transactions were recorded in shareholders' equity and no revenues and expenses were recorded in connection with these activities. Treasury stock held as of year-end will mainly be used for future share-based compensation.

On April 7, 2017, Deutsche Bank AG completed a capital increase from authorized capital against cash contributions through a public offering with subscription rights. In total, 687.5 million new common shares were issued, resulting in total proceeds of € 8.0 billion. The new shares were issued with the same dividend rights as the existing shares. 98.92 % of the subscription rights were exercised and thus 680.1 million new shares were issued at the subscription price of € 11.65 per share. The remaining 7.4 million new shares were sold in the market at an average price of € 15.50 per share.

The transaction costs related to the capital increase that were directly recorded in equity amounted to € 0.1 billion after tax.

Authorized Capital

The Management Board is authorized to increase the share capital by issuing new shares for cash consideration. As of December 31, 2017, Deutsche Bank AG had authorized but unissued capital of € 2,560,000,000 which may be issued in whole or in part until April 30, 2022. Further details are governed by Section 4 of the Articles of Association.

Authorized capital	Consideration	Pre-emptive rights	Expiration date
€ 512,000,000	Cash	May be excluded pursuant to Section 186 (3) sentence 4 of the Stock Corporation Act and may be excluded insofar as it is necessary to grant pre-emptive rights to the holders of option rights, convertible bonds and convertible participatory rights	April 30, 2022
€ 2,048,000,000	Cash	May be excluded insofar as it is necessary to grant pre-emptive rights to the holders of option rights, convertible bonds and convertible participatory rights.	April 30, 2022

Conditional Capital

The Management Board is authorized to issue once or more than once, participatory notes that are linked with conversion rights or option rights and/or convertible bonds and/or bonds with warrants. The participatory notes, convertible bonds or bonds with warrants may also be issued by affiliated companies of Deutsche Bank AG. For this purpose share capital was increased conditionally upon exercise of these conversion and/or exchange rights or upon mandatory conversion.

Conditional capital	Purpose of conditional capital	Expiration date
€ 512,000,000	May be used if holders of conversion or option rights that are linked with participatory notes or convertible bonds or bonds with warrants make use of their conversion or option rights or holders with conversion obligations of convertible participatory notes or convertible bonds fulfill their obligation to convert.	April 30, 2022
€ 51,200,000	May be used to fulfill options that are awarded on or before the expiration date and will only be used to the extent that holders of issued options make use of their right to receive shares and shares are not delivered out of treasury shares	April 30, 2022

Dividends

The following table presents the amount of dividends proposed or declared for the years ended December 31, 2017, 2016 and 2015, respectively.

	2017 (proposed) ¹	2016 ²	2015 ²
Cash dividends declared (in € m.)	227	227	165
Cash dividends declared per common share (in €)	0.11	0.11	0.08

¹ Cash dividend for 2017 is based on the number of shares issued as of December 31, 2017.

² Dividends for 2016 and 2015 were approved by the annual general meeting in 2017 and were paid simultaneously in 2017.

No dividends have been declared since the balance sheet date.

35 – Employee Benefits

Share-Based Compensation Plans

The Group made grants of share-based compensation under the DB Equity Plan. This plan represents a contingent right to receive Deutsche Bank common shares after a specified period of time. The award recipient is not entitled to receive dividends during the vesting period of the award.

The share awards granted under the terms and conditions of the DB Equity Plan may be forfeited fully or partly if the recipient voluntarily terminates employment before the end of the relevant vesting period. Vesting usually continues after termination of employment in cases such as redundancy or retirement.

In countries where legal or other restrictions hinder the delivery of shares, a cash plan variant of the DB Equity Plan was used for granting awards.

The following table sets forth the basic terms of these share plans.

Grant year(s)	Deutsche Bank Equity Plan	Vesting schedule	Early retirement provisions	Eligibility
2017	Annual Award ¹	1/4: 12 months ²	Yes ³	Select employees as annual performance-based compensation
		1/4: 24 months ²		
		1/4: 36 months ²		
		1/4: 48 months ²		
		Or cliff vesting after 54 months ²		
	Retention/New Hire	Individual specification	Yes	Members of Management Board or of Senior Leadership Cadre
	Annual Award – Upfront	Vesting immediately at grant ⁴	No	Select employees to attract and retain the best talent
	Key Retention Plan (KRP) ⁵	1/2: 50 months ⁶	Yes	Regulated employees
		1/2: 62 months ⁶		
		Cliff vesting after 43 months		
2016	Annual Award	1/4: 12 months ²	Yes ³	Material Risk Takers (MRTs)
		1/4: 24 months ²		
		1/4: 36 months ²		
		1/4: 48 months ²		
		Or cliff vesting after 54 months ²		
	Retention/New Hire	Individual specification	Yes	Members of Management Board or of Senior Leadership Cadre
	Annual Award – Upfront	Vesting immediately at grant ⁴	No	Select employees to attract and retain the best talent
	Key Position Award (KPA) ⁷	Cliff-vesting after 4 years ⁴	Yes	Regulated employees
2015/ 2014/ 2013	Annual Award	1/3: 12 months ²	Yes ³	Select employees as annual performance-based compensation
		1/3: 24 months ²		
		1/3: 36 months ²		
		Or cliff vesting after 54 months ²		
	Retention/New Hire	Individual specification	Yes	Members of Management Board or of Senior Management Group
	Annual Award – Upfront	Vesting immediately at grant ⁸	No	Select employees to attract and retain the best talent
2012	Annual Award	1/3: 12 months ⁹	Yes	Regulated employees
		1/3: 24 months ⁹		
		1/3: 36 months ⁹		
	Retention/New Hire	Individual specification	Yes	Select employees to attract and retain the best talent
	Annual Award – Upfront	Vesting immediately at grant ⁸	No	Regulated employees

¹ For employees of certain legal entities, deferred equity is replaced with restricted shares due to local regulatory requirements.

² For members of the Management Board or of the Senior Leadership Cadre and all other regulated employees a further retention period of six months applies.

³ Early retirement provisions do not apply to members of the Management Board.

⁴ For all regulated employees share delivery takes place after a further retention period of twelve months.

⁵ The Key Retention Plan (KRP) is referenced as the "Retention Award Program" in the Bank's Compensation Report. Equity-based awards granted under this program in January 2017 are subject to an additional share price hurdle, meaning this award proportion only vests in the event that the Bank's share price reaches a certain share target price prior to vesting.

⁶ For Material Risk Takers (MRTs) share delivery takes place after a further retention period of twelve months.

⁷ A predefined proportion of the individual's KPA is subject to an additional share price hurdle, meaning this award proportion only vests in the event that the Bank's share price reaches a certain share target price prior to vesting.

⁸ For members of the Management Board share delivery takes place after a retention period of three years. For all other regulated employees share delivery takes place after a retention period of six months.

⁹ For members of the Management Board a different schedule applies. For all other regulated employees share delivery takes place after a further retention period of six months.

Furthermore, the Group offers a broad-based employee share ownership plan entitled Global Share Purchase Plan ("GSPP"). The GSPP offers employees in specific countries the opportunity to purchase Deutsche Bank shares in monthly installments over one year. At the end of the purchase cycle, the bank matches the acquired stock in a ratio of one to one up to a maximum of ten free shares, provided that the employee remains at Deutsche Bank Group for another year. In total, about 14,500 staff from 20 countries enrolled in the ninth cycle that began in November 2017.

The Group has other local share-based compensation plans, none of which, individually or in the aggregate, are material to the consolidated financial statements.

The following table shows the outstanding share award units as of the respective dates, which represent a contingent right to receive Deutsche Bank common shares after a specified period of time. It also includes the grants under the cash plan variant of the DB Equity Plan.

	Share units (in thousands)	Weighted-average grant date fair value per unit
Balance as of December 31, 2015	53,651	€ 28.18
Balance as of December 31, 2016	90,292	€ 20.22
Balance as of December 31, 2017	137,541	€ 14.78

Share-based payment transactions resulting in a cash payment give rise to a liability, which amounted to approximately € 23 million, € 15 million and € 19 million for the years ended December 31, 2017, 2016 and 2015, respectively.

As of December 31, 2017, the grant volume of outstanding share awards was approximately € 1.8 billion. Thereof, € 1.1 billion had been recognized as compensation expense in the reporting year or prior to that. Hence, compensation expense for deferred share-based compensation not yet recognized amounted to € 0.7 billion as of December 31, 2017.

In addition to the amounts shown in the table above, approximately 5.7 and 3.7 million shares were issued to plan participants in February and March 2018, resulting from the vesting of DB Equity Plan awards granted in prior years (thereof 0.16 million units for February and 0.04 million units for March 2018 vesting cycles under the cash plan variant of this DB Equity Plan).

Post-employment Benefit Plans

Nature of Plans

The Group sponsors a number of post-employment benefit plans on behalf of its employees, both defined contribution plans and defined benefit plans. The Group's plans are accounted for based on the nature and substance of the plan. Generally, for defined benefit plans the value of a participant's accrued benefit is based on each employee's remuneration and length of service; contributions to defined contribution plans are typically based on a percentage of each employee's remuneration. The rest of this note focuses predominantly on the Group's defined benefit plans.

The Group's defined benefit plans are primarily described on a geographical basis, reflecting differences in the nature and risks of benefits, as well as in the respective regulatory environments. In particular, the requirements set by local regulators can vary significantly and determine the design and financing of the benefit plans to a certain extent. Key information is also shown based on participant status, which provides a broad indication of the maturity of the Group's obligations.

	Dec 31, 2017				
in € m.	Germany	UK	U.S.	Other	Total
Defined benefit obligation related to					
Active plan participants	4,823	688	363	640	6,514
Participants in deferred status	2,196	2,583	536	93	5,408
Participants in payment status	5,071	905	502	246	6,724
Total defined benefit obligation	12,090	4,176	1,401	979	18,646
Fair value of plan assets	11,003	5,202	1,091	915	18,211
Funding ratio (in %)	91	125	78	93	98

	Dec 31, 2016				
in € m.	Germany	UK	U.S.	Other	Total
Defined benefit obligation related to					
Active plan participants	4,884	791	443	741	6,859
Participants in deferred status	2,139	2,559	560	99	5,357
Participants in payment status	4,955	1,146	545	251	6,897
Total defined benefit obligation	11,978	4,496	1,548	1,091	19,113
Fair value of plan assets	10,975	5,352	1,219	973	18,519
Funding ratio (in %)	92	119	79	89	97

The majority of the Group's defined benefit plan obligations relate to Germany, the United Kingdom and the United States. Within the other countries, the largest obligations relate to Switzerland, Channel Islands and Belgium. In Germany and some continental European countries, post-employment benefits are usually agreed on a collective basis with respective employee works councils or their equivalent. The Group's main pension plans are governed by boards of trustees, fiduciaries or their equivalent.

Post-employment benefits can form an important part of an employee's total remuneration. The Group's approach is that their design shall be attractive to employees in the respective market, but sustainable for the Group to provide over the longer term.

At the same time, the Group tries to limit its risks related to provision of such benefits. Consequently the Group has moved to offer defined contribution plans in many locations over recent years.

In the past the Group typically offered pension plans based on final pay prior to retirement. These types of benefits still form a significant part of the pension obligations for participants in deferred and payment status. Currently, in Germany and the United States, the main defined benefit pension plans for active staff are cash account type plans where the Group credits an annual amount to individual accounts based on an employee's current salary. Dependent on the plan rules, the accounts increase either at a fixed interest rate or participate in market movements of certain underlying investments to limit the investment risk for the Group. Sometimes, in particular in Germany, there is a guaranteed benefit amount within the plan rules, e.g. payment of at least the amounts contributed. Upon retirement, beneficiaries may usually opt for a lump sum or for conversion of the accumulated account balance into an annuity. This conversion is often based on market conditions and mortality assumptions at retirement. In the United Kingdom, the main defined benefit pension plan was redesigned in 2011 for active employees still eligible to the plan to reduce the overall long-term risk exposure to the Group. In the Netherlands, the Group converted the defined benefit plan into a collective defined contribution plan during 2016.

The Group also sponsors retirement and termination indemnity plans in several countries, as well as some post-employment medical plans for a number of current and retired employees, mainly in the United States. The post-employment medical plans typically pay fixed percentages of medical expenses of eligible retirees after a set deductible has been met. In the United States, once a retiree is eligible for Medicare, the Group contributes to a Health Reimbursement Account and the retiree is no longer eligible for the Group's medical program. The Group's total defined benefit obligation for post-employment medical plans was € 196 million and € 201 million at December 31, 2017 and December 31, 2016, respectively. In combination with the benefit structure, these plans represent limited risk for the Group, given the nature and size of the post-retirement medical plan liabilities of € 196 million versus the size of the Group's balance sheet at year end 2017.

The following amounts of expected benefit payments from the Group's defined benefit plans include benefits attributable to employees' past and estimated future service, and include both amounts paid from the Group's external pension trusts and paid directly by the Group in respect of unfunded plans.

in € m.	Germany	UK	U.S.	Other	Total
Actual benefit payments 2017	413	245	99	83	840
Benefits expected to be paid 2018	423	71	71	61	626
Benefits expected to be paid 2019	436	77	77	64	654
Benefits expected to be paid 2020	453	86	73	58	670
Benefits expected to be paid 2021	469	93	77	57	696
Benefits expected to be paid 2022	489	100	78	60	727
Benefits expected to be paid 2023 – 2027	2,736	638	423	306	4,103
Weighted average duration of defined benefit obligation (in years)	14	22	12	12	16

2017 saw many members of UK pension plans transfer their entitlements to external pension schemes in order to take advantage of recent legislation changes, which allow more flexibility over their pension benefit entitlements. Projected benefit payments for future periods do not allow for such discretionary transfers.

Multi-employer Plans

In Germany, the Group is a member of the BVV Versicherungsverein des Bankgewerbes a.G. (BVV) together with other financial institutions. The BVV offers retirement benefits to eligible employees in Germany as a complement to post-employment benefit promises of the Group. Both employers and employees contribute on a regular basis to the BVV. The BVV provides annuities of a fixed amount to individuals on retirement and increases these fixed amounts if surplus assets arise within the plan. According to legislation in Germany, the employer is ultimately liable for providing the benefits to its employees. An increase in benefits may also arise due to additional obligations to retirees for the effects of inflation. BVV is a multi-employer defined benefit plan. However, in line with industry practice, the Group accounts for it as a defined contribution plan since insufficient information is available to identify assets and liabilities relating to the Group's current and former employees, primarily because the BVV does not fully allocate plan assets to beneficiaries nor to member companies. According to the BVV's disclosures, there is no current deficit in the plan that may affect the amount of future Group contributions. Furthermore, any plan surplus emerging in the future will be distributed to the plan members, hence it cannot reduce future Group contributions. In June 2016, the BVV's Annual General Meeting approved a reduction in benefits from future contributions for certain groups of employees. Similar to other participating companies, the Group committed to make up for reduced benefit levels by increasing contributions to the BVV from January 1, 2017. A corresponding labor agreement has been signed with the German works council.

The Group's expenses for defined contribution plans also include annual contributions by Deutsche Postbank AG to the pension fund for postal civil servants in Germany. Responsibility for the liability for these benefits lies with the German government.

Governance and Risk

The Group maintains a Pensions Risk Committee to oversee its pension and related risks on a global basis. This Committee meets quarterly, reports directly to the Senior Executive Compensation Committee and is supported by the Pensions Operating Committee.

Within this context, the Group develops and maintains guidelines for governance and risk management, including funding, asset allocation and actuarial assumption setting. In this regard, risk management means the management and control of risks for the Group related to market developments (e.g., interest rate, credit spread, price inflation), asset investment, regulatory or legislative requirements, as well as monitoring demographic changes (e.g., longevity). Especially during and after acquisitions or changes in the external environment (e.g., legislation, taxation), topics such as the general plan design or potential plan amendments are considered. Any plan changes follow a process requiring approval by Group Human Resources. To the extent that pension plans are funded, the assets held mitigate some of the liability risks, but introduce investment risk.

In the Group's key pension countries, the Group's largest post-employment benefit plan risk exposures relate to potential changes in credit spreads, interest rates, price inflation and longevity, although these have been partially mitigated through the investment strategy adopted.

Overall, the Group seeks to minimize the impact of pensions on the Group's financial position from market movements, subject to balancing the trade-offs involved in financing post-employment benefits, regulatory capital and constraints from local funding or accounting requirements. The Group measures its pension risk exposures on a regular basis using specific metrics developed by the Group for this purpose.

Funding

The Group maintains various external pension trusts to fund the majority of its defined benefit plan obligations. The Group's funding policy is to maintain coverage of the defined benefit obligation by plan assets within a range of 90 % to 100 % of the obligation, subject to meeting any local statutory requirements. The Group has also determined that certain plans should remain unfunded, although their funding approach is subject to periodic review, e.g. when local regulations or practices change. Obligations for the Group's unfunded plans are accrued on the balance sheet.

For most of the externally funded defined benefit plans there are local minimum funding requirements. The Group can decide on any additional plan contributions, with reference to the Group's funding policy. There are some locations, e.g. the United Kingdom, where the trustees and the Bank jointly agree contribution levels. In most countries the Group expects to receive an economic benefit from any plan surpluses of plan assets compared to defined benefit obligations, typically by way of reduced future contributions. Given the broadly fully funded position and the investment strategy adopted in the Group's key funded defined benefit plans, any minimum funding requirements that may apply are not expected to place the Group under any material adverse cash strain in the short term. With reference to the Group's funding policy, the Group considers not re-claiming benefits paid from the Group's assets as an equivalent to making cash contributions into the external pension trusts during the year.

For post-retirement medical plans, the Group accrues for obligations over the period of employment and pays the benefits from Group assets when the benefits become due.

Actuarial Methodology and Assumptions

December 31 is the measurement date for all plans. All plans are valued by independent qualified actuaries using the projected unit credit method. A Group policy provides guidance to local actuaries to ensure consistency globally on setting actuarial assumptions which are finally determined by the Group's Pensions Operating Committee.

The key actuarial assumptions applied in determining the defined benefit obligations at December 31 are presented below in the form of weighted averages.

	Dec 31, 2017				Dec 31, 2016			
	Germany	UK	U.S. ¹	Other	Germany	UK	U.S. ¹	Other
Discount rate (in %)	1.7	2.5	3.5	2.5	1.7	2.6	4.0	2.3
Rate of price inflation (in %)	1.8	3.5	2.2	2.0	1.7	3.6	2.2	2.0
Rate of nominal increase in future compensation levels (in %)	2.3	4.5	2.3	3.1	2.1	4.6	2.3	2.8
Rate of nominal increase for pensions in payment (in %)	1.7	3.3	2.2	1.1	1.6	3.5	2.2	1.1
Assumed life expectancy at age 65								
For a male aged 65 at measurement date	19.3	23.6	22.2	21.7	19.1	23.4	22.4	22.0
For a female aged 65 at measurement date	23.3	25.4	23.7	24.1	23.2	25.5	23.9	24.5
For a male aged 45 at measurement date	21.9	24.9	23.8	23.1	21.8	25.1	23.9	23.7
For a female aged 45 at measurement date	25.8	26.9	25.2	25.6	25.7	27.4	25.4	26.1
Mortality tables applied								
	Richttafeln Heubeck 2005G	SAPS (S2) Light with CMI 2016 projections	RP2014 White-collar with MP2017 projections	Country specific tables	Richttafeln Heubeck 2005G	SAPS (S1) Light with CMI 2015 projections	RP2014 Aggregate with MP 2016 projections	Country specific tables

¹ Cash balance interest crediting rate in line with the 30-year US government bond yield.

For the Group's most significant plans in the key countries, the discount rate used at each measurement date is set based on a high quality corporate bond yield curve – derived based on bond universe information sourced from reputable third-party index and data providers and rating agencies – reflecting the timing, amount and currency of the future expected benefit payments for the respective plan. For longer durations where limited bond information is available, reasonable yield curve extrapolation methods are applied using respective actual swap rates and credit spread assumptions. Consistent discount rates are used across all plans in each currency zone, based on the assumption applicable for the Group's largest plan(s) in that zone. For plans in the other countries, the discount rate is based on high quality corporate or government bond yields applicable in the respective currency, as appropriate at each measurement date with a duration broadly consistent with the respective plan's obligations.

In 2017 the Group moved to a more standardised, simpler approach to set its discount rate used to value its defined benefit plans in the eurozone; similar approaches are generally accepted and are already used for the Group's other major pension plans in the United Kingdom and the United States. The refinement resulted in no change in the discount rate and so no effect on the Group's Consolidated Statement of Comprehensive Income in 2017.

The price inflation assumptions in the eurozone and the United Kingdom are set with reference to market measures of inflation based on inflation swap rates in those markets at each measurement date. For other countries, the price inflation assumptions are typically based on long term forecasts by Consensus Economics Inc.

The assumptions for the increases in future compensation levels and for increases to pensions in payment are developed separately for each plan, where relevant. Each is set based on the price inflation assumption and reflecting the Group's reward structure or policies in each market, as well as relevant local statutory and plan-specific requirements.

Among other assumptions, mortality assumptions can be significant in measuring the Group's obligations under its defined benefit plans. These assumptions have been set in accordance with current best practice in the respective countries. Future potential improvements in longevity have been considered and included where appropriate.

Reconciliation in Movement of Liabilities and Assets – Impact on Financial Statements

in € m.	2017				
	Germany	UK	U.S.	Other	Total
Change in the present value of the defined benefit obligation:					
Balance, beginning of year	11,978	4,496	1,548	1,091	19,113
Defined benefit cost recognized in Profit & Loss					
Current service cost	213	34	21	50	318
Interest cost	202	114	56	25	397
Past service cost and gain or loss arising from settlements	34	4	0	(11)	27
Defined benefit cost recognized in Other Comprehensive Income					
Actuarial gain or loss arising from changes in financial assumptions	76	(43)	65	3	101
Actuarial gain or loss arising from changes in demographic assumptions	0	(16)	(6)	(11)	(33)
Actuarial gain or loss arising from experience	(3)	(17)	5	(9)	(24)
Cash flow and other changes					
Contributions by plan participants	3	0	0	15	18
Benefits paid	(413)	(245)	(99)	(83)	(840)
Payments in respect to settlements	0	0	0	(26)	(26)
Acquisitions/Divestitures	0	0	0	0	0
Exchange rate changes	0	(151)	(189)	(63)	(403)
Other	0	0	0	(2)	(2)
Balance, end of year	12,090	4,176	1,401	979	18,646
thereof:					
Unfunded	2	12	195	116	325
Funded	12,088	4,164	1,206	863	18,321
Change in fair value of plan assets:					
Balance, beginning of year	10,975	5,352	1,219	973	18,519
Defined benefit cost recognized in Profit & Loss					
Interest income	187	135	44	22	388
Defined benefit cost recognized in Other Comprehensive Income					
Return from plan assets less interest income	(187)	144	32	32	21
Cash flow and other changes					
Contributions by plan participants	3	0	0	15	18
Contributions by the employer	438	0	31	22	491
Benefits paid ¹	(413)	(244)	(86)	(63)	(806)
Payments in respect to settlements	0	0	0	(26)	(26)
Acquisitions/Divestitures	0	0	0	0	0
Exchange rate changes	0	(183)	(147)	(58)	(388)
Other	0	0	0	(1)	(1)
Plan administration costs	0	(2)	(2)	(1)	(5)
Balance, end of year	11,003	5,202	1,091	915	18,211
Funded status, end of year	(1,087)	1,026	(310)	(64)	(435)
Change in irrecoverable surplus (asset ceiling)					
Balance, beginning of year	0	0	0	0	0
Interest cost	0	0	0	0	0
Changes in irrecoverable surplus	0	0	0	(46)	(46)
Exchange rate changes	0	0	0	2	2
Balance, end of year	0	0	0	(44)	(44)
Net asset (liability) recognized	(1,087)	1,026	(310)	(108)	(479)²

¹ For funded plans only.

² Thereof € 1,113 million recognized in Other assets and € 1,592 million in Other liabilities.

in € m.	2016				
	Germany	UK	U.S.	Other	Total
Change in the present value of the defined benefit obligation:					
Balance, beginning of year	10,783	4,323	1,507	1,341	17,954
Defined benefit cost recognized in Profit & Loss					
Current service cost	190	23	21	62	296
Interest cost	256	151	61	35	503
Past service cost and gain or loss arising from settlements ¹	2	5	0	(39)	(32)
Defined benefit cost recognized in Other Comprehensive Income					
Actuarial gain or loss arising from changes in financial assumptions	1,142	1,251	42	141	2,576
Actuarial gain or loss arising from changes in demographic assumptions	0	4	(6)	(3)	(5)
Actuarial gain or loss arising from experience	2	(66)	0	(3)	(67)
Cash flow and other changes					
Contributions by plan participants	3	0	0	19	22
Benefits paid	(403)	(132)	(123)	(76)	(734)
Payments in respect to settlements ¹	0	0	0	(393)	(393)
Acquisitions/Divestitures ²	0	(402)	0	0	(402)
Exchange rate changes	0	(661)	46	(8)	(623)
Other ³	3	0	0	15	18
Balance, end of year	11,978	4,496	1,548	1,091	19,113
thereof:					
Unfunded	4	13	206	123	346
Funded	11,974	4,483	1,342	968	18,767
Change in fair value of plan assets:					
Balance, beginning of year	10,371	5,322	1,182	1,210	18,085
Defined benefit cost recognized in Profit & Loss					
Interest income	249	185	48	32	514
Defined benefit cost recognized in Other Comprehensive Income					
Return from plan assets less interest income	484	1,042	10	97	1,633
Cash flow and other changes					
Contributions by plan participants	3	0	0	19	22
Contributions by the employer	271	22	56	73	422
Benefits paid ⁴	(402)	(132)	(110)	(56)	(700)
Payments in respect to settlements ¹	0	0	0	(393)	(393)
Acquisitions/Divestitures ²	0	(282)	0	0	(282)
Exchange rate changes	0	(804)	36	(19)	(787)
Other ³	(1)	0	0	12	11
Plan administration costs	0	(1)	(3)	(2)	(6)
Balance, end of year	10,975	5,352	1,219	973	18,519
Funded status, end of year	(1,003)	856	(329)	(118)	(594)
Change in irrecoverable surplus (asset ceiling)					
Balance, beginning of year	0	0	0	0	0
Interest cost	0	0	0	0	0
Changes in irrecoverable surplus	0	0	0	0	0
Exchange rate changes	0	0	0	0	0
Balance, end of year	0	0	0	0	0
Net asset (liability) recognized	(1,003)	856	(329)	(118)	(594)⁵

¹ Conversion of defined benefit plan into a collective defined contribution plan in the Netherlands.

² Abbey Life.

³ Includes the opening balance of a plan in Belgium for which defined contribution plan accounting was applied before and other smaller plans.

⁴ For funded plans only.

⁵ Thereof € 934 million recognized in Other assets and € 1,528 million in Other liabilities.

There are no reimbursement rights for the Group.

Investment Strategy

The Group's investment objective is to protect the Group from adverse impacts of its defined benefit pension plans on key financial metrics. In the past, the primary focus has been on protecting the plans' IFRS funded status in the case of adverse market scenarios. Recently there has been a shift in the investment strategy in selected markets to balance competing key financial metrics. Investment managers manage pension assets in line with investment mandates or guidelines as agreed with the pension plans' trustees and investment committees.

For key defined benefit plans for which the Bank aims to protect the IFRS funded status, the Group applies a liability driven investment (LDI) approach. Risks from mismatches between fluctuations in the present value of the defined benefit obligations and plan assets due to capital market movements are minimized, subject to balancing relevant trade-offs. This is achieved by allocating plan assets closely to the market risk factor exposures of the pension liability to interest rates, credit spreads and inflation. Thereby, plan assets broadly reflect the underlying risk profile and currency of the pension obligations. For pension plans where the LDI approach may impact adversely other key financial metrics, the Group deviates from this primary investment strategy. For example, in 2015, the Group started to adjust the investment strategy for the German main pension plan assets by reducing the interest rate and credit spread hedges. The Group closely monitors this divergence from the primary investment strategy and has put in place governance mechanisms to ensure a regular review of the deviation from the LDI approach.

Where the desired hedging level for market risks cannot be achieved with physical instruments (i.e. corporate and government bonds), derivatives are employed. Derivative overlays mainly include interest rate, inflation swaps and credit default swaps. Other instruments are also used, such as interest rate futures and options. In practice, a completely hedged approach is impractical, for instance because of insufficient market depth for ultra-long-term corporate bonds, as well as liquidity and cost considerations. Therefore, plan assets contain further asset categories to create long-term return enhancement and diversification benefits such as equity, real estate, high yield bonds or emerging markets bonds.

Plan asset allocation to key asset classes

The following table shows the asset allocation of the Group's funded defined benefit plans to key asset classes, i.e. exposures include physical securities in discretely managed portfolios and underlying asset allocations of any commingled funds used to invest plan assets.

Asset amounts in the following table include both “quoted” (i.e. Level 1 assets in accordance with IFRS 13 – amounts invested in markets where the fair value can be determined directly from prices which are quoted in active, liquid markets) and “other” (i.e. Level 2 and 3 assets in accordance with IFRS 13) assets.

in € m.	Dec 31, 2017					Dec 31, 2016				
	Germany	UK	U.S.	Other	Total	Germany	UK	U.S.	Other	Total
Cash and cash equivalents	1,260	419	26	74	1,779	1,085	115	45	73	1,318
Equity instruments ¹	1,265	582	118	68	2,033	1,129	634	116	87	1,966
Investment-grade bonds ²										
Government	2,212	1,167	367	161	3,907	2,264	1,898	405	166	4,733
Non-government bonds	5,189	2,447	472	175	8,283	5,627	2,272	521	154	8,574
Non-investment-grade bonds										
Government	177	0	0	14	191	166	0	0	45	211
Non-government bonds	610	70	20	37	737	305	70	15	25	415
Structured products	41	402	51	26	520	38	237	65	22	362
Insurance	0	0	0	27	27	1	0	0	27	28
Alternatives										
Real estate	232	117	0	56	405	222	117	0	37	376
Commodities	48	24	0	0	72	6	13	0	0	19
Private equity	58	0	0	0	58	58	0	0	0	58
Other	788	36	0	274	1,098	667	34	0	330	1,031
Derivatives (Market Value)										
Interest rate	(735)	148	37	(4)	(554)	(614)	133	51	(2)	(432)
Credit	(155)	(1)	0	(1)	(157)	80	(1)	1	1	81
Inflation	0	(210)	0	6	(204)	0	(197)	0	7	(190)
Foreign exchange	10	1	0	2	13	(59)	2	0	0	(57)
Other	3	0	0	0	3	0	25	0	1	26
Total fair value of plan assets	11,003	5,202	1,091	915	18,211	10,975	5,352	1,219	973	18,519

¹ Allocation of equity exposure is broadly in line with the typical index in the respective market, e.g. the equity portfolio's benchmark of the UK retirement benefit plans is the MSCI All Countries World Index.

² Investment-grade means BBB and above. Average credit rating exposure for the Group's main plans is around A.

The following table sets out the Group's funded defined benefit plan assets only invested in “quoted” assets, i.e. Level 1 assets in accordance with IFRS 13.

in € m.	Dec 31, 2017					Dec 31, 2016				
	Germany	UK	U.S.	Other	Total	Germany	UK	U.S.	Other	Total
Cash and cash equivalents	1,251	22	24	28	1,325	1,145	115	42	39	1,341
Equity instruments ¹	1,154	582	118	58	1,912	1,066	635	115	78	1,894
Investment-grade bonds ²										
Government	1,190	1,163	362	73	2,788	723	1,893	404	78	3,098
Non-government bonds	0	0	0	0	0	0	0	0	3	3
Non-investment-grade bonds										
Government	1	0	0	0	1	0	0	0	32	32
Non-government bonds	0	0	0	0	0	0	0	0	0	0
Structured products	0	0	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0
Alternatives										
Real estate	0	0	0	0	0	0	0	0	0	0
Commodities	0	0	0	0	0	4	0	0	0	4
Private equity	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	8	0	0	0	8
Derivatives (Market Value)										
Interest rate	1	0	6	0	7	(1)	0	11	0	10
Credit	0	(1)	0	0	(1)	0	(1)	0	1	0
Inflation	0	0	0	0	0	0	0	0	0	0
Foreign exchange	0	1	0	0	1	0	2	0	0	2
Other	3	0	0	0	3	1	0	0	0	1
Total fair value of quoted plan assets	3,600	1,767	510	159	6,036	2,946	2,644	572	231	6,393

¹ Allocation of equity exposure is broadly in line with the typical index in the respective market, e.g. the equity portfolio's benchmark of the UK retirement benefit plans is the MSCI All Countries World Index.

² Investment-grade means BBB and above. Average credit rating exposure for the Group's main plans is around A.

All the remaining assets are invested in “other” assets, the majority of which are invested in Level 2 assets in accordance with IFRS 13, being primarily investment-grade corporate bonds. A relatively small element overall is in Level 3 assets in accordance with IFRS 13, being primarily real estate, insurance policies and derivative contracts.

The following tables show the asset allocation of the “quoted” and “other” defined benefit plan assets by key geography in which they are invested.

Dec 31, 2017							
in € m.	Germany	United Kingdom	United States	Other Eurozone	Other developed countries	Emerging markets	Total
Cash and cash equivalents	294	126	96	1,204	16	43	1,779
Equity instruments	349	83	802	317	336	146	2,033
Government bonds							
(investment-grade and above)	1,057	1,087	397	627	253	486	3,907
Government bonds (non-investment-grade)	0	0	0	9	23	159	191
Non-government bonds (investment-grade and above)	575	1,890	2,196	2,607 ¹	906	109	8,283
Non-government bonds (non-investment-grade)	4	44	20	640	19	10	737
Structured products	41	422	51	1	5	0	520
Subtotal	2,320	3,652	3,562	5,405	1,558	953	17,450
Share (in %)	13	21	20	31	9	5	100
Other asset categories							761
Fair value of plan assets							18,211

¹ Majority of this amount relates to bonds of French, Italian and Dutch corporate bonds.

Dec 31, 2016							
in € m.	Germany	United Kingdom	United States	Other Eurozone	Other developed countries	Emerging markets	Total
Cash and cash equivalents	(54)	112	144	1,062	20	34	1,318
Equity instruments	279	103	847	279	321	137	1,966
Government bonds							
(investment-grade and above)	738	1,840	447	975	210	523	4,733
Government bonds (non-investment-grade)	1	18	5	13	7	167	211
Non-government bonds (investment-grade and above)	472	1,819	2,458	2,939 ¹	763	123	8,574
Non-government bonds (non-investment-grade)	9	50	186	130	28	12	415
Structured products	36	210	66	7	6	37	362
Subtotal	1,481	4,152	4,153	5,405	1,355	1,033	17,579
Share (in %)	8	24	24	31	8	6	100
Other asset categories							940
Fair value of plan assets							18,519

¹ Majority of this amount relates to bonds of French, Italian and Dutch corporate bonds.

Plan assets at December 31, 2017 include derivative transactions with Group entities with a negative market value of around € 737 million. There is neither a material amount of securities issued by the Group nor other claims on Group assets included in the fair value of plan assets. The plan assets do not include any real estate which is used by the Group.

In addition, the Group estimates and allows for uncertain income tax positions which may have an impact on the Group's plan assets. Significant judgment is required in making these estimates and the Group's final net liabilities may ultimately be materially different.

Key Risk Sensitivities

The Group's defined benefit obligations are sensitive to changes in capital market conditions and actuarial assumptions. Sensitivities to capital market movements and key assumption changes are presented in the following table. Each market risk factor or assumption is changed in isolation. Sensitivities of the defined benefit obligations are approximated using geometric extrapolation methods based on plan durations for the respective assumption. Duration is a risk measure that indicates the broad sensitivity of the obligations to a change in an underlying assumption and provides a reasonable approximation for small to moderate changes in those assumptions.

For example, the discount rate duration is derived from the change in the defined benefit obligation to a change in the discount rate based on information provided by the local actuaries of the respective plans. The resulting duration is used to estimate the remeasurement liability loss or gain from changes in the discount rate. For other assumptions, a similar approach is used to derive the respective sensitivity results.

For defined benefit pension plans, changes in capital market conditions will impact the plan obligations via actuarial assumptions – mainly discount rate and price inflation rate – as well as the plan assets. Where the Group applies a LDI approach, the Bank's overall exposure to changes is reduced. Consequently, to aid understanding of the Group's risk exposures related to

key capital market movements, the net impact of the change in the defined benefit obligations and plan assets due to a change of the related market risk factor or underlying actuarial assumption is shown; for sensitivities to changes in actuarial assumptions that do not impact the plan assets, only the impact on the defined benefit obligations is shown.

Asset-related sensitivities are derived for the Group's major plans by using risk sensitivity factors determined by the Group's Market Risk Management function. These sensitivities are calculated based on information provided by the plans' investment managers and extrapolated linearly to reflect the approximate change of the plan assets' market value in case of a change in the underlying risk factor.

The sensitivities illustrate plausible variations over time in capital market movements and key actuarial assumptions. The Group is not in a position to provide a view on the likelihood of these capital market or assumption changes. While these sensitivities illustrate the overall impact on the funded status of the changes shown, the significance of the impact and the range of reasonable possible alternative assumptions may differ between the different plans that comprise the aggregated results. Even though plan assets and plan obligations are sensitive to similar risk factors, actual changes in plan assets and obligations may not fully offset each other due to imperfect correlations between market risk factors and actuarial assumptions. Caution should be used when extrapolating these sensitivities due to non-linear effects that changes in capital market conditions and key actuarial assumptions may have on the overall funded status. Any management actions that may be taken to mitigate the inherent risks in the post-employment defined benefit plans are not reflected in these sensitivities.

in € m.	Dec 31, 2017				Dec 31, 2016			
	Germany	UK	U.S.	Other	Germany	UK	U.S.	Other
Discount rate (–50 bp):								
(Increase) in DBO	(875)	(465)	(40)	(55)	(900)	(500)	(50)	(65)
Expected increase in plan assets ¹	215	505	35	25	600	555	35	25
Expected net impact on funded status (de-) increase	(660)	40	(5)	(30)	(300)	55	(15)	(40)
Discount rate (+50 bp):								
Decrease in DBO	810	420	30	50	835	450	40	60
Expected (decrease) in plan assets ¹	(215)	(505)	(35)	(25)	(600)	(555)	(35)	(25)
Expected net impact on funded status (de-) increase	595	(85)	(5)	25	235	(105)	5	35
Credit spread (–50 bp):								
(Increase) in DBO	(875)	(465)	(85)	(60)	(900)	(500)	(100)	(70)
Expected increase in plan assets ¹	150	125	20	10	500	115	25	10
Expected net impact on funded status (de-) increase	(725)	(340)	(65)	(50)	(400)	(385)	(75)	(60)
Credit spread (+50 bp):								
Decrease in DBO	810	420	80	55	835	450	95	65
Expected (decrease) in plan assets ¹	(150)	(125)	(20)	(10)	(500)	(115)	(25)	(10)
Expected net impact on funded status (de-) increase	660	295	60	45	335	335	70	55
Rate of price inflation (–50 bp):²								
Decrease in DBO	345	345	0	20	340	395	0	25
Expected (decrease) in plan assets ¹	(180)	(310)	0	(10)	(220)	(350)	0	(15)
Expected net impact on funded status (de-) increase	165	35	0	10	120	45	0	10
Rate of price inflation (+50 bp):²								
(Increase) in DBO	(360)	(375)	0	(25)	(350)	(435)	0	(30)
Expected increase in plan assets ¹	180	310	0	10	220	350	0	15
Expected net impact on funded status (de-) increase	(180)	(65)	0	(15)	(130)	(85)	0	(15)
Rate of real increase in future compensation levels (–50 bp):								
Decrease in DBO, net impact on funded status	70	15	0	15	75	25	0	15
Rate of real increase in future compensation levels (+50 bp):								
(Increase) in DBO, net impact on funded status	(70)	(15)	0	(15)	(75)	(25)	0	(15)
Longevity improvements by 10 %:³								
(Increase) in DBO, net impact on funded status	(305)	(130)	(25)	(15)	(305)	(130)	(30)	(15)

¹ Expected changes in the fair value of plan assets contain the simulated impact from the biggest plans in Germany, the UK, the U.S., Channel Islands, Switzerland and Belgium which cover over 99 % of the total fair value of plan assets. The fair value of plan assets for other plans is assumed to be unchanged for this presentation.

² Incorporates sensitivity to changes in pension benefits to the extent linked to the price inflation assumption.

³ Estimated to be equivalent to an increase of around 1 year in overall life expectancy.

Expected cash flows

The following table shows expected cash flows for post-employment benefits in 2018, including contributions to the Group's external pension trusts in respect of funded plans, direct payment to beneficiaries in respect of unfunded plans, as well as contributions to defined contribution plans.

in € m.	2018 Total
Expected contributions to	
Defined benefit plan assets	300
BVV	65
Pension fund for Postbank's postal civil servants	90
Other defined contribution plans	290
Expected benefit payments for unfunded defined benefit plans	30
Expected total cash flow related to post-employment benefits	775

Expense of employee benefits

The following table presents a breakdown of specific expenses according to the requirements of IAS 19 and IFRS 2.

in € m.	2017	2016	2015
Expenses for defined benefit plans:			
Service cost	345	272	326
Net interest cost (income)	9	(11)	(4)
Total expenses defined benefit plans	354	261	322
Expenses for defined contribution plans:			
BVV	66	50	53
Pension fund for Postbank's postal civil servants	93	95	95
Other defined contribution plans	281	284	264
Total expenses for defined contribution plans	440	429	412
Total expenses for post-employment benefit plans	794	690	734
Employer contributions to mandatory German social security pension plan	243	237	231
Expenses for share-based payments, equity settled ¹	535	620	816
Expenses for share-based payments, cash settled ¹	22	3	15
Expenses for cash retention plans ¹	363	487	738
Expenses for severance payments ²	94	149	184

¹ Including expenses for new hire awards and the acceleration of expenses not yet amortized due to the discontinuation of employment including those amounts which are recognized as part of the Group's restructuring expenses.

² Excluding the acceleration of expenses for deferred compensation awards not yet amortized.

36 – Income Taxes

in € m.	2017	2016	2015
Current tax expense (benefit):			
Tax expense (benefit) for current year	874	881	1,385
Adjustments for prior years	(145)	(23)	277
Total current tax expense (benefit)	729	858	1,662
Deferred tax expense (benefit):			
Origination and reversal of temporary difference, unused tax losses and tax credits	(113)	(276)	(378)
Effect of changes in tax law and/or tax rate	1,437	(3)	140
Adjustments for prior years	(90)	(33)	(749)
Total deferred tax expense (benefit)	1,234	(312)	(987)
Total income tax expense (benefit)	1,963	546	675

Income tax expense includes policyholder tax attributable to policyholder earnings, amounting to an income tax expense of € 23 million in 2016 and an income tax benefit of € 0.4 million in 2015.

Total current tax expense includes benefits from previously unrecognized tax losses, tax credits and deductible temporary differences, which reduced the current tax expense by € 5 million in 2017, by € 7 million in 2016 and by € 3 million in 2015.

Total deferred tax expense includes benefits from previously unrecognized tax losses (tax credits/deductible temporary differences) and the reversal of previous write-downs of deferred tax assets and expenses arising from write-downs of deferred tax assets, which increased the deferred tax expense by € 163 million in 2017. In 2016 these effects increased the deferred tax benefit by € 38 million and in 2015 these effects decreased the deferred tax benefit by € 187 million.

Deferred tax assets and liabilities are measured based on the tax rates that are expected to apply in the period that the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date. Accordingly, with the enactment of the new U.S. tax law known as the ‘Tax Cuts and Jobs Act’ or ‘TCJA’ on December 22, 2017, the Bank recorded a one-time tax charge from the re-measurement of its U.S. deferred tax assets and liabilities to reflect the reduction in the U.S. federal statutory tax rate from 35 % to 21 %. The total charge amounted to € 1,446 million of which € 1,437 million is recorded as income tax expense in net income and € 8 million is recorded directly in other comprehensive income.

Difference between applying German statutory (domestic) income tax rate and actual income tax expense/(benefit)

in € m.	2017	2016	2015
Expected tax expense (benefit) at domestic income tax rate of 31.3% (31.3% for 2016 and 31% for 2015)	384	(254)	(1,890)
Foreign rate differential	(37)	(38)	(157)
Tax-exempt gains on securities and other income	(431)	(599)	(345)
Loss (income) on equity method investments	(21)	(19)	(21)
Nondeductible expenses	540	1,074	1,288
Impairments of goodwill	0	250	1,407
Changes in recognition and measurement of deferred tax assets ¹	159	(45)	184
Effect of changes in tax law and/or tax rate	1,437	(3)	140
Effect related to share-based payments	14	66	(5)
Effect of policyholder tax	0	23	0
Other ¹	(82)	91	74
Actual income tax expense (benefit)	1,963	546	675

¹ Current and deferred tax expense/(benefit) relating to prior years are mainly reflected in the line items ‘Changes in recognition and measurement of deferred tax assets’ and ‘Other’.

The Group is under continuous examinations by tax authorities in various jurisdictions. In 2015 ‘Other’ in the preceding table mainly includes the effects of these examinations by the tax authorities.

The domestic income tax rate, including corporate tax, solidarity surcharge, and trade tax, used for calculating deferred tax assets and liabilities was 31.3 % for 2017, 31.3 % for 2016 and 31.0 % for 2015.

Income taxes charged or credited to equity (other comprehensive income/additional paid in capital)

in € m.	2017	2016	2015
Actuarial gains/losses related to defined benefit plans	(23)	344	(213)
Financial assets available for sale:			
Unrealized net gains/losses arising during the period	4	20	104
Net gains/losses reclassified to profit or loss	99	81	10
Derivatives hedging variability of cash flows:			
Unrealized net gains/losses arising during the period	4	(14)	3
Net gains/losses reclassified to profit or loss	42	1	(6)
Other equity movement:			
Unrealized net gains/losses arising during the period	2	(71)	(90)
Net gains/losses reclassified to profit or loss	(5)	100	(2)
Income taxes (charged) credited to other comprehensive income	123	461	(194)
Other income taxes (charged) credited to equity	73	93	72

Major components of the Group's gross deferred tax assets and liabilities

in € m.	Dec 31, 2017	Dec 31, 2016
Deferred tax assets:		
Unused tax losses	2,985	3,931
Unused tax credits	387	358
Deductible temporary differences:		
Trading activities	6,725	7,248
Property and equipment	239	458
Other assets	1,391	1,606
Securities valuation	44	80
Allowance for loan losses	816	1,039
Other provisions	899	1,079
Other liabilities	1,246	1,353
Total deferred tax assets pre offsetting	14,732	17,152
Deferred tax liabilities:		
Taxable temporary differences:		
Trading activities	6,618	7,128
Property and equipment	45	57
Other assets	574	560
Securities valuation	297	381
Allowance for loan losses	24	29
Other provisions	377	355
Other liabilities	344	462
Total deferred tax liabilities pre offsetting	8,279	8,972

Deferred tax assets and liabilities, after offsetting

in € m.	Dec 31, 2017	Dec 31, 2016
Presented as deferred tax assets	6,799	8,666
Presented as deferred tax liabilities	346	486
Net deferred tax assets	6,453	8,180

The change in the balance of deferred tax assets and deferred tax liabilities does not equal the deferred tax expense/(benefit). This is due to (1) deferred taxes that are booked directly to equity, (2) the effects of exchange rate changes on tax assets and liabilities denominated in currencies other than euro, (3) the acquisition and disposal of entities as part of ordinary activities and (4) the reclassification of deferred tax assets and liabilities which are presented on the face of the balance sheet as components of other assets and liabilities.

Items for which no deferred tax assets were recognized

in € m.	Dec 31, 2017 ¹	Dec 31, 2016 ¹
Deductible temporary differences	(34)	1
Not expiring	(4,875)	(4,368)
Expiring in subsequent period	(19)	(189)
Expiring after subsequent period	(450)	(746)
Unused tax losses	(5,344)	(5,303)
Expiring after subsequent period	(11)	(13)
Unused tax credits	(12)	(14)

¹ Amounts in the table refer to deductible temporary differences, unused tax losses and tax credits for federal income tax purposes.

Deferred tax assets were not recognized on these items because it is not probable that future taxable profit will be available against which the unused tax losses, unused tax credits and deductible temporary differences can be utilized.

As of December 31, 2017 and December 31, 2016, the Group recognized deferred tax assets of € 5.9 billion and € 5.8 billion, respectively, that exceed deferred tax liabilities in entities which have suffered a loss in either the current or preceding period. This is based on management's assessment that it is probable that the respective entities will have taxable profits against which the unused tax losses, unused tax credits and deductible temporary differences can be utilized. Generally, in determining the amounts of deferred tax assets to be recognized, management uses historical profitability information and, if relevant, forecasted operating results, based upon approved business plans, including a review of the eligible carry-forward periods, tax planning opportunities and other relevant considerations.

As of December 31, 2017 and December 31, 2016, the Group had temporary differences associated with the Group's parent company's investments in subsidiaries, branches and associates and interests in joint ventures of € 72 million and € 67 million respectively, in respect of which no deferred tax liabilities were recognized.

37 – Derivatives

Derivative Financial Instruments and Hedging Activities

Derivative contracts used by the Group include swaps, futures, forwards, options and other similar types of contracts. In the normal course of business, the Group enters into a variety of derivative transactions for sales, market-making and risk management purposes. The Group's objectives in using derivative instruments are to meet customers' risk management needs and to manage the Group's exposure to risks.

In accordance with the Group's accounting policy relating to derivatives and hedge accounting as described in Note 1 "Significant Accounting Policies and Critical Accounting Estimates", all derivatives are carried at fair value in the balance sheet regardless of whether they are held for trading or non-trading purposes.

Derivatives held for Sales and Market-Making Purposes

Sales and Market-Making

The majority of the Group's derivatives transactions relate to sales and market-making activities. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Market-making involves quoting bid and offer prices to other market participants, enabling revenue to be generated based on spreads and volume.

Risk Management

The Group uses derivatives in order to reduce its exposure to market risks as part of its asset and liability management. This is achieved by entering into derivatives that hedge specific portfolios of fixed rate financial instruments and forecast transactions as well as strategic hedging against overall balance sheet exposures. The Group actively manages interest rate risk through, among other things, the use of derivative contracts. Utilization of derivative financial instruments is modified from time to time within prescribed limits in response to changing market conditions, as well as to changes in the characteristics and mix of the related assets and liabilities.

Derivatives qualifying for Hedge Accounting

The Group applies hedge accounting if derivatives meet the specific criteria described in Note 1 "Significant Accounting Policies and Critical Accounting Estimates".

Fair Value Hedge Accounting

The Group enters into fair value hedges, using primarily interest rate swaps and options, in order to protect itself against movements in the fair value of fixed-rate financial instruments due to movements in market interest rates.

in € m.	Dec 31, 2017		Dec 31, 2016	
	Assets	Liabilities	Assets	Liabilities
Derivatives held as fair value hedges	5,936	562	6,893	1,749

For the years ended December 31, 2017, 2016 and 2015, a loss of € 1.6 billion, a loss of € 0.6 billion and a loss of € 1.1 billion, respectively, were recognized on the hedging instruments. For the same periods, the results on the hedged items, which were attributable to the hedged risk, were a gain of € 1.3 billion, a gain of € 1.0 billion and a gain of € 1.0 billion.

Cash Flow Hedge Accounting

The Group enters into cash flow hedges, using interest rate swaps, in order to protect itself against exposure to variability in interest rates.

in € m.	Dec 31, 2017		Dec 31, 2016	
	Assets	Liabilities	Assets	Liabilities
Derivatives held as cash flow hedges	37	3	242	0

Periods when hedged cash flows are expected to occur and when they are expected to affect the income statement

in € m.	Within 1 year	1–3 years	3–5 years	Over 5 years
As of December 31, 2017				
Cash inflows from assets	28	18	0	0
Cash outflows from liabilities	0	0	13	0
Net cash flows 2017	28	18	(13)	0
As of December 31, 2016				
Cash inflows from assets	33	34	5	0
Cash outflows from liabilities	0	0	0	0
Net cash flows 2016	33	34	5	0

Cash Flow Hedge Balances

in € m.	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015
Reported in Equity ¹	28	198	138
thereof relates to terminated programs	0	0	(14)
Gains (losses) posted to equity for the year ended	(34)	62	1
Gains (losses) removed from equity for the year ended	136	2	(20)
Ineffectiveness recorded within P&L	0	(17)	(1)

¹ Reported in equity refers to accumulated other comprehensive income as presented in the Consolidated Balance Sheet.

As of December 31, 2017 the longest term cash flow hedge matures in 2022.

Net Investment Hedge Accounting

Using foreign exchange forwards and swaps, the Group enters into hedges of translation adjustments resulting from translating the financial statements of net investments in foreign operations into the reporting currency of the parent at period end spot rates.

in € m.	Dec 31, 2017		Dec 31, 2016	
	Assets	Liabilities	Assets	Liabilities
Derivatives held as net investment hedges	612	904	286	4,076

For the years ended December 31, 2017, 2016 and 2015, losses of € 348 million, € 437 million and € 425 million, respectively, were recognized due to hedge ineffectiveness which includes the forward points element of the hedging instruments.

38 – Related Party Transactions

Parties are considered to be related if one party has the ability to directly or indirectly control the other party or exercise significant influence over the other party in making financial or operational decisions. The Group's related parties include:

- key management personnel, close family members of key management personnel and entities which are controlled, significantly influenced by, or for which significant voting power is held by key management personnel or their close family members,
- subsidiaries, joint ventures and associates and their respective subsidiaries, and
- post-employment benefit plans for the benefit of Deutsche Bank employees.

Transactions with Key Management Personnel

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of Deutsche Bank, directly or indirectly. The Group considers the members of the Management Board and of the Supervisory Board of the parent company to constitute key management personnel for purposes of IAS 24.

Compensation expense of key management personnel

in € m.	2017	2016	2015
Short-term employee benefits	39	40	31
Post-employment benefits	10	9	6
Other long-term benefits	7	7	11
Termination benefits	3	0	20
Share-based payment	22	12	15
Total	81	68	83

The above table does not contain compensation that employee representatives and former board members on the Supervisory Board have received. The aggregated compensation paid to such members for their services as employees of Deutsche Bank or status as former employees (retirement, pension and deferred compensation) amounted to € 1.1 million as of December 31, 2017, € 1.1 million as of December 31, 2016 and € 1.1 million as of December 31, 2015.

Among the Group's transactions with key management personnel as of December 31, 2017 were loans and commitments of € 48 million and deposits of € 123 million. As of December 31, 2016, the Group's transactions with key management personnel were loans and commitments of € 49 million and deposits of € 7 million.

In addition, the Group provides banking services, such as payment and account services as well as investment advice, to key management personnel and their close family members.

Transactions with Subsidiaries, Joint Ventures and Associates

Transactions between Deutsche Bank AG and its subsidiaries meet the definition of related party transactions. If these transactions are eliminated on consolidation, they are not disclosed as related party transactions. Transactions between the Group and its associated companies and joint ventures and their respective subsidiaries also qualify as related party transactions.

Transactions for subsidiaries, joint ventures and associates are presented combined in below table as these are not material individually.

Loans

in € m.	2017	2016
Loans outstanding, beginning of year	297	396
Movement in loans during the period ¹	(26)	(86)
Changes in the group of consolidated companies	(1)	0
Exchange rate changes/other	(15)	(13)
Loans outstanding, end of year²	256	297
Other credit risk related transactions:		
Allowance for loan losses	0	0
Provision for loan losses	0	0
Guarantees and commitments	9	62

¹ Net impact of loans issued and loans repayment during the year is shown as "Movement in loans during the period".

² Loans past due were € 0 million as of December 31, 2017 and € 7 million as of December 31, 2016. For the above loans the Group held collateral of € 14 million and € 22 million as of December 31, 2017 and December 31, 2016, respectively.

Deposits

in € m.	2017	2016
Deposits outstanding, beginning of year	87	162
Movement in deposits during the period ¹	(15)	(74)
Changes in the group of consolidated companies	(0)	0
Exchange rate changes/other	(4)	(1)
Deposits outstanding, end of year	67	87

¹ Net impact of deposits received and deposits repaid during the year is shown as "Movement in deposits during the period".

Other Transactions

Trading assets and positive market values from derivative financial transactions with associated companies amounted to € 6 million as of December 31, 2017 and € 8 million as of December 31, 2016. Trading liabilities and negative market values from derivative financial transactions with associated companies amounted to € 0 million as of December 31, 2017 and € 0 million as of December 31, 2016.

Transactions with Pension Plans

Under IFRS, certain post-employment benefit plans are considered related parties. The Group has business relationships with a number of its pension plans pursuant to which it provides financial services to these plans, including investment management services. The Group's pension funds may hold or trade Deutsche Bank shares or securities.

Transactions with related party pension plans

in € m.	2017	2016
Equity shares issued by the Group held in plan assets	0	0
Other assets	0	0
Fees paid from plan assets to asset managers of the Group	25	22
Market value of derivatives with a counterparty of the Group	(737)	(547)
Notional amount of derivatives with a counterparty of the Group	10,150	8,755

39 – Information on Subsidiaries

Composition of the Group

Deutsche Bank AG is the direct or indirect holding company for the Group's subsidiaries.

The Group consists of 845 (2016: 938) consolidated entities, thereof 305 (2016: 349) consolidated structured entities. 612 (2016: 678) of the entities controlled by the Group are directly or indirectly held by the Group at 100 % of the ownership interests (share of capital). Third parties also hold ownership interests in 233 (2016: 260) of the consolidated entities (noncontrolling interests). As of December 31, 2016 and 2017, the noncontrolling interests are neither individually nor cumulatively material to the Group.

Significant restrictions to access or use the Group's assets

Statutory, contractual or regulatory requirements as well as protective rights of noncontrolling interests might restrict the ability of the Group to access and transfer assets freely to or from other entities within the Group and to settle liabilities of the Group.

Since the Group did not have any material noncontrolling interests at the balance sheet date, any protective rights associated with these did not give rise to significant restrictions.

The following restrictions impact the Group's ability to use assets:

- The Group has pledged assets to collateralize its obligations under repurchase agreements, securities financing transactions, collateralized loan obligations and for margining purposes for OTC derivative liabilities.
- The assets of consolidated structured entities are held for the benefit of the parties that have bought the notes issued by these entities.
- Regulatory and central bank requirements or local corporate laws may restrict the Group's ability to transfer assets to or from other entities within the Group in certain jurisdictions.

Restricted assets

in € m.	Dec 31, 2017		Dec 31, 2016	
	Total assets	Restricted assets	Total assets	Restricted assets
Interest-earning deposits with banks	210,481	772	163,292	1,314
Financial assets at fair value through profit or loss	636,970	58,210	743,781	51,454 ¹
Financial assets available for sale	49,397	9,915	56,228	19,870
Loans	401,699	71,971	408,909	74,172
Other	176,186	13,594	218,336	7,693
Total	1,474,732	154,462	1,590,546	154,503¹

¹ Prior period results have been restated due to a refined approach to determine assets pledged.

The table above excludes assets that are not encumbered at an individual entity level but which may be subject to restrictions in terms of their transferability within the Group. Such restrictions may be based on local connected lending requirements or similar regulatory restrictions. In this situation, it is not feasible to identify individual balance sheet items that cannot be transferred. This is also the case for regulatory minimum liquidity requirements. The Group identifies the volume of liquidity reserves in excess of local stress liquidity outflows. The aggregate amount of such liquidity reserves that are considered restricted for this purpose is € 23.5 billion as of December 31, 2017 (as of December 31, 2016: € 37.4 billion).

40 – Structured Entities

Nature, purpose and extent of the Group's interests in structured entities

The Group engages in various business activities with structured entities which are designed to achieve a specific business purpose. A structured entity is one that has been set up so that any voting rights or similar rights are not the dominant factor in deciding who controls the entity. An example is when voting rights relate only to administrative tasks and the relevant activities are directed by contractual arrangements.

A structured entity often has some or all of the following features or attributes:

- Restricted activities;
- A narrow and well defined objective;
- Insufficient equity to permit the structured entity to finance its activities without subordinated financial support;
- Financing in the form of multiple contractually linked instruments to investors that create concentrations of credit or other risks (tranches).

The principal uses of structured entities are to provide clients with access to specific portfolios of assets and to provide market liquidity for clients through securitizing financial assets. Structured entities may be established as corporations, trusts or partnerships. Structured entities generally finance the purchase of assets by issuing debt and equity securities that are collateralized by and/or indexed to the assets held by the structured entities. The debt and equity securities issued by structured entities may include tranches with varying levels of subordination.

Structured entities are consolidated when the substance of the relationship between the Group and the structured entities indicate that the structured entities are controlled by the Group, as discussed in Note 1 "Significant Accounting Policies and Critical Accounting Estimates".

Consolidated structured entities

The Group has contractual arrangements which may require it to provide financial support to the following types of consolidated structured entities.

Securitization vehicles

The Group uses securitization vehicles for funding purchase of diversified pool of assets. The Group provides financial support to these entities in the form of liquidity facility. As of December 31, 2017, there were no outstanding loan commitments to these entities compared to € 3 million as of December 31, 2016.

Funds

The Group may provide funding and liquidity facility or guarantees to funds consolidated by the group. As of December 31, 2017 and December 31, 2016, the notional value of the liquidity facilities and guarantees provided by the group to such funds was € 7.2 billion and € 11.3 billion, respectively.

Unconsolidated structured entities

These are entities which are not consolidated because the Group does not control them through voting rights, contract, funding agreements, or other means. The extent of the Group's interests to unconsolidated structured entities will vary depending on the type of structured entities.

Below is a description of the Group's involvements in unconsolidated structured entities by type.

Repackaging and investment entities

Repackaging and investment entities are established to meet clients' investment needs through the combination of securities and derivatives. These entities are not consolidated by the Group because the Group does not have power to influence the returns obtained from the entities. These entities are usually set up to provide a certain investment return pre-agreed with the investor, and the Group is not able to change the investment strategy or return during the life of the transaction.

Third party funding entities

The Group provides funding to structured entities that hold a variety of assets. These entities may take the form of funding entities, trusts and private investment companies. The funding is collateralized by the asset in the structured entities. The group's involvement involves predominantly both lending and loan commitments.

The vehicles used in these transactions are controlled by the borrowers where the borrowers have the ability to decide whether to post additional margin or collateral in respect of the financing. In such cases, where borrowers can decide to continue or terminate the financing, the borrowers will consolidate the vehicle.

Securitization Vehicles

The Group establishes securitization vehicles which purchase diversified pools of assets, including fixed income securities, corporate loans, and asset-backed securities (predominantly commercial and residential mortgage-backed securities and credit card receivables). The vehicles fund these purchases by issuing multiple tranches of debt and equity securities, the repayment of which is linked to the performance of the assets in the vehicles.

The Group often transfers assets to these securitization vehicles and provides financial support to these entities in the form of liquidity facilities.

The Group also invests and provides liquidity facilities to third party sponsored securitization vehicles.

The securitization vehicles that are not consolidated into the Group are those where the Group does not hold the power or ability to unilaterally remove the servicer or special servicer who has been delegated power over the activities of the entity.

Funds

The Group establishes structured entities to accommodate client requirements to hold investments in specific assets. The Group also invests in funds that are sponsored by third parties. A group entity may act as fund manager, custodian or some other capacity and provide funding and liquidity facilities to both group sponsored and third party funds. The funding provided is collateralized by the underlying assets held by the fund.

The Group does not consolidate funds when Deutsche Bank is deemed agent or when another third party investor has the ability to direct the activities of the fund.

Other

These are Deutsche Bank sponsored or third party structured entities that do not fall into any criteria above. These entities are not consolidated by the Group when the Group does not hold power over the decision making of these entities.

Income derived from involvement with structured entities

The Group earns management fees and, occasionally, performance-based fees for its investment management service in relation to funds. Interest income is recognized on the funding provided to structured entities. Any trading revenue as a result of derivatives with structured entities and from the movements in the value of notes held in these entities is recognized in 'Net gains/losses on financial assets/liabilities held at fair value through profit and loss'.

Interests in unconsolidated structured entities

The Group's interests in unconsolidated structured entities refer to contractual and non-contractual involvement that exposes the Group to variability of returns from the performance of the structured entities. Examples of interests in unconsolidated structured entities include debt or equity investments, liquidity facilities, guarantees and certain derivative instruments in which the Group is absorbing variability of returns from the structured entities.

Interests in unconsolidated structured entities exclude instruments which introduce variability of returns into the structured entities. For example, when the Group purchases credit protection from an unconsolidated structured entity whose purpose and design is to pass through credit risk to investors, the Group is providing the variability of returns to the entity rather than absorbing variability. The purchased credit protection is therefore not considered as an interest for the purpose of the table below.

Maximum Exposure to unconsolidated structured entities

The maximum exposure to loss is determined by considering the nature of the interest in the unconsolidated structured entity. The maximum exposure for loans and trading instruments is reflected by their carrying amounts in the consolidated balance sheet. The maximum exposure for derivatives and off balance sheet commitments such as guarantees, liquidity facilities and loan commitments under IFRS 12, as interpreted by the Group, is reflected by the notional amounts. Such amounts or their development do not reflect the economic risks faced by the Group because they do not take into account the effects of collateral or hedges nor the probability of such losses being incurred. At December 31, 2017, the notional related to the positive and negative replacement values of derivatives and off balance sheet commitments were € 327 billion, € 1,146 billion and € 29 billion respectively. At December 31, 2016, the notional related to the positive and negative replacement values of derivatives and off balance sheet commitments were € 145 billion, € 644 billion and € 27 billion respectively.

Size of structured entities

The Group provides a different measure for size of structured entities depending on their type. The following measures have been considered as appropriate indicators for evaluating the size of structured entities:

- **Funds** – Net asset value or assets under management where the Group holds fund units and notional of derivatives when the Group's interest comprises of derivatives.
- **Securitizations** – notional of notes in issue when the Group derives its interests through notes its holds and notional of derivatives when the Group's interests is in the form of derivatives.
- **Third party funding entities** – Total assets in entities
- **Repackaging and investment entities** – Fair value of notes in issue

For Third party funding entities, size information is not publicly available, therefore the Group has disclosed the greater of the collateral the Group has received/pledged or the notional of the exposure the Group has to the entity.

The following table shows, by type of structured entity, the carrying amounts of the Group's interests recognized in the consolidated statement of financial position as well as the maximum exposure to loss resulting from these interests. It also provides an indication of the size of the structured entities. The carrying amounts presented below do not reflect the true variability of returns faced by the Group because they do not take into account the effects of collateral or hedges.

Carrying amounts and size relating to Deutsche Bank's interests

	Dec 31, 2017				
in € m.	Repackaging and Investment Entities	Third Party Funding Entities	Securitizations	Funds	Total
Assets					
Cash and central bank balances	0	0	0	0	0
Interbank balances (w/o central banks)	63	0	0	270	333
Central bank funds sold and securities purchased under resale agreements	105	229	18	1,827	2,178
Securities Borrowed	0	13	0	11,065	11,078
Total financial assets at fair value through profit or loss	569	4,057	5,445	60,057	70,128
Trading assets	349	3,490	5,130	12,380	21,349
Positive market values (derivative financial instruments)	175	553	105	8,670	9,504
Financial assets designated at fair value through profit or loss	44	13	210	39,007	39,275
Financial assets available for sale	0	1,039	384	730	2,153
Loans	146	37,352	18,533	18,050	74,081
Other assets	50	192	173	21,087	21,502
Total assets	934	42,882	24,552	113,085	181,453
Liabilities					
Total financial liabilities at fair value through profit or loss	120	73	41	13,486	13,720
Negative market values (derivative financial instruments)	120	73	41	13,486	13,720
Other short-term borrowings	0	0	0	9,533	9,533
Total liabilities	120	73	41	23,019	23,253
Off-balance sheet exposure	0	10,079	9,256	10,048	29,383
Total	814	52,888	33,767	100,114	187,583
Size of structured entity	6,833	90,664	281,826	2,181,810	

	Dec 31, 2016				
in € m.	Repackaging and Investment Entities	Third Party Funding Entities	Securitizations	Funds	Total
Assets					
Cash and central bank balances	0	0	0	0	0
Interbank balances (w/o central banks)	(15)	0	0	345	331
Central bank funds sold and securities purchased under resale agreements	68	87	18	3,113	3,286
Securities Borrowed	0	0	0	11,643	11,643
Total financial assets at fair value through profit or loss	1,231	3,068	6,332	54,943	65,576
Trading assets	659	2,309	6,211	15,031	24,210
Positive market values (derivative financial instruments)	538	262	111	7,587	8,499
Financial assets designated at fair value through profit or loss	34	497	10	32,326	32,867
Financial assets available for sale	62	599	271	1,008	1,940
Loans	157	36,710	20,219	19,604	76,690
Other assets	50	40	181	20,454	20,726
Total assets	1,554	40,504	27,022	111,111	180,192
Liabilities					
Total financial liabilities at fair value through profit or loss	354	36	27	11,036	11,453
Negative market values (derivative financial instruments)	354	36	27	11,036	11,453
Other short-term borrowings	0	0	0	12,666 ¹	12,666 ¹
Total liabilities	354	36	27	23,702¹	24,119¹
Off-balance sheet exposure	0	5,150	10,591	11,448	27,189
Total	1,200	45,619	37,586	98,857¹	183,262¹
Size of structured entity	9,487	65,234	454,950	1,888,491	

¹ comparative numbers adjusted to include the 'Other short-term borrowings'

Trading assets – Total trading assets as of December 31, 2017 and December 31, 2016 of € 21.3 billion and € 24.2 billion are comprised primarily of € 5.1 billion and € 6.2 billion in Securitizations and € 12.4 billion and € 15.0 billion in Funds structured entities respectively. The Group's interests in securitizations are collateralized by the assets contained in these entities. Where the Group holds fund units these are typically in regards to market making in funds or otherwise serve as hedges for notes issued to clients. Moreover the credit risk arising from loans made to Third party funding structured entities is mitigated by the collateral received.

Financial assets designated at fair value through profit or loss – Reverse repurchase agreements to Funds comprise the majority of the interests in this category and are collateralized by the underlying securities.

Loans – Loans as of December 31, 2017 and December 31, 2016 consist of € 74.1 billion and € 76.7 billion investment in securitization tranches and financing to Third party funding entities. The Group's financing to Third party funding entities is collateralized by the assets in those structured entities.

Other assets – Other assets as of December 31, 2017 and December 31, 2016 of € 21.5 billion and € 20.7 billion, respectively, consist primarily of prime brokerage receivables and cash margin balances.

Pending Receivables – Pending Receivable balances are not included in this disclosure note due to the fact that these balances arise from typical customer supplier relationships out of e.g. brokerage type activities and their inherent volatility would not provide users of the financial statements with effective information about Deutsche Bank's exposures to structured entities.

Financial Support

Deutsche Bank did not provide non-contractual support during the year to unconsolidated structured entities.

Sponsored Unconsolidated Structured Entities where the Group has no interest as of December 31, 2017 and December 31, 2016.

As a sponsor, the Group is involved in the legal set up and marketing of the entity and supports the entity in different ways, namely:

- transferring assets to the entities
- providing seed capital to the entities
- providing operational support to ensure the entity's continued operation
- providing guarantees of performance to the structured entities.

The Group is also deemed a sponsor for a structured entity if market participants would reasonably associate the entity with the Group. Additionally, the use of the Deutsche Bank name for the structured entity indicates that the Group has acted as a sponsor.

The gross revenues from sponsored entities where the Group did not hold an interest as of December 31, 2017 and December 31, 2016 were € 56.0 million and € (86) million respectively. Instances where the Group does not hold an interest in an unconsolidated sponsored structured entity include cases where any seed capital or funding to the structured entity has already been repaid in full to the Group during the year. This amount does not take into account the impacts of hedges and is recognized in Net gains/losses on financial assets/liabilities at fair value through profit and loss. The aggregated carrying amounts of assets transferred to sponsored unconsolidated structured entities in 2017 were € 2.1 billion for securitization and € 26 million for repackaging and investment entities. In 2016, they were € 5.2 billion for securitization and € 20 million for repackaging and investment entities.

The comparative numbers have been adjusted to reflect the reassessment of one securitization transaction in 2017.

41 – Current and Non-Current Assets and Liabilities

Asset and liability line items by amounts recovered or settled within or after one year

Asset items as of December 31, 2017

in € m.	Amounts recovered or settled		Total Dec 31, 2017
	within one year	after one year	
Cash and central bank balances	225,537	118	225,655
Interbank balances (w/o central banks)	8,681	585	9,265
Central bank funds sold and securities purchased under resale agreements	9,216	755	9,971
Securities borrowed	16,710	22	16,732
Financial assets at fair value through profit or loss	623,075	13,895	636,970
Financial assets available for sale	9,882	39,514	49,397
Equity method investments	0	866	866
Loans	113,190	288,510	401,699
Securities held to maturity	0	3,170	3,170
Property and equipment	0	2,663	2,663
Goodwill and other intangible assets	0	8,839	8,839
Other assets	95,383	6,108	101,491
Assets for current tax	840	375	1,215
Total assets before deferred tax assets	1,102,514	365,419	1,467,933
Deferred tax assets			6,799
Total assets			1,474,732

Liability items as of December 31, 2017

in € m.	Amounts recovered or settled		Total
	within one year	after one year	Dec 31, 2017
Deposits	550,747	30,065	580,812
Central bank funds purchased and securities sold under repurchase agreements	17,591	515	18,105
Securities loaned	6,688	1	6,688
Financial liabilities at fair value through profit or loss	473,165	5,471	478,636
Other short-term borrowings	18,411	0	18,411
Other liabilities	127,388	4,820	132,208
Provisions	5,219	0	5,219
Liabilities for current tax	366	635	1,001
Long-term debt	46,403	113,313	159,715
Trust preferred securities	4,825	666	5,491
Total liabilities before deferred tax liabilities	1,250,802	155,486	1,406,287
Deferred tax liabilities			346
Total liabilities			1,406,633

Asset items as of December 31, 2016

in € m.	Amounts recovered or settled		Total
	within one year	after one year	Dec 31, 2016
Cash and central bank balances	181,364	0	181,364
Interbank balances (w/o central banks)	10,996	610	11,606
Central bank funds sold and securities purchased under resale agreements	15,756	531	16,287
Securities borrowed	20,081	0	20,081
Financial assets at fair value through profit or loss	725,099	18,682	743,781
Financial assets available for sale	9,211	47,016	56,228
Equity method investments	0	1,027	1,027
Loans	115,673	293,236	408,909
Securities held to maturity	0	3,206	3,206
Property and equipment	0	2,804	2,804
Goodwill and other intangible assets	0	8,982	8,982
Other assets	118,246	7,799	126,045
Assets for current tax	1,329	230	1,559
Total assets before deferred tax assets	1,197,755	384,124	1,581,880
Deferred tax assets			8,666
Total assets			1,590,546

Liability items as of December 31, 2016

in € m.	Amounts recovered or settled		Total
	within one year	after one year	Dec 31, 2016
Deposits	522,885	27,319	550,204
Central bank funds purchased and securities sold under repurchase agreements	25,035	705	25,740
Securities loaned	3,598	0	3,598
Financial liabilities at fair value through profit or loss	576,336	5,635	581,971
Other short-term borrowings	17,295	0	17,295
Other liabilities	150,253	5,187	155,440
Provisions	10,973	0	10,973
Liabilities for current tax	723	606	1,329
Long-term debt	28,758	143,558	172,316
Trust preferred securities	2,197	4,716	6,373
Total liabilities before deferred tax liabilities	1,338,054	187,186	1,525,240
Deferred tax liabilities			486
Total liabilities			1,525,727

42 – Events after the Reporting Period

With the publication of the IPO price range for the offering of shares in DWS Group GmbH & Co. KGaA on March 11, 2018, we expect the sale of a portion of DB's stake in DWS Group GmbH & Co. KGaA and the listing of DWS Group GmbH & Co. KGaA's shares on the Frankfurt Stock Exchange to occur in the first quarter of 2018 should market conditions support this. Based on the price range of € 30 to € 36, and assuming a free float of 20 % to 25 %, the impact from the transaction on DB's IFRS shareholders' equity including Noncontrolling interests will be between € 1.1 billion and € 1.7 billion (pro forma December 31, 2017).

43 – Condensed Deutsche Bank AG (Parent Company only) Financial Information

Condensed Statement of Income

in € m.	2017	2016	2015
Interest income, excluding dividends from subsidiaries	15,339	14,247	13,760
Dividends received from subsidiaries:			
Bank subsidiaries	1,185	1,042	296
Nonbank subsidiaries	1,962	2,935	5,010
Interest expense	9,575	7,947	7,559
Net interest and dividend income	8,912	10,278	11,506
Provision for credit losses	675	872	359
Net interest and dividend income after provision for credit losses	8,237	9,406	11,147
Noninterest income:			
Commissions and fee income	3,721	4,145	4,265
Net gains (losses) on financial assets/liabilities at fair value through profit or loss	2,789	1,791	4,918
Other income (loss) ¹	(744)	(606)	(1,371)
Total noninterest income	5,766	5,330	7,812
Noninterest expenses:			
Compensation and benefits	5,123	5,137	5,763
General and administrative expenses	6,347	7,524	10,997
Services provided by (to) affiliates, net	1,426	1,263	1,621
Impairment of goodwill and other intangible assets	6	14	519
Total noninterest expenses	12,902	13,938	18,899
Income (loss) before income taxes	1,101	797	60
Income tax expense (benefit)	(90)	161	1,003
Net income (loss) attributable to Deutsche Bank shareholders and additional equity components	1,191	636	(943)

¹ Includes net gains (losses) on financial assets available for sale and impairments/write-ups on investments in subsidiaries.

Condensed Statement of Comprehensive Income

in € m.	2017	2016	2015
Net income (loss) attributable to Deutsche Bank shareholders and additional equity components	1,191	636	(943)
Other comprehensive income (loss), net of tax	(2,486)	360	1,183
Total comprehensive income (loss), net of tax	(1,295)	996	240

Condensed Balance Sheet

in € m.	Dec 31, 2017	Dec 31, 2016
Assets:		
Cash and central bank balances:	176,661	120,112
Interbank balances (w/o central banks):		
Bank subsidiaries	27,110	43,631
Other	5,801	6,254
Central bank funds sold, securities purchased under resale agreements, securities borrowed:		
Bank subsidiaries	4,170	4,394
Nonbank subsidiaries	36,287	43,290
Other	10,497	14,256
Financial assets at fair value through profit or loss:		
Bank subsidiaries	6,508	12,021
Nonbank subsidiaries	5,010	14,536
Other	550,182	641,455
Financial assets available for sale	28,441	31,669
Investments in associates	290	387
Investment in subsidiaries:		
Bank subsidiaries	12,242	11,530
Nonbank subsidiaries	36,170	36,461
Loans:		
Bank subsidiaries	37,974	49,393
Nonbank subsidiaries	52,687	54,549
Other	151,912	158,700
Other assets:		
Bank subsidiaries	1,480	1,231
Nonbank subsidiaries	11,145	23,923
Other	90,263	110,877
Total assets	1,244,828	1,378,670
Liabilities and equity:		
Deposits:		
Bank subsidiaries	81,504	82,276
Nonbank subsidiaries	20,562	25,773
Other	307,162	282,991
Central bank funds purchased, securities sold under repurchase agreements and securities loaned:		
Bank subsidiaries	640	2,344
Nonbank subsidiaries	29,129	49,903
Other	16,766	10,860
Financial liabilities at fair value through profit or loss:		
Bank subsidiaries	5,423	9,745
Nonbank subsidiaries	2,531	6,254
Other	439,264	535,349
Other short-term borrowings:		
Bank subsidiaries	195	88
Nonbank subsidiaries	424	692
Other	17,766	16,419
Other liabilities:		
Bank subsidiaries	851	1,222
Nonbank subsidiaries	8,067	16,100
Other	107,830	126,876
Long-term debt	144,998	155,913
Total liabilities	1,183,113	1,322,807
Total shareholders' equity	57,039	51,193
Additional equity components	4,675	4,670
Total equity	61,715	55,863
Total liabilities and equity	1,244,828	1,378,670

Condensed Statement of Cash Flows

in € m.	2017	2016	2015
Net cash provided by (used in) operating activities	40,931	25,873	49,259
Cash flows from investing activities:			
Proceeds from:			
Sale of financial assets available for sale	7,627	22,205	14,948
Maturities of financial assets available for sale	3,433	4,530	4,034
Maturities of securities held to maturity	0	0	0
Sale of investments in associates	65	12	13
Sale of property and equipment	39	8	19
Purchase of:			
Financial assets available for sale	(9,741)	(15,150)	(26,426)
Securities held to maturity	0	0	0
Investments in associates	0	(11)	(93)
Property and equipment	(261)	(284)	(164)
Net change in investments in subsidiaries	(2,222)	(1,619)	3,664
Other, net	(1,129)	(1,360)	(1,047)
Net cash provided by (used in) investing activities	(2,189)	8,331	(5,052)
Cash flows from financing activities:			
Issuances of subordinated long-term debt	865	792	2,906
Repayments and extinguishments of subordinated long-term debt	(45)	(102)	(728)
Issuances of trust preferred securities	0	1	397
Repayments and extinguishments of trust preferred securities	0	(2)	(398)
Common shares issued	8,037	0	0
Purchases of treasury shares	(7,912)	(5,256)	(9,003)
Sale of treasury shares	7,471	4,979	8,142
Additional Equity Components (AT1) issued	0	0	0
Purchases of Additional Equity Components (AT1)	(149)	(129)	177
Sale of Additional Equity Components (AT1)	160	124	(176)
Coupon on additional equity components, pre tax	(335)	(333)	(269)
Net change in noncontrolling interests	0	0	0
Cash dividends paid	(392)	0	(1,034)
Net cash provided by (used in) financing activities	7,700	74	14
Net effect of exchange rate changes on cash and cash equivalents	(3,499)	187	(1,503)
Net increase (decrease) in cash and cash equivalents	42,943	34,465	42,718
Cash and cash equivalents at beginning of period	144,816	110,351	67,633
Cash and cash equivalents at end of period	187,759	144,816	110,351
Net cash provided by (used in) operating activities include			
Income taxes paid (received), net	258	(974)	418
Interest paid	9,563	7,871	8,244
Interest received	15,308	14,346	13,928
Dividends received	3,147	3,978	5,305
Cash and cash equivalents comprise			
Cash and central bank balances (not included Interest-earning time deposits with central banks)	175,463	119,213	64,472
Interbank balances (w/o central banks)	12,296	25,603	45,880
Total	187,759	144,816	110,352

Parent Company's Long-Term Debt by Remaining Maturities

	Due in 2018	Due in 2019	Due in 2020	Due in 2021	Due in 2022	Due after 2022	Total Dec 31, 2017	Total Dec 31, 2016
By remaining maturities								
in € m.								
Senior debt:								
Bonds and notes:								
Fixed rate	9,791	9,229	7,715	10,030	6,570	16,182	59,517	66,464
Floating rate	5,322	8,616	4,149	4,282	4,433	6,341	33,142	36,875
Subordinated debt								
Bonds and notes:								
Fixed rate	3,916	0	1,096	0	0	4,756	9,769	9,842
Floating rate	50	0	0	0	0	1,884	1,934	2,174
Other	25,039	2,279	1,792	764	551	10,210	40,636	40,557
Total long-term debt	44,118	20,124	14,752	15,076	11,555	39,373	144,998	155,913

44 – SEC Registered Trust Preferred Securities

Deutsche Bank AG has, via several subsidiaries, issued “trust preferred” securities that are listed on the New York Stock Exchange. In each such transaction, a Delaware statutory business trust (the “Trust”) issues trust preferred securities (the “Trust Preferred Securities”) in a public offering in the United States. All the proceeds from the sale of the Trust Preferred Securities are invested by the Trust in the Class B Preferred Securities (the “Class B Preferred Securities”) of a wholly-owned subsidiary of Deutsche Bank AG organized in the form of a limited liability company (the “LLC”). The LLC uses all the proceeds from the sale of the Class B Preferred Securities to the Trust to purchase a debt obligation from Deutsche Bank AG (the “Debt Obligation”). The distributions on the Class B Preferred Securities match those of the Trust Preferred Securities. The Trust Preferred Securities and the Class B Preferred Securities pay distributions quarterly in arrears and are redeemable only upon the occurrence of certain events specified in the documents governing the terms of those securities. Subject to limited exceptions, the Class B Preferred Securities generally cannot be redeemed until at least five or ten years after their issuance. The Trust Preferred Securities and the Class B Preferred Securities are each subject to a full and unconditional subordinated guarantee of Deutsche Bank AG. These subordinated guarantees are general and unsecured obligations of Deutsche Bank AG and rank, both as to payment and in liquidation of Deutsche Bank AG, junior in priority of payment to all current and future indebtedness of Deutsche Bank AG and on parity in priority of payment with the most senior preference shares, if any, of Deutsche Bank AG.

Issuances of SEC Registered Trust Preferred Securities

Trust	LLC	Issuance Date	Earliest Redemption Date	Parent Long-term Debt ¹
Deutsche Bank Contingent Capital Trust II	Deutsche Bank Contingent Capital LLC II	May 23, 2007	May 23, 2017 ²	€ 666 million
Deutsche Bank Contingent Capital Trust III	Deutsche Bank Contingent Capital LLC III	February 20, 2008	February 20, 2018 ³	€ 1,644 million
Deutsche Bank Contingent Capital Trust V	Deutsche Bank Contingent Capital LLC V	May 9, 2008 ⁴	June 30, 2018	€ 1,153 million

¹ Amount of long term-debt of the Parent Company represented by the Debt Obligations issued by Deutsche Bank AG to the applicable LLC and amount of Trust Preferred Securities of Deutsche Bank AG Consolidated represented by the Trust Preferred Securities issued by the respective Trust as of December 31, 2017.

² Next redemption date is May 23, 2018.

³ Redeemed on February 20, 2018.

⁴ On March 30, 2010 Deutsche Bank AG additionally issued an amount of U.S.\$ 120 million.

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Confirmations

Report of Independent Registered Public Accounting Firm

To the Supervisory Board of Deutsche Bank Aktiengesellschaft:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Deutsche Bank Aktiengesellschaft and subsidiaries (the “Company”) as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes, and the specific disclosures described in Note 1 to the consolidated financial statements as being part of the financial statements (collectively, “the consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2017, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 12, 2018 expressed an unqualified opinion on the effectiveness of the Company’s internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included, examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

KPMG AG
Wirtschaftsprüfungsgesellschaft

We or our predecessor firms have served as the Company’s and its predecessor companies’ auditor since 1952.

Frankfurt am Main, Germany
March 12, 2018

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Corporate Governance Statement according to Sections 289f and 315d of the German Commercial Code/ Corporate Governance Report

354	Management Board and Supervisory Board
369	Reporting and Transparency
369	Related Party Transactions
370	Auditing and Controlling
372	Compliance with the German Corporate Governance Code

All information presented in this Corporate Governance Statement according to §§ 289f, 315d German Commercial Code / Corporate Governance Report is shown as of February 16, 2018.

Management Board and Supervisory Board

Management Board

The Management Board of Deutsche Bank AG is responsible for the management of the company in accordance with the law, the Articles of Association of Deutsche Bank AG and the Terms of Reference for the Management Board with the objective of creating sustainable value in the interests of the company. It considers the interests of shareholders, employees and other company-related stakeholders. The members of the Management Board are collectively responsible for managing the bank's business. The Management Board, as the Group Management Board, manages the Deutsche Bank Group in accordance with uniform guidelines; it exercises general control over all Group companies.

The Management Board decides on all matters prescribed by law or the Articles of Association and ensures compliance with the legal requirements and internal guidelines (compliance). It also takes the necessary measures to ensure that adequate internal guidelines are developed and implemented. The Management Board's responsibilities include, in particular, the bank's strategic management and direction, the allocation of resources, financial accounting and reporting, control and risk management, as well as a properly functioning business organization and corporate control. The Management Board decides on the appointments to the senior management level below the Management Board and, in particular, on the appointment of Global Key Function Holders. In appointing people to management functions in the Group, the Management Board takes diversity into account and strives, in particular, to achieve an appropriate representation of women.

The Management Board works closely together with the Supervisory Board in a cooperative relationship of trust and for the benefit of the company. The Management Board reports to the Supervisory Board at a minimum within the scope prescribed by law or administrative guidelines, in particular on all issues with relevance for the Group concerning strategy, the intended business policy, planning, business development, risk situation, risk management, staff development, reputation and compliance.

A comprehensive presentation of the duties, responsibilities and procedures of our Management Board are specified in its Terms of Reference, the current version of which is available on our website (www.db.com/ir/en/documents.htm).

Personnel changes to the Management Board and the current members of the Management Board in the 2017 financial year

James von Moltke was appointed member of the Management Board with effect from July 1, 2017, and Frank Strauß was appointed member of the Management Board with effect from September 1, 2017, both of them for a three-year period.

Jeffrey Urwin stepped down from the bank's Management Board effective as of March 31, 2017.

In the following, information is provided on the current members of the Management Board. The information includes the year in which they were born, the year in which they were first appointed and the year in which their term expires as well as their current positions and area of responsibility according to the current Business Allocation Plan for the Management Board. Furthermore, their other board mandates or directorships outside of Deutsche Bank Group are specified. The members of our Management Board have generally undertaken not to assume chairmanships of supervisory boards of companies outside Deutsche Bank Group.

John Cryan

Year of birth: 1960
First appointed: 2015
Term expires: 2020

John Cryan became a member of our Management Board on July 1, 2015 and has been sole Chairman of our Management Board since the conclusion of the Annual General Meeting on May 19, 2016. According to the Business Allocation Plan for the Management Board, he is responsible for, among other things, the areas of Communications & Corporate Social Responsibility (CSR), Group Audit, Corporate Strategy, Incident & Investigation Management as well as the Business Selection and Conflicts Office. In addition, he took on responsibility for the bank's business in the Americas as of March 16, 2017.

From May 2016 to June 2017 he held global responsibility for Regional Management and was also responsible for the EMEA region (excluding Germany and the UK).

Mr. Cryan became a member of Deutsche Bank's Supervisory Board in 2013, where he served as Chairman of the Audit Committee and member of the Risk Committee. Upon becoming Co-Chairman of the Management Board in 2015, he stepped down from the Supervisory Board. From 2012 to 2014 Mr. Cryan was President Europe, Head Africa, Head Portfolio Strategy and Head Credit Portfolio at Temasek Holdings Pte. Ltd., the Singaporean state investment company. Previously, he was Group Chief Financial Officer of UBS AG from 2008 to 2011, having worked in corporate finance and client advisory roles at UBS and SG Warburg in London, Munich and Zurich starting in 1987.

He began his career as a trainee chartered accountant at Arthur Andersen in London. He is a graduate of the University of Cambridge.

Mr. Cryan is a Non-Executive Director of MAN Group Plc.

Dr. Marcus Schenck

Year of birth: 1965
First appointed: 2015
Term expires: 2023

Dr. Marcus Schenck became a member of our Management Board on May 21, 2015 and was appointed President as of March 5, 2017. Until June 30, 2017 he was our Chief Financial Officer. Since July 1, 2017, he has been the Co-Head of our Corporate & Investment Bank together with Garth Ritchie. In July 2017, he assumed responsibility for the EMEA region.

In January 2015, Dr. Schenck joined Deutsche Bank from Goldman Sachs International, where he was Partner and Head of Investment Banking Services for Europe, Middle East & Africa. Additionally, he was a member of the Operating Committee of the Investment Banking Division of Goldman Sachs. From 2006 to 2013, Dr. Schenck was Chief Financial Officer and a member of the Management Board of German energy supplier E.ON SE. From 1997 to 2006, he held a number of senior positions at Goldman Sachs in Frankfurt. Prior to that, he was a consultant at McKinsey & Company.

He holds a "Diplom-Volkswirt" degree from the University of Bonn and a PhD in Economics from the University of Cologne.

Dr. Schenck does not have any external directorships subject to disclosure.

Christian Sewing

Year of birth: 1970
First appointed: 2015
Term expires: 2022

Christian Sewing became a member of our Management Board on January 1, 2015 and was appointed President as of March 5, 2017. Since January 2016, he has been the Head of Private, Wealth & Commercial Clients (excluding Postbank). Effective September 1, 2017, he was appointed Co-Head of Private & Commercial Bank (including Postbank), together with Frank Strauß. Furthermore he is Regional CEO Germany. From January to June 2015, he was responsible on the Management Board for Legal, Incident Management Group and Group Audit, and thereafter he took on responsibility for Private & Business Clients.

Prior to assuming his role on the Management Board, Mr. Sewing was Global Head of Group Audit and held a number of positions before that in Risk, including Deputy Chief Risk Officer (from 2012 to 2013) and Chief Credit Officer (from 2010 to 2012) of Deutsche Bank.

From 2005 until 2007, Mr. Sewing was a member of the Management Board of Deutsche Genossenschafts-Hypothekenbank.

Before graduating with a diploma from the Bankakademie Bielefeld and Hamburg, Mr. Sewing completed a bank apprenticeship at Deutsche Bank in 1989.

Mr. Sewing does not have any external directorships subject to disclosure.

Kimberly Hammonds

Year of birth: 1967
Appointed: 2016
Term expires: 2019

Kimberly Hammonds became a member of our Management Board on August 1, 2016. She is our Chief Operating Officer and is responsible for Technology and Operations, Information Security, Data Management, Digital Transformation and Corporate Services.

Ms. Hammonds joined Deutsche Bank in 2013 as Global Chief Information Officer and Global Co-Head of Group Technology & Operations. She was with Boeing from 2008 to 2013, most recently as Chief Information Officer. Before working for Boeing, she held a number of management positions at Dell and Ford Motor Company, in product engineering, manufacturing, marketing and information technology leadership.

She has an MBA from Western Michigan University and a degree in mechanical engineering from the University of Michigan, USA.

Ms. Hammonds is a member of the Board of Directors of Red Hat Inc., USA and has been a Non-Executive Director of Cloudera Inc., USA, since May 2017.

Stuart Lewis

Year of birth: 1965
First appointed: 2012
Term expires: 2020

Stuart Lewis became a member of our Management Board on June 1, 2012. He is our Chief Risk Officer and is responsible for, among other things, the functions managing Credit Risk, Non-Financial Risk, Market Risk and Liquidity Risk as well as for further Risk-Infrastructure units.

He joined Deutsche Bank in 1996. Prior to assuming his current role, Mr. Lewis was Deputy Chief Risk Officer and subsequently Chief Risk Officer of the Corporate & Investment Bank from 2010 to 2012. Between 2006 and 2010 he was Chief Credit Officer.

Before joining Deutsche Bank in 1996, he worked at Credit Suisse and Continental Illinois National Bank in London.

He studied at the University of Dundee, where he obtained an LLB (Hons), and he holds an LLM from the London School of Economics. He also attended the College of Law, Guildford.

Mr. Lewis does not have any external directorships subject to disclosure.

Sylvie Matherat

Year of birth: 1962
First appointed: 2015
Term expires: 2023

Sylvie Matherat became a member of our Management Board on November 1, 2015. She is our Chief Regulatory Officer and is responsible for the functions Compliance, Anti-Financial Crime (AFC), Regulatory Affairs, and Government & Public Affairs.

Ms. Matherat joined Deutsche Bank from Banque de France where she was Deputy Director General and responsible for regulation and financial stability issues, payment and settlement infrastructures, banking services, and the Target 2 Securities project. Ms. Matherat previously held various positions at the banking supervisory authority and in the private sector.

She studied public law and finance at the Institut d'Études Politiques de Paris, France, and holds a Master's degree in law and political sciences. In 2014 she was awarded the Légion d'Honneur.

Ms. Matherat does not have any external directorships subject to disclosure.

James von Moltke

Year of birth: 1969
First appointed: 2017
Term expires: 2020

James von Moltke became a member of our Management Board on July 1, 2017. He is our Chief Financial Officer and in this function he is responsible for, among other things, Finance, Group Tax, Group Treasury, Investor Relations, as well as Corporate M&A & Corporate Investments.

Before Mr. von Moltke joined Deutsche Bank he served as Treasurer of Citigroup. He started his career at Credit Suisse First Boston in London in 1992. In 1995, he joined J.P. Morgan, working at the bank for 10 years in New York and Hong Kong. After next working at Morgan Stanley in New York for four years, where he led the Financial Technology advisory team globally, Mr. von Moltke joined Citigroup as Head of Corporate M&A in 2009. Three years later he became the U.S. bank's Global Head of Financial Planning.

He holds a Bachelor of Arts degree from New College, University of Oxford.

Mr. von Moltke does not have any external directorships subject to disclosure.

Nicolas Moreau

Year of birth: 1965
First appointed: 2016
Term expires: 2019

Nicolas Moreau became a member of our Management Board on October 1, 2016. He is our Head of Deutsche Asset Management.

Mr. Moreau was Chairman and CEO of AXA France and a member of the AXA Group Management Committee, as well as Vice Chairman of the Group Investment Committee. Mr. Moreau spent 25 years with the AXA Group, where he held various positions including CEO of AXA Investment Managers and CEO of AXA UK & Ireland.

Mr. Moreau studied at the École Polytechnique in Paris, France, and holds a Master's degree in engineering. He is also a qualified actuary. In 2015, he was awarded the Légion d'Honneur.

Mr. Moreau does not have any external directorships subject to disclosure.

Garth Ritchie

Year of birth: 1968
First appointed: 2016
Term expires: 2018

Garth Ritchie became a member of our Management Board on January 1, 2016. He was Head of our Global Markets business division until March 15, 2017, became Head of Corporate & Investment Bank on March 16, 2017 and has been the Co-Head of our Corporate & Investment Bank since July 1, 2017, together with Dr. Marcus Schenck. Mr. Ritchie is also Regional CEO for the UK & Ireland.

Mr. Ritchie joined Deutsche Bank in 1996 and became Co-Head of Equities in the Corporate Banking & Securities Business Division in 2009 and its sole Head in 2010. He held various positions in trading and derivatives for over two decades.

Prior to joining Deutsche Bank, Mr. Ritchie held positions at Fergusson Brothers and First National Bank of South Africa.

He holds a Bachelor of Commerce in Finance and Economics from the University of Port Elizabeth (South Africa).

Mr. Ritchie does not have any external directorships subject to disclosure.

Karl von Rohr

Year of birth: 1965
First appointed: 2015
Term expires: 2023

Karl von Rohr became a member of our Management Board on November 1, 2015. He is our Chief Administrative Officer and is responsible for the functions Legal, Global Governance and Human Resources.

Mr. von Rohr joined Deutsche Bank in 1997. From 2013 to 2015 he was Global Chief Operating Officer, Regional Management. Prior to this, he was Head of Human Resources for Deutsche Bank in Germany and member of the Management Board of Deutsche Bank Privat- und Geschäftskunden AG. During his time at Deutsche Bank, he has held various senior management positions in other divisions in Germany and Belgium.

He studied law at the universities of Bonn (Germany), Kiel (Germany), Lausanne (Switzerland) and at Cornell University (U.S.A.).

Mr. von Rohr is a member of the following Supervisory Boards: BVV Versicherungsverein des Bankgewerbes a.G. and BVV Versorgungskasse des Bankgewerbes e.V.

Werner Steinmüller

Year of birth: 1954
First appointed: 2016
Term expires: 2019

Werner Steinmüller became a member of our Management Board on August 1, 2016. He is our Regional CEO Asia Pacific.

Mr. Steinmüller joined Deutsche Bank in 1991. He was Head of Global Transaction Banking from 2004 to 2016, Chief Operating Officer (COO) of Global Transaction Banking from 2003 to 2004, Head of the Global Banking Division Europe from 1998 to 2003, and Co-Head of Corporate Finance Germany from 1996 to 1998.

Prior to joining Deutsche Bank, he worked at Citibank from 1979 to 1991.

He holds a Diploma in Business Administration and Mechanical Engineering from TU Darmstadt.

Mr. Steinmüller does not have any external directorships subject to disclosure.

Frank Strauß

Year of birth: 1970
First appointed: 2017
Term expires: 2020

Frank Strauß became a member of our Management Board on September 1, 2017. He is our Co-Head of Private & Commercial Bank (including Postbank) together with Christian Sewing. Mr. Strauß is also responsible for Postbank (including integration matters).

Having completed training to become a bank officer in Iserlohn, Mr. Strauß moved to Frankfurt in 1995, where he held various management positions at Deutsche Bank and Deutsche Bank 24, its former subsidiary. From 2002 onwards he coordinated European operations in the bank's Private & Business Clients division. In 2005 he took over responsibility for developing the bank's Asian operations in Mumbai and Beijing. One year later he was appointed Head of Private & Business Clients Germany. In July 2011 he moved to Postbank, where he became the Management Board member responsible for sales, before assuming the role of Chairman of the Management Board one year later.

He completed a bank apprenticeship at Deutsche Bank in Iserlohn between 1989 and 1992.

Mr. Strauß does not have any external directorships subject to disclosure.

Supervisory Board

The Supervisory Board of Deutsche Bank AG appoints, supervises and advises the Management Board and is directly involved in decisions of fundamental importance to the bank. It works together closely with the Management Board in a cooperative relationship of trust and for the benefit of the company. The Supervisory Board decides on the appointment and dismissal of members of the Management Board including long-term succession planning for the Management Board based on the recommendations of the Chairman's Committee and the Nomination Committee. Based on the recommendation of the Compensation Control Committee, the Supervisory Board determines the total compensation of the individual members of the Management Board resolves on the compensation system for the Management Board and reviews it regularly.

The Supervisory Board receives reports from the Management Board at least within the scope prescribed by law or administrative guidelines, in particular on all issues of relevance for the Group concerning strategy, intended business policy, planning, business development, risk situation, risk management, staff development, reputation and compliance. Furthermore, the Audit Committee is also informed regularly, and in the case of severe deficiencies without undue delay, of any serious deficiencies identified by Group Audit and of any substantial deficiencies which have not yet been rectified. The Chairman of the Supervisory Board is informed accordingly of any serious findings against the members of the Management Board. In addition to the already existing reporting principles, the Supervisory Board and Management Board, adopted an Information Regime with detailed specifications regarding the Management Board's reporting to the Supervisory Board as well as rules relating to enquiries addressed by the Supervisory Board to the Management Board. Furthermore, the Information Regime covers, among other things, the Supervisory Board's requests for information and reports from employees of the company, and the exchange of information in connection with the meetings of the Supervisory Board and its committees.

The Chairman of the Supervisory Board plays a crucial role in the proper functioning of the Supervisory Board and has a leadership role in this. He can issue internal guidelines and principles concerning the Supervisory Board's internal organization and communications, the coordination of the work within the Supervisory Board and the Supervisory Board's interaction with the Management Board. Between meetings, the Chairman of the Supervisory Board, and, if expedient, the chairpersons of the Supervisory Board committees, maintain regular contact with the Management Board, especially with the Chairman of the Management Board, and deliberate with him on issues of Deutsche Bank Group's strategy, planning, the development of business, risk situation, its risk management, governance, compliance and material litigation cases. The Chairman of the Supervisory Board and – within their respective functional responsibility – the chairpersons of the Supervisory Board committees are informed without delay by the Chairman of the Management Board or by the respectively responsible Management Board member about important events of material significance for the assessment of the situation, development and management of Deutsche Bank Group. The Chairman of the Supervisory Board engages in discussions with investors on Supervisory Board-related topics when necessary and regularly informs the Supervisory Board of the substance of such discussions.

The types of business that require the approval of the Supervisory Board to be transacted are specified in Section 13 of our Articles of Association. The Supervisory Board meets, if required, without the Management Board. After due consideration and insofar as materially appropriate, the Supervisory Board, or any of its committees, may, in order to perform their tasks, consult auditors, legal advisors and other internal or external advisors. In performing their tasks, the Chairman of the Supervisory Board, the chairpersons of the standing committees and the Supervisory Board members are supported by the Office of the Supervisory Board, which is independent of the Management Board.

In 2017, a total of 59 meetings of the Supervisory Board and its committees took place. As in previous years, joint meetings were held on topics of relevance for several committees.

The duties, procedures and committees of the Supervisory Board are specified in its Terms of Reference. The current version is available on the Deutsche Bank website (www.db.com/ir/en/documents.htm).

Members of the Supervisory Board

The Supervisory Board of Deutsche Bank AG has 20 members. In accordance with the German Co-Determination Act (*Mitbestimmungsgesetz*), it comprises an equal number of shareholder representatives and employee representatives.

The members representing our shareholders were elected at the Annual General Meeting on May 23, 2013. In departure from this, Dr. Paul Achleitner was first elected at the Annual General Meeting on May 31, 2012, and Gerhard Eschelbeck, Professor Dr. Stefan Simon and Gerd Alexander Schütz were elected at the Annual General Meeting on May 18, 2017. The election of employee representatives took place on April 16, 2013, Alfred Herling stepped down as an employee representative from the Supervisory Board on December 31, 2016. Until then, he was Deputy Chairman of the Supervisory Board. For the remainder of his term of office on the Supervisory Board, he is being replaced by the substitute member elected to take his place, Stefan Rudschäfski, whom the Supervisory Board elected Deputy Chairman of the Supervisory Board with effect from January 1, 2017.

The following table shows information on the current members of our Supervisory Board. The information includes the years in which the members were born, the years in which they were first elected or appointed, the years when their terms expire, their principal occupation and their membership on other companies' supervisory boards, other nonexecutive directorships and other positions. Representatives of the employees are indicated with an asterisk (*).

Member	Principal occupation	Supervisory board memberships and other directorships
Dr. Paul Achleitner Year of birth: 1956 First elected: 2012 Term expires: 2022	Chairman of the Supervisory Board of Deutsche Bank AG, Frankfurt	Bayer Aktiengesellschaft; Daimler AG; Henkel AG & Co. KGaA (member of the Shareholders' Committee)
Wolfgang Böhr* Year of birth: 1963 Promoted to the post as Alternate Member: 2015 Term expires: 2018	Chairman of the Staff Council of Deutsche Bank, Düsseldorf; Member of the Group Staff Council of Deutsche Bank; Member of the General Staff Council of Deutsche Bank	Betriebskrankenkasse Deutsche Bank AG (member of the Advisory Board)
Frank Bsirske* Year of birth: 1952 First elected: 2013 Term expires: 2018	Chairman of the trade union ver.di (Vereinte Dienstleistungsgewerkschaft), Berlin	RWE AG (Deputy Chairman); Deutsche Postbank AG (Deputy Chairman); IBM Central Holding GmbH (until June 2017); Kreditanstalt für Wiederaufbau (KfW) (member of the Board of Supervisory Directors); innogy SE (Deputy Chairman)
Dina Dublon Year of birth: 1953 First elected: 2013 Term expires: 2018		Accenture PLC (until February 2017); PepsiCo Inc.
Jan Duschek* Year of birth: 1984 Appointment by court: 2016 Term expires: 2018	Head of national working group Banking, trade union ver.di (Vereinte Dienstleistungsgewerkschaft), Berlin	No memberships or directorships subject to disclosure
Gerhard Eschelbeck Year of birth: 1965 First elected: 2017 Term expires: 2022	Vice President Security & Privacy Engineering, Google Inc., Mountain View	No memberships or directorships subject to disclosure
Katherine Garrett-Cox Year of birth: 1967 First elected: 2011 Term expires: 2021	Managing Director and Chief Executive Officer, Gulf International Bank (UK) Ltd., London	No memberships or directorships subject to disclosure
Timo Heider* Year of birth: 1975 First elected: 2013 Term expires: 2018	Deputy Chairman of the Group Staff Council of Deutsche Bank AG; Chairman of the Group Staff Council of Deutsche Postbank AG; Chairman of the General Staff Council of BHW Kreditservice GmbH; Chairman of the Staff Council of BHW Bausparkasse AG/Postbank Finanzberatung AG	Deutsche Postbank AG; BHW Bausparkasse AG (Deputy Chairman); Pensionskasse der BHW Bausparkasse AG VVaG (Deputy Chairman)
Sabine Irrgang* Year of birth: 1962 First elected: 2013 Term expires: 2018	Head of Human Resources Baden-Württemberg, Deutsche Bank AG	No memberships or directorships subject to disclosure
Professor Dr. Henning Kagermann Year of birth: 1947 First elected: 2000 Term expires: 2018	President of acatech – German Academy of Science and Engineering, Munich	Münchener Rückversicherungs-Gesellschaft AG; Deutsche Post AG; BMW Bayerische Motoren Werke AG (until May 2017); KUKA AG (since May 2017)
Martina Klee* Year of birth: 1962 First elected: 2008 Term expires: 2018	Chairperson of the Staff Council Group COO Eschborn/Frankfurt of Deutschen Bank	Sterbekasse für die Angestellten der Deutsche Bank-Gruppe VVaG

Member	Principal occupation	Supervisory board memberships and other directorships
Henriette Mark* Year of birth: 1957 First elected: 2003 Term expires: 2018	Chairperson of the Combined Staff Council Munich and Southern Bavaria of Deutsche Bank; Member of the Group Staff Council of Deutsche Bank; Member of the General Staff Council of Deutsche Bank	No memberships or directorships subject to disclosure
Richard Meddings Year of birth: 1958 Appointment by court: 2015 Term expires: 2021		HM Treasury; Legal & General Group PLC (until May 2017); TSB Bank PLC (Non-Executive Director since September 2017 and Chairman since February 2018); Jardine Lloyd Thompson Group PLC (Non-Executive Director) (since October 2017)
Louise M. Parent Year of birth: 1950 Appointment by court: 2014 Term expires: 2018	Of Counsel, Cleary Gottlieb Steen & Hamilton LLP, New York	Zoetis Inc.; Fidelity National Information Service Inc. (since October 2017)
Gabriele Platscher* Year of birth: 1957 First elected: 2003 Term expires: 2018	Chairperson of the Combined Staff Council Braunschweig/Hildesheim of Deutsche Bank	BVV Versicherungsverein des Bankgewerbes a.G. (Deputy Chairperson); BVV Versorgungskasse des Bankgewerbes e.V. (Deputy Chairperson); BVV Pensionsfonds des Bankgewerbes AG (Deputy Chairperson)
Bernd Rose* Year of birth: 1967 First elected: 2013 Term expires: 2018	Chairman of the General Staff Council of Postbank Filialvertrieb AG; Member of the General Staff Council of Deutsche Postbank; Member of the General Staff Council of Deutsche Bank; Member of the European Staff Council of Deutsche Bank	Deutsche Postbank AG; Postbank Filialvertrieb AG; ver.di Vermögensverwaltungsgesellschaft (Deputy Chairman)
Stefan Rudschäfski* Year of birth: 1965 Promoted to the post as Alternate Member: 2017 Term expires: 2018	Deputy Chairman of the Supervisory Board of Deutsche Bank AG, Frankfurt; Deputy Chairman of the General Staff Council of Deutsche Bank; Member of the Group Staff Council of Deutsche Bank; Exempted Staff Council member, Deutsche Bank Privat- und Geschäftskunden AG, Hamburg; Chairman of the Staff Council of Deutsche Bank, Hamburg	Betriebskrankenkasse Deutsche Bank AG (Member of the Advisory Board)
Gerd Alexander Schütz Year of birth: 1967 First elected: 2017 Term expires: 2018	Founder and Member of the Management Board of C-QUADRAT Investment Aktiengesellschaft, Vienna	MyBucks S.A. RCS (Non-Executive Chairman of the Board of Directors) (until February 2018)
Prof. Dr. Stefan Simon Year of birth: 1969 Appointment by court: 2016 Term expires: 2022	Self-employed attorney at law with his own law firm, SIMON GmbH, Schwyz	Leop. Krawinkel GmbH & Co. KG (Member of the Advisory Council; Chairman of the Advisory Council since January 2018)
Dr. Johannes Teyssen Year of birth: 1959 First elected: 2008 Term expires: 2018	Chairman of the Management Board of E.ON SE, Essen	Uniper SE (Deputy Chairman) (until June 2017); Nord Stream AG (Member of the Shareholders' Committee) (since June 2017)

* Employees representatives.

Objectives for the composition of the Supervisory Board, profile of requirements and status of implementation

In accordance with the German Banking Act, members of the Supervisory Board must be reliable, must have the expertise required to perform their control function and to assess and monitor the businesses the company operates, and must commit sufficient time to the performance of their tasks. According to Section 5.4.1 (2) sentence 1 of the German Corporate Governance Code (the "Code") of February 7, 2017, the Supervisory Board has to prepare and adopt a profile of requirements for the Supervisory Board as a whole, in addition to determining concrete objectives for its composition. The Supervisory Board established the following objectives for its composition in October 2010 and last amended them in February 2018. While taking into account the requirements of Section 5.4.1 (2) sentence 1 of the Code, the Supervisory Board adopted the profile of requirements at its meeting on October 26, 2017.

The Supervisory Board shall be composed in such a way that its members as a whole possess the knowledge, abilities and expert experience to properly complete its tasks and the members in their entirety of the Supervisory Board and the Audit Committee must be familiar with the banking sector. In particular, the Supervisory Board members should have sufficient time to perform their mandates. The composition of the Supervisory Board should ensure the Supervisory Board's qualified control of and advice for the Management Board of an internationally operating, broadly positioned bank and should preserve the reputation of Deutsche Bank Group among the public. In this regard, in particular, attention should be placed on the integrity, personality, willingness to perform, professionalism and independence of the individuals proposed for election. The objective is for the Supervisory Board as a whole to have all of the knowledge and experience considered to be essential while taking into account the activities of Deutsche Bank Group.

The Supervisory Board, as a whole, must possess the expertise required to effectively monitor and advise the Management Board in its management of Deutsche Bank AG and Deutsche Bank Group – also with regard to the observance of the relevant bank supervisory regulations.

The profile of requirements includes, in particular, the knowledge, skills and professional expertise that are collectively required to perform the tasks of the Supervisory Board of Deutsche Bank AG (collective qualifications). Each Supervisory Board member must have an understanding of the fields of expertise specified below that is appropriate for the size and complexity of Deutsche Bank AG. Experts shall have profound expertise in the individual fields.

The fields of expertise include, in particular, the fields listed below:

- Knowledge in the areas of banking, financial services, financial markets and the financial industry, including the home market and the bank's key markets outside Europe
- Knowledge of the relevant clients for the bank, the market expectations and the operational environment
- Risk management (investigation, assessment, mitigation, management and control of financial and non-financial risks, capital and liquidity management, shareholdings)
- Accounting (according to International Financial Reporting Standards (IFRS) and the German Commercial Code (HGB)) and audits of annual financial statements (financial experts: these members of the Supervisory Board must fulfill the requirements as "financial experts" as such term is defined by the implementation rules of the U.S. Securities and Exchange Commission (SEC) issued pursuant to section 407 of the Sarbanes-Oxley Act of 2002 and by Section 100 of the German Stock Corporation Act)
- Corporate and social responsibility, including reporting
- Taxation
- Internal audit
- Compliance and internal controls
- Strategic planning, business and risk strategies as well as their implementation
- Digitalization
- Information technology (IT), IT systems and IT security
- Regulatory framework and legal requirements, in particular, knowledge of the legal systems relevant for the bank
- Knowledge of the social, political and regulatory expectations in the home market
- Selection procedure for management body members and assessment of their suitability
- Governance and corporate culture
- Human resources and staff management
- Compensation and compensation systems (compensation expert)
- Management of a large, international regulated company
- Internal organization of the bank

Furthermore, consideration is to be given to the amendments to the current version of the Business Allocation Plan for the Management Board of Deutsche Bank AG as well as to the requirements and expectations of the regulatory authorities.

Furthermore, the Supervisory Board shall have an adequate number of independent members and shall not have more than two former members of the Management Board of Deutsche Bank AG. Under the premise that the performance of the Supervisory Board mandate in itself by the representatives of the employees cannot be reason to doubt fulfillment of the independence criteria according to Section 5.4.2 of the Code, the Supervisory Board shall have a total of at least sixteen members that are independent within the meaning of the Code. In any event, the Supervisory Board shall be composed such that the number of independent members, within the meaning of Section 5.4.2, among the shareholder representatives will be at least six. The members of the Supervisory Board may not exercise functions on a management body of, or perform advisory duties, at major competitors. Important and not just temporary conflicts of interest with respect to a member of the Supervisory Board should lead to a termination of the mandate. Members of the Supervisory Board may not hold more than the allowed number of supervisory board mandates according to Section 25d of the German Banking Act (KWG) or mandates in supervisory bodies of companies which have similar requirements.

There is a regular maximum age limit of 70. In well-founded, individual cases, a Supervisory Board member may be elected or appointed for a period that extends at the latest until the end of the fourth Annual General Meeting that takes place after he or she has reached the age of 70. This age limit was taken into account in the election proposals to the recent General Meetings and shall also be taken into account for the next Supervisory Board elections or subsequent appointments for Supervisory Board positions that become vacant. In October 2015, the Supervisory Board resolved that for members of the Supervisory Board to be elected or appointed in future, the length of each individual Supervisory Board membership shall not, as a rule, exceed 15 years.

The Supervisory Board respects diversity when proposing members for appointment to the Supervisory Board. In light of the international operations of Deutsche Bank, care should be taken that the Supervisory Board has an appropriate number of members with long-term international experience. Currently, the professional careers or private lives of seven members of the Supervisory Board are centered outside Germany. Furthermore, all of the shareholder representatives on the Supervisory Board have several years of international experience from their current or former activities as management board members or CEOs or a comparable executive function of corporations or organizations with international operations. In these two ways, the Supervisory Board believes the international activities of the company are sufficiently taken into account. The objective is to retain the currently existing international profile.

For the election proposals to the General Meeting, the Supervisory Board takes into account the recommendations of the Nomination Committee and the legal requirements according to which the Supervisory Board shall be composed of at least 30 % women and at least 30 % men. Special importance was already attached to an appropriate consideration of women in the selection process for the Supervisory Board elections in 2008. In reviewing potential candidates for a new election or subsequent appointments to Supervisory Board positions that have become vacant, qualified women shall be included in the selection process and shall be appropriately considered in the election proposals. For many years now, more than 30 % of the Supervisory Board members have been women and, since 2013, 30 % of the shareholder representatives have been women. Currently, seven Supervisory Board members are women, i.e. 35 % of all members. The Supervisory Board strives to maintain this number. It should be taken into account that the Supervisory Board can only influence the composition of the Supervisory Board through its election proposals to the General Meeting.

The Supervisory Board believes that it complies with the specified concrete objectives regarding its composition and the profile of requirements. The members of the Supervisory Board as a whole possess the knowledge, ability and expert experience to properly complete their tasks. Diversity is appropriately taken into account. Further details in this context are given in the "Diversity Concept", which is also part of this Corporate Governance Statement / Corporate Governance Report.

In accordance with Section 5.4.2 of the Code, the Supervisory Board determined that it has what it considers to be an adequate number of independent members among the shareholder representatives these are namely: Dr. Paul Achleitner, Dina Dublon, Gerhard Eschelbeck, Katherine Garrett-Cox, Richard Meddings, Louise M. Parent, Professor Dr. Stefan Simon and Dr. Johannes Teyssen. Currently, the Supervisory Board does not consider Professor Dr. Henning Kagermann independent due to his length of service on the Supervisory Board of more than 15 years, nor Gerd Alexander Schütz as a representative of the large shareholder HNA.

Some members of the Supervisory Board are, or were last year, in high-ranking positions at other companies that Deutsche Bank has business relations with. Business transactions with these companies are conducted under the same conditions as those between unrelated third parties. These transactions, in our opinion, do not affect the independence of the Supervisory Board members involved.

Standing Committees

The Supervisory Board has established the following seven standing committees. To the extent required, the committees coordinate their work and consult each other on an ad hoc basis. The committee chairpersons report regularly to the Supervisory Board on the work of the committees. The Report of the Supervisory Board in the Annual Report 2017 provides information on the concrete work of the committees over the preceding year.

Chairman's Committee: It is responsible for, in particular: preparing the meetings of the Supervisory Board and handling current business between meetings of the Supervisory Board; preparing for decisions by the Supervisory Board on the appointment and dismissal of members of the Management Board, including long-term succession planning for the Management Board, while taking the recommendations of the Nomination Committee into account; concluding, amending and terminating employment and pension contracts in consideration of the plenary Supervisory Board's sole authority to decide on the compensation of the members of the Management Board; taking note of and, where necessary, expressing an opinion on contracts and/or amendments to contracts for a General Manager (Generalbevollmächtigter) of Deutsche Bank AG that is designated as an intended member of the Management Board; handling other contractual business with active and former members of the Management Board pursuant to Section 112 of the German Stock Corporation Act; and approving Management Board members' mandates, honorary offices or special tasks outside of Deutsche Bank Group. The Chairman's Committee is also responsible for: approving the hand-over of confidential internal data concerning a Management Board member in consultation with the Chairman of the Management Board and/or the Chief Risk Officer, unless they have a conflict of interests; approving contracts with Supervisory Board members pursuant to Section 114 of the German Stock Corporation Act; preparing for decisions of the Supervisory Board in the field of corporate governance, deciding in the Supervisory Board's stead on an adjustment of the annual Declaration of Conformity to changed actual circumstances and verifying compliance with the Declaration of Conformity. Its tasks also include: taking note of and, where necessary, expressing an opinion on the Supervisory Board's and its committees' costs for consultations with auditors, experts, legal advisors and other external advisors; as well as preparing recommendations for decisions of the Supervisory Board on pursuing claims for damages or taking other measures against incumbent or former members of the Management Board. As and when necessary, the Chairman's Committee draws on the expertise of the Chair of the Integrity Committee.

The Chairman's Committee held seven meetings in 2017.

The current members of the Chairman's Committee are Dr. Paul Achleitner (Chairman), Frank Bsirske, Professor Dr. Henning Kagermann and Stefan Rudschäfski.

Nomination Committee: It is responsible for, in particular, supporting the Supervisory Board in identifying candidates to fill a position on the bank's Management Board. In doing so, the Nomination Committee shall take into account the balance and diversity of the knowledge, skills and experience of all members of the Management Board, prepare a job description with a candidate profile, and state the time commitment associated with the tasks. Furthermore, it is responsible in particular for drawing up an objective to promote the representation of the under-represented gender on the Supervisory Board as well as a strategy for achieving this and the regular assessment, to be performed at least once a year, of the structure, size, composition and performance of the Management Board and of the Supervisory Board and making recommendations regarding this to the Supervisory Board. The Nomination Committee supports the Supervisory Board in the regular assessment, to be performed at least once a year, of the knowledge, skills and experience of the individual members of the Management Board and Supervisory Board as well as of the respective body collectively, and in reviewing the Management Board's principles for selecting and appointing persons to the upper management levels and the recommendations made to the Management Board in this respect. The shareholder representatives on the Nomination Committee prepare the Supervisory Board's proposals for the election or appointment of new shareholder representatives to the Supervisory Board. In this context, they take into account the profile of requirements for the Supervisory Board, the criteria specified by the Supervisory Board for its composition as well as the balance and diversity of the knowledge, skills and experience of all members of the Supervisory Board, prepare a job description with a candidate profile, and state the time commitment associated with the tasks.

The Nomination Committee held eight meetings in 2017.

The current members of the Nomination Committee are Dr. Paul Achleitner (Chairman), Frank Bsirske, Professor Dr. Henning Kagermann, Stefan Rudschäfski and Dr. Johannes Teyssen.

Audit Committee: It supports the Supervisory Board in particular in monitoring the financial accounting process, and it can submit recommendations or suggestions to the Supervisory Board on ensuring the integrity of the financial reporting process. Furthermore, the Audit Committee supports the Supervisory Board in monitoring the effectiveness of the risk management system, particularly of the internal control system and the internal audit system, the auditing of the financial statements, especially with regard to the auditor's independence and the additional services provided by the auditor, and the Management Board's prompt remediation – through suitable measures – of the deficiencies identified by the auditor and bank-internal control functions based on internal and external audits, in particular relating to weaknesses in risk controls, as well as non-compliance with policies, laws and regulatory requirements. The Committee is entitled to inspect all business documents of the bank, including the business information stored on data carriers. The Audit Committee pre-reviews the annual and consolidated financial statements and management reports as well as the separate non-financial report and the separate consolidated non-financial report, if they were prepared. It discusses the audit reports with the auditor and prepares the decisions of the Supervisory Board on establishing the annual financial statements and the approval of the consolidated financial statements as well as the resolution proposal on the appropriation of distributable profit. The Audit Committee submits corresponding recommendations to the Supervisory Board. It also provides support to the Supervisory Board with regard to engaging any external assurances for the non-financial statement and the consolidated non-financial statements of for the separate non-financial report and separate consolidated non-financial report. It discusses important changes to the audit and accounting methods. The Audit Committee also discusses the quarterly financial statements and the report on the limited review of the quarterly financial statements with the Management Board and the auditor prior to their publication. Furthermore, the Audit Committee submits proposals to the Supervisory Board for the appointment of the auditor and prepares the proposal of the Supervisory Board to the General Meeting for the election of the auditor. The Audit Committee advises the Supervisory Board on issuing the audit mandate to the auditor elected by the General Meeting, submits proposals to the Supervisory Board for the auditor's remuneration and can specify areas of focus for the audit. It supports the Supervisory Board in monitoring the independence, qualifications and efficiency of the auditor as well as the rotation of the members of the audit team. Mandates for non-audit-related services given to the auditor or to companies to which the auditor is related in legal, economic or personnel terms need the prior consent of the Audit Committee (in this context, see also the Principal Accountant Fees and Services section of this Corporate Governance Statement/Corporate Governance Report). The Audit Committee releases guidelines for the employment of staff – including former staff – of the auditor by the company. It arranges to be informed regularly about the work done by Group Audit, the effectiveness of the internal audit system and in particular about the focal areas of its auditing activity and on the results of its audits. It is responsible, in particular, for receiving and handling the quarterly, annual and ad hoc reports of Group Audit. The Management Board informs the Audit Committee about special audits, substantial complaints and other exceptional measures on the part of German and foreign bank regulatory authorities. The Committee regularly obtains reports on the receipt and handling of complaints from employees of the bank and its subsidiaries, from shareholders of Deutsche Bank AG and from third parties. In particular complaints concerning accounting, internal accounting controls, auditing and other financial reporting matters must be submitted to the Committee without undue delay. Reports concerning compliance matters are presented at the meetings of the Committee on a regular basis. The Chairman of the Audit Committee is entitled, in addition to the Chairman of the Supervisory Board, to obtain information directly from the Head of Compliance. The Audit Committee is responsible for acknowledging communications about significant reductions in the Compliance budget and for taking receipt of and handling the report by the Head of Compliance (Compliance Report) in accordance with Article 22 (2) letter C) of the Delegated Regulation (European Union) 2017/565 which is made at least once a year. Furthermore, the Committee is entitled to obtain, through its Chairman, information in connection with its tasks from the auditor, the Management Board, the Head of Group Audit and – with the prior consent of the Management Board – senior managers of the bank reporting directly to the Management Board.

The Audit Committee held eight meetings in 2017, thereof one jointly with the Risk Committee.

The current members of the Audit Committee are Richard Meddings (Chairman), Dr. Paul Achleitner, Katherine Garrett-Cox, Henriette Mark, Gabriele Platscher, Bernd Rose and Professor Dr. Stefan Simon.

Risk Committee: It advises the Supervisory Board on overall risk appetite and risk strategy, and monitors the implementation of the stated risk appetite and risk strategy by the senior management level. The Risk Committee monitors the material aspects of the rating and valuation processes. In undertaking this responsibility, it receives reports from the Management Board about the operations of the bank's rating systems and about material changes or exceptions from established policies that will materially impact the operations of the bank's rating systems. The Risk Committee receives reports from the Management Board which are appropriate to monitor whether the conditions in the client business are in line with the bank's business model and risk structure. If this is not the case, the Risk Committee requests proposals from the Management Board on how the terms and conditions in the client business could be structured to bring them into line with the bank's business model and risk structure, and monitors their implementation. The Risk Committee examines whether the incentives set by the compensation system take into consideration the company's risk, capital and liquidity structure as well as the likelihood and timing of earnings. The Risk Committee also performs all of the tasks assigned to it by law or regulatory authorities. It handles loans which require a resolution by the Supervisory Board pursuant to law or our Articles of Association. In this context, it approves, among other things, the acquisition of participations as defined by Section 13 (1) d) of the Articles of Association of Deutsche Bank AG, insofar as the value of the participation does not exceed 3% of liable capital and the participation will probably not remain in the bank's full or partial possession for more than twelve months. If this period is exceeded, the Chairperson of the Committee informs the Supervisory Board without delay and obtains its approval. At the meetings of the Risk Committee, the Management Board reports on credit, market, liquidity, operational, litigation and reputational risks. The Management Board also reports on risk strategy, credit portfolios, loans requiring Supervisory Board approval pursuant to law or our Articles of Association, questions of capital resources and matters of special importance due to the risks they entail (for additional information on the disclosure of the risk management objectives and policies for individual risk categories, please see the Risk Report of the Annual Report).

The Risk Committee held nine meetings in 2017, including one jointly with the Compensation Control Committee, one jointly with the Audit Committee and one jointly with the Integrity Committee.

The current members of the Risk Committee are Dina Dublon (Chairperson), Dr. Paul Achleitner, Wolfgang Böhr, Richard Meddings and Louise M. Parent.

Integrity Committee: It continually advises and monitors the Management Board with regard to whether management ensures the economically sound, sustainable development of the company while observing the principles of sound, responsible management, fulfilling the company's social responsibilities and protecting the natural resources of the environment (environmental, social and governance (ESG) issues), and to whether the business management is aligned to these values with the objective of a holistic corporate culture. The Integrity Committee monitors the Management Board's measures that ensure the company's compliance with legal requirements, authorities' regulations and the company's own in-house policies (preventive compliance control). It regularly reviews the bank's Code of Business Conduct and Ethics to foster conduct on the part of company employees that is exemplary in every way, both within and outside the company, and that such conduct is not just aligned to the formal compliance with statutory requirements. It supports on request the Risk Committee in monitoring and analyzing the legal and reputational risks that are material to the bank. For this purpose, it advises the Management Board on how to generate awareness of the importance of such risks. It supports on request the preparation of the Chairman's Committee's recommendations for Supervisory Board decisions on pursuing recourse claims or taking other measures against current or former members of the Management Board and these are presented by its Chairperson to the Chairman's Committee. Furthermore, the Integrity Committee supports the Supervisory Board in the monitoring of the litigation cases with the highest risk and other material cases.

The Integrity Committee held seven meetings in 2017, including one jointly with the Risk Committee.

The current members of the Integrity Committee are Professor Dr. Stefan Simon (Chairman), Dr. Paul Achleitner, Sabine Irngang, Timo Heider, Martina Klee, Louise M. Parent and Dr. Johannes Teyssen.

Compensation Control Committee: It supports the Supervisory Board in the appropriate structuring of the compensation systems for the members of the Management Board. It also monitors the appropriate structure of the compensation systems for the Management Board members and employees and, in particular, the appropriate structure of the compensation for the heads of the risk control function and compliance function and for the employees who have a material influence on the bank's overall risk profile. The Compensation Control Committee supports the Supervisory Board in monitoring the process to identify risk takers in accordance with Section 18 (2) of the Regulation on Remuneration in Financial Institutions (InstitutsVergV) and Group risk takers in accordance with Section 27 (2) sentence 1 of the Regulation on Remuneration in Financial Institutions (InstitutsVergV) as well as the appropriate structure of the compensation systems for the company's employees. The Committee assesses the effects of the compensation systems on risk, capital and liquidity management, while ensuring that the compensation systems are aligned to the business strategy focused on the bank's sustainable development, to the risk strategies derived from this and to the compensation strategies at the company and Group levels. It prepares the Supervisory Board's resolutions on the compensation of the Management Board, considering, in particular, the effects of the resolutions on the company's risks and risk management. The long-term interests of shareholders, investors and other stakeholders as well as the public interest are also taken into account. It also prepares the Supervisory Board's resolutions on setting the total amount of variable compensation for the members of the Management Board in accordance with Section 45 (2) sentence 1 No. 5a of the German Banking Act (KWG) in consideration of Section 7 of the Regulation on Remuneration in Financial Institutions (InstitutsVergV) and on setting the appropriate compensation parameters, targets for contributions to performance, payment and deferral periods as well as the conditions for a full forfeiture or partial reduction of variable compensation. It also checks regularly, at least annually, whether the adopted specifications are still appropriate. Furthermore, it checks, as part of its support to the Supervisory Board in monitoring the appropriate structure of the compensation systems for employees, regularly, but at least annually, in particular, whether the total amount of variable compensation has been set in accordance with Section 45 (2) sentence 1 No. 5a of the German Banking Act (KWG) in consideration of Section 7 of the Regulation on Remuneration in Financial Institutions (InstitutsVergV) and whether the specified principles to assess the compensation parameters, contributions to performance as well as the payment and deferral periods, including the conditions for a full forfeiture or partial reduction of the variable compensation, are appropriate. In addition, it supports the Supervisory Board in monitoring whether the internal controls and other relevant areas are properly involved in the structuring of the compensation systems. The Committee is authorized to obtain, via its Chairperson, information relating to the Committee tasks from the head of the internal audit department and from the heads of the organizational units responsible for structuring the compensation systems.

The Compensation Control Committee held ten meetings in 2017, including one jointly with the Risk Committee.

The current members of the Compensation Control Committee are Dr. Paul Achleitner (Chairman), Frank Bsirske, Professor Dr. Henning Kagermann and Stefan Rudschäfski.

Mediation Committee: In addition to these six standing committees, the Mediation Committee, which is required by German law, makes proposals to the Supervisory Board on the appointment or dismissal of members of the Management Board in cases where the Supervisory Board is unable to reach a two-thirds majority decision with respect to the appointment or dismissal. The Mediation Committee only meets if necessary.

The Mediation Committee did not hold any meetings in 2017.

The current members of the Mediation Committee are Dr. Paul Achleitner (Chairman), Wolfgang Böhr, Professor Dr. Henning Kagermann and Stefan Rudschäfski.

Further details regarding the Chairman's Committee, the Nomination Committee, the Audit Committee, the Risk Committee, the Integrity Committee and the Compensation Control Committee are regulated in separate Terms of Reference. The current versions are available on our website, along with the Terms of Reference for the Supervisory Board (see: www.db.com/ir/en/documents.htm).

Share Plans

For information on our employee share programs, please refer to the additional Note 35 "Employee Benefits" to the Consolidated Financial Statements.

Reporting and Transparency

Directors' Share Ownership

Management Board. For information on the share ownership of the Management Board, please refer to our detailed Compensation Report in the Management Report.

Supervisory Board. The members of our Supervisory Board held the following numbers of our shares and share awards under our employee share plans.

Members of the Supervisory Board	Number of shares	Number of share awards
Dr. Paul Achleitner	0	0
Wolfgang Böhr	0	0
Frank Bsirske	0	0
Dina Dublon	0	0
Jan Duscheck	0	0
Gerhard Eschelbeck	0	0
Katherine Garrett-Cox	0	0
Timo Heider	0	0
Sabine Irrgang	1,170	0
Professor Dr. Henning Kagermann	0	0
Martina Klee	2,328	10
Henriette Mark	1,524	0
Richard Meddings	0	0
Louise Parent	0	0
Gabriele Platscher	1,293	10
Bernd Rose	0	0
Stefan Rudschäfski	733	6
Gerd Alexander Schütz	0	0
Professor Dr. Stefan Simon	0	0
Dr. Johannes Teyssen	0	0
Total	7,048	26

The members of the Supervisory Board held 7,048 shares, amounting to less than 0.01 % of our shares as of February 16, 2018.

As listed in the "Number of share awards" column in the table, the members who are employees of Deutsche Bank hold matching awards granted under the Global Share Purchase Plan, which are scheduled to be delivered to them on November 1, 2018.

As described in the "Management Report: Compensation Report: Compensation System for Supervisory Board Members", 25 % of each member's compensation for services as a member of the Supervisory Board for a given prior year is, rather than being paid in cash, converted into notional shares of Deutsche Bank AG in February of the following year. The cash value of the notional shares is paid to the member in February of the year following his departure from the Supervisory Board or the expiration of his term of office, based on the market price of the Deutsche Bank share near the payment date. The table in the section specified above shows the number of notional shares that will be credited in spring 2018 to members of the Supervisory Board as part of their 2017 compensation.

Related Party Transactions

For information on related party transactions please refer to Note 38 "Related Party Transactions".

Auditing and Controlling

Audit Committee Financial Expert

The Supervisory Board determined that Dr. Paul Achleitner, Katherine Garrett-Cox, Richard Meddings and Professor Dr. Stefan Simon, who are members of its Audit Committee, are “audit committee financial experts”, as such term is defined by the implementation rules of the U.S. Securities and Exchange Commission issued pursuant to Section 407 of the Sarbanes-Oxley Act of 2002. These audit committee financial experts are “independent” of the bank, as defined in Rule 10A-3 under the U.S. Securities Exchange Act of 1934. In accordance with the provisions of Sections 107 (4) and 100 (5) of the German Stock Corporation Act (AktG) as well as Section 25d (9) of the German Banking Act (KWG), they have the required expert knowledge in financial accounting and auditing.

Compensation Control Committee Compensation Expert

Pursuant to Section 25d (12) of the German Banking Act (KWG), at least one member of the Compensation Control Committee must have sufficient expertise and professional experience in the field of risk management and risk controlling, in particular, with regard to the mechanisms to align compensation systems to the company’s overall risk appetite and strategy and the bank’s capital base. The Supervisory Board determined that Dr. Paul Achleitner and Professor Dr. Henning Kagermann, members of the Compensation Control Committee, fulfill the requirements of Section 25d (12) of the German Banking Act (KWG) and therefore have the required expertise and professional experience in risk management and risk controlling.

For a description of the experience of the Supervisory Board members mentioned in the two foregoing paragraphs, please see “Management Report: Corporate Governance Statement/Corporate Governance Report: Management Board and Supervisory Board: Supervisory Board” of the Annual Report.

Values and leadership principles of Deutsche Bank AG and Deutsche Bank Group

Code of Business Conduct and Ethics

Deutsche Bank AG’s and Deutsche Bank Group’s Code of Business Conduct and Ethics describes the values and minimum standards for ethical business conduct that we expect all of our employees to follow. These values and standards govern employee interactions with our clients, competitors, business partners, government and regulatory authorities, and shareholders, as well as with other employees. The Code of Business Conduct and Ethics defines our values and beliefs and includes the self-commitment of the Management Board, the Supervisory Board as well as the senior management of Deutsche Bank Group to be compliant with these values and beliefs. In addition, it forms the cornerstone of our policies, which provide guidance on compliance with applicable laws and regulations.

In accordance with Section 406 of the Sarbanes-Oxley Act of 2002, we adopted a Code of Ethics for Senior Financial Officers of Deutsche Bank AG and Deutsche Bank Group with special obligations that apply to our “senior financial officers”, which currently consist of Deutsche Bank’s Chairman of the Management Board, Chief Financial Officer, Group Controller as well as certain other senior financial officers. There were no amendments or waivers to this Code of Ethics in 2017.

The current versions of the Code of Business Conduct and Ethics as well as the Code of Ethics for Senior Financial Officers of Deutsche Bank AG and Deutsche Bank Group are available from Deutsche Bank’s website: www.db.com/ir/en/documents.htm.

Corporate Governance at Deutsche Bank AG and Deutsche Bank Group

Deutsche Bank established a Global Governance Function to define, implement and monitor the corporate governance framework of Deutsche Bank AG and Deutsche Bank Group. It performs its governance function throughout the Group. The Global Governance Function addresses corporate governance issues in Deutsche Bank AG and Deutsche Bank Group, while focusing closely on clear organizational structures aligned to the key elements of good corporate governance.

Deutsche Bank AG and Deutsche Bank Group are committed to ensuring a corporate governance framework in accordance with international standards and statutory provisions. In order to support this objective, Deutsche Bank AG and Deutsche Bank Group have instituted clear and comprehensive principles, which are documented in the bank's Corporate Governance Fundamentals.

Principal Accountant Fees and Services

In accordance with German law, our principal accountant is appointed at our Annual General Meeting based on a recommendation of our Supervisory Board. The Audit Committee of our Supervisory Board prepares such a recommendation. Subsequent to the principal accountant's appointment, the Audit Committee awards the contract and in its sole authority approves the terms and scope of the audit and all audit engagement fees as well as monitors the principal accountant's independence. KPMG AG Wirtschaftsprüfungsgesellschaft was our principal accountant for the 2016 and 2017 fiscal years, respectively.

The table set forth below contains the aggregate fees billed for each of the last two fiscal years by KPMG AG Wirtschaftsprüfungsgesellschaft and the worldwide member firms of KPMG International in each of the following categories: (1) Audit fees, which are fees for professional services for the audit of our annual financial statements or services that are normally provided by the accountant in connection with statutory and regulatory filings or engagements for those fiscal years, (2) Audit-related fees, which are fees for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and are not reported as Audit fees, (3) Tax-related fees, which are fees for professional services rendered for tax compliance, tax consulting and tax planning, and (4) All other fees, which are fees for products and services other than Audit fees, Audit-related fees and Tax-related fees. These amounts include expenses and exclude Value Added Tax (VAT).

Fee category in € m.	2017	2016
Audit fees	51	49
Audit-related fees	18	26
Tax-related fees	4	6
All other fees	0	1
Total fees¹	73	82

The Audit fees include fees for professional services for the audit of our annual financial statements and consolidated financial statements and do not include the audit fees for Postbank and its subsidiaries, as they are not audited by KPMG. The Audit-related fees include fees for other assurance services required by law or regulations, in particular for financial service specific attestation, for quarterly reviews, for spin-off audits and for merger audits, as well as fees for voluntary assurance services, like voluntary audits for internal management purposes and the issuance of comfort letters. Our Tax-related fees include fees for services relating to the preparation and review of tax returns and related compliance assistance and advice, tax consultation and advice relating to Group tax planning strategies and initiatives and assistance with assessing compliance with tax regulations.

United States law and regulations, and our own policies, generally require that all engagements of our principal accountant be pre-approved by our Audit Committee or pursuant to policies and procedures adopted by it. Our Audit Committee has adopted the following policies and procedures for consideration and approval of requests to engage our principal accountant to perform non-audit services. Engagement requests must in the first instance be submitted to the Accounting Engagement Team. If the request relates to services that would impair the independence of our principal accountant, the request must be rejected. Our Audit Committee has given its pre-approval for specified assurance, financial advisory and tax services, provided the expected fees for any such service do not exceed € 1 million. If the engagement request relates to such specified pre-approved services, it may be approved by the Accounting Engagement Team and must thereafter be reported to the Audit Committee. If the engagement request relates neither to prohibited non-audit services nor to pre-approved non-audit services, it must be forwarded to the Audit Committee for consideration. In addition, to facilitate the consideration of engagement requests between its meetings, the Audit Committee has delegated approval authority to several of its members who are "independent" as defined by the Securities and Exchange Commission and the New York Stock Exchange. Such members are required to report any approvals made by them to the Audit Committee at its next meeting.

Additionally, United States law and regulations permit the pre-approval requirement to be waived with respect to engagements for non-audit services aggregating to no more than five percent of the total amount of revenues we paid to our principal accountant, if such engagements were not recognized by us at the time of engagement and were promptly brought to the attention of our Audit Committee or a designated member thereof and approved prior to the completion of the audit. In 2016 and 2017, the percentage of the total amount of revenues we paid to our principal accountant for non-audit services that was subject to such a waiver was less than 5 % for each year.

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Supplementary Information (Unaudited)

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Non-GAAP Financial Measures

This document and other documents the Group has published or may publish contain non-GAAP financial measures. Non-GAAP financial measures are measures of the Group's historical or future performance, financial position or cash flows that contain adjustments that exclude or include amounts that are included or excluded, as the case may be, from the most directly comparable measure calculated and presented in accordance with IFRS in the Group's financial statements.

Return on Equity Ratios

The Group reports a post-tax return on average shareholders' equity and a post-tax return on average tangible shareholders' equity, each of which is a non-GAAP financial measure.

The post-tax returns on average shareholders' equity and average tangible shareholders' equity are calculated as net income (loss) attributable to Deutsche Bank shareholders as a percentage of average shareholders' equity and average tangible shareholders' equity, respectively.

Net income (loss) attributable to Deutsche Bank shareholders is a non-GAAP financial measure and is defined as net income (loss) excluding post-tax income (loss) attributable to noncontrolling interests. For the Group, it reflects the reported effective tax rate, which was 160 % for the full year 2017, (67) % for 2016 and (11) % for 2015. For the segments, the applied tax rate was 33 % for all reported periods in 2017 and 35 % for the all reported periods in 2015 and 2016.

At the Group level, tangible shareholders' equity is shareholders' equity as reported in the Consolidated Balance Sheet excluding goodwill and other intangible assets. Tangible shareholders' equity for the segments is calculated by deducting goodwill and other intangible assets from shareholders' equity as allocated to the segments, as described in Note 4 "Business Segments and Related Information" to the consolidated financial statements within the section "Measurement of Segment Profit and Loss". Shareholders' equity and tangible shareholders' equity are presented on an average basis.

The Group believes that a presentation of average tangible shareholders' equity makes comparisons to its competitors easier, and refers to this measure in the return on equity ratios presented by the Group. However, average tangible shareholders' equity is not a measure provided for in IFRS, and the Group's ratios based on this measure should not be compared to other companies' ratios without considering differences in the calculations.

The reconciliation of the aforementioned ratios is set forth in the table below:

	2017					
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consoli- dation & Adjust- ments	Total
Income (loss) before income taxes (IBIT)	843	359	720	–	(695)	1,228
Income tax expense	0	0	0	–	0	(1,963)
Net Income (loss)	565	241	482	–	(2,023)	(735)
Net income (loss) attributable to noncontrolling interests	0	0	0	–	(15)	(15)
Net Income attributable to DB shareholders and additional equity components	565	241	482	–	(2,038)	(751)
Average shareholders' equity	44,169	14,934	4,725	–	99	63,926
Add (deduct): Average goodwill and other intangible assets	(2,965)	(2,079)	(3,837)	–	(1)	(8,881)
Average tangible shareholders' equity	41,203	12,855	888	–	98	55,045
Post-tax return on average shareholders' equity	1 %	2 %	10 %	–	N/M	(1) %
Post-tax return on average tangible shareholders' equity	1 %	2 %	54 %	–	N/M	(1) %

	2016					
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consoli- dation & Adjust- ments	Total
Income (loss) before income taxes (IBIT)	1,705	1,439	(206)	(3,207)	(541)	(810)
Income tax expense	0	0	0	0	0	(546)
Net Income (loss)	1,115	941	(135)	(2,097)	(1,181)	(1,356)
Net income (loss) attributable to noncontrolling interests	0	0	0	0	(45)	(45)
Net Income attributable to DB shareholders and additional equity components	1,115	941	(135)	(2,097)	(1,226)	(1,402)
Average shareholders' equity	40,518	15,018	4,864	1,682	0	62,082
Add (deduct): Average goodwill and other intangible assets	(2,749)	(1,896)	(4,907)	(324)	0	(9,876)
Average tangible shareholders' equity	37,769	13,122	(43)	1,359	0	52,206
Post-tax return on average shareholders' equity	3 %	6 %	(3) %	N/M	N/M	(2) %
Post-tax return on average tangible shareholders' equity	3 %	7 %	N/M	N/M	N/M	(3) %

	2015					
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consoli- dation & Adjust- ments	Total
Income (loss) before income taxes (IBIT)	(376)	(3,370)	682	(2,264)	(770)	(6,097)
Income tax expense	0	0	0	0	0	(675)
Net Income (loss)	(243)	(2,177)	441	(1,463)	(3,331)	(6,772)
Net income (loss) attributable to noncontrolling interests	0	0	0	0	(21)	(21)
Net Income attributable to DB shareholders and additional equity components	(243)	(2,177)	441	(1,463)	(3,353)	(6,794)
Average shareholders' equity	39,258	14,333	5,352	3,735	6,377	69,055
Add (deduct): Average goodwill and other intangible assets	(3,177)	(1,781)	(5,048)	(72)	(3,831)	(13,909)
Average tangible shareholders' equity	36,081	12,552	304	3,663	2,546	55,146
Post-tax return on average shareholders' equity	(1) %	(15) %	8 %	N/M	N/M	(10) %
Post-tax return on average tangible shareholders' equity	(1) %	(17) %	145 %	N/M	N/M	(12) %

Adjusted Costs

Adjusted costs is one of the Group's key performance indicators and is a non-GAAP financial measure most directly comparable to the IFRS financial measure noninterest expenses. Adjusted costs is calculated by adjusting noninterest expenses under IFRS for (i) impairment of goodwill and other intangible assets, (ii) litigation, (iii) policyholder benefits and claims and (iv) restructuring and severance. Policyholder benefits and claims arose from the Abbey Life Assurance business which was sold in late 2016 and so will not occur in subsequent periods. The Group believes that a presentation of noninterest expenses excluding the impact of these items provides a more meaningful depiction of the costs associated with our operating businesses.

	2017					
in € m.	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consolidation & Adjustments	Total Consolidated
Noninterest expenses	13,143	9,518	1,811	–	223	24,695
Impairment of goodwill and other intangible assets	6	12	3	–	0	21
Litigation	44	53	5	–	112	213
Policyholder benefits and claims	0	0	0	–	0	0
Restructuring and severance	152	399	18	–	2	570
Adjusted costs	12,941	9,054	1,786	–	109	23,891

	2016					
in € m.	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consolidation & Adjustments	Total Consolidated
Noninterest expenses	14,193	9,212	3,220	2,701	116	29,442
Impairment of goodwill and other intangible assets	285	0	1,021	(49)	(0)	1,256
Litigation	608	56	(0)	1,750	(18)	2,397
Policyholder benefits and claims	0	0	374	0	0	374
Restructuring and severance	391	204	69	23	(6)	681
Adjusted costs	12,909	8,951	1,757	977	140	24,734

	2015					
in € m.	Corporate & Investment Bank	Private & Commercial Bank	Deutsche Asset Management	Non-Core Operations Unit	Consolidation & Adjustments	Total Consolidated
Noninterest expenses	18,856	13,495	2,334	3,006	976	38,667
Impairment of goodwill and other intangible assets	2,168	3,608	0	0	0	5,776
Litigation	2,932	56	1	1,849	380	5,218
Policyholder benefits and claims	0	0	256	0	0	256
Restructuring and severance	257	679	8	24	(3)	965
Adjusted costs	13,499	9,152	2,069	1,133	599	26,451

Book Value and Tangible Book Value per Basic Share Outstanding

Book value per basic share outstanding and tangible book value per basic share outstanding are non-GAAP financial measures that are used and relied upon by investors and industry analysts as capital adequacy metrics. Book value per basic share outstanding represents the Bank's total shareholders' equity divided by the number of basic shares outstanding at period-end. Tangible book value represents the Bank's total shareholders' equity less goodwill and other intangible assets. Tangible book value per basic share outstanding is computed by dividing tangible book value by period-end basic shares outstanding.

Tangible Book Value

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Total shareholders' equity (Book value)	63,174	59,833	62,678	3,341	6	(2,845)	(5)
Goodwill and other intangible assets	(8,839)	(8,982)	(10,078)	143	(2)	1,096	(11)
Tangible shareholders' equity (Tangible book value)	54,335	50,851	52,600	3,484	7	(1,750)	(3)

Basic Shares Outstanding

in € m. (unless stated otherwise)	2017	2016	2015	2017 increase (decrease) from 2016		2016 increase (decrease) from 2015	
				in € m.	in %	in € m.	in %
Number of shares	2,066.8	1,545.5	1,545.5	521.3	33.7	0	0
Shares outstanding:							
Treasury shares	(0.4)	(0.2)	(0.4)	(0.1)	63.5	0.2	(46.0)
Vested share awards	28.5	23.3	9.9	5.2	22.4	13.4	134.3
Basic shares outstanding ¹	2,094.9	1,568.6	1,555.0	526.3	33.6	13.6	0.9
Book value per basic share outstanding in €	30.16	38.14	40.31	(7.98)	(20.9)	(2.17)	(5.4)
Tangible book value per basic share outstanding in €	25.94	32.42	33.83	(6.48)	(20.0)	(1.41)	(4.2)

¹ The basic shares outstanding have been adjusted for comparative periods in order to reflect the effect of the bonus component of subscription rights issued in April 2017 in connection with the capital increase.

Fully loaded CRR/CRD 4 Measures

Our regulatory assets, exposures, risk-weighted assets, capital and ratios thereof are calculated for regulatory purposes and are set forth throughout this document under CRR/CRD 4. CRR/CRD 4 provides for "transitional" (or "phase-in") rules, under which capital instruments that are no longer eligible under the new rules are permitted to be phased out as the new rules on regulatory adjustments are phased in, as well as regarding the risk weighting of certain categories of assets. In some cases, CRR/CRD 4 maintains transitional rules that had been adopted in earlier capital adequacy frameworks through Basel 2 or Basel 2.5. Unless otherwise noted, our CRR/CRD 4 solvency measures set forth in this document reflect these transitional rules.

We also set forth in this document such CRR/CRD 4 measures on a "fully loaded" basis, reflecting full application of the final CRR/CRD 4 framework without consideration of the transitional provisions under CRR/CRD 4, except as described below.

The transitional rules included rules permitting the grandfathering of equity investments at a risk-weight of 100 % instead of a risk weight between 190 % and 370 % determined based on Article 155 CRR that would apply under the CRR/CRD 4 fully loaded rules. Despite the grandfathering rule for equity investments not applying under the full application of the final CRR/CRD 4 framework, we continued to apply it in our CRR/CRD 4 fully loaded methodology for a limited subset of equity positions for the periods ended December 31, 2015 and December 31, 2016, based on our intention to mitigate the impact of the expiration of the grandfathering rule through sales of the underlying assets or other measures prior to its expiration at end of 2017. We did not apply the grandfathering rule in our CRR/CRD 4 fully loaded methodology for the period ended December 31, 2017.

As of December 31, 2016, our portfolio of transactions for which we applied the equity investment grandfathering rule in calculating our fully loaded RWA consisted of 15 transactions amounting to € 220 million in exposures. Had we not applied the grandfathering rule for these transactions, their fully loaded RWA would have been no more than € 816 million, and thus our Group fully loaded RWA would have been no more than € 358.1 billion as of December 31, 2016, rather than the Group fully loaded RWA of € 357.5 billion that we reported on a fully loaded basis with application of the grandfathering rule. Also, had we calculated our fully loaded CET 1 capital ratio, Tier 1 capital ratio and Total capital ratio as of December 31, 2016 using fully loaded RWAs without application of the grandfathering rule, such capital ratios would have remained unchanged (due to rounding) at the 11.8 %, 13.1 % and 16.6 %, respectively, that we reported on a fully loaded basis with application of the grandfathering rule.

As of December 31, 2015, our portfolio of transactions for which we applied the equity investment grandfathering rule in calculating our fully loaded RWA amounted to € 1.5 billion in exposures. Had we not applied the grandfathering rule for these transactions, their fully loaded RWA would have been no more than € 5.4 billion, and thus our Group fully loaded RWA would have been no more than € 400.7 billion as of December 31, 2015, rather than the Group fully loaded RWA of € 396.7 billion that we reported on a fully loaded basis with application of the grandfathering rule. Also, had we calculated our fully loaded CET 1 capital ratio, Tier 1 capital ratio and Total capital ratio as of December 31, 2015 using fully loaded RWAs without application of the grandfathering rule, such capital ratios would have been 11.0 %, 12.1 % and 15.2 %, respectively, instead of the 11.1 %, 12.3 % and 15.4 %, respectively, that we reported on a fully loaded basis with application of the grandfathering rule.

As the final implementation of CRR/CRD 4 may differ from our expectations, and our competitors' assumptions and estimates regarding such implementation may vary, our fully loaded CRR/CRD 4 measures may not be comparable with similarly labeled measures used by our competitors.

We believe that these fully loaded CRR/CRD 4 calculations provide useful information to investors as they reflect our progress against the new regulatory capital standards and as many of our competitors have been describing CRR/CRD 4 calculations on a fully loaded basis.

For descriptions of these fully loaded CRR/CRD 4 measures and the differences from the most directly comparable measures under the CRR/CRD 4 transitional rules, please refer to "Management Report: Risk Report: Risk and Capital Performance: Capital and Leverage Ratio", in particular the subsections thereof entitled "Development of Regulatory Capital", "Development of Risk-Weighted Assets" and "Leverage Ratio".

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Supplemental Financial Information (Unaudited)

Industry Guide 3 Information

Amounts for 2017, 2016, 2015, 2014 and 2013 are prepared in accordance with IFRS, which is consistent with the Group's Financial Statements.

Financial Condition

Average balance sheet based upon month-end balances

Average balance sheet and interest and similar income

in € m. (unless stated otherwise)	2017			2016			2015		
	Average balance	Interest	Average yield/rate	Average balance	Interest	Average yield/rate	Average balance	Interest	Average yield/rate
Assets:¹									
Interest-earning deposits with banks: ⁵									
In German offices ²	91,135	(346)	(0.38) %	35,145	(55)	(0.16) %	12,007	(17)	(0.14) %
In Non-German offices ²	102,700	1,257	1.22 %	81,139	613	0.76 %	57,377	516	0.90 %
Total interest-earning deposits with banks	193,835	911	0.47 %	116,284	558	0.48 %	69,384	499	0.72 %
Central bank funds sold and securities purchased under resale agreements: ⁵									
In German offices	3,053	(14)	(0.47) %	10,701	(28)	(0.26) %	8,713	(9)	(0.10) %
In Non-German offices	9,857	291	2.95 %	10,995	349	3.17 %	16,125	386	2.39 %
Total central bank funds sold and securities purchased under resale agreements	12,910	276	2.14 %	21,697	321	1.48 %	24,838	377	1.52 %
Securities borrowed: ⁵									
In German offices	123	0	(0.19) %	116	0	(0.20) %	116	0	(0.19) %
In Non-German offices	21,995	(152)	(0.69) %	29,415	(202)	(0.69) %	31,494	(368)	(1.17) %
Total securities borrowed	22,118	(152)	(0.69) %	29,531	(202)	(0.69) %	31,610	(368)	(1.17) %
Interest-earning financial assets at fair value through profit or loss:									
In German offices	20,905	378	1.81 %	19,595	432	2.21 %	23,907	630	2.64 %
In Non-German offices	256,045	7,483	2.92 %	273,047	8,834	3.24 %	302,528	9,866	3.26 %
Total interest-earning financial assets at fair value through profit or loss	276,949	7,861	2.84 %	292,642	9,266	3.17 %	326,435	10,496	3.22 %
Financial assets available for sale:									
In German offices	16,656	93	0.56 %	18,928	247	1.31 %	21,820	367	1.68 %
In Non-German offices	36,860	1,077	2.92 %	50,523	1,271	2.52 %	49,708	1,225	2.46 %
Total financial assets available for sale	53,516	1,170	2.19 %	69,450	1,518	2.19 %	71,528	1,592	2.23 %
Loans: ³									
In German offices	213,294	5,798	2.72 %	215,512	6,200	2.88 %	216,398	6,448	2.98 %
In Non-German offices	192,288	6,141	3.19 %	212,204	6,109	2.88 %	212,904	5,771	2.71 %
Total loans	405,583	11,939	2.94 %	427,716	12,309	2.88 %	429,302	12,219	2.85 %
Securities held to maturity									
In German offices	0	0	0.00 %	0	0	0.00 %	0	0	0.00 %
In Non-German offices	2,942	68	2.30 %	2,977	67	2.24 %	0	0	0.00 %
Total securities held to maturity	3,188	68	2.12 %	2,977	67	2.24 %	0	0	0.00 %
Total other interest-earning assets	53,599	767	1.43 %	72,876	862	1.18 %	78,730	1,152	1.46 %
Total interest-earning assets	1,021,697	22,839	2.24 %	1,033,172	24,699	2.39 %	1,031,827	25,967	2.52 %
Cash and due from banks	26,791			22,865			22,513		
Noninterest-earning financial assets at fair value through profit or loss:									
In German offices	190,504			276,265			298,011		
In Non-German offices	223,535			289,788			328,502		
All other assets	104,809			109,091			114,036		
Allowance for credit losses	(4,135)			(4,639)			(5,115)		
Total assets	1,563,202			1,726,541			1,789,774		
% of assets attributable to Non-German offices	63 %			65 %			67 %		

Average balance sheet and interest expense in € m. (unless stated otherwise)	2017			2016			2015		
	Average balance	Interest	Average yield/rate	Average balance	Interest	Average yield/rate	Average balance	Interest	Average yield/rate
Liabilities and equity:¹									
Interest-bearing deposits:⁴									
In German offices:									
Time deposits	82,596	384	0.46 %	68,924	379	0.55 %	68,412	370	0.54 %
Savings deposits	87,902	572	0.65 %	91,328	591	0.65 %	98,372	866	0.88 %
Demand deposits	38,891	135	0.35 %	40,619	53	0.13 %	42,156	34	0.08 %
Total in German offices	209,389	1,091	0.52 %	200,871	1,023	0.51 %	208,940	1,270	0.60 %
In Non-German offices:									
Time deposits	53,338	1,372	2.57 %	55,809	1,196	2.14 %	60,913	1,102	1.81 %
Savings deposits	886	8	0.87 %	1,939	15	0.78 %	4,565	22	0.47 %
Demand deposits	90,462	330	0.36 %	107,687	331	0.31 %	114,640	370	0.32 %
Total in Non-German offices	144,687	1,710	1.18 %	165,436	1,542	0.93 %	180,118	1,494	0.83 %
Total interest-bearing deposits	354,075	2,800	0.79 %	366,306	2,565	0.70 %	389,058	2,764	0.71 %
Central bank funds purchased and securities sold under repurchase agreements: ⁵									
In German offices	122	0	(0.29) %	772	(15)	(1.94) %	59	(11)	(18.37) %
In Non-German offices	19,497	407	2.09 %	18,367	245	1.34 %	10,482	164	1.56 %
Total central bank funds purchased and securities sold under repurchase agreements	19,619	407	2.07 %	19,140	230	1.20 %	10,541	153	1.45 %
Securities loaned: ⁵									
In German offices	4	0	(0.13) %	5	0	(0.11) %	9	0	(0.17) %
In Non-German offices	5,536	(75)	(1.35) %	4,117	(32)	(0.77) %	3,006	(45)	(1.50) %
Total securities loaned	5,540	(75)	(1.35) %	4,122	(32)	(0.77) %	3,015	(45)	(1.50) %
Interest-bearing financial liabilities at fair value through profit or loss:									
In German offices	13,785	240	1.74 %	10,953	150	1.37 %	8,197	134	1.63 %
In Non-German offices	120,472	4,413	3.66 %	116,157	4,471	3.85 %	96,594	4,400	4.56 %
Total interest-bearing financial liabilities at fair value through profit or loss	134,258	4,653	3.47 %	127,110	4,621	3.64 %	104,791	4,534	4.33 %
Other short-term borrowings:									
In German offices	571	7	1.26 %	483	14	2.87 %	547	9	1.66 %
In Non-German offices	18,601	128	0.69 %	23,557	165	0.70 %	33,778	220	0.65 %
Total other short-term borrowings	19,172	135	0.70 %	24,040	179	0.74 %	34,325	229	0.67 %
Long-term debt and trust preferred securities: ⁵									
In German offices	113,732	1,178	1.04 %	102,711	1,177	1.15 %	89,180	771	0.87 %
In Non-German offices	58,174	911	1.57 %	64,418	1,018	1.58 %	76,469	1,277	1.67 %
Total long-term debt and trust preferred securities	171,906	2,089	1.22 %	167,129	2,195	1.31 %	165,649	2,048	1.24 %
Total other interest-bearing liabilities⁵	85,918	453	0.53 %	104,731	233	0.22 %	109,414	403	0.37 %
Total interest-bearing liabilities	790,488	10,462	1.32 %	812,578	9,992	1.23 %	816,793	10,086	1.24 %

¹ The allocation of the assets and liabilities between German and Non-German offices are based on the location of the entity which carries the respective asset or liability.

² Interest-earning deposits with banks include interest earning deposit with central bank and interest earning deposit with bank w/o central bank.

³ Loans include impaired loans.

⁴ Interest-bearing deposits figures for Non German offices adjusted for 2015 to reflect the time deposits, saving deposits and demand deposits.

⁵ Figures for the interest earning & bearing positions are based on the same accounting method as prior period (the positive/negative interest income and expense have a net effect under each product), however, it will not match with the presentation of interest income and expenses in the income statement as well as in Note 5 due to the fact that the negative interest income has been taken into account under 'Other interest expenses' & negative interest expense under 'Other interest income'.

Average balance sheet and interest expense in € m. (unless stated otherwise)	2017			2016			2015		
	Average balance	Interest	Average yield/rate	Average balance	Interest	Average yield/rate	Average balance	Interest	Average yield/rate
Noninterest-bearing deposits:									
In German offices	183,938			154,529			144,976		
In Non-German offices	31,401			35,853			34,960		
Noninterest-bearing financial liabilities at fair value through profit or loss:									
In German offices	159,090			240,873			265,922		
In Non-German offices	231,225			303,015			338,378		
All other noninterest-bearing liabilities	98,181			112,658			114,742		
Total shareholders' equity	63,926			62,082			69,055		
Additional equity components	4,672			4,673			4,667		
Noncontrolling interests	280			280			281		
Total equity	68,878			67,036			74,003		
Total liabilities and equity	1,563,202			1,726,541			1,789,774		
% of liabilities attributable to Non-German offices ¹	53 %			56 %			57 %		
Rate spread	0.91 %			1.16 %			1.28 %		
Net interest margin (Net interest income to total interest-earning assets):									
In German offices	0.99 %			1.48 %			1.85 %		
In Non-German offices	1.32 %			1.40 %			1.42 %		
Total	1.21 %			1.42 %			1.54 %		

Analysis of changes in interest and similar income and interest expense

in € m.	2017 over 2016 due to changes in ¹			2016 over 2015 due to changes in ¹		
	Net change	Volume	Rate	Net change	Volume	Rate
Interest and similar income:						
Interest-earning deposits with banks:						
German offices	(290)	(154)	(136)	(38)	(36)	(2)
Non-German offices	643	193	450	97	189	(92)
Total interest-earning deposits with banks	353	39	314	59	153	(94)
Central bank funds sold and securities purchased under resale agreements:						
German offices	13	27	(14)	(19)	(2)	(16)
Non-German offices	(58)	(35)	(23)	(37)	(143)	106
Total central bank funds sold and securities purchased under resale agreements	(45)	(7)	(38)	(56)	(145)	90
Securities borrowed:						
German offices	0	0	0	0	0	0
Non-German offices	50	51	(1)	166	23	143
Total securities borrowed	50	51	(1)	166	23	143
Financial assets at fair value through profit or loss:						
German offices	(55)	27	(82)	(198)	(104)	(94)
Non-German offices	(1,351)	(529)	(822)	(1,032)	(954)	(78)
Total financial assets at fair value through profit or loss	(1,406)	(502)	(904)	(1,230)	(1,058)	(172)
Financial assets available for sale						
German offices	(154)	(27)	(128)	(120)	(45)	(76)
Non-German offices	(194)	(378)	185	46	21	26
Total financial assets available for sale	(348)	(405)	57	(74)	(24)	(50)
Loans:						
German offices	(401)	(63)	(338)	(248)	(26)	(222)
Non-German offices	31	(602)	634	338	(20)	357
Total loans	(370)	(666)	296	90	(46)	135
Securities held to maturity:						
German offices	0	0	0	0	0	0
Non-German offices	0	0	0	0	0	0
Total Securities held to maturity	0	0	0	0	0	0
Other interest-earning assets	(95)	(255)	160	(289)	(81)	(208)
Total interest and similar income	(1,860)	(1,744)	(116)	(1,334)	(1,178)	(156)
Interest expense:						
Interest-bearing deposits:						
German offices	68	44	24	(248)	(48)	(200)
Non-German offices	167	(210)	377	49	(128)	176
Total interest-bearing deposits	235	(166)	401	(199)	(176)	(24)
Central bank funds purchased and securities sold under repurchase agreements:						
German offices	15	7	7	(4)	(22)	18
Non-German offices	161	16	146	82	108	(27)
Total central bank funds purchased and securities sold under repurchase agreements	176	23	153	77	86	(9)
Securities loaned:						
German offices	0	0	0	0	0	0
Non-German offices	(43)	(14)	(29)	13	(13)	26
Total securities loaned	(43)	(14)	(29)	13	(13)	26
Financial liabilities at fair value through profit or loss:						
German offices	90	44	46	16	40	(24)
Non-German offices	(58)	163	(221)	71	813	(742)
Total financial liabilities at fair value through profit or loss	32	207	(175)	87	853	(766)
Other short-term borrowings:						
German offices	(7)	2	(9)	5	(1)	6
Non-German offices	(37)	(34)	(3)	(55)	(59)	4
Total other short-term borrowings	(44)	(32)	(12)	(50)	(60)	10
Long-term debt and trust preferred securities:						
German offices	1	120	(119)	406	129	277
Non-German offices	(107)	(98)	(9)	(259)	(193)	(66)
Total long-term debt and trust preferred securities	(106)	22	(128)	147	(64)	211
Other interest-bearing liabilities	220	(49)	268	(169)	(17)	(152)
Total interest expense	470	(8)	478	(94)	610	(704)
Net change in net interest income	(2,330)	(1,736)	(594)	(1,240)	(1,788)	548

¹ Changes due to combination of volume and rate are allocated proportionally.

Investment Portfolio (Securities Available for Sale)

Fair values of the Group's investment portfolio

in € m.	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015
Debt securities:			
German government	8,131	9,405	18,042
U.S. Treasury and U.S. government agencies	8,092	7,652	2,890
U.S. local (municipal) governments	2,436	3,261	3,103
Other foreign governments	19,275	23,779	34,123
Corporates	6,775	6,849	8,922
Other asset-backed securities	1	84	588
Mortgage-backed securities, including obligations of U.S. federal agencies	11	17	28
Other debt securities	359	470	570
Total debt securities	45,081	51,516	68,266
Equity securities:			
Equity shares	897	1,027	1,166
Investment certificates and mutual funds	97	122	75
Total equity securities	994	1,149	1,241
Total	46,075	52,665	69,507

Fair value, amortized cost and gross unrealized holding gains and losses for the Group's securities available for sale

Dec 31, 2017	Gross unrealized holding			Amortized cost
in € m.	Fair value	Gains	Losses	
Debt securities:				
German government	8,131	94	45	8,082
U.S. Treasury and U.S. government agencies	8,092	0	119	8,211
U.S. local (municipal) governments	2,436	324	99	2,211
Other foreign governments	19,275	213	53	19,114
Corporates	6,775	131	4	6,647
Other asset-backed securities	1	0	4	5
Mortgage-backed securities, including obligations of U.S. federal agencies	11	0	0	11
Other debt securities	359	1	2	360
Total debt securities	45,081	764	325	44,642
Equity securities:				
Equity shares	897	335	5	567
Investment certificates and mutual funds	97	5	5	97
Total equity securities	994	340	9	664
Total	46,075	1,103	334	45,306

The following table presents the fair value, remaining maturities, approximate weighted-average yields (based on amortized cost) and total amortized cost by maturity distribution of the debt security components of the Group's investment portfolio as of December 31, 2017:

in € m.	Up to one year		More than one year and up to five years		More than five years and up to ten years		More than ten years		Total	
	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
German government	701	1.1 %	4,891	2.1 %	2,487	1.5 %	52	2.4 %	8,131	1.8 %
U.S. Treasury and U.S. government agencies	1,207	0.9 %	5,674	1.6 %	1,211	1.7 %	0	2.0 %	8,092	1.5 %
U.S. local (municipal) governments	69	1.2 %	145	1.1 %	118	1.1 %	2,104	1.2 %	2,436	1.2 %
Other foreign governments	3,369	4.0 %	8,549	2.0 %	6,487	2.3 %	870	3.9 %	19,275	2.5 %
Corporates	1,203	4.2 %	3,147	5.1 %	2,195	5.6 %	230	1.5 %	6,775	5.0 %
Other asset-backed securities	0	0.0 %	1	8.0 %	0	0.0 %	0	0.0 %	1	8.0 %
Mortgage-backed securities, including obligations of U.S. federal agencies	3	1.3 %	6	0.4 %	0	0.0 %	2	0.1 %	11	0.6 %
Other debt securities	136	2.5 %	36	2.5 %	123	5.4 %	64	0.1 %	359	3.0 %
Total fair value	6,688	3.1 %	22,451	2.3 %	12,620	2.6 %	3,323	1.8 %	45,081	2.5 %
Total amortized cost	6,701		22,340		12,524		3,077		44,642	

Loans Outstanding

Analysis of the Group's loan portfolio by industry sector and by the borrower's country of domicile (in- or outside Germany)

in € m.	Dec 31, 2017	Dec 31, 2016 ¹	Dec 31, 2015	Dec 31, 2014	Dec 31, 2013
German:					
Financial intermediation	4,654	5,048	7,716	6,920	6,197
Fund management activities	910	984	778	296	0
Manufacturing	9,456	8,821	9,357	8,583	7,428
Wholesale and retail trade	6,265	5,736	5,736	4,294	4,062
Households	139,196	137,078	137,332	137,162	135,123
Commercial real estate activities	7,864	7,741	8,178	19,275	20,418
Public sector	9,090	11,059	12,846	12,725	11,417
Lease financing	296	383	482	723	712
Other	22,072	20,579	20,085	12,909	15,599
Total German	199,804	197,430	202,510	202,888	200,956
Non-German:					
Financial intermediation	47,550	44,569	54,023	52,666	18,903
Fund management activities	17,798	25,145	25,313	11,842	0
Manufacturing	18,022	20,470	18,773	17,036	13,978
Wholesale and retail trade	12,986	11,008	12,591	11,420	9,903
Households	47,533	50,791	62,674	60,817	58,393
Commercial real estate activities	21,382	19,627	14,701	16,490	13,841
Public sector	4,621	4,682	4,398	5,357	4,811
Lease financing	88	178	79	381	718
Other	36,095	39,643	38,487	31,988	60,584
Total Non-German	206,076	216,114	231,039	207,995	181,130
Gross loans	405,879	413,544	433,549	410,883	382,086
(Deferred expense)/unearned income	259	88	772	58	(85)
Loan less (deferred expense)/unearned income	405,621	413,455	432,777	410,825	382,171

¹ Comparatives have been restated to reflect changes in industry sectors.

Included in the category Other is Fund Management activities exposure of € 10.0 billion for December 31, 2013.

Loan Maturities and Sensitivity to Changes in Interest Rates

Analysis of maturities of the Group's loan portfolio (excluding lease financing)

Dec 31, 2017 in € m.	Within 1 year	After one but within 5 years	After 5 years	Total
German:				
Financial intermediation	1,813	1,629	1,213	4,654
Fund management activities	327	207	376	910
Manufacturing	5,589	2,806	1,061	9,456
Wholesale and retail trade	4,251	1,167	847	6,265
Households (excluding mortgages)	3,952	5,860	7,931	17,742
Households – mortgages	5,891	15,591	99,971	121,454
Commercial real estate activities	1,427	2,090	4,347	7,864
Public sector	3,015	3,627	2,449	9,090
Other	6,752	7,332	7,988	22,072
Total German	33,017	40,309	126,181	199,508
Non-German:				
Financial intermediation	26,960	15,129	5,462	47,550
Fund management activities	9,416	6,485	1,896	17,798
Manufacturing	11,898	3,806	2,318	18,022
Wholesale and retail trade	9,611	2,433	942	12,986
Households (excluding mortgages)	9,248	6,074	3,460	18,781
Households – mortgages	2,582	2,387	23,782	28,752
Commercial real estate activities	8,151	9,567	3,664	21,382
Public sector	753	2,177	1,691	4,621
Other	13,700	16,190	6,204	36,095
Total Non-German	92,319	64,250	49,418	205,988
Gross loans	125,337	104,559	175,600	405,495
(Deferred expense)/unearned income	(5)	104	159	259
Loans less (deferred expense)/unearned income	125,341	104,454	175,441	405,236

Volumes of loans in loan portfolio (excluding lease financing) with residual maturities of more than one year from that date

Dec 31, 2017 in € m.	After one but within 5 years	After 5 years	Total
Fixed rate loans	48,314	134,814	183,128
Floating or adjustable rate loans	56,244	40,786	97,030
Total	104,559	175,600	280,159

Risk Elements

The following section provides information about certain risk elements included in the loan portfolio intended to address the requirements of SEC Industry Guide 3 while at the same time reflecting the classifications most relevant to how Deutsche Bank Group evaluates the credit quality of its loan portfolio. All potential problem loans, which are defined as loans where known information about possible credit problems of borrowers causes the Group's management to have serious doubts as to the ability of such borrowers to comply with the present loan repayment terms, are included in this disclosure of risk elements.

Loans 90 days or more Past Due and still accruing

Exposure of loans carried at amortized cost which were 90 days or more past due and still accruing for the last five years

in € m.	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015	Dec 31, 2014	Dec 31, 2013
German	321	252	278	499	745
Non-German	174	190	135	148	238
Total loans 90 days or more past due and still accruing	495	442	413	647	983

Impaired Loans

Breakdown of the Group's IFRS impaired loans by region based on the borrower's country of domicile

in € m.	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015	Dec 31, 2014	Dec 31, 2013
Germany	2,266	2,639	3,004	3,499	3,261
Western Europe (excluding Germany)	2,892	3,709	4,337	4,986	5,832
Eastern Europe	168	179	255	259	252
North America	498	496	342	425	590
Central and South America	70	5	6	3	32
Asia/Pacific	292	355	178	174	175
Africa	49	64	26	1	1
Other	0	2	2	1	0
Total impaired loans	6,234	7,447	8,151	9,348	10,143

Breakdown of the Group's IFRS impaired loans by industry sector of the borrower

in € m.	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015	Dec 31, 2014	Dec 31, 2013
Financial intermediation	129	133	169	270	45
Fund management activities	16	21	33	64	93
Manufacturing	685	754	765	757	811
Wholesale and retail trade	521	707	538	591	661
Households	2,388	2,661	3,263	3,750	3,671
Commercial real estate activities	376	422	912	2,048	2,683
Public sector	74	19	16	54	39
Other ¹	2,046 ¹	2,731 ²	2,456	1,815	2,139
Total impaired loans	6,234	7,447	8,151	9,348	10,143

¹ Thereof: 'Transportation, storage and communication' - Total Impaired Loans € 808 million/Total Loan loss allowance € 473 million. 'Real estate; renting and business activities' - € 482 million/ € 208 million. 'Construction' - € 378 million/ € 103 million. 'Mining and quarrying' - € 169 million/ € 123 million.

² Thereof: 'Transportation, storage and communication' - Total Impaired Loans € 1.1 billion/Total Loan loss allowance € 650 million. 'Real estate; renting and business activities' - € 489 million/ € 230 million. 'Construction' - € 309 million/ € 170 million. 'Mining and quarrying' - € 232 million/ € 103 million.

Interest Revenue of Impaired Loans

The following table shows the approximate effect on interest revenue of IFRS impaired loans. It shows the gross interest income that would have been recorded during the reporting period, if those loans had been current in accordance with their original terms and had been outstanding throughout the reporting period or since their origination, if Deutsche Bank Group only held them for part of the reporting period. It also shows the amount of interest income on those loans that was included in net income for the reporting period.

in € m.	2017
German loans:	
Gross amount of interest that would have been recorded at original rate	113
Less interest, net of reversals, recognized in interest revenue	39
Reduction of interest revenue	73
Non-German loans:	
Gross amount of interest that would have been recorded at original rate	99
Less interest, net of reversals, recognized in interest revenue	34
Reduction of interest revenue	65
Total reduction of interest revenue	138

Renegotiated Loans

Loans that have been renegotiated in such a way that, for economic or legal reasons related to the borrower's financial difficulties, we granted a concession to the borrower that we would not otherwise have considered are disclosed as renegotiated loans and are a subset of forbore loans disclosed in the Asset Quality section of the Risk Report.

Breakdown of the Group's renegotiated loans representing our troubled debt restructurings

in € m.	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015	Dec 31, 2014	Dec 31, 2013
Renegotiated loans considered nonimpaired					
German	717	553	520	502	383
Non-German	288	263	356	448	399
Total renegotiated loans considered nonimpaired	1,006	816	875	950	783
Renegotiated loans considered impaired					
German	509	661	942	1,145	709
Non-German	718	770	876	1,125	1,140
Total renegotiated loans considered impaired	1,227	1,430	1,819	2,270	1,849
Renegotiated loans					
German	1,226	1,213	1,463	1,647	1,092
Non-German	1,007	1,033	1,233	1,573	1,539
Total renegotiated loans	2,233	2,246	2,695	3,220	2,632

In 2017, renegotiated loans remained stable, decreasing by € 13 million or 1 %.

In 2016, renegotiated loans decreased by € 449 million or 17 % driven mainly by disposal and charge offs of impaired assets in Germany and the UK in NCOU and CIB. This was further complemented by disposals and charge offs of non-impaired assets in non-German region in CIB and Deutsche AM.

The Group's renegotiated loans declined by € 525 million or 16 % in 2015 driven by disposals and charge offs of impaired assets in NCOU and Postbank.

2014 renegotiated loans increased by € 588 million compared to 2013. The increase in impaired renegotiated loans of € 421 million was driven by Postbank along with individually assessed items within Germany in NCOU and CIB, which was nearly offset outside Germany due to reductions mainly within NCOU. The increase in non-impaired renegotiated loans in 2014 was again driven by Postbank along with other individually assessed items in Germany.

In 2013, the level of the Group's renegotiated loans increased by € 118 million or 4.7 % to € 2.6 billion compared to prior year-end. Reductions recorded for non-impaired loans were primarily due to one commercial real estate loan to a counterparty in Western Europe (excluding Germany) which was consolidated due to the Group obtaining control over the structured entity borrowers during the second quarter of 2013. The renegotiated loans considered impaired increased due to individually assessed items in Germany across all business units for which a small number of new provisions were required.

It should be noted that these renegotiations are not part of a special modification or restructuring program such as the Fannie Mae "Home Affordable Modification Program". Rather, new terms (for example modification of interest rates, principal amounts, interest due, maturities, etc.) were arranged depending on the requirements of the individual renegotiation.

Foreign Outstandings

The following tables list only those countries for which the cross-border outstandings exceeded 0.75 % of the Group's total assets as of December 31, 2017, 2016 and 2015. Offsetting of local country claims is done for third party liabilities of the respective foreign offices that represent legal obligations of the foreign offices and for which no payment is guaranteed at locations outside of the country of the office. As of December 31, 2017, there were no outstandings that exceeded 0.75 % of total assets in any country currently facing debt restructuring or liquidity problems that the Group expects would materially impact the country's ability to service its obligations.

Dec 31, 2017

in € m. (unless stated otherwise)	Banks and other financial institutions	Governments and Official institutions	Other ¹	Commit- ments	Net local country claim	Total	in %
United States	15,972	18,597	168,590	9,482	110,721	323,362	21.92
Luxembourg	9,389	9,595	36,990	2,844	6,085	64,903	4.40
Great Britain	4,945	11,522	13,117	4,844	16,974	51,402	3.49
France	4,583	11,197	25,675	8,318	–	49,774	3.37
Italy	6,070	16,149	14,490	1,132	4,470	42,310	2.87
Netherlands	2,309	4,750	14,206	5,050	–	26,316	1.78
Spain	5,590	7,328	10,764	1,010	–	24,692	1.67
Switzerland	2,082	3,392	12,067	4,484	967	22,993	1.56
Ireland	594	2,071	19,387	1,150	2	23,203	1.57
Japan	1,297	264	18,408	262	–	20,231	1.37
Norway	438	259	11,269	490	–	12,457	0.84
China	4,386	793	6,206	635	–	12,020	0.81
Australia	1,571	286	9,493	391	–	11,741	0.80
India	2,584	917	5,497	704	1,960	11,662	0.79
Cayman Islands	57	597	6,292	1,150	3,031	11,127	0.75

¹ Other includes commercial and industrial, insurance and other loans.

Dec 31, 2016

in € m. (unless stated otherwise)	Banks and other financial institutions	Governments and Official institutions	Other	Commit- ments	Net local country claim	Total	in %
United States	10,252	18,334	149,251	11,548	–	189,385	11.91
Great Britain	5,135	9,344	11,704	4,110	48,050	78,343	4.93
Luxembourg	8,352	10,740	34,945	2,549	18,731	75,316	4.74
Italy	5,377	14,642	9,020	614	22,391	52,044	3.27
France	5,180	10,317	23,627	6,332	–	45,456	2.86
Netherlands	2,595	6,984	13,503	5,102	–	28,184	1.77
Ireland	385	2,541	18,722	850	4	22,502	1.41
Switzerland	2,354	3,760	9,923	3,615	1,412	21,064	1.32
Japan	1,339	525	18,087	281	–	20,232	1.27
Spain	4,594	5,244	6,939	884	–	17,661	1.11
China	4,072	1,528	7,657	562	–	13,820	0.87
India	3,237	650	5,656	191	2,439	12,173	0.77

¹ Other includes commercial and industrial, insurance and other loans.

Dec 31, 2015

in € m. (unless stated otherwise)	Banks and other financial institutions	Governments and Official institutions	Other	Commit- ments	Net local country claim	Total	in %
United States	8,803	16,364	145,268	15,209	323,952	509,596	31.28
Great Britain	5,960	10,919	17,175	4,492	60,516	99,062	6.08
Luxembourg	9,458	13,531	36,149	3,877	10,297	73,312	4.50
France	7,371	11,865	34,225	5,980	–	59,441	3.65
Italy	10,030	13,988	12,159	764	9,351	46,292	2.84
Netherlands	3,107	8,714	18,440	4,148	171	34,580	2.12
Spain	5,431	3,222	9,471	1,113	3,900	23,137	1.42
Switzerland	2,761	3,980	11,011	3,998	1,147	22,897	1.41
Ireland	692	1,873	17,251	1,336	804	21,956	1.35
China	5,114	1,977	9,600	600	51	17,342	1.06
Japan	963	1,117	10,741	568	2,639	16,028	0.98
Cayman Islands	197	873	6,774	571	6,669	15,084	0.93
India	3,921	1,008	6,436	235	3,066	14,666	0.90

¹ Other includes commercial and industrial, insurance and other loans.

Allowance for Loan Losses

Breakdown of the movements in the Group's allowance for loan losses

in € m.

(unless stated otherwise)

	2017	2016	2015	2014	2013
Balance, beginning of year	4,546	5,028	5,212	5,589	4,692
Charge-offs:					
German:					
Financial intermediation	(1)	(1)	(3)	(1)	(0)
Manufacturing	(6)	(49)	(32)	(52)	(79)
Wholesale and retail trade	(12)	(10)	(24)	(60)	(17)
Households (excluding mortgages)	(149)	(309)	(276)	(167)	(192)
Households – mortgages	(53)	(90)	(107)	(142)	(64)
Commercial real estate activities	(1)	(6)	(30)	(92)	(26)
Public sector	0	(0)	0	0	(0)
Other	(68)	(156)	(75)	(59)	(95)
German total	(291)	(621)	(547)	(574)	(474)
Non-German total	(854)	(1,330)	(708)	(1,076)	(741)
Total charge-offs	(1,146)	(1,951)	(1,255)	(1,650)	(1,215)
Recoveries:					
German:					
Financial intermediation	0	0	0	1	0
Manufacturing	8	6	14	9	10
Wholesale and retail trade	3	3	3	3	3
Households (excluding mortgages)	19	22	33	26	64
Households – mortgages	40	44	39	40	38
Commercial real estate activities	11	5	7	3	2
Public sector	0	0	0	0	0
Other	17	13	14	13	18
German total	100	94	110	95	136
Non-German total	27	93	51	46	26
Total recoveries	127	187	161	141	162
Net charge-offs	(1,019)	(1,764)	(1,094)	(1,509)	(1,053)
Provision for loan losses	552	1,347	882	1,129	2,060
Other changes (i.e., exchange rate changes, changes in the group of consolidated companies)	(158)	(65)	28	4	(110)
Balance, end of year¹	3,921	4,546	5,028	5,212	5,589
Percentage of total net charge-offs to average loans for the year	0.25 %	0.43 %	0.25 %	0.37 %	0.28 %

¹ Fluctuation rate (Allowance for Loan Losses at end of reporting period/Total Loans before deduction of Allowance for Loan Losses at end of reporting period): 0.97% for 2017, 1.10 % for 2016, 1.16 % for 2015, 1.12 % for 2014, 1.46 % for 2013.

The Group's allowance for loan losses as of December 31, 2017 was € 3.9 billion, 55 % of which was related to collectively assessed and 45 % to individually assessed loan losses. The reduction in the allowance for loan losses of € 625 million compared to prior year end was driven by € 1.1 billion net charge-offs, partly offset by € 552 million of additional loan loss provisions.

The decrease in our individually assessed loan portfolio mainly resulted from CIB, driven by all portfolios including shipping. Despite the year-over-year reduction, shipping continued to be the main driver of provision for credit losses in 2017, in part related to the re-evaluation of the respective impairment method during the year as discussed in Note 1 of this report. A further year-over-year reduction in Private & Commercial Bank was driven by a release in Postbank. The decrease in provisions for our collectively assessed loan portfolio mainly resulted from the non-recurrence of one-off items related to assets reported under NCOU in prior year and further reflected the good portfolio quality and ongoing benign economic environment in PCB.

The decrease in 2017 in net charge-offs of € 745 million compared to 2016 was mainly driven by non-recurrence of net charge offs related to assets reported under NCOU in 2016.

The Group's allowance for loan losses as of December 31, 2016 was € 4.5 billion, 54 % of which was related to collectively assessed and 46 % to individually assessed loan losses. The reduction in the allowance for loan losses of € 482 million compared to prior year end was driven by € 1.8 billion net charge-offs, partly offset by € 1.3 billion of additional loan loss provisions.

Provision for loan losses increased by € 465 million in 2016 compared to 2015. The increase in our individually assessed portfolio mainly resulted from CIB reflecting the continued market weakness of the shipping sector as well as lower commodity prices in the metals and mining and oil and gas sectors. The increase in provisions for our collectively assessed loan portfolio was mainly driven by NCOU partly relating to higher charges for IAS 39 reclassified assets and partly offset by PCB, among other factors reflecting the good quality of the loan book and the benign economic environment.

The increase in net charge-offs of € 670 million compared to prior year is mainly driven by NCOU caused by IAS 39 reclassified assets along with disposals.

Our allowance for loan losses for IAS 39 reclassified assets, which were reported in NCOU, amounted to € 69 million as of December 31, 2016, representing 2 % of our total allowance for loan losses, down 82 % from the level at the end of 2015 which amounted to € 389 million (8 % of total allowance for loan losses). This reduction was driven by charge offs of € 355 million along with reduction driven by foreign exchange as most IAS 39 reclassified assets are denominated in non-Euro currencies and was partly offset by additional provisions of € 66 million.

Compared to 2015, provision for loan losses for IAS 39 reclassified assets increased by € 110 million mainly related to our European Mortgage Portfolios. Net Charge offs increased by € 242 million mainly driven by the European Mortgage portfolio and one large single booking.

The Group's allowance for loan losses as of December 31, 2015 was € 5.0 billion, 55 % of which was related to collectively assessed and 45 % to individually assessed loan losses. The reduction in the allowance for loan losses of € 184 million compared to prior year end mainly related to € 1.1 billion net charge-offs largely offset by € 0.9 billion of additional loan loss provisions.

The reduction in 2015 in provisions for loan losses in our individually assessed loan portfolio amounted to € 164 million driven by IAS 39 reclassified assets and other real estate exposures recorded in NCOU, partly offset by higher provisioning in our Shipping and Leveraged Finance Portfolios in CIB. The reduction in our collectively assessed loan portfolio of € 83 million mainly resulted from higher releases related to non-performing loan sales along with an ongoing positive credit environment in Germany and a stabilization of Southern European markets.

The reduction in charge offs of € 415 million compared to 2014 was mainly driven by Postbank and results from high prior year levels caused by a one-off effect due to the alignment of processes.

Our allowance for loan losses for IAS 39 reclassified assets, which were reported in NCOU, amounted to € 389 million at the end of 2015, representing 8 % of our total allowance for loan losses, down 25 % from the level at the end of the prior year which amounted to € 518 million (10 % of total allowance for loan losses). This reduction was driven by net charge offs of € 113 million along with net releases of € 44 million and partly offset by increases related to foreign exchange as most IAS 39 reclassified assets are denominated in non-Euro currencies.

Compared to 2014, provision for loan losses for IAS 39 reclassified assets dropped by € 129 million and net charge-offs increased by € 98 million in 2015. Both changes were partly related to disposals.

The Group's allowance for loan losses as of December 31, 2014 was € 5.2 billion, 55 % of which was related to collectively assessed and 45 % to individually assessed loan losses. The reduction in the allowance for loan losses of € 376 million compared to prior year end mainly relates to € 1.5 billion net charge-offs largely offset by € 1.1 billion of additional loan loss provisions.

The Group's provision for loan losses decreased by € 930 million or 45 % in 2014 compared with 2013. The reduction in our individually assessed loan portfolio of € 878 million reflected material reductions across all businesses. The reduction in NCOU was driven by decreased provision for credit losses in IAS 39 reclassified and commercial real estate assets, while the performance in other business units benefited from increased releases and a non-recurrence of large single name bookings. Provisions for our collectively assessed portfolio decreased compared to prior year reflecting among other factors the ongoing good environment in the German credit market.

The main driver of the increase in charge-offs in 2014 against our individually assessed loan portfolio was an alignment of processes in Postbank. This alignment resulted in an adjustment of the level of loan loss allowance for loans recorded at Postbank by € 233 million reflecting accelerated write-offs as well as the elimination of previous misclassification of recoveries in the credit quality of Postbank loans, which had been impaired after change of control, as interest income. Additionally, higher charge-offs in CIB relating to a single client credit event in the prior year contributed to the overall increase which was partly offset by reductions in charge-offs for IAS 39 reclassified assets. The increase in charge-offs against our collectively assessed loan portfolio mainly related to the disposal of impaired loan portfolios in Italy.

The Group's allowance for loan losses as of December 31, 2013 was attributable 51 % to individually assessed and 49 % to collectively assessed loan losses. The net increase in the allowance for loan losses of € 897 million compared with prior year end results from additions of € 2.1 billion partly offset by € 1.1 billion of net charge-offs and € 110 million other changes, such as accretion of interest on impaired loans and foreign exchange effects.

The Group's provision for loan losses increased by € 332 million or 19 % in 2013 compared with 2012. This increase was driven by the individually assessed loan portfolio, where provisioning increased by € 262 million along with an increase of € 70 million in the collectively assessed portfolio. The increase of provisions in the individually assessed loan portfolio was a result of a single client credit event and increased provisioning for shipping exposure recorded in CIB and higher charges in NCOU driven by single client items including some related to the European Commercial Real Estate sector. The increase in the collectively

assessed loan portfolio was driven by NCOU and was mainly the result of higher provisioning related to the Group's de-risking activities. This increase was partly offset by reductions in other business units mainly reflecting an improved credit environment in the German retail market compared to prior year.

Net charge-offs slightly decreased by € 33 million or 3 % in 2013 driven by a reduction of € 61 million in the individually assessed loan portfolio and partly offset by an increase of € 28 million in the Group's collectively assessed loan portfolio.

The following table presents an analysis of the changes in the non-German component of the allowance for loan losses. As of December 31, 2017, 61 % of the Group's total allowance was attributable to non-German clients compared to 67 % as of December 31, 2016.

in € m.	2017	2016	2015	2014	2013
Balance, beginning of year	3,057	3,345	3,339	3,612	2,968
Provision for loan losses	278	1,004	612	724	1,438
Net charge-offs	(828)	(1,238)	(657)	(1,030)	(715)
Charge-offs	(854)	(1,330)	(708)	(1,076)	(741)
Recoveries	27	93	51	46	26
Other changes (i.e., exchange rate changes, changes in the group of consolidated companies)	(114)	(54)	51	34	(80)
Balance, end of year	2,394	3,057	3,345	3,339	3,612

The following table presents the components of the Group's allowance for loan losses by industry of the borrower, and the percentage of its total loan portfolio accounted for by those industry classifications, on the dates specified. The breakdown between German and non-German borrowers is based on the location of the borrowers.

in € m. (unless stated otherwise)	Dec 31, 2017		Dec 31, 2016		Dec 31, 2015		Dec 31, 2014		Dec 31, 2013	
German:										
Individually assessed loan loss allowance:										
Financial intermediation	0	1 %	0	1 %	0	1 %	2	1 %	2	2 %
Manufacturing	133	2 %	139	2 %	196	2 %	213	2 %	236	2 %
Households (excluding mortgages)	2	4 %	11	4 %	98	4 %	152	4 %	139	5 %
Households – mortgages	3	30 %	5	29 %	6	27 %	6	29 %	11	30 %
Public sector	0	2 %	0	3 %	0	3 %	0	3 %	0	3 %
Wholesale and retail trade	86	2 %	74	1 %	84	1 %	82	1 %	129	1 %
Commercial real estate activities	59	2 %	45	2 %	48	5 %	78	5 %	149	5 %
Other ¹	317	6 %	289	5 %	216	3 %	207	4 %	197	4 %
Individually assessed loan loss allowance										
German total	600		563		647		740		864	
Collectively assessed loan loss allowance	927		926		1,035		1,133		1,113	
German total	1,527	49 %	1,489	48 %	1,683	47 %	1,873	50 %	1,977	53 %
Non-German:										
Individually assessed loan loss allowance	1,166		1,508		1,604		1,624		1,993	
Collectively assessed loan loss allowance	1,228		1,549		1,741		1,715		1,619	
Non-German total	2,394	51 %	3,057	52 %	3,345	53 %	3,339	50 %	3,612	47 %
Total allowance for loan losses	3,921	100 %	4,546	100 %	5,028	100 %	5,212	100 %	5,589	100 %
Total individually assessed loan loss allowance	1,766		2,071		2,252		2,364		2,857	
Total collectively assessed loan loss allowance	2,155		2,475		2,776		2,849		2,732	
Total allowance for loan losses	3,921		4,546		5,028		5,212		5,589	

¹ Includes mainly Transportation and Services.

Deposits

The amount of other time deposits in the amount of U.S.\$ 100,000 or more in offices in Germany was € 60.9 billion as of December 31, 2017, of which € 21.7 billion had maturities of three months or less, € 11.9 billion had maturities over three months but less than six months, € 14.8 billion had maturities of over six months but less than one year and € 12.6 billion had maturities of over one year. The amount of certificates of deposits in the amount of U.S.\$ 100,000 or more in offices in Germany was € 897 million as of December 31, 2017, of which € 707 million had maturities of three months or less and € 190 million had maturities of over six months but less than one year.

The amount of certificates of deposits and other time deposits in the amount of U.S.\$ 100,000 or more issued by non-German offices was € 41.8 billion as of December 31, 2017.

Total deposits by foreign depositors in German offices were € 38.3 billion, € 36.0 billion and € 40.5 billion as of December 31, 2017, 2016 and 2015, respectively.

Return on Equity and Assets

	2017	2016	2015
Return on average shareholders' equity (post-tax) ¹	(1.17)%	(2.26)%	(9.84)%
Return on average total assets (post-tax) ²	(0.05)%	(0.08)%	(0.38)%
Equity to assets ratio ³	4.09%	3.60%	3.86%
Dividend payout ratio: ⁴			
Basic earnings per share	N/M	N/M	N/M
Diluted earnings per share	N/M	N/M	N/M

N/M – Not meaningful

¹ Net income (loss) attributable to Deutsche Bank shareholders as a percentage of average shareholders' equity.

² Net income (loss) attributable to Deutsche Bank shareholders as a percentage of average total assets.

³ Average shareholders' equity as a percentage of average total assets for each year.

⁴ Dividends paid per share in respect of each year as a percentage of the Group's basic and diluted earnings per share for that year.

Short-Term Borrowings with an original maturity of one year or less

The difference between the period-end and average balances for central bank funds purchased and securities sold under repurchase agreements mainly arises from fluctuating activity with respect to fixed income securities positions within CIB. Intra-quarter trading volume, which increases the monthly averages relative to quarter- and year-end, predominantly comprises financing of short-term positions in highly liquid U.S. Treasuries and Agencies, which is a result of the Bank providing liquidity to the market via market-making activity and is largely driven by client demand. These U.S. Treasury and Agency positions are very low risk and have negligible impact on the firm's liquidity and capital position.

in € m.

(unless stated otherwise)

	Dec 31, 2017	Dec 31, 2016	Dec 31, 2015
Central bank funds purchased and securities sold under repurchase agreements:			
Balance, end of year	18,105	25,740	9,803
Average balance ¹	19,109	20,368	10,541
Maximum balance at any month-end	25,137	27,027	17,520
Weighted-average interest rate during the year	2.07%	1.20%	1.45%
Weighted-average interest rate on year-end balance	0.58%	0.10%	0.89%
Securities loaned:			
Balance, end of year	6,688	3,598	3,270
Average balance ¹	5,702	3,743	3,015
Maximum balance at any month-end	9,823	8,677	3,449
Weighted-average interest rate during the year	(1.35)%	(0.77)%	(1.50)%
Weighted-average interest rate on year-end balance	0.03%	0.10%	0.32%
Commercial paper:			
Balance, end of year	5,274	3,219	9,327
Average balance ¹	4,904	6,754	13,130
Maximum balance at any month-end	5,665	9,370	15,883
Weighted-average interest rate during the year	0.42%	0.42%	0.47%
Weighted-average interest rate on year-end balance	0.31%	0.72%	0.65%
Other:			
Balance, end of year	13,137	14,076	18,683
Average balance ¹	14,424	16,955	21,195
Maximum balance at any month-end	16,125	19,854	24,451
Weighted-average interest rate during the year	0.80%	0.88%	0.79%
Weighted-average interest rate on year-end balance	0.40%	0.21%	0.55%

¹ Based upon month-end balances.

Imprint

Deutsche Bank Aktiengesellschaft
Taunusanlage 12
60262 Frankfurt am Main
Germany
Telephone: +49 69 9 10 00
deutsche.bank@db.com