Deutsche Bank

Annual Financial Statements and Management Report of Deutsche Bank AG 2018

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Management Report

Operating and financial review

Our organization

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 € 1,348 billion as of December 31, 2018. As of that date, we employed 91,737 full-time equivalent internal employees and operated in 59 countries out of 2,064 branches worldwide, of which 68 % 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, 2018, we were organized into the following three corporate divisions:

- Corporate & Investment Bank (CIB)
- Private & Commercial Bank (PCB)
- Asset Management (AM)

The three corporate divisions are supported by infrastructure functions. In addition, Deutsche Bank has a local and regional organizational layer to facilitate a consistent implementation of global strategies.

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.

For Deutsche Bank AG, the most important branches besides our operations in Germany are located in London, New York, Cayman Islands and Singapore. These branches are mainly providing services in the Corporate & Investment Bank and Wealth Management divisions.

Please see below for an overview on our corporate divisions.

Corporate & Investment Bank (CIB)

Corporate division overview

CIB comprises our Global Transaction Banking, Origination & Advisory, Sales & Trading (FIC) and Sales & Trading (Equity) businesses. The division brings together wholesale banking expertise across, coverage, risk management, sales and trading, Investment Banking and infrastructure across Deutsche Bank. This enables CIB to align resourcing and capital across our client and product perimeter to effectively serve the Bank’s clients.

Products and services

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.

Origination and Advisory 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.

Sales & Trading (FIC) and Sales & Trading (Equity) combine 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, 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.

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 on-boarding and know-your-client (KYC) procedures.

Coverage of our clients is provided by the Institutional and Treasury Coverage group, which combines our Equity and Debt sales teams, Financial Solutions Group and Corporate Banking Coverage. This new consolidated group is intended to benefit the division through closer cooperation and enhanced synergies leading to increased cross selling of products/solutions to our clients, while working closely with the Investment Banking Coverage team within Corporate Finance.

Private & Commercial Bank (PCB)

Corporate division overview

In PCB, we serve personal and private clients, small and medium-sized enterprises as well as wealthy private clients. We are organized along three core business divisions: Private and Commercial Business (Germany), Private and Commercial Business (International) and Wealth Management (Global). Our product range includes payment and account services, credit and deposit products as well as investment advice and selected digital offerings. In these products, we offer our customers both the coverage of all basic financial needs and individual, tailor-made solutions.

Products and services

In our Private and Commercial Business (Germany) division, we pursue a differentiated, customer-focused approach with two brands – “Deutsche Bank” and “Postbank”. With our “Deutsche Bank” brand we focus on providing our private customers with banking and financial products and services that include sophisticated and individual advisory solutions. For small and medium-sized corporate clients, we provide an integrated commercial banking coverage model in collaboration with the Corporate & Investment Bank. The focus of our “Postbank” brand remains on providing our retail and corporate customers with standard products and daily retail banking services. In cooperation with Deutsche Post DHL AG, we also offer postal and parcel services in the Postbank branches.

Our Private and Commercial Business (International) division provide banking and other financial services to private and commercial clients in Belgium, India, Italy and Spain with some variations in the product offering among countries that are driven by local market, regulatory and customer requirements.

The Wealth Management (Global) division 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 the Corporate & Investment Bank and Asset Management.

We also have consolidated activities, which are no longer part of our core businesses, into a separate unit (called “Exited Businesses”) and have established a Digital Ventures unit to holistically steer PCB’s digital agenda across businesses and brands, focusing on new platform-based digital business models, venture capital investments as well as end-to-end process digitalization and appropriate data architecture as a basis for structured data analysis and application of Artificial Intelligence.

Distribution channels and marketing

We pursue an omni-channel approach and our customers can flexibly choose between different possibilities to access our services and products (branches, advisory centers, mobile networks of independent consultants and online/mobile banking).

In our Private and Commercial Business (Germany) and Private and Commercial Business (International) we have similar distribution channels. Those include our branch network, supported by customer call centers and self-service terminals; advisory centers of Deutsche Bank brand in Germany, which connect our branch network with our digital offerings; online and mobile banking including our Digital Platform, through which we provide a transaction platform for banking, brokerage and self-services, combined with a multi-mobile offering for smartphones and tablets; and lastly, financial advisors, as an additional service channel in collaboration with self-employed financial advisors as well as sales and cooperation partners.

Wealth Management (Global) has a distinct client coverage. Relationship managers and senior advisor teams manage client relationships, advice and assist clients in accessing wealth management services and open-architecture products. Institutional Wealth Partners (IWP) provide institutional access with market views and trade ideas from our Global Markets platform, as well as non-recourse lending solutions. Deutsche Oppenheim Family Offices AG (DOAG) offers services that include discretionary portfolio management, strategic asset allocation, “Family Office Strategy” funds, consulting, third-party manager selection, reporting & controlling as well as real estate and private equity investments.

Asset Management (AM)

Corporate division overview

With over € 660 billion of assets under management as of December 31, 2018, 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. AM aims to provide sustainable financial solutions for all its clients: individual investors and the institutions that serve them.

The corporate division "Deutsche Asset Management" was renamed "Asset Management" during the first quarter of 2018. In March 2018, Deutsche Bank completed the partial initial public offering (IPO) of DWS Group GmbH & Co. KGaA ("DWS"), the holding company for AM. Since March 23, 2018, shares of DWS are listed on the Frankfurt stock exchange. We retain an 80% ownership interest in DWS and AM remains a core business for Deutsche Bank.

Products and services

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 Exchange Traded Funds, Mutual Funds, and Separately Managed Accounts. AM delivers alpha and beta solutions to address the longevity, liability and liquidity needs of clients, leveraging artificial intelligence and digital technology.

Distribution channels and marketing

Coverage/Advisory teams manage client relationships, provide advice and assist clients to access AM's products and services. 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 AM, with dedicated teams serving specific client groups.

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:

- Chief Executive Officer: Communications & Corporate Social Responsibility, Group Audit, Art, Culture & Sports
- Chief Financial Officer: Group and Regional Finance, Chief Accounting Officer, Group Tax and Treasury, Planning & Performance Management, Business and Infrastructure Finance (CFO's), Infrastructure Transformation, Investor Relations, Corporate Investments, Corporate Merger and Acquisitions
- Chief Risk Officer: Business Aligned Risk Management, Regional Risk Management, Enterprise Risk Management and Model Risk, Credit Risk Management, Market Risk Management & Risk Methodology, Non-Financial Risk Management, Treasury & Liquidity Risk Management and Corporate Insurance
- Chief Regulatory Officer: Government and Regulatory Affairs, Anti Financial Crime, Compliance, Business Selection and Conflict Office
- Chief Administrative Officer: Legal and Group Governance incl. Data Privacy, Human Resources including Corporate Executive Matters
- Chief Operating Officer: Chief Information Office, Chief Security Office, Chief Data Office, Digital Strategy & Innovation, Corporate Services, Operations CIB and Client Data Services

For the financial years until 2017, all expenses and revenues incurred within the infrastructure functions and areas are fully allocated to Corporate & Investment Bank, Private & Commercial Bank and Deutsche Asset Management. From 2018 onwards, Infrastructure expenses associated with shareholder activities as defined in the OECD Transfer Pricing Guidelines are no longer allocated to corporate divisions, but are held centrally and reported under Corporate & Other.

To increase overall effectiveness and collaboration, the bank decided in 2017 to move certain infrastructure employees to the divisions for which they provide service. This has helped to increase the business divisions' responsibility and autonomy with respect to their organizational 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.

Economic environment

Executive summary

The global economy

Economic growth (in %)[1]	2018[2]	2017	Main driver
Global Economy	**3.8**	3.8	Robust global growth, with industrialized countries saw a peak in their economic cycle, while growth in emerging markets slowed towards the end of the year. Trade tensions reached a level that weighed on global trade. The strong US economy provided impetus to global growth.
Of which:			
Industrialized countries	2.2	2.3	The global momentum supported growth in industrialized countries but trade disputes began to have a negative impact on the global value chains of the industrialized countries.
Emerging markets	4.9	4.8	Emerging markets benefited from the extension of the global economic cycle. Growth peaked in Asia whereas some Latin American economies stabilized.
Eurozone Economy	**1.8**	2.5	The eurozone economy expanded more slowly than expected, reflecting temporary effects in some member states and a deteriorating external environment. Growth was supported by domestic demand underpinned by a solid income growth and improved financial conditions.
Of which: German economy	1.4	2.2	The German economy surprised to the downside. Delays in the certification of new vehicles hampered automobile production and thus impacted the overall economic value chain. A tight labor market led to strong wage agreements.
US Economy	**2.9**	2.2	Strong performance of the US economy was supported by tax cuts, fiscal spending as well as supportive financial conditions and consumer spending backed by wage growth and a tight labor market.
Japanese Economy	**0.7**	1.9	The Japanese economy slowed due to lower private consumption spending and lower employment growth as well as weaker external demand.
Asian Economy[3]	**6.2**	6.1	Asian economies continued to show strong growth, but may have passed their cyclical peak. Trade was a key driver of economic expansion.
Of which: Chinese Economy	6.6	6.9	Chinese growth slowed somewhat. The government has kept a tight policy stance in the property sector. Lower land sales impacted sliding fiscal revenues. Chinese exports were resilient despite growing trade tensions throughout 2018.

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

In the Eurozone, 2018 saw banks record their first noteworthy growth in corporate lending since the financial crisis, with volumes up 2 % year on year. By contrast, the dynamics in real estate lending to households and in consumer lending were stable at 3 %. Interest rates remained close to historical lows and weighed on the banks' net interest margin. Growth in corporate deposits slowed quite significantly to 3 % year on year while growth in retail deposits increased to over 4.5 %. European banks likely saw revenues and overhead expenses decline slightly, with a significant drop in risk provisions (from an already low level).

In Germany, lending to corporates and the self-employed continued to gain considerable pace last year, an increase of 5.5 % year on year. The figure was the highest since the dot-com bubble in the early 2000s and coincided with a sharp decline in corporate bond issuance. Retail lending also continued to expand at 3.5 %, driven by a 5 % increase in mortgage volumes. On the funding side, household deposits grew roughly at 5 % while corporate deposits expanded at a considerably slower pace of 2.5 %. Despite excellent asset quality, there is no change expected in the structurally low profitability of Germany's banks, a situation mainly caused by the intense competition and low interest rate environment.

The US banking industry is almost certain to have set a new profit record. The first nine months saw the banks already generate higher net profit than in any prior full-year period. This was due to a wide range of factors including healthy credit business, the benefit of higher interest rates on net interest margin and on liquid funds, tax cuts, and market share gained in the global capital markets business. Lending to households increased by 2.2 % year on year a decline from its 2017 rate reflecting slower growth in mortgage lending to 3 % and a 9 % decline in home equity loans, while growth in consumer loans was stable at 5 %. In contrast, the growth rate in lending to businesses doubled to 7.5 % over the course of the year, driven by double-digit growth in corporate lending, where outstanding volumes have doubled since 2010. Commercial real estate lending grew at a somewhat lower rate than in the previous year at 5 %. Private sector deposits continued to expand by 4 %.

In China, the credit growth further slowed in 2018. Lending to businesses grew by just 8 % year on year, while the figure for retail customers was 18 %. Private sector deposits grew at a 7 % rate, stable versus the prior period. In Japan, too, growth rates remained largely stable overall at 2.5 % for lending and 3.5 % for deposits.

Investment banking recorded a solid result in the M&A advisory business in 2018, while transaction volumes in equity and debt issuance saw year-on-year declines. Securities trading posted largely positive growth. Equities trading in the United States and the derivatives business delivered an excellent performance and there was also robust growth in bonds. The only contraction was in European equities trading.

Deutsche Bank performance

Deutsche Bank AG is the parent company of Deutsche Bank Group and is its most material component. The management of Deutsche Bank Group is based on IFRS and Group divisions rather than individual group companies. Deutsche Bank AG is fully integrated in the initiatives and target setting of Deutsche Bank Group. The performance of the Group is ultimately driving the performance of Deutsche Bank AG. As the bank has utilized the option under Section 2a of the German Banking Act (KWG) with respect to the regulatory capital, and therefore regulatory capital ratios are only applicable on Group level. We therefore discuss at first the overall performance based on group financial data, followed by the discussion for Deutsche Bank AG.

In 2018, Deutsche Bank achieved its first full year net profit since 2014 and delivered on its adjusted cost and headcount targets. The bank also announced and executed against a series of strategic repositioning measures, mainly within the Corporate & Investment Bank, and made good progress while further strengthening its controls and processes. In 2018, the bank successfully completed the legal merger of Deutsche Bank Privat- und Geschäftskunden AG and Postbank, the partial sale of the retail business in Poland, the integration of Sal. Oppenheim and the Initial Public Offering (“IPO”) of DWS Group GmbH & Co. KGaA (“DWS”). The bank is focused on redeploying resources and investing in areas of core strength which the management believes will drive growth.

Group key performance indicators

Near-term operating performance	Status end of 2018	Status end of 2017
Post-tax return on average tangible shareholders’ equity [1]	0.5 %	(1.4) %
Adjusted costs[2]	€ 22.8 bn	€ 23.9 bn
Employees[3]	91,737	97,535
Capital performance		
CRR/CRD 4 fully loaded Common Equity Tier 1 ratio[4]	13.6 %	14.0 %
CRR/CRD 4 leverage ratio (phase-in)[4]	4.3 %	4.1 %

[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 our Annual Report 2018.
[2] Adjusted costs are noninterest expenses excluding impairment of goodwill and other intangible assets, litigation and restructuring and severance. For further information, please refer to “Supplementary Information: Non-GAAP Financial Measures” of our Annual Report 2018.
[3] Internal full-time equivalents.
[4] Further detail on the calculation of this ratio is provided in the Risk Report.

Net revenues in 2018 were € 25.3 billion, a decline of € 1.1 billion, or 4 % from 2017. Revenues in the Corporate & Investment Bank (CIB) were impacted by the strategic repositioning, specifically the reduction in headcount and leverage exposure, challenging market conditions, lower client activity, which was in part driven by adverse developments with respect to the bank, negative interest rates and margin compression. Revenues in Private & Commercial Bank (PCB) were essentially flat as growth in revenues from loans was offset by ongoing interest rate headwinds on deposit products. Revenues in Asset Management (AM) were impacted by net outflows, margin compression, lower performance fees and the absence of specific revenue items recorded in 2017. Revenues in Corporate and Other (C&O) improved mainly driven by the absence of the realization of a negative currency translation adjustment related to the sale of a non-strategic subsidiary in Argentina in 2017 and higher positive impacts from valuation and timing differences in 2018 compared to prior year.

Provision for credit losses was € 525 million in 2018, unchanged compared to 2017.

Noninterest expenses in 2018 were € 23.5 billion, a decrease of € 1.2 billion or 5 %, from 2017 as management executed on its cost reduction targets. The decrease was driven by reductions across most of the cost categories including lower compensation and benefits expense, reduced cost for professional service fees and for occupancy, as well as lower litigation and restructuring charges.

Income before income taxes was € 1.3 billion in 2018 compared to € 1.2 billion in 2017, an increase of € 103 million or 8 % mainly driven by lower noninterest expenses partly offset by lower revenues.

Income tax expense was € 989 million in 2018, compared to € 2.0 billion in 2017 which included a one-time tax charge of € 1.4 billion attributable to the re-measurement of US deferred tax assets as a result of the US tax reform. The effective tax rate of 74 % in 2018 was mainly impacted by changes in the recognition and measurement of deferred tax assets and share-based payment-related tax effects.

The bank reported a net income of € 341 million in 2018, compared to a net loss of € 735 million in 2017. The improvement was primarily driven by the absence of the prior year's one-time tax charge and lower noninterest expenses.

The bank's CRR/CRD 4 fully loaded Common Equity Tier 1 (CET 1) ratio was 13.6 % at the end of 2018 compared to 14.0 % at the end of 2017, primarily driven by an increase in Risk weighted assets.

Executive summary for Deutsche Bank AG

In 2018, Deutsche Bank AG recorded a net income of € 514 million compared to net income of € 644 million in 2017. This decrease was driven by of a number of large but partly offsetting developments. Net income improvements by € 1.6 billion were caused by an increase in operating profit by € 1.4 billion and a tax expense of € 6 million in 2018 compared to € 254 million in 2017. These factors were more than offset by additions to the fund for general banking risk, up by € 1.7 billion, and higher extraordinary net expenses, increased by € 147 million.

The € 1.4 billion increase in the operating profit was mainly driven by € 464 million higher revenues, € 587 million lower administrative expenses including depreciation, and lower provisioning, down by € 566 million. This was partly offset by an increase in net sundry operating expenses by € 215 million.

The net extraordinary result related to restructuring and amounted to negative € 211 million (2016: negative € 64 million).

Additions to the fund for general banking risks amounted to € 2.0 billion in 2018 (2017: addition of € 300 million).

Total tax expense amounted to € 6 million in 2018 (2017: € 254 million).

As of December 31, 2018, total assets declined by € 344 billion to € 889 billion, mainly due to decreases of positive and negative market values of derivatives in the trading book. These included € 201 billion related to an extension of offsetting of market values of derivatives with daily cash margining.

The bank maintained its stable funding, high liquidity base and solid regulatory capital position. For further details please refer to the sections liquidity risk and capital adequacy in the risk report.

In 2018, shareholders' equity (excluding distributable profit) increased by € 204 million to € 54.1 billion, mainly due to an addition to other revenue reserves by € 200 million.

The Management Board and the Supervisory Board will propose to the Annual General Meeting to pay a dividend of 11 € cents per share and to carry forward the remaining distributable profit.

Income statement

In the table below please find an overview of Deutsche Bank AG's income statement, which is followed by further information on the individual line items.

Condensed income statement of Deutsche Bank AG

in € m.	2018	2017	Change in € m.	Change in %
Interest income[1]	13,566	11,210	2,356	21
Current income[2]	6,962	5,659	1,303	23
Total interest income	**20,529**	16,869	3,659	22
Interest expenses	11,503	8,959	2,544	28
Net interest income	**9,026**	7,910	1,115	14
Commission income	7,411	7,678	(266)	(3)
Commission expenses	1,411	1,560	(149)	(10)
Net commission income	**6,001**	6,118	(117)	(2)
Net trading result	**1,629**	2,164	(535)	(25)
thereof release of trading-related special reserve according to Section 340e HGB	0	0	0	N/M
Total revenues	**16,656**	16,192	464	3
Wages and salaries	3,768	4,284	(516)	(12)
Compulsory social security contributions[3]	860	819	41	5
Staff expenses	**4,629**	5,103	(475)	(9)
Other administrative expenses[4]	8,532	8,644	(112)	(1)
Administrative expenses	**13,161**	13,747	(587)	(4)
Balance of other operating income/expenses	**(611)**	(395)	(215)	55
Risk provisioning	**(91)**	475	(566)	N/M
Operating profit	**2,975**	1,574	1,401	89
Balance of other ordinary income/expenses	**(244)**	(312)	68	(22)
Extraordinary result	**(211)**	(64)	(147)	N/M
Releases from/(Additions) to the fund for general banking risks	(2,000)	(300)	(1,700)	N/M
Income before taxes	**520**	898	(378)	(42)
Taxes	6	254	(248)	(98)
Net income	**514**	644	(130)	(20)
Profit carried forward from the previous year	172	55	117	N/M
	685	699	(14)	(2)
Allocations to revenue reserves	**200**	300	(100)	(33)
– to other revenue reserves	200	300	(100)	(33)
Distributable profit	**486**	399	87	22

N/M - Not meaningful
[1] From lending and money market business, fixed-income securities, government inscribed debt and leasing business.
[2] From equity shares and other variable-yield securities, participating interests, investments in affiliated companies (including profit transfer agreements).
[3] Including expenses for pensions and other employee benefits.
[4] Including depreciation on tangible and intangible assets.

Increase of net interest income

Net interest income increased by € 1.1 billion to € 9.0 billion. Within current income, income from profit pooling increased by by € 1.6 billion, whereas other current income went down by € 315 million and the net result from lending and securities less interest expenses decreased by € 188 million.

The increase of profit pooling by € 1.6 billion was mainly driven by a one-off effect of € 2.1 billion relating to PFK AG. Partly offsetting was the discontinuation of profit-pooling income from DWS, as its partial IPO in 2018 led to the cancellation of the profit pooling agreement with DWS. In future years, distributions from DWS will be recorded as dividend income.

Other current income decreased by € 315 million, driven by lower income from equity shares (down € 782 million), while income from shares in affiliated companies and participating interests increased by € 471 million.

The net result from lending and securities less interest expenses was overall down by € 188 million or 8.3%. Interest income as well as interest expenses showed both pronounced increases, whereas expenses increased more than income.

Decrease in net commission income

Net commission income of € 6.0 billion was down by € 117 million compared to the previous year. This development was driven by most components of commission income, including € 175 million lower fees in the securities business, € 109 million lower income from asset management, and € 46 million reduced fees from the loan business. Partly offsetting was income from services rendered to group companies, which increased by € 197 million.

Lower net trading result

Deutsche Bank AG reported € 1.6 billion net trading result in 2018, down by € 535 million compared to prior year. This decrease was mainly driven by losses in securities and only partly offset by gains in foreign exchange translation on non local functional currency.

Decrease in staff expenses and operating costs

Staff expenses decreased by € 475 million to € 4.6 billion. This was mainly due to a reduction in wages and salaries including variable payments, down by € 516 million as a result of reduced headcount.

The table below gives a geographical breakdown of our staff (full-time-equivalent).

Staff (full-time equivalents)[1]	Dec 31, 2018	Dec 31, 2017	Change
Germany	11,406	11,444	(38)
Europe excl. Germany	8,923	9,461	(538)
Americas	774	2,001	(1,227)
Africa/Asia/Australia	5,625	6,146	(521)
Total	**26,728**	29,052	(2,324)

[1] Staff (full-time equivalent) = total headcount adjusted proportionately for part time staff, excluding apprentices and interns.

Headcount in the Americas decreased primarily driven by the transfer of CIB and Infrastructure functions, e.g. Chief Operating Office, Risk and Finance functions, to DB USA Corporation. In Europe excluding Germany headcount decreased primarily related to the development in the UK, resulting in reductions in CIB and related service functions. In the region Africa/Asia/Australia headcount was primarily reduced in Hong Kong, Singapore and India.

Other administrative expenses (excluding depreciation and amortization on tangible and intangible assets) decreased by € 226 million to € 7.3 billion. This was driven by reductions across all cost categories. General operational expenses, down by € 339 million, and IT-related costs which decreased by € 166 million were the biggest drivers. This development was partly offset by higher expenses from intercompany charges, up by € 407 million, and higher bank levy charges, up by € 91 million.

Scheduled depreciation and amortization of tangible and intangible assets amounted to € 1.2 billion in 2018 (2017: € 1.1 billion). The increase is mainly attributable to higher levels of self-developed software.

Increase in the net balance of operating income/expenses

The balance of other operating income/expenses increased from negative € 395 million in 2017 to negative € 611 million in 2018. This was mainly driven by increased net interest expenses on staff related provisions (up € 258 million) and higher net litigation-related charges of € 32 million in 2018 after prior year's net positive result of € 54 million, caused by releases of provisions. Partly offsetting, the net result from financial instruments in the banking book and currency translation which increased by € 187 million.

Lower net risk provisioning

In 2018, total of net risk provisioning, consisting of changes in credit related risk provisioning and the net result from securities held in the liquidity reserve, improved by € 566 million from an expense of € 475 million to net positive € 91 million. This development was mainly attributable to lower risk provisioning in the loan business, down by € 620 million, partly offset by net positive results from securities held in the liquidity reserve, down by € 54 million. Prior year credit risk provisioning contained an impairment of € 424 million on a Group internal receivable. The receivable was collateralized by deferred tax assets, which reduced in value driven by a change in tax rates in prior year.

Lower negative net balance of other ordinary income/expenses

The balance of other ordinary income and expenses was negative € 244 million (2017: negative € 312 million). This decrease versus 2017 was mainly driven by significantly lower expenses for value adjustments of investments in affiliated companies, which were down by € 334 million. Partly offsetting were reduced gains from the disposal of shares in affiliated companies, down by € 199 million.

Write-downs and non-scheduled depreciation of tangible and intangible assets amounted to € 45 million in 2018 (2017: € 34 million).

Extraordinary income and expenses

Net extraordinary income and expenses were negative € 211 million (2017: negative € 64 million). This change was mainly caused by higher restructuring expenses.

Addition to the fund for general banking risks

The addition to the fund for general banking risks according to Section 340g HGB amounted to € 2.0 billion (2017: addition by € 300 million). The addition reflects the risks as outlined in the risks and opportunities section in the management report, in particular those listed under specific considerations for Deutsche Bank AG.

Taxes

In 2018, a tax expense of € 6 million was recorded compared to a tax expense of € 254 million in the prior year. The current year's effective tax rate was primarily driven by tax exempt income.

Net profit

Deutsche Bank AG recorded in 2018 a net profit of € 514 million after a prior year net profit of € 644 million.

This result was driven by a higher operating profit after risk provisioning, up by € 1.4 billion, which was offset by an increase in net other income / expenses including restructuring expenses, up by € 1.6 billion. Therein was an addition to the fund for general banking risks by € 2.0 billion included The net effect of these changes lead to an reduced pre-tax profit, down by € 378 million. A tax income expense recorded at € 6 million improved the overall tax result by € 248 million. Overall, this lead to the decrease of the net profit by € 130 million

Proposed appropriation of profit

After an addition to the revenue reserves of € 200 million, the distributable profit amounted to € 486 million as of December 31, 2018. The Bank will propose to the Annual General Meeting to appropriate this distributable profit for a dividend payment of € 11 cent per share. It will also be proposed to carry forward the remaining distributable profit. Depending on the number of shares outstanding at the record date, the carry forward will amount to € 259 million or more.

Balance sheet

Total assets of Deutsche Bank AG amounted to € 888.6 billion on December 31, 2018. The decrease by € 343.7 billion, or 27.9 %, was mainly related to changes in market values of trading derivatives, primarily driven by increased offsetting of market values. Also contributing to the decrease were receivables from and liabilities to banks.

Total credit extended

Total credit extended (excluding reverse repos and securities spot deals) decreased slightly by € 7.7 billion, or 2.9 %, to € 258.6 billion. Credit totaling € 191.5 billion (decrease by € 1.2 billion) was extended to corporate and institutional customers, while loans to Private & Business Clients and the public sector amounted to € 18.5 billion (up by € 167 million). Loans to banks, which are reported under total credit extended, were down by € 6.7 billion to € 48.5 billion.

The table below gives a break-down of the total credit extended (excluding reverse repos and securities spot deals).

			Change	
in € bn.	Dec 31, 2018	Dec 31, 2017	in € bn.	in %
Claims on customers	**210.1**	211.1	(1.0)	(0.5)
with a residual period of				
up to 5 years[1]	182.3	184.8	(2.5)	(1.4)
over 5 years	27.8	26.3	1.5	6
Loans to banks	**48.5**	55.2	(6.7)	(12.1)
with a residual period of				
up to 5 years[1]	30.4	34.0	(3.6)	(10.6)
over 5 years	18.1	21.2	(3.1)	(14.8)
Total	**258.6**	266.2	(7.7)	(2.9)

[1] Including those repayable on demand and those with an indefinite period.

Receivables from banks (excluding loans) outside trading decreased by € 17.5 billion to € 59.0 billion compared to prior year.

Securities

Our securities portfolio (excluding trading assets) increased slightly, with bonds and other fixed-income securities up by € 1.3 billion to € 39.8 billion and equity shares and other variable-yield securities up by € 87 million to € 559 million.

Trading assets

Trading assets amounted to € 303.7 billion, down by € 298.1 bn. The largest component, positive market values of derivatives decreased by € 242.4 billion to € 88.2 billion. The decrease was primarily driven by a change in our offsetting principles which contributed € 201 billion to this development. In addition, equity shares and other variable securities are down by € 37.8 bn.

Investments in affiliated companies

Investments in affiliated companies increased by € 2.1 billion to € 45.6 billion. Additions to investments in affiliated companies amounted to € 10.2 billion compared to decreases of € 8.2 billion. The increase was mainly attributable to capital increases of € 5.0 billion, the transfer of affiliated companies which were previously held indirectly of € 4.6 billion and a positive impact of foreign currency translation of € 0.5 billion. Partially offsetting were capital decreases of € 7.5 billion and net write-downs of € 0.3 billion.

Deposits and securitized liabilities

Liabilities to banks decreased by € 44.1 billion to € 172.5 billion. This development was attributable to a decrease in deposits repayable on demand by € 24.8 billion and a decrease in time deposits by € 19.3 billion.

Deposits from bank subsidiaries decreased by € 27.7 billion to € 67.3 billion.

Deposits from customers decreased by € 14.8 billion to € 292 billion. The main driver of this development was the decrease in deposits from corporate and institutional customers, down by € 23.8 billion, while deposits from the public sector increased by € 6.5 billion and deposits from retail customers were up by € 2.5 billion.

Liabilities in certificate form decreased by € 1.7 billion to € 98.9 billion. Bonds and notes issued increased by € 3.5 billion partly offset by money market certificates issued, which were down by € 5.2 billion.

Breakdown of the liabilities

			Change	
in € bn.	Dec 31, 2018	Dec 31, 2017	in € bn.	in %
Liabilities to banks	**172.5**	216.5	(44.1)	(20.4)
repayable on demand	71.4	96.2	(24.8)	(25.8)
with agreed period or notice period	101.1	120.4	(19.3)	(16.0)
Liabilities to customers	**292.0**	306.8	(14.8)	(4.8)
savings deposits	3.3	3.5	(0.3)	(7.7)
other liabilities				
repayable on demand	183.3	201.0	(17.7)	(8.8)
with agreed period or notice period	105.5	102.3	3.1	3.1
Liabilities in certificate form	**98.9**	100.6	(1.7)	(1.7)
bonds and notes issued	94.0	90.5	3.5	3.9
other liabilities in certificate form	4.9	10.1	(5.2)	(51.5)
thereof: money market instruments	4.0	9.3	(5.2)	(56.4)

Subordinated liabilities were down by € 2.6 billion to € 9.5 billion.

Trading liabilities

Trading liabilities amounted to € 236.2 billion, down by € 283.8 billion. the largest component, negative market values of derivatives decreased by € 241.1 billion to € 80.8 billion compared to the prior year. This development was driven by the same reasons as the increase in positive market values.

Instruments for additional tier 1 regulatory capital

As of December 31, 2018, instruments for Additional Tier 1 regulatory capital amounted to € 4.9 billion compared to € 4.8 billion in the prior year. The increase is related to FX-effects.

Capital and reserves

Capital and reserves of Deutsche Bank AG (including its distributable profit of € 486 million) amounted to € 54.6 billion, up by € 291 million, mainly due to the addition to other earnings reserve which will be proposed to the annual general meeting.

Consistent with prior years, the Bank has utilized the option available under Section 2a of the German Banking Act (KWG) with respect to its regulatory capital and only calculates this capital base for the Deutsche Bank Group (see page 47).

Outlook

The global economy

The global economy outlook

Economic growth (in %)[1]	2019[2]	2018	Main driver
Global Economy			Global economic activity is still set to expand in 2019 but at a slower pace than in 2018, mainly due to a flattening of growth in the US and a slower growth in China as well as in Europe. While economic fundamentals are solid, a less accommodative monetary policy could lead to heightened risks with more frequent incidents of higher volatility.
GDP	**3.4**	3.8	
Inflation	**3.0**	3.3	
Of which:			
Industrialized countries			In 2019, the industrialized countries will present a mixed picture. While the US should continue to grow solidly, Europe is losing momentum as the weakness in exports is spreading over to the domestic economy despite supportive monetary and fiscal policies. The uncertainties caused by continued trade tensions are likely to place an increasing burden on the integrated value chains of many industrial countries. Moreover, the structural weakness in the euro area seems solid as the reform fatigue seems prevalent.
GDP	1.7	2.2	
Inflation	1.4	2.0	
Emerging markets			The Emerging market economies should continue to grow solidly. A softer monetary stance across central banks aimed at sustaining growth, bodes well for growth in 2019.
GDP	4.5	4.9	
Inflation	4.1	4.1	
Eurozone Economy			Economic growth in the eurozone should be supported by lower oil prices and fiscal easing in certain large member states including France. These positive benefits could be affected by one-off factors, including the ongoing weakness of the German automotive sector and a no-deal Brexit. A deterioration of the economic situation outside of Europe could threaten to diminish the eurozone economy as a result.
GDP	**0.9**	1.8	
Inflation	**1.3**	1.8	
Of which: German economy			The German economy continues to be negatively affected by the slowdown in world trade. This effect will be reinforced by the slowdown in global demand for cars given the dominance of the automotive industry in German exports. The strong labor market, solid wage increases and a structural demand overhang in the housing market combined with still extremely low interest rates suggest that the domestic part of the economy will continue to expand.
GDP	0.5	1.4	
Inflation	1.6	1.9	
US Economy			The US economy continue growing at a strong and above-trend pace but at a slightly slower rate. Economic growth should be supported by strong domestic consumption and capital expenditures. Tax cuts and fiscal spending should act as a tailwind and should support the economy throughout the year. Escalation of trade disputes leading to higher tariffs, could provide a material downside risk. We expect the Federal Reserve to hike its policy rate twice in 2019 to up to 2.875 %.
GDP	**2.5**	2.9	
Inflation	**1.6**	2.4	
Japanese Economy			The Japanese economy is likely to be negatively impacted by slower capital expenditure and decelerating investment growth as well as the impact of the increase in consumption taxes. These negative effects should be partly offset by higher public spending. We expect net exports to be a minor headwind to GDP growth, although exports could positively surprise in the event of successful trade negotiations between the US and Japan at the start of 2019.
GDP	**0.4**	0.7	
Inflation	**0.6**	1.0	
Asian Economy[3]			Asian economies are expected to lose growth momentum but still remain the power-house of world trade. The focus will be on China and export oriented economies such as Singapore, and Taiwan. Although a US-China trade deal would improve their growth prospects, an unexpected imposition of auto tariffs by the US would thwart those positive effects. We expect India to continue its economic catching-up process.
GDP	**5.7**	6.2	
Inflation	**2.5**	2.6	
Of which: Chinese Economy			The Chinese economy is likely to be driven by slower growth in the property market, weaker consumer sentiment and the US-China trade war. The negative impacts should be partly offset by expected tax cuts, easing of property regulations and an increase in the credit supply. Two more cuts in the reserve requirement ratio should also be supportive. Inflation is forecasted to increase to 2.4 % in 2019.
GDP	6.1	6.6	
Inflation	2.4	2.1	

The uncertainty in our global forecasts remains relatively high. Brexit, Italian political and economic developments, protests in France and the European Parliament election as well as an escalation of the trade war, in particular between China and the US, remain as key risks. Discussion deadlock in the UK parliament over the Brexit withdrawal agreement continues and may potentially lead to a 'no-deal' Brexit. A disorderly Brexit could aggravate the already uncertain economic outlook in the UK and Europe and hamper growth. In Continental Europe, the confrontation between Italy and the European Commission, an escalation of the "Yellow Vest" movement in France, or uncertainties around upcoming European Parliamentary elections could heighten volatility and harm eurozone growth. The global trade war is the key event on the global stage. A failure to secure a trade deal between the US and China, the imposition of additional tariffs in the automobile sector as well as on remaining China imports, or an escalation of conflicts beyond trade, could further reduce growth.

The banking industry

The greatest risks to the global banking industry in 2019 are likely to materialize if political issues create a sustained slowdown in macroeconomic growth. In the US, the trade disputes with China and Europe continue to simmer, and the fact that different political parties have majorities in the two respective houses of the US Congress have significantly increased the risk of political and government gridlock. Europe faces the prospect of a ‘no deal’ Brexit. It is also possible that Italy's populist government may take renewed action leading to increased uncertainty and volatility on the financial markets.

In Europe, the banking industry is expected to see a more challenging environment in 2019, slowing macroeconomic growth, the risks surrounding Brexit, and a potential decline in exports on any trade war. In addition, the banks' net interest income remains under pressure from zero and negative interest rates and a major shift in policy seems unlikely this year. Based on our current macroeconomic forecasts, business and household lending should continue at a moderate pace.

The conditions in Germany are comparable to those faced by European banks in general, although the indicators are somewhat more favorable overall. Asset quality is expected to remain solid with robust lending growth, even amidst a slight economic downturn. Similar earnings problems to those faced overall in Europe, primarily in terms of interest, and even greater difficulties in achieving solid profitability.

In the US, banks are facing a considerably more positive outlook. The economic slowdown will likely be less pronounced than in Europe, and unlike the ECB, the Federal Reserve is expected to continue raising interest rates, one of the main drivers for increases in revenues and profits.

The outlook for Chinese banks will depend on how acutely the trade dispute affects economic growth and the extent to which the government reacts with stimulus programs, which generally also involve increased lending. In the absence of any major distortions, the pace of lending growth could decline slightly from the relatively high levels in 2018. In Japan, there are no signs of fundamental change in the traditional banking business, with moderate lending growth likely to continue.

In Europe, the negotiations between the EU and the UK on the withdrawal agreement concluded in 2018 which was later rejected by the UK parliament. Whether a withdrawal agreement will eventually be reached and ratified will determine whether or not a transition period is implemented. The discussions on the future relationship between the EU and the UK will be impacted by the outcome of this process. Uncertainty on the regulation of cross-border business is likely to continue through 2019. In Europe, regulators are working to finalize outstanding legislative packages before the election of the next European Parliament in May 2019. One of these main packages focuses on Risk Reduction and includes Basel standards such as the Net Stable Funding Ratio (NSFR), Leverage Ratio (LR), Interest Rate Risk in the Banking Book (IRRBB), Large Exposures (LE) and Total Loss Absorbing Capacity (TLAC). The mandate of the current European Commission will end in October 2019. A newly installed College of Commissioners will then work on establishing the new five year work programme which will define new priorities for EU financial services regulators. We expect EU policy-makers to be focused on growth and the development of EU financial markets following Brexit.

The Deutsche Bank

Deutsche Bank AG as the parent company of the Group defines the strategy and planning for the individual Group Divisions. Deutsche Bank participates in the results of the Group Divisions through own activities and profit distribution from subsidiaries. The following outlook encompasses therefore all Group Divisions and is not limited to the parent company. In addition, financial key performance indicators are solely defined on Group level.

The Deutsche Bank Group

In 2019, we intend to build on the progress made last year to pursue our near-term operating targets for adjusted costs and employees. We are also working towards our 2019 Post-tax Return on Average Tangible Equity target. Achieving our near-term Post-tax Return on Average Tangible Equity target requires amongst other things growth in our more market-sensitive businesses, which will in part depend on market conditions. Market conditions have improved as compared to those experienced in the fourth quarter of 2018, however, are somewhat weaker than we had anticipated. We aim to achieve our other key performance indicators over time, consistent with becoming a simpler and safer bank.

Our most important key performance indicators are shown in the table below:

Key performance indicators

	Dec 31, 2018	Target KPI
Near-term operating targets		
Post-tax Return on Average Tangible Equity[1]	0.5 %	2019: greater than 4 %
Adjusted costs[2]	€ 22.8 bn	2019: € 21.8 bn
Employees[3]	91,737	2019: below 90,000
Long-term operating target		
Post-tax Return on Average Tangible Equity[1]	0.5 %	circa 10 %
Capital targets		
CRR/CRD 4 Common Equity Tier 1 capital ratio[4]	13.6 %	above 13.0 %
CRR/CRD 4 leverage ratio according to transitional rules (phase-in)[5]	4.3 %	4.5 %

1 Based on Net Income attributable to Deutsche Bank shareholders. For further information, please refer to “Supplementary Information (Unaudited): Non-GAAP Financial Measures” of our Annual Report 2018.
2 Adjusted costs are noninterest expenses excluding impairment of goodwill and other intangible assets, litigation and restructuring and severance. For further information please refer to “Supplementary Information (unaudited): Non-GAAP Financial Measures” of our Annual Report 2018.
3 Internal full-time equivalents.
4 Further detail on the calculation of this ratio is provided in the Risk Report.
5 Further detail on the calculation of the CRR/CRD 4 leverage ratio according to transitional rules (phase-in basis) is provided in the Risk Report.

We are committed to working towards a target for our Post-tax Return on Average Tangible Equity of greater than 4 % in 2019.

For 2019, we expect revenues to be slightly higher compared to 2018. We aim to improve revenue in particular through investment in targeted growth areas including through loan and volume growth as well as through liquidity and balance sheet optimization and redeployment. Our outlook reflects our expectation of a solid global macroeconomic growth in 2019, with growth in the US specifically remaining strong, and no material distortions in foreign exchange rates.

We are committed to reducing our adjusted costs in 2019 to € 21.8 billion. We aim to reduce our internal workforce to below 90,000 full-time employees by year-end 2019. We expect to benefit from the run-rate impact of measures executed in 2018, as well as from the impact of Postbank integration and from the exit of retail business in Portugal. We will continue to address structural cost issues and optimize processes. Over time, we aspire to achieve a Post-tax Return on Average Tangible Equity of approximately 10 %, in a normalized environment and on the basis of the achievement of our cost targets.

We expect to benefit from a more normalized tax rate, and assume an increase in provision in credit losses in 2019 compared to last year.

We expect our CRR/CRD 4 Common Equity Tier 1 capital ratio to be negatively impacted by pending supervisory assessments but to remain above 13 % throughout the year 2019. We expect our CRR/CRD 4 leverage ratio (phase-in) to remain above 4 % in 2019. Absent supervisory adjustments, we anticipate year-end 2019 risk weighted assets (RWA) to stay essentially flat and CRR/CRD 4 leverage exposure to be slightly higher compared to year end 2018. With the transition to IFRS 16 as of January 1, 2019, we expect to see a further decline in our CRR/CRD 4 Common Equity Tier 1 capital ratio of approximately 20 basis points as we recognize certain lease contracts on our balance sheet.

We target a competitive dividend payout ratio. Our dividend payments are subject to our ability to maintain sufficient levels of distributable profits under our standalone financial statements in accordance with German accounting rules (HGB) for the respective fiscal year.

By the nature of our business, we are involved in litigation, arbitration and regulatory proceedings and investigations in Germany and in a number of jurisdictions outside Germany, especially in the US. Such matters are subject to many uncertainties. While we have resolved a number of important legal matters and made progress on others, we expect the litigation and enforcement environment to remain challenging in the short term. Litigation expenses in 2018 were relatively low as a result of our successful efforts in resolving a number of matters at or below estimated provisions. For 2019, and with a caveat that forecasting litigation expense is subject to many uncertainties, we expect litigation expense to be significantly higher than in 2018.

Our business segments

Corporate & Investment Bank (CIB)

CIB's aim is to provide efficient and seamless client coverage for our offering of investment and transaction banking products and services for corporate and institutional clients and thereby generate attractive returns for our shareholders.

After completing the targeted headcount and resource reductions as part of our strategic reshaping in 2018, the division's focus is now on revenue growth in 2019. We expect CIB revenues to be slightly higher this year compared to the prior year. CIB should also benefit from the Group wide re-deployment of excess liquidity into higher-yielding assets, which is expected to reduce liquidity-related funding costs.

For Global Transaction Banking, we expect revenues adjusted for a gain on sale in 2018 to be slightly higher in 2019 compared to the prior year, due to the benefits from expected interest rate increases in the US, in addition to treasury and deposit initiatives. We expect Trade revenues to be higher, driven by increased income from structured transactions. Cash Management revenues are expected be higher from net interest income growth and deposit initiatives. Trust and Agency and Securities Services revenues adjusted for the aforementioned gain on sale are expected to be slightly lower.

Origination & Advisory revenues are expected to be higher in 2019 year over year, driven by market share growth. We expect Debt Origination revenues to be higher as the business aims to build on the market share gains achieved during 2018 especially in Leveraged Finance, combined with an intensified focus on Investment Grade acquisition financing. Equity Origination revenues are also expected to be higher year over year with a renewed focus on initial public offerings and acquisition financing. Advisory revenues are expected to be essentially flat in 2019 compared to 2018.

We expect Sales & Trading Fixed Income and Currencies (FIC) revenues to be higher in 2019 compared to 2018 driven by an expected increase in client activity levels and a more favorable trading environment after difficult conditions, especially in the fourth quarter. Revenues in FIC should also benefit from improved client coverage provided by the integrated Institutional and Treasury Coverage Group, targeted resource deployment in Credit, an increased focus on cross-selling with GTB and the aforementioned lower funding costs as a result of re-deployment of the Group's excess liquidity.

Sales & Trading Equity revenues are expected to be slightly higher in 2019 compared to 2018. Equity Trading is expected to benefit from platform stabilization and investment in electronic trading platforms. We expect Equity Derivatives to see growth in structured products from funding optimization, targeted hires and system investment. Within Prime Finance, a focus on client balances and spreads in addition to the aforementioned lower funding costs as a result of re-deployment of the Group's excess liquidity are expected to drive higher revenues.

Noninterest expenses for 2019 are expected to be essentially flat. Costs excluding litigation, severance and restructuring and goodwill impairment are expected to be slightly lower, driven by lower non-compensation costs and reduced infrastructure related costs. In 2019, we expect CIB to benefit from the full-year run-rate impact of the headcount reductions in 2018. Further expense management initiatives in 2019 are focused on middle and back office functions. For 2019, we expect RWA in CIB to be essentially flat as targeted Credit Risk RWA increases should be offset by reduced Market Risk RWA and slightly lower Operational Risk RWA. We continue to focus on regulatory compliance, know-your-client (KYC) and client on-boarding process enhancement, system stability and control and conduct.

Risks to our outlook include potential impacts on our business model from Brexit and other macro and global geopolitical uncertainty. Risks regarding a potential deterioration of international trade relations cause further concerns. Uncertainty around central bank policies, ongoing regulatory developments (e.g. Basel III framework agreement) also pose risks, while challenges such as event risks and levels of client activity may also have an adverse impact.

Private & Commercial Bank (PCB)

PCB provides private, corporate and wealth management clients with a comprehensive range of products from standard banking services to individual investment and financing advice. We intend to keep our focus on the transformation and growth of our core businesses in 2019. In our German home market, we aim to continue the execution of our integration plans within DB Privat- und Firmenkundenbank AG and to deliver synergies and savings potential from the merger transaction. In our Private and Commercial Business (International), we will also execute identified measures consistent with the bank's strategy. The sale of our retail banking business in Portugal is well on track and envisaged to be closed in the first half of 2019. In our remaining countries, we intend to continue the transformation of our businesses with the objective to improve client coverage and efficiency. In our global Wealth Management business, our emphasis will be on further transforming and growing our global presence by hiring relationship managers in key markets. We also plan to continue to invest in our digital technologies across all business units.

Our financial outlook for 2019 assumes that net revenues remain essentially flat compared to 2018, with two opposing trends. The year-over-year revenue development will be negatively impacted by lower specific items, which we do not expect to repeat in the same magnitude as in 2018. We also expect the margin pressure on our deposit products to continue in the ongoing low interest rate environment and that our revenue base declines associated with our business divestitures in Poland and Portugal. However, we expect to be able to compensate for these negative factors with growth in our investment and loan businesses. In the investment businesses, we plan to grow net new assets, continue to hire relationship managers in core markets and expect to be able to leverage pricing opportunities in a normalizing market environment. In the loan businesses, we plan to benefit from the growth achieved in 2018 and target to further accelerate growth in 2019 within our existing tight risk management framework and with a focus on consumer and commercial loans.

Associated with this growth in our loan businesses, we expect higher provision for credit losses and RWA in 2019. The increase in RWA will also reflect the implementation of regulatory changes including effects from the ECB's targeted review of internal models. Assets under management are expected to be slightly higher in 2019, in line with our growth initiatives and slightly offset by a deconsolidation impact subsequent to the announced disposal of our business in Portugal.

We expect noninterest expenses and adjusted costs in 2019 to be slightly lower compared to 2018. The decline will be driven by further savings from our executed reorganization measures, including the merger of Deutsche Bank Privat- und Geschäftskunden AG and Postbank and the impact of our business divestitures in Poland and Portugal. Savings will be offset in part by inflationary effects and by continued investments in targeted growth initiatives, including the further development of our digital technologies and the further expansion of our Wealth Management franchise.

Specific risks to our outlook are slower economic growth in our major operating countries, a delayed or less pronounced interest rate recovery than expected, and lower client activity in the investment business. Client activity could be affected by adverse developments or market uncertainties, including higher than expected volatility in equity and credit markets. The implementation of regulatory requirements including consumer protection measures and delays in the implementation of our strategic projects could also have a negative impact on our revenues and costs.

Asset Management (AM)

We believe that AM, with its strong and diverse investment capabilities, is well positioned to address the challenges facing the industry and capture opportunities.

Developing economies are growing and increasing in wealth, offering new opportunities for managers as local investors expand their investment horizons globally. In developed markets, low interest rates are causing a shift from unmanaged assets, such as cash and deposit accounts, into managed portfolios. New digital technology, such as robo-advisory, is enhancing distribution capabilities giving investors online access, while the wider adoption of artificial intelligence is expanding product choice and enhancing performance. Asset managers are playing a progressively larger role in providing capital to the economy, taking advantage of bank retrenchment due to regulatory and capital constraints and diminished ability of national governments to fund infrastructure investment. However, pressure on fees and costs will persist, in an environment of heightened competition and growing regulatory and compliance requirements.

Over the medium term, the industry's global assets under management are expected to substantially increase, 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. Due to its capabilities in active and passive products, alternative investments and multi asset solutions, we believe that AM is well-positioned to grow market share amid these industry growth trends. While AM's digital capabilities are also creating new channels for it to distribute products and services, bottom line results are expected to be challenged by fee compression, rising costs of regulation and competitive dynamics. In the face of this challenge, AM intends to focus its growth initiatives on products and services where it has a competitive advantage, while also maintaining cost discipline.

We expect assets under management at the end of 2019 to be higher compared to the end of 2018. Net flows are expected to be positive across all major asset classes driven by passive products, alternative investments and multi asset solutions, thereby contributing to the flow target of 3 %-5 % per annum.

We expect 2019 revenues to be essentially flat compared to 2018. Management fees are assumed to be essentially flat compared to 2018 reflecting anticipated assets under management growth, offset by margin compression, the unfavorable impact from net outflows in 2018 as well as the most recent market downturn during the fourth quarter of 2018. Performance and transaction fees are expected to be lower than 2018, contributing 3 % to 5 % of our total net revenues. Other revenues are expected to be significantly higher mainly driven by lower funding costs. While we remain constructive on equity markets, we anticipate the management fee margin to be further challenged following one of the worst equity performances ever in December 2018.

In 2019, we intend to continue to keep our focus on tight cost management, with the aim of achieving reduced noninterest expenses and cost income ratio (CIR), together with slightly lower adjusted costs. We are on track to achieve our mid-term CIR target of below 65 %.

Risks to our outlook include the longevity of the bull market, continued low interest rates in developed markets, the pace of growth in emerging economies growth and increase in wealth, as well as the increasing demand for retirement products in developed countries aging populations. Continued elevated levels of political uncertainty worldwide, protectionist and anti-trade policies, and the United Kingdom's decision to leave the European Union could have unpredictable consequences in the economy, market volatility and investors' confidence, which may lead to declines in business and could affect our revenues and profits as well as the execution of our strategic plans. In addition, the evolving regulatory framework could lead to unforeseen regulatory compliance costs and possible delays in the implementation of our efficiency measures due to jurisdictional restrictions, which could have an adverse impact on our cost base.

Risks and opportunities

The following section focuses on future trends or events that may result in downside risk or upside potential from what we have anticipated in our “Outlook”.

Our aspirations are subject to various external and internal factors. In particular, timely and complete achievement of our strategic aspirations may be adversely impacted by the reduced revenue-generating capacities of some of our core businesses in the current challenging macro-economic and market environment, the ongoing headwinds posed by regulatory reforms and/or the effects on us of our legal and regulatory proceedings. Materialization of risks might (inter alia) lead to reduced profitability negatively affecting capital accretion and dividend capacity, the opposite would most likely hold true for the materialization of opportunities.

Risks

Macroeconomic and market conditions

If growth prospects, the interest rate environment and competition in the financial services industry worsen compared to the expectation in our outlook, this could adversely affect our business, results of operations or strategic plans.

Rising trade tensions between key trading partners (United States (US), China and the European Union (EU)) could be disruptive for global growth. A further escalation of US protectionism could lead to a rise in global tariffs and non-tariff barriers, affecting global trade and investment. Supply-chain disruptions would lead to a slowdown in global production, with Germany, China and other emerging markets being hit particularly hard, potentially leading to declines in business levels (e.g., in Global Transaction Banking) and losses across our businesses.

The euro area economy and Germany as well as Italy in particular have already entered a cyclical economic slowdown and 2019 GDP growth forecasts have been revised downwards mainly to reflect the deterioration of the external environment. The growth outlook could worsen further if downside risks like a severe trade war escalation or a “no-deal” Brexit materialized.

Continued elevated levels of political uncertainty, e.g. due to populist movements in major European Union member states, could have unpredictable consequences for the financial system and the economy more broadly 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.

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

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.

Adverse market conditions, unfavorable prices and volatility including material movements in foreign exchange rates (and resulting translation effects) as well as cautious investor and client sentiment may in the future materially and adversely affect our revenues and profits as well as the timely and complete achievement of our strategic aspirations and targets.

The direct costs and related business impacts described in this section and in our Outlook, should they be significantly greater than we currently expect, could impact the “available distributable items” (ADI) calculation for Deutsche Bank AG, which forms the basis for payment capacity on our Additional Tier 1 (AT1) securities. If Deutsche Bank AG’s stand-alone results in accordance with German accounting rules according to the German Commercial Code (Handelsgesetzbuch, HGB) do not provide sufficient ADI, this would impact our ability to make distributions on our AT1 instruments. This could lead to higher funding costs for us and adversely affect market perceptions of us, with potential adverse effects on our results of operations and financial condition. Such impacts may also put increasing pressure on our capital, liquidity and other regulatory ratios. Also, if we do not report sufficient levels of distributable profits under our stand-alone financial statements in accordance with HGB, this would impact our ability to pay common equity dividends.

Any further downgrade in our credit rating could adversely affect our funding costs and business activities, although we are unable to predict to what degree this would be the case.

Political risks

Our key political risk, among other political risks, is Brexit. The overall macro-economic impact of the United Kingdom's (UK) decision to leave the EU is difficult to predict and depends on whether or not a withdrawal agreement can be reached. In general, we expect a prolonged period of uncertainty regarding the UK's future status with the EU to weigh on investment spending and economic growth. Particularly in a no-deal scenario, we could see higher market volatility and a more pronounced negative impact on economic growth in the UK and, to a lesser extent, the EU. But even in the EU, some countries and sectors would be more affected than others depending on the level of trade and supply chain integration with the UK. In addition, European banks may be exposed to heightened operational and market risks as a result of "no-deal" Brexit. In certain scenarios there would be uncertainty around continuity of contracts or related to contract life cycle events. Due to the continued legal and regulatory uncertainty, we will not be able to fully mitigate all potential "no deal" Brexit risks such as e.g., increased operational risks from accelerated client migrations and more complex interim booking models. A dedicated governance structure is in place to oversee our Brexit preparations, including management of operational and strategic issues arising from a "no deal" outcome.

Strategy

If we are unable to implement our strategy successfully including the sale of assets, which is also subject to the previously mentioned factors, we may be unable to achieve our financial objectives, or we may incur losses or low profitability or erosion of our capital base, and our financial condition, results of operations and share price may be materially and adversely affected.

Liquidity and funding risks

Our liquidity, business activities and profitability may be adversely affected by an inability to access the debt capital markets, funds from our subsidiaries or to sell assets during periods of market-wide or firm-specific liquidity constraints. 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.

Further credit rating downgrades have contributed to an increase in our funding costs. Our elevated spread levels are sensitive to further adverse developments and any future downgrade could bring our credit rating into the non-investment grade category. This could materially and adversely affect our funding costs, the willingness of customers to continue to do business with us and significant aspects of our business model. 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.

Regulatory supervisory reforms, assessments and proceedings

The regulatory reforms enacted and proposed in response to weaknesses in the financial sector together with the increased regulatory scrutiny and discretion such as the comprehensive package of reforms published by the European Commission in 2016 to further strengthen the resilience of the European Union banks will impose material costs on us, create significant uncertainty for us and may adversely affect our business plans as well as our ability to execute our strategic plans. Those changes that require us to maintain increased capital may significantly affect our business model, financial condition and results of operation as well as the competitive environment generally. Other regulatory reforms, such as bank levies, may also materially increase our forecasted operating costs. Regulatory reforms in respect of resolvability or resolution measures may also significantly impact our business operations, and lead to losses for our shareholders and creditors.

Regulators can also impose capital surcharges or regulatory adjustments, for example, as a result of the annual Supervisory Review and Evaluation Process (SREP), to reflect additional risks posed by deficiencies in our control environment, or as a result of supervisory inspections concerning the treatment of specific products or transactions. The ECB has used these powers already in its SREP Decision and may continue to do so to address findings from onsite inspections. In extreme cases, they can even suspend our permission to operate within their jurisdictions. Furthermore, implementing enhanced controls may result in higher regulatory compliance costs that could offset or exceed efficiency gains. Regulators may disagree with our interpretation of specific regulatory requirements when interpretative matters are discussed as part of our ongoing regulatory dialogue or in the context of supervisory exams. Changes in rule interpretations can have a material impact on the treatment of positions for Pillar 1 regulatory purposes. Similarly, the evolving interpretations of the European Banking Authority (EBA) on the Capital Requirements Regulation (CRR) can also negatively impact our regulatory capital, leverage or liquidity ratios.

Legal and tax proceedings

We are subject to a number of legal proceedings and tax examinations. The outcome of these proceedings is difficult to estimate and may substantially and adversely affect our planned results of operations, financial condition and reputation. If these matters are resolved on terms that are more adverse to us than we expect, in terms of their costs or necessary changes to our businesses, or if related negative perceptions concerning our business and prospects and related business impacts increase, we may not be able to achieve our strategic objectives or we may be required to change them.

Compliance and anti-financial crime risks

We are also subject to regulatory reviews and investigations, the outcome of which is difficult to estimate and which may substantially and adversely affect our planned results of operations, financial condition and reputation. For example, on September 21, 2018, the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, “BaFin”) issued an order requiring us to implement measures on specified timelines over the coming months and years to improve our control and compliance infrastructure relating to anti-money laundering and, in particular, the know-your-client (KYC) processes in CIB, and appointed KPMG as special representative, reporting to BaFin on a quarterly basis on certain aspects of our compliance and progress with implementation of these measures. In addition, the BaFin extended the special representative’s mandate to cover the bank’s internal controls in the correspondent banking business on February 15, 2019. Our anti-money laundering and KYC processes, as well as our other internal processes that are aimed at preventing use of our products and services for the purpose of committing or concealing financial crime and our personnel responsible for our efforts in these areas, continue to be the subject of scrutiny by authorities in a number of jurisdictions. If we are unable to significantly improve our infrastructure and control environment in a timely manner, our results of operation, financial condition and reputation could be materially and adversely affected.

Risk management policies, procedures and methods as well as operational risks

Although we have devoted significant resources to develop our risk management policies, procedures and methods, including with respect to market, credit, liquidity and operational risk, they may not be fully effective in mitigating our risk exposures in all economic market environments or against all types of risk, including risks that we fail to identify or anticipate.

We may face operational risks arising from failures in our internal control environment or errors in the performance of our processes, e.g. in transaction processing, as well as loss of business continuity, which may disrupt our business and lead to material losses.

In addition, we are also exposed to conduct risk, comprising 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. An employee’s misconduct reflecting fraudulent intent may lead to not only material losses but also reputational damage.

Impairment of goodwill and other intangible assets

Goodwill is reviewed for impairment annually or more frequently if there are indications that impairment may have occurred.

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. These assets are tested for impairment or their useful lives reaffirmed at least annually.

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. These estimates and assumptions could result in significant differences to the amounts reported if underlying circumstances were to change. Impairments of goodwill and other intangible assets have had and may have a material adverse effect on our profitability and results of operations.

Deferred tax assets

We recognize deferred tax assets 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. To the extent that it is no longer probable that sufficient taxable income will be available to allow the benefit of part or all of that deferred tax assets to be utilized we have to reduce the carrying amounts. This accounting estimate related to the deferred tax assets depends upon underlying assumptions that can change from period to period and requires significant management judgment. Each quarter, we re-evaluate our estimate related to deferred tax assets, including our assumptions about future profitability. Any reductions in the amount of deferred tax assets from a change in estimate have had and may in the future have material adverse effects on our profitability, equity and financial condition.

Digitalization

Digitalization offers new competitors such as cross-industry entrants or financial technology companies market entry opportunities. We thereby expect our businesses to have an increased need for investment in digital product and process resources to mitigate the risk of a potential loss of market share. In addition, with increasing levels of digitization, the ubiquitous access to banking services and the advent of new computing techniques, cyber-attacks could lead to technology failures, security breaches, unauthorized access, loss or destruction of data or unavailability of services. Any of these events could involve us in litigation or cause us to suffer financial loss, disruption of our business activities, liability to our customers, government intervention or damage to our reputation, whereas the cost of managing these cyber and information security risks remain high. Furthermore we face the challenge to embrace and incorporate new, disruptive technologies in conjunction with existing technological architecture.

Specific considerations for Deutsche Bank AG

For Deutsche Bank AG as a solo entity reporting under HGB, there are additional risks compared to the Group plan based on IFRS that certain transactions in a given year lead to higher losses or lower profits in a given year than in the Group financial statements. The following items carry significant risk in this respect:

- Potential valuation adjustments of investments in affiliated companies, driven by local economic environment, increased local regulatory requirements, restructuring or changes of share prices of listed investments.
- Increase in long-term provisions, especially pension obligations, despite rises in interest rate levels caused by the discounting with average interest rates according to section 253 par. 2 German Commercial Code.
- Negative valuation adjustments to plan assets, especially in an environment of rising interest rate levels. Due to the above mentioned valuation methodology there might be no offsetting effect from lower pension obligations if interest rates are rising.
- Potential requirement to set up a provision according to German accounting pronouncement IDW RS BFA 3 in case the interest bearing banking book does not generate an interest margin sufficient to cover expected credit risk costs and administrative expenses. A persisting low interest rate environment and the expense of coupons on the AT1 instruments under HGB increase this risk.
- In case AT1 coupons cannot be serviced due to insufficient available distributable items, under HGB in a given year, this could lead to higher funding cost for Deutsche Bank AG.

In addition there is the risk that, other than in the past, profits or retained earnings from affiliated companies do not allow for sufficient dividend payments to cover completely losses recognized in Deutsche Bank AG.

Opportunities

Macroeconomic and market conditions

Should economic conditions, such as GDP growth, the interest rate environment and competitive conditions in the financial services industry improve beyond forecasted levels, this could lead to increasing revenues that may only be partially offset by additional costs, thus improving both income before income taxes and cost-income ratio directly and subsequently improving regulatory measures such as CET 1 and leverage ratio.

A resolution of the current tensions between the US and China would boost global trade and growth, at least in the short term.

Another upside scenario is an even better than expected performance of the US economy, e.g. if fiscal policy measures and the tight labor market lift productivity growth and hence the potential growth rate of the economy.

If market conditions, price levels, volatility and investor sentiment develop better than expected, this may also positively impact our revenues and profits. Similarly, if we experience higher levels of customer demand and market share than anticipated, this may positively affect our results of operations.

Regulatory change

Regulatory change can encourage banks to provide better products or services that can offer opportunities for differentiation in the marketplace. For example, MiFID II requires firms to provide a high standard of transparency and best execution and will provide Deutsche Bank the opportunity to further differentiate the bank by enhancing the services provided to its clients.

Strategy

Our strategy seeks to enable us to materially improve returns to shareholders over time and deploy our balance sheet and other resources to the highest return activities consistent with our client franchise and risk appetite. The implementation of our strategy may create further opportunities if implemented to a greater extent or under more favorable conditions than anticipated. If businesses and processes improve beyond our planning assumptions and cost efficiencies can be realized sooner or to a greater extent than forecasted, this could also positively impact our results of operations.

By investing in our areas of core strengths we expect to pursue our strategy of targeted growth. Within the Corporate & Investment Bank we seek to continue to grow revenues in Global Transaction Banking and FX to bolster our core franchise. Similarly we anticipate implementing a targeted hiring strategy in fixed income and debt origination. For the Private and Commercial Bank, our focus remains on consumer finance and our Mittelstand customer segment, and on seeking growth within Wealth Management core markets. Asset Management, including the DWS legal entities, have set a strategy to pursue with targeted growth in Americas and Asia and anticipate launching new products in active, alternatives and responsible investing.

Digitalisation

Digitalization offers various revenue opportunities to increase monetization on existing and acquire new customer groups by expanding our own portfolio of products and engaging in product partnerships with third parties, thereby potentially benefiting from a shorter time-to-market. Market trends such as the platform economy, matching internal and external products with customer demands and transacting through one central platform, and open banking provide a clear opportunity for us to position ourselves as a strong player in these ecosystems. The goal is to develop an ecosystem of comprehensive services, with different components developed by different firms for areas like retail deposit marketplace, automated financial planning services (robo-advisor), and insurance recommendation services. Furthermore, we have an opportunity to expand our data capabilities, to improve personalized services for a better customer experience as well as to embrace disruptive technologies such as artificial intelligence to build out our service offering. Our large geographic outreach allows us to scale products globally. Particularly in the Private & Commercial Bank, we intend to build an ecosystem by accelerating digital growth in our core offering of consumer and investment products, as well as tap into additional markets with new near- and beyond banking offerings.

On the cost side, digitization offers our divisions an opportunity for significant efficiency gains. By investing in digital applications such as digital client self-boarding, front-to-back processes can be automated and the productivity increased. Development of strong data capabilities will enhance our ability to make accurate predictions about client and market behavior, reducing fraud and pricing products more efficiently, while complying with regulatory obligations using latest technologies.

Specific considerations for Deutsche Bank AG

For Deutsche Bank AG as a solo entity reporting under HGB, there are additional opportunities compared to the Group plan based on IFRS that certain transactions are reported in a more beneficial manner than for the Group under IFRS in a given year.

In addition, there is the possibility that Deutsche Bank AG as parent entity shows higher profits in a given year compared to its contribution to the group net income, based on the profit distribution pattern from affiliated companies.

Risk report

The risks of Deutsche Bank AG within the Group

The impact of the risks on Deutsche Bank AG cannot be isolated from the effects on Deutsche Bank's other separate legal entities. There are several reasons for this:

– The Group's internal structure according to Group Divisions follows its customers' needs. The external legal structure is determined by local legislation and therefore does not necessarily follow the internal structure. For example, local legislation can determine whether the Group's business in a certain country is conducted by a branch of Deutsche Bank AG or by a separate subsidiary. However, the management has to monitor the risks in the bank's business – irrespective of whether it is transacted by a branch or a subsidiary.
– Adequate risk monitoring and management requires knowledge of the extent to which the Group's profit situation depends on the development of certain risk factors, i.e. on the creditworthiness of individual customers or securities issuers or on movements in market prices. The respective exposures therefore need to be analyzed across legal entities. Especially for the credit risk attached to a borrower, it is fairly irrelevant whether the credit exposure to a company is spread over several Group companies or concentrated on Deutsche Bank AG. Separate monitoring of the risk affecting Deutsche Bank AG alone would neglect the potential hazard facing the Group and, indirectly, Deutsche Bank AG – as the parent – if the company became insolvent.
– Individual risk factors are sometimes correlated, and in some cases they are independent of each other. If estimates of the nature and extent of this correlation are available, the Group's management can greatly reduce the overall risk by diversifying its businesses across customer groups, issuers and countries. The risk correlation is also independent of the Group's legal and divisional structure. The management can therefore only optimize the risk-mitigating effects of diversification if it manages them Group-wide and across legal entities.

For the reasons mentioned, the identification, monitoring and management of all risks in Deutsche Bank AG are integrated into the Group-wide risk management process. In so far, all amounts provided in this risk report refer to Deutsche Bank Group, if not otherwise specified.

Via the compliance on Group level, DB AG adheres to the respective legal and regulatory requirements. For a more detailed discussion about the risk management within the Group network see the Group's risk report in the Group's Annual 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), Minimum Requirement for Own Funds and Eligible Liabilities (MREL), 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 MREL), and recovery and resolution planning practices, which are reviewed and approved by our Management Board at least annually. The CET 1, LR, Leverage Exposure, MREL, 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”). MREL is based on the Single Resolution Mechanism (SRM) regulation as well as respective communication by the Single Resolution Board (SRB). 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**	
31.12.2018	13.6 %	31.12.2018	€ 350.4 bn
31.12.2017	14.0 %	31.12.2017	€ 344.2 bn
Internal Capital Adequacy Ratio[1]		**Total Economic Capital[2]**	
31.12.2018	196 %	31.12.2018	€ 26.1 bn
31.12.2017	192 %	31.12.2017	€ 27.1 bn
Leverage Ratio		**Leverage Exposure**	
31.12.2018	4.1 %	31.12.2018	€ 1,273 bn
31.12.2017	3.8 %	31.12.2017	€ 1,395 bn
Minimum requirement for own funds and eligible liabilities (MREL)			
31.12.2018	11.1 %		
Liquidity Coverage Ratio		**Stressed Net Liquidity Position (sNLP)**	
31.12.2018	140 %	31.12.2018	€ 48.1 bn
31.12.2017	140 %	31.12.2017	€ 32.6 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”.

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, 2018	Dec 31, 2017	2018 increase (decrease) from 2017 in € m.	in %
Credit risk	10,610	10,769	(159)	(1)
Market risk	10,341	10,428	(87)	(1)
Trading market risk	4,046	3,800	246	6
Nontrading market risk	6,295	6,628	(333)	(5)
Operational risk	7,359	7,329	30	0
Business risk	4,758	5,677	(918)	(16)
Diversification benefit[1]	(6,960)	(7,074)	114	(2)
Total economic capital usage	26,108	27,129	(1,020)	(4)

[1] Diversification benefit across credit, market, operational and strategic risk (largest part of business risk).

As of December 31, 2018, our economic capital usage amounted to € 26.1 billion, which was € 1.0 billion or 4 % lower than € 27.1 billion economic capital usage as of December 31, 2017.

The economic capital usage for credit risk as of December 31, 2018 was € 0.2 billion or 1 % lower compared to year-end 2017 mainly due to a lower counterparty credit risk component and smaller increases in settlement and transfer risk components. The change in counterparty credit risk is mainly due to reductions in exposures from derivatives and securities financing transactions, partly offset by increases in lending, whereas the increases for settlement and transfer risk are largely driven by model overlays related to changes in methodology.

The economic capital usage for trading market risk increased to € 4.0 billion as of December 31, 2018, compared to € 3.8 billion at year-end 2017. The increase was primarily driven by a model enhancement to better capture the tail risk in the stressed period, which was partly offset by a reduction in the traded default risk component due to reductions in inventory. The nontrading market risk economic capital usage decreased by € 0.3 billion or 5 % compared to December 31, 2017. The decrease was mainly driven by an accounting methodology change due to IFRS 9 becoming effective and diversification effects.

The operational risk economic capital usage totaled € 7.4 billion as of December 31, 2018, which was € 30 million or 0.4 % higher than the € 7.3 billion economic capital usage as of December 31, 2017. In line with the development of our RWA for operational risk, the increase was driven by several, largely offsetting effects. A lighter loss profile feeding into our capital model and a number of model improvements, mostly from recalibrations of data weights, reduced our capital demand for operational risk. The decrease has been compensated by our reduced budgeted expected losses for operational risk. For a detailed description see 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 decreased to € 4.8 billion as of December 31, 2018 which was € 0.9 billion or 16 % lower compared to € 5.7 billion as of December 31, 2017. The decrease is due to a lower economic capital usage for the strategic risk component of € 1.1 billion driven by a better earnings outlook in our plan for 2019 compared to the one for 2018 in the previous year which was partially offset by higher economic capital usage from IFRS deferred tax assets on temporary differences of € 0.1 billion.

The inter-risk diversification benefit of the economic capital usage across credit, market, operational and strategic risk decreased by € 0.1 billion mainly due to a lower economic capital usage for the strategic risk component.

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 total economic capital metric, which mirrors each business division’s risk profile and takes into account cross-risk effects at group level.

Risk profile of our business divisions as measured by economic capital

						Dec 31, 2018
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Asset Management	Corporate & Other	Total	Total (in %)
Credit Risk	6,340	3,537	52	681	10,610	41
Market Risk	4,760	1,124	370	4,088	10,341	40
Operational Risk	6,092	866	401	0	7,359	28
Business Risk	3,521	29	0	1,208	4,758	18
Diversification Benefit[1]	(5,371)	(933)	(231)	(424)	(6,960)	(27)
Total EC	15,341	4,623	592	5,552	26,108	100
Total EC in %	59	18	2	21	100	N/M

N/M – Not meaningful
[1] Diversification benefit across credit, market, operational and strategic risk (largest part of business risk).

						Dec 31, 2017[1]
in € m. (unless stated otherwise)	Corporate & Investment Bank	Private & Commercial Bank	Asset Management	Corporate & Other	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[2]	(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] Amounts allocated to the business segments have been restated to reflect comparatives according to the structure as of December 31, 2018.
[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 activities to support origination, structuring and market making activities, which gives rise to all major risk types. Credit risk is broadly distributed across business units but most prominent in Global Credit Trading, Rates, Trade Finance, and Leveraged Debt Capital Markets. The share of operational risk in CIB's risk profile reflects a high loss profile in the industry combined with internal losses and has only slightly increased compared to the year-end 2017. Market risk arises mainly from its trading and market making activities. The remainder of CIB's risk profile is derived from business risk reflecting earnings volatility risk. The economic capital usage for CIB decreased compared to the year-end 2017, mainly due to lower economic capital usage for the strategic risk component, primarily due to an updated strategic plan which reflected moderate improvement in planned operating income.

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, interest rate risk, including risk arising from modelling of client deposits and credit spread risk. There was no significant change for economic capital usage across credit, operational and strategic risk compared to the year-end 2017 and lower economic capital usage for market risk related to reductions in exposure to investment risk and interest rate risk.

Asset Management (AM), as a fiduciary asset manager, invests money on behalf of clients. As such, risk are primarily of a fiduciary nature and hence operationally driven. Nontrading market risk, however, does arise on guarantee products and co-investments in our funds. There was no significant change for economic capital usage compared to the year-end 2017.

Corporate & Other (C&O) mainly comprises nontrading market risk for structural foreign exchange risk, pension risk and equity compensation risk. The economic capital usage for credit and business risk increased compared to the year-end 2017 mainly due to a higher economic capital usage for transfer risk and IFRS deferred tax assets from temporary differences.

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. 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, and who own the risks that are generated in their respective organizations. The 1st LoD manages these risks within the defined risk appetite and ensures that organization, governance and structures are in place to identify, monitor, assess and accept or mitigate the risks they generate or are exposed to.
- 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 organization. The 2^{nd} 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 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 and are empowered and encouraged to act as risk managers. We expect employees to exhibit behaviors that support a strong risk culture in line with our Code of Conduct. To promote this, our policies require that risk-related behavior is taken into account during our performance assessment and compensation processes. This expectation continues to be reinforced through communications campaigns and mandatory training courses for all DB employees. 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.

A standards-based assessment of risk culture, in particular focusing on risk awareness, risk ownership and management of risk within risk appetite has been undertaken. 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.

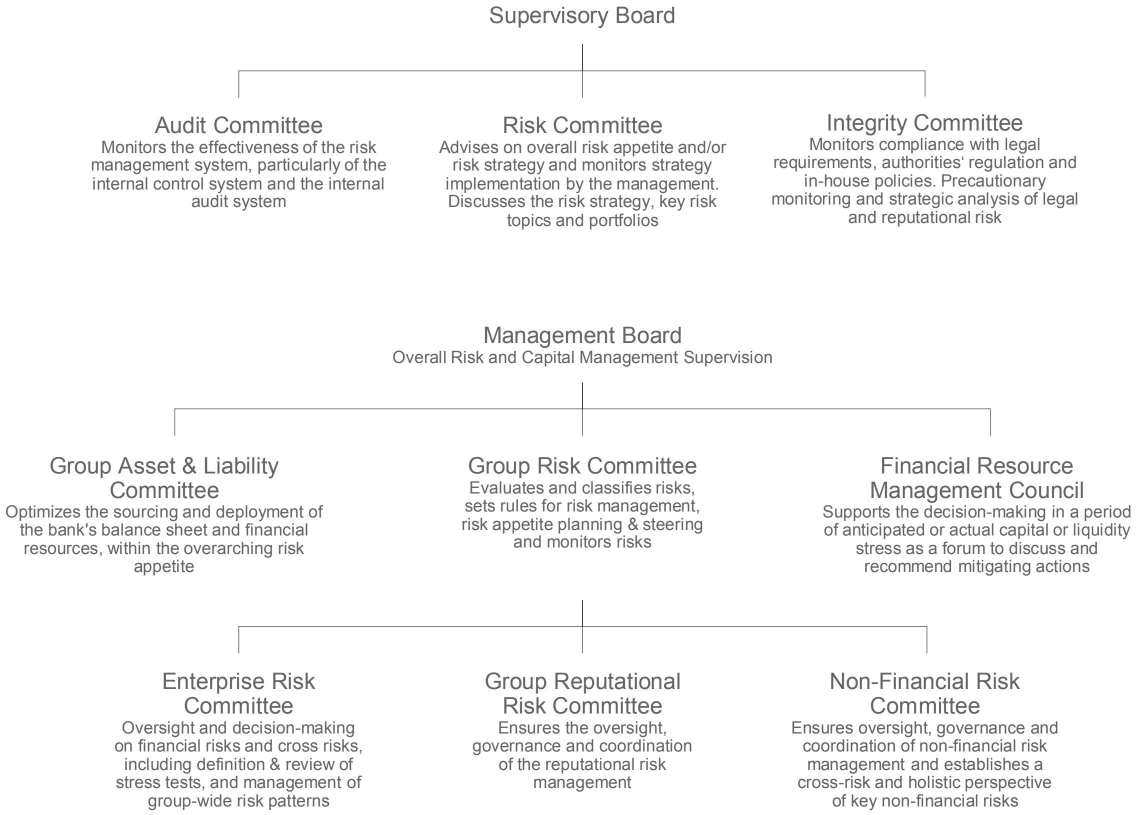
Risk governance

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.

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 high-level risk portfolios, risk exposure developments, and internal and regulatory Group-wide stress testing results, and monitoring of risk culture across the Group. The GRC sets 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, including conduct and financial crime risk. It is tasked to define the non-financial risk appetite tolerance framework, to monitor and control the effectiveness of the non-financial risk operating model (including interdependencies between business divisions and control functions), and to monitor the development of emerging non-financial risks relevant for the Group.
- The Group Reputational Risk Committee (GRRC) is responsible for the oversight, governance and coordination of reputational risk management and provides for a 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 enterprise risk inventory, certain country and industry threshold increases, and scenario design outlines for more severe group-wide stress tests as well as reverse stress tests. It reviews group-wide stress test results in accordance with risk appetite, reviews the risk outlook, emerging risks and topics with enterprise-wide risk implications like risk culture.

- The Financial Resource Management Council (FRMC) is an ad-hoc governance body, chaired by the Chief Financial Officer and Chief Risk Officer with delegated authority from the Management Board, to oversee financial crisis management at the bank. The FRMC provides a single forum to oversee execution of both the Contingency Funding Plan and the Group Recovery Plan. The council recommends upon mitigating actions to be taken in a time of anticipated or actual capital or liquidity stress. Specifically, the FRMC is tasked with analyzing the bank's capital and liquidity position, in anticipation of a stress scenario recommending proposals for capital and liquidity related matters, and ensure execution of decisions.
- The Group Asset & Liability Committee has been established by the Management Board in 2018. Its mandate is to optimize the sourcing and deployment of the bank's balance sheet and financial resources within the overarching risk appetite set by the Management Board.

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 assessed for materiality. Material risks are owned and controlled by functional (usually 1st LoD) risk teams within the agreed risk appetite and risk management principles. ERM is responsible for aggregating and analyzing enterprise-wide risk information, including review of the risk/return profiles of portfolios to support informed strategic decision-making regarding the effective application of the Bank's resources. ERM has the mandate to:

- Manage enterprise risk appetite at Group level, including the framework and methodology as to how appetite is applied across risk types, divisions, 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.

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 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 strategy and plan, 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.

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.

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 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.

All externally communicated financial targets are monitored on an ongoing basis in appropriate management committees. Any projected shortfall versus targets is discussed together with potential mitigating strategies with the aim 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. Deutsche Bank was informed by the ECB of its decision regarding prudential minimum capital requirements for 2019 that apply from March 1, 2019 onwards, following the results of the 2018 SREP. The decision requires Deutsche Bank to maintain a CET 1 ratio of at least 11.82 % on a consolidated basis. 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 capital conservation buffer of 2.50 %, the countercyclical buffer (currently 0.07 %) and the G-SII buffer of 2.00 %. The new CET 1 capital requirement of 11.82 % for 2019 is higher than the CET 1 capital requirement of 10.69 %, which was applicable to Deutsche Bank in 2018, reflecting the now fully phase-in capital conservation buffer and the G-SII buffer. Correspondingly, 2019 requirements for Deutsche Bank's Tier 1 capital ratio are at 13.32 % and for its total capital ratio at 15.32 %. Also, 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 lead to automatic restrictions of capital distributions.

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.
- 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. 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 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 vulnerabilities under stress.
- 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 the internal process aimed at the fulfilment of all capital-related legal requirements and supervisory demands on an ongoing basis. The economic internal perspective 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.

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 Model Risk Management or delegate under a delegated authority, 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 Group Risk Committee. Regulatory approval may also be required. The methodology validation is performed independently of model development by Model Risk Management. 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) and the RCRMC, 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.

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/ DB PFK AG. 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 PD while the LGD and the 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.

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. Nontrading 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 units.

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 should 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 99^{th} 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 (SVaR) 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 SVaR 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.

The internal model comprehensive risk measure was decommissioned in the fourth quarter of 2018 following regulatory approval. The small remaining exposures captured by this model are now covered by the incremental risk charge and the market risk standardized approach.

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.

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.

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.

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 bank's Three Lines of Defence (3LoD) approach to manage all of its risks, financial and non-financial. The 3LoD approach aims 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 within the bank's defined risk appetite, apply 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 and misconduct), 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 to further remediate risks, insure risks or cease 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 bank established and follows three OR governance standards including core roles and their respective mandates for the management of operational risks:

Operational risk governance standard I: NFRM owns the ORMF and determines the sufficient level of operational risk capital.

- As the 2nd LoD control function, NFRM defines the bank's approach to operational risk appetite and monitors its adherence, breaches and consequences. It is the independent reviewer and challenger of the 1st LoD's risk and control assessments and risk management activities. NFRM provides the oversight of risk and control mitigation plans to return the bank's operational risk to its risk appetite where required. It also establishes and regularly reports the bank's operational risk profile and top risks.
- As the subject matter expert for operational risk, NFRM provides independent risk views to facilitate forward looking management of operational risks, actively engages with risk owners and facilitates the implementation of risk management and control standards across the bank.
- NFRM is to ensure that sufficient capital is held to underpin the bank's operational risks. NFRM is accountable for the design, implementation and maintenance of the approach to determine the adequate level of capital required for operational risk for recommendation to the Management Board. This includes the calculation and allocation of operational risk capital demand and expected loss under the Advanced Measurement Approach (AMA).

Operational risk governance standard II: Risk owners as the 1st LoD have full accountability for their operational risks and manage these against a defined risk specific appetite.

Risk owners are those roles in the bank that generate risks, whether financial or non-financial. As heads of business divisions and infrastructure functions they 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 primary controls.

Operational risk governance standard III: Risk Type Controllers ("RTCs") act as the 2nd LoD control functions for operational risks.

RTCs establish the framework and define risk appetite statements for the specific operational risk type they control. They monitor the risk type's profile against risk appetite and exercise a veto on risk appetite breaches. RTCs define the 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. Giving advise does not impact the independence of the RTC.

Measuring our operational risks

We calculate and measure the regulatory and economic capital requirements for operational risk using the 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. 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.

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 risk appetite which is 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 (LRM) 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 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.

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 in a stressed scenario, measured against the total volume of net cash outflows, arising from both contractual and modelled exposures.

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 November 2018, the Bank has set its internal risk appetite more conservative by 3% in order to maintain a LCR ratio of at least 113%, effective from 1st of January 2019 onwards.

Key differences between the internal 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 longer term 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 profile is based on contractual cash flow information. If the contractual maturity profile of a product does not adequately reflect the liquidity 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, 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 greater than 10 year bucket down to the greater than 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, currency 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).

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.

We have been implementing improvements in our model risk management framework, and significant progress has been achieved in 2018 across the three underlying model categories, including:

- Continued progress in improving the control environment for Pricing Models over 2018, as reflected in significant reductions in model usage exceptions and control of trades on non-strategic platforms within tolerance
- Identification and inclusion of ‘Other Models’ within a Model Inventory that completed a transparent baseline of all Model categories, from which model risk can be measured, managed and monitored at Group level in 2019 and beyond
- Key controls continue to operate across Risk & Capital Models, with introduction of compensating control framework for validation issues and prioritized focus on remediation of certain issues.

Management has determined to instil a robust and consistent model risk management framework in order to ensure that the framework effectively identifies, monitors and measures risk. The effort focuses on board oversight, model identification and model inventory, single coherent policy and governance framework, model development practices, and effective and rigorous model validation.

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, ex ante, 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 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 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.

This section refers to the capital adequacy of the group of entities 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 2018 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 gains 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 the transitional period and are phased out from 2013 to 2022 with their recognition capped at 40 % in 2018 and the cap decreasing by 10 % every year.

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 2018.

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 the Deutsche Bundesbank, resulting in a G-SII buffer requirement of 2.00 % CET 1 capital of RWA in 2019 and was phased in with 0.5 % in 2016, 1.00 % in 2017 and 1.50 % in 2018. This is in line with the FSB assessment of systemic importance based on the indicators as published in 2018. 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 in 2019 and was phased in with 0.625 % in 2016, 1.25 % in 2017 and 1.875 % in 2018.

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, 2018, the institution-specific countercyclical capital buffer was at 0.07 %.

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 2018, no systemic risk buffer applied to Deutsche Bank.

Additionally, Deutsche Bank AG has been classified by BaFin as an 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, 1.32 % in 2018 and 2.00 % in 2019. Unless certain exceptions apply, only the higher of the systemic risk buffer (as of December 31, 2018, not applicable), G-SII buffer and O-SII buffer must be applied. Accordingly, the O-SII buffer is not applicable as of December 31, 2018.

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 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. Beginning from January 1, 2018, the decision requires Deutsche Bank to maintain a phase-in CET 1 ratio, which as of December 31, 2018 is at least 10.69 % on a consolidated basis. This requirement on CET 1 capital 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 of 0.07 % (as per December 31, 2018) and the phase-in G-SII capital buffer of 1.50 %. Correspondingly the requirements for Deutsche Bank's Tier 1 capital ratio were at 12.19 % and total capital ratio at 14.19 % as of December 31, 2018.

Beginning from January 1, 2019, Deutsche Bank must maintain a CET 1 ratio of at least 11.82 % on a consolidated basis as the transition period for the capital conservation buffer and the G-SII capital buffer requirements ended and the full buffer levels of 2.50 % and 2.00 %, respectively, need to be covered with CET 1 capital. To summarize, the CET 1 capital requirement comprises the Pillar 1 minimum capital requirement of 4.50 %, the unchanged Pillar 2 requirement (SREP Add-on) of 2.75 %, the capital conservation buffer of 2.50 %, the countercyclical buffer (0.07 % per year end 2018) and the G-SII buffer of 2.00 %. Correspondingly, 2019 requirements for Deutsche Bank's Tier 1 capital ratio are at 13.32 % and for its total capital ratio at 15.32 %. On February 8, 2019, Deutsche Bank was informed by the ECB of its decision regarding prudential minimum capital requirements for 2019, following the results of the 2018 SREP. The decision left Deutsche Bank’s Pillar 2 requirement and thus the CET 1 capital requirements unchanged at 2.75 % beginning from March 1, 2019. Also, 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 lead to automatic restrictions of capital distributions.

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 2018 and 2019 (articulated on a phase-in basis):

Overview total capital requirements and capital buffers

	2018	2019
Pillar 1		
Minimum CET 1 requirement	4.50 %	4.50 %
Combined buffer requirement	3.44 %	4.57 %
Capital Conservation Buffer	1.875 %	2.50 %
Countercyclical Buffer	0.07 %[1]	0.07 %[1]
Maximum of:	1.50 %	2.00 %
G-SII Buffer	1.50 %	2.00 %
O-SII Buffer	1.32 %	2.00 %
Systemic Risk Buffer	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 %
Total CET 1 requirement from Pillar 1 and 2[3]	**10.69 %**	**11.82 %**
Total Tier 1 requirement from Pillar 1 and 2	**12.19 %**	**13.32 %**
Total capital requirement from Pillar 1 and 2	**14.19 %**	**15.32 %**

[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 is as of December 31, 2018. The countercyclical buffer rate for 2019 has been assumed to be 0.07 % due to unavailability of 2019 data.
[2] The systemic risk buffer has been assumed to remain at 0 % for the projected year 2019, subject to changes based on further directives.
[3] 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 amounted to € 55.1 billion as of December 31, 2018, consisting of CET 1 capital of € 47.5 billion and AT1 capital of € 7.6 billion. The CRR/CRD 4 Tier 1 capital was € 2.5 billion lower than at the end of 2017, primarily driven by a decrease in CET 1 capital of € 3.3 billion since year end 2017 while AT1 capital increased by € 0.8 billion in the same period.

The € 3.3 billion decrease of CRR/CRD 4 CET 1 capital was largely the result of increased regulatory adjustments due to a phase-in rate of 100 % in 2018 compared to a phase-in rate of 80 % in 2017. Based on ECB guidance and following the EBA Guidelines on payment commitments, effective January 1, 2018, Deutsche Bank treats irrevocable payment commitments related to the Single Resolution Fund and the Deposit Guarantee Scheme as an additional CET 1 capital deduction instead of risk-weighting them. This capital deduction as of December 31, 2018 was at € 0.6 billion. The adoption of IFRS 9, effective January 1, 2018, decreased capital by € 0.4 billion. Furthermore our CET 1 capital was reduced by € 0.5 billion in the second quarter of 2018 due to the payment of our common share dividends for the financial year 2017 (11 cts/share following the Annual General Meeting) and the yearly AT1 coupon payment which was not accrued in CET 1 capital as a consequence of the negative net income for the financial year 2017 following Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4). As of December 31, 2018 our positive net income of € 0.3 billion was completely offset by our common share dividend and AT1 coupon accrual of € 0.3 billion for the year-end 2018 which is in line with the ECB Decision (EU) (2015/656) on the recognition of interim or year-end profits in CET 1 capital in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4). The negative effects on CET 1 capital were partially offset by a positive impact of € 0.9 billion from our Initial Public Offering (IPO) of DWS Group GmbH & Co. KGaA (DWS).

The € 0.8 billion increase in CRR/CRD 4 AT1 capital was the result of positive effects from reduced regulatory adjustments of € 1.7 billion that were phased out from AT1 capital and a negative counter-effect from the call and redemption of one legacy Hybrid AT1 instrument with a notional amount of € 1 billion in the second quarter of 2018. The regulatory adjustments from AT1 capital 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 100 % in 2018 (80 % in 2017) and decreased correspondingly on the level of AT1 capital to 0 % in 2018 (20 % in 2017).

Our fully loaded CRR/CRD 4 Tier 1 capital as of December 31, 2018 was € 52.1 billion, compared to € 52.9 billion at the end of 2017. Our fully loaded CRR/CRD 4 CET 1 capital amounted to € 47.5 billion as of December 31, 2018, compared to € 48.3 billion as of December 31, 2017. Our fully loaded CRR/CRD 4 Additional Tier 1 capital amounted to € 4.6 billion as per end of December 2018, unchanged compared to year end 2017.

The decrease of our fully loaded CET 1 capital of € 0.8 billion compared to year end 2017 capital was mainly the result of the deduction of irrevocable payment commitments to the Single Resolution Fund and the Deposit Guarantee Schemes amounting to € 0.6 billion, the IFRS 9 adoption impact of € 0.4 billion, the payment of 11 cts/share common share dividend totaling to € 0.2 billion and the AT1 coupons of € 0.3 billion in the second quarter of 2018 and negative effects of € 0.3 billion from regulatory adjustments from prudential filters (Additional valuation adjustments). These negative effects were reduced by a positive CET 1 contribution of € 0.9 billion from our IPO of DWS.

Own funds template (incl. RWA and capital ratios)

	Dec 31, 2018		Dec 31, 2017	
in € m.	CRR/CRD 4 fully-loaded	CRR/CRD 4[1]	CRR/CRD 4 fully loaded	CRR/CRD 4
Common Equity Tier 1 (CET 1) capital: instruments and reserves				
Capital instruments, related share premium accounts and other reserves[2]	45,515	45,515	45,195	45,195
Retained earnings	16,297	16,297	17,977	17,977
Accumulated other comprehensive income (loss), net of tax	382	382	696	660
Independently reviewed interim profits net of any foreseeable charge or dividend[3]	0	0	(751)	(751)
Other[2]	846	846	0	33
Common Equity Tier 1 (CET 1) capital before regulatory adjustments	**63,041**	**63,041**	63,116	63,114
Common Equity Tier 1 (CET 1) capital: regulatory adjustments				
Additional value adjustments (negative amount)	(1,504)	(1,504)	(1,204)	(1,204)
Other prudential filters (other than additional value adjustments)	(329)	(329)	(102)	(74)
Goodwill and other intangible assets (net of related tax liabilities) (negative amount)	(8,566)	(8,566)	(8,394)	(6,715)
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)	(2,758)	(2,758)	(3,004)	(2,403)
Negative amounts resulting from the calculation of expected loss amounts[4]	(367)	(367)	(502)	(408)
Defined benefit pension fund assets (negative amount)	(1,111)	(1,111)	(1,125)	(900)
Direct, indirect and synthetic holdings by an institution of own CET 1 instruments (negative amount)	(25)	(25)	(144)	(117)
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	0	0
Other regulatory adjustments[5]	(895)	(895)	(341)	(485)
Total regulatory adjustments to Common Equity Tier 1 (CET 1) capital	**(15,555)**	**(15,555)**	(14,816)	(12,306)
Common Equity Tier 1 (CET 1) capital	**47,486**	**47,486**	48,300	50,808
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	3,009	N/M	3,904
Additional Tier 1 (AT1) capital before regulatory adjustments	**4,676**	**7,685**	4,676	8,579
Additional Tier 1 (AT1) capital: regulatory adjustments				
Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	(80)	(80)	(55)	(26)
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	N/M	N/M	(1,730)
Other regulatory adjustments	0	0	0	0
Total regulatory adjustments to Additional Tier 1 (AT1) capital	**(80)**	**(80)**	(55)	(1,756)
Additional Tier 1 (AT1) capital	**4,595**	**7,604**	4,621	6,823
Tier 1 capital (T1 = CET 1 + AT1)	**52,082**	**55,091**	52,921	57,631
Tier 2 (T2) capital	**9,211**	**6,202**	10,329	6,384
Total capital (TC = T1 + T2)	**61,292**	**61,292**	63,250	64,016
Total risk-weighted assets	**350,432**	**350,432**	344,212	343,316
Capital ratios				
Common Equity Tier 1 capital ratio (as a percentage of risk-weighted assets)	13.6	13.6	14.0	14.8
Tier 1 capital ratio (as a percentage of risk-weighted assets)	14.9	15.7	15.4	16.8
Total capital ratio (as a percentage of risk-weighted assets)	17.5	17.5	18.4	18.6

N/M – Not meaningful
1 With effect from January 1, 2018, the CRR/CRD 4 “transitional” (or “phase-in”) rules under which CET 1 regulatory adjustments were phased in have reached a rate of 100 %, together with the 100 % phase-out rate of minority interest only recognizable under the transitional rules.
2 Our IPO of DWS led to a € 0.9 billion CET 1 contribution which is reflected in ‘Capital instruments, related share premium accounts and other reserves’ at € 0.1 billion and minority interest in ‘Other’ at € 0.8 billion.
3 No interim profits to be recognized as per ECB Decision (EU) 2015/656 in accordance with the Article 26(2) of Regulation (EU) No 575/2013 (ECB/2015/4).
4 Based on Article 159 CRR and recent guidance provided by EBA (Q&A 2017_3426) published on January 18, 2019 only unearned credit spread additional value adjustments are used as specific credit risk adjustments.
5 Includes € 0.6 billion capital deduction effective from January 2018 onwards, based on ECB guidance and following the EBA Guidelines on irrevocable payment commitments related to the Single Resolution Fund and the Deposit Guarantee Scheme. Further includes 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) and 16(2)(d) of Regulation (EU) No 1024/2013.

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, 2018
in € m.	Corporate & Investment Bank	Private & Commercial Bank	Asset Management	Corporate & Other	Total
Credit Risk	115,035	76,592	5,236	15,964	212,827
Settlement Risk	39	0	0	47	86
Credit Valuation Adjustment (CVA)	7,642	202	112	42	7,997
Market Risk	37,446	89	0	0	37,535
Operational Risk	76,145	10,827	5,017	0	91,989
Total	236,307	87,709	10,365	16,053	350,432

					Dec 31, 2017
in € m.	Corporate & Investment Bank	Private & Commercial Bank	Asset Management	Corporate & Other	Total
Credit Risk	118,940	75,377	3,273	16,552	214,142
Settlement Risk	142	0	0	5	147
Credit Valuation Adjustment (CVA)	6,189	171	84	7	6,451
Market Risk	30,896	70	0	0	30,966
Operational Risk	74,936	11,654	5,020	0	91,610
Total	231,103	87,272	8,378	16,564	343,316

The RWA according to CRR/CRD 4 were € 350.4 billion as of December 31, 2018, compared to € 343.3 billion at the end of 2017, which were still subject to transitional arrangements. The increase by € 7.1 billion was primarily driven by Market Risk and CVA RWA. The latter is driven by several methodology and policy-related changes. The Market Risk RWA increase of € 6.6 billion is driven by higher Stressed VaR and temporary increases in concentration risk. Credit Risk RWA decreased by € 1.3 billion mainly resulting from parameter recalibrations as well as model and methodology changes in addition to lower RWA due to the improved capturing of pending settlements for syndicated loans, which was partly offset by higher RWA due to business growth in our CIB and PCB segments.

Since January 1, 2018 the RWA under transitional rules is equal to the fully loaded measure as all transitional arrangements expired. For December 31, 2017 the RWA on transitional rules still recognized a small subset of equity positions according to grandfathering rules resulting in transitional RWA of € 343.3 billion, slightly below the fully-loaded RWA of € 344.2 billion.

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 from an economic perspective as the ratio of our internal capital supply divided by our internal economic capital demand as shown in the table below.

Total capital supply and demand

in € m. (unless stated otherwise)	Dec 31, 2018	Dec 31, 2017
Capital supply		
Shareholders' equity	62,495	63,174
Noncontrolling interests[1]	900	0
AT1 coupons accruals	(218)	(213)
Gain on sale of securitizations, cash flow hedges	(26)	(29)
Fair value gains on own debt and debt valuation adjustments, subject to own credit risk	(304)	(73)
Additional valuation adjustments	(1,504)	(1,204)
Intangible assets	(9,141)	(8,839)
IFRS deferred tax assets excl. temporary differences	(3,090)	(3,341)
Expected loss shortfall	(367)	(502)
Defined benefit pension fund assets[2]	(1,111)	(1,125)
Holdings of own common equity tier 1 capital instruments	(11)	(131)
Home loans and savings protection ("Fonds zur bauspartechnischen Absicherung")	0	(19)
Other adjustments[3]	(1,122)	(322)
Additional tier 1 equity instruments	4,675	4,675
Capital supply	**51,176**	52,051
Total economic capital requirement		
Credit risk	10,610	10,769
Market risk	10,341	10,428
Operational risk	7,359	7,329
Business risk	4,758	5,677
Diversification benefit	(6,960)	(7,074)
Capital demand	**26,108**	27,129
Internal capital adequacy ratio	**196 %**	192 %

[1] Includes noncontrolling interest up to the economic capital requirement for each subsidiary.
[2] Reported as net assets (assets minus liabilities) of a defined pension fund, i.e. applicable for overfunded pension plans.
[3] Includes € 0.6 billion capital deduction of irrevocable payment commitments related to the Single Resolution Fund and Deposit Guarantee Scheme, since January 1, 2018.

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 196 % as of December 31, 2018, compared with 192 % as of December 31, 2017. The change of the ratio was mainly due to a decrease in capital demand partially offset by decrease in capital supply. The capital supply decreased by € 0.9 billion mainly driven by negative effects from deduction of irrevocable payment commitments to the Single Resolution Fund and the Deposit Guarantee Schemes of € 0.6 billion, IFRS 9 adoption of € 0.4 billion, unrealized losses of € 0.3 billion from interest rate changes, additional value adjustment deduction of € 0.3 billion and payment of common share dividend of € 0.2 billion. These negative effects were partially reduced by a positive contribution of € 1.0 billion from our initial public offering (IPO) of DWS Group GmbH & Co. KgaA ("DWS"). The decrease in capital demand was driven by lower economic capital usage as explained in the section "Risk Profile".

The above capital adequacy measures apply to the consolidated Deutsche Bank Group as a whole 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 favor 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, the legislative proposals as part of the European Trilogue include a 3 % minimum requirement but the proposed implementation dates are different. The final Basel rules that have been published in December 2017 also include an additional leverage ratio buffer requirement for banks identified as global systemically important institutions ("G-SII") of 50 % of the G-SII buffer. Details of the implementation and the timing of the application of this additional leverage ratio buffer remain subject to finalization of the legislative process.

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 purchased credit derivative protection 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, 2018	Dec 31, 2017
Total assets as per published financial statements	1,348	1,475
Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	0	5
Adjustments for derivative financial instruments	(140)	(172)
Adjustment for securities financing transactions (SFTs)	14	41
Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	99	95
Other adjustments	(49)	(50)
Leverage ratio total exposure measure (fully loaded)	1,273	1,395
Leverage ratio total exposure measure (phase-in)	1,273	1,396

Leverage ratio common disclosure

in € bn. (unless stated otherwise)	Dec 31, 2018	Dec 31, 2017
Total derivative exposures	159	166
Total securities financing transaction exposures	103	158
Total off-balance sheet exposures	99	95
Other Assets	925	990
Asset amounts deducted in determining Tier 1 capital[1]	(13)	(14)
Tier 1 capital (fully loaded)	52.1	52.9
Leverage ratio total exposure measure (fully loaded)	1,273	1,395
Leverage ratio (fully loaded, in %)	4.1	3.8
Tier 1 capital (phase-in)	55.1	57.6
Leverage ratio total exposure measure (phase-in)	1,273	1,396
Leverage ratio (phase-in, in %)	4.3	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, 2018 and December 31, 2017, respectively.

Description of the factors that had an impact on the leverage ratio in 2018

As of December 31, 2018, our fully loaded CRR/CRD 4 leverage ratio was 4.1 % compared to 3.8 % as of December 31, 2017, taking into account as of December 31, 2018 a fully loaded Tier 1 capital of € 52.1 billion over an applicable exposure measure of € 1,273 billion (€ 52.9 billion and € 1,395 billion as of December 31, 2017, respectively).

Our CRR/CRD 4 leverage ratio according to transitional provisions was 4.3 % as of December 31, 2018 (4.1 % as of December 31, 2017), calculated as Tier 1 capital according to transitional rules of € 55.1 billion over an applicable exposure measure of € 1,273 billion (€ 57.6 billion and € 1,396 billion as of December 31, 2017, respectively). Starting with January 1, 2018, the exposure measure under transitional rules is equal to the fully loaded exposure measure while it was € 1 billion higher as of December 31, 2017 as the asset amounts deducted in determining Tier 1 capital were lower under transitional rules.

Over the year 2018, our leverage ratio exposure decreased by € 122 billion to € 1,273 billion. This is primarily driven by the reduction of € 55 billion in SFT exposures reflecting a decrease on the balance sheet in the SFT related items (securities purchased under resale agreements, securities borrowed and receivables from prime brokerage) and lower add-ons for counterparty credit risk due to extended collateral recognition. The € 65 billion reduction in Other Assets reflects the development on our balance sheet, in particular for cash and central bank / interbank balances which decreased by € 37 billion and non-derivative trading assets which decreased by € 33 billion. Derivatives decreased by € 7 billion from lower add-ons for the potential future exposure. Off-balance sheet exposures slightly increased by € 4 billion corresponding to higher notional amounts for irrevocable lending commitments.

The decrease of the leverage ratio exposure in 2018 includes a positive foreign exchange impact of € 26 billion mainly due to the depreciation 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 20 as of December 31, 2018 compared to 22 as of December 31, 2017.

For main drivers of the Tier 1 capital development please refer to section “Regulatory Capital” in this report.

Credit risk exposure

For 2018, we provide information following the IFRS 9 accounting standard, while 2017 numbers are based on the IAS 39 accounting rules and are presented in the old format. Since the accounting requirements have changed significantly, numbers are not comparable.

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. 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 table also presents exposures which are subject to impairment in accordance with IFRS 9. 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

			Dec 31, 2018			
			Credit Enhancements			
in € m.	Maximum exposure to credit risk[1]	Subject to impairment	Netting	Collateral	Guarantees and Credit derivatives[2]	Total credit enhancements
Financial assets at amortized cost[3]						
Cash and central bank balances	188,736	188,736	–	0	–	0
Interbank balances (w/o central banks)	8,885	8,885	–	4	0	4
Central bank funds sold and securities purchased under resale agreements	8,222	8,222	–	7,734	–	7,734
Securities borrowed	3,396	3,396	–	0	–	0
Loans	404,537	404,537	–	224,353	16,582	240,934
Other assets subject to credit risk[4,5]	71,899	65,010	29,073	3,199	79	32,352
Securities held to maturity	N/M	N/M	N/M	N/M	N/M	N/M
Total financial assets at amortized cost[3]	685,676	678,787	29,073	235,290	16,661	281,024
Financial assets at fair value through profit or loss[6]						
Trading assets	96,966	–	–	677	155	831
Positive market values from derivative financial instruments	320,058	–	250,231	48,548	82	298,861
Non-trading financial assets mandatory at fair value through profit or loss	97,771	–	245	67,385	0	67,630
Of which:						
Securities purchased under resale agreement	44,543	–	245	43,258	0	43,503
Securities borrowed	24,210	–	–	24,003	0	24,003
Loans	12,741	–	–	125	0	125
Financial assets designated at fair value through profit or loss	104	–	–	0	0	0
Financial assets available for sale	N/M	N/M	N/M	N/M	N/M	N/M
Total financial assets at fair value through profit or loss	514,899	–	250,476	116,610	237	367,323
Financial assets at fair value through OCI	51,182	51,182	0	1,488	520	2,008
Of which:						
Securities purchased under resale agreement	1,097	1,097	–	621	0	621
Securities borrowed	0	0	–	0	0	0
Loans	5,092	5,092	–	450	104	554
Total financial assets at fair value through OCI	51,182	51,182	–	1,488	520	2,008
Financial guarantees and other credit related contingent liabilities[7]	51,605	51,605	–	3,375	5,291	8,666
Revocable and irrevocable lending commitments and other credit related commitments[7]	212,049	211,055	–	16,418	4,734	21,152
Total off-balance sheet	263,654	262,659	–	19,793	10,025	29,818
Maximum exposure to credit risk	1,515,410	992,628	279,550	373,181	27,443	680,173

1 Does not include credit derivative notional sold (€ 415,967 million) and credit derivative notional bought protection.
2 Bought Credit protection is reflected with the notional of the underlying.
3 All amounts at gross value before deductions of allowance for credit losses.
4 All amounts at amortized cost (gross) except for qualifying hedge derivatives, which are reflected at Fair value through P&L.
5 Includes Asset Held for Sale regardless of accounting classification.
6 Excludes equities, other equity interests and commodities.
7 Figures are reflected at notional amounts.

					Dec 31, 2017
		Credit Enhancements			
in € m.[1]	Maximum exposure to credit risk[2]	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
Of which:					
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. Revocable commitments not included in the year were € 45.1 billion.

The overall decrease in maximum exposure to credit risk for December 31, 2018 is € 26.4 billion, mainly driven by a € 41.0 billion decrease in positive market values from derivative financial instruments and Cash and central bank balances decreased by € 36.9 billion, offset by an increase due to first time inclusion of revocable lending commitments of € 44.3 billion.

Included in the category of trading assets as of December 31, 2018, were traded bonds of € 85.2 billion (€ 87.3 billion as of December 31, 2017) of which over 79 % were investment-grade (over 82 % as of December 31, 2017).

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.

Main credit exposure categories

The tables in this section show details about several of our main credit exposure categories, namely loans, revocable and irrevocable lending commitments, contingent liabilities over-the-counter ("OTC") derivatives, debt securities and repo and repo-style transactions:

- "Loans" are gross loans as reported on our balance sheet at amortized cost and loans at fair value through other comprehensive income before deduction of allowance for credit losses, it also includes loans at fair value through profit and loss. This includes "Traded 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 the latter category principally covers trading book positions.
- "Revocable and irrevocable lending commitments" consist of the undrawn portion of revocable and 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.
- "Debt securities" include debentures, bonds, deposits, notes or commercial paper, which are issued for a fixed term and redeemable by the issuer, as reported on our balance sheet within accounting categories at amortized cost and at fair value through other comprehensive income before deduction of allowance for credit losses, it also includes category at fair value through profit and loss. This includes "Traded bonds", which are 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 the latter category principally covers trading book positions.
- "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.

Main credit exposure categories by business divisions

Dec 31, 2018

	Loans				Off-balance sheet		OTC derivatives
in € m.	at amortized cost[1]	trading - at fair value through P&L	Designated / mandatory at fair value through P&L	at fair value through OCI[2]	Revocable and irrevocable lending commitments[3]	Contingent liabilities	at fair value through P&L[4]
Corporate & Investment Bank	135,078	11,462	12,532	5,092	168,332	48,871	27,028
Private & Commercial Bank	269,175	0	209	0	43,331	2,638	353
Asset Management	68	0	0	0	117	14	0
Corporate & Other	216	0	0	0	269	81	37
Total	404,537	11,462	12,741	5,092	212,049	51,605	27,417

Dec 31, 2018

	Debt Securities			Repo and repo-style transactions[7]			Total
in € m.	at amortized cost[5]	at fair value through P&L	at fair value through OCI[6]	at amortized cost[8]	at fair value through P&L	at fair value through OCI[9]	
Corporate & Investment Bank	579	88,451	1,032	11,348	64,684	0	574,488
Private & Commercial Bank	4,569	19	7,799	260	0	0	328,353
Asset Management	0	419	0	0	0	0	618
Corporate & Other	51	3,776	36,162	11	4,068	1,097	45,768
Total	5,199	92,664	44,993	11,618	68,752	1,097	949,227

[1] Includes stage 3 and stage 3 POCI loans at amortized cost amounting to € 9.1 billion as of December 31, 2018.
[2] Includes stage 3 and stage 3 POCI loans at fair value through OCI amounting to € 1 million as of December 31, 2018
[3] Includes stage 3 and stage 3 POCI off-balance sheet exposure amounting to € 599 million as of December 31, 2018.
[4] Includes the effect of netting agreements and cash collateral received where applicable. Excludes derivatives qualifying for hedge accounting.
[5] Includes stage 3 and stage 3 POCI debt securities at amortized cost amounting to € 73 million as of December 31, 2018.
[6] Includes stage 3 and stage 3 POCI debt securities at fair value through OCI amounting to € 2 million as of December 31, 2018.
[7] Before reflection of collateral and limited to securities purchased under resale agreements and securities borrowed.
[8] Includes stage 3 and stage 3 POCI repo and repo-style transactions at amortized cost amounting to € 0 as of December 31, 2018.
[9] Includes stage 3 and stage 3 POCI repo and repo-style transactions at fair value through OCI amounting to € 0 as of December 31, 2018.

									Dec 31, 2017
	Loans		Off-balance sheet		OTC derivatives[3]	Debt securities		Repo and repo-style transactions[5]	Total
in € m.	Loans[1]	Traded Loans	Irrevocable lending commit-ments[2]	Contingent liabilities	OTC derivatives[3]	Debt securities[4]	Traded Bonds	Repo and repo-style transactions[5]	Total
Corporate & Investment Bank	137,954	10,875	141,892	45,342	30,993	2,667	83,067	99,335	552,125
Private & Commercial Bank	267,554	1	16,201	2,802	422	14,421	0	835	302,235
Asset Management	87	0	53	16	0	39	67	0	262
Corporate & Other	26	0	107	52	15	31,124	4,130	4,630	40,084
Total	405,621	10,876	158,253	48,212	31,430	48,251	87,264	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.

For 2018, we provide information following the IFRS 9 accounting standard, while 2017 numbers are based on the IAS 39 accounting rules and are presented in the old format. Since the accounting requirements have changed significantly, numbers are not comparable.

Our main credit exposure increased by € 54.5 billion.

- From a divisional perspective, increases in exposure are observed across all divisions. Details in respect of Corporate & Investment Bank and Private & Commercial Bank credit exposures are provided in subsequent sections. Corporate & Other primarily comprises of Treasury exposures.
- From a product perspective, significant increases in exposure have been observed on account of first time inclusion of Revocable commitments and inclusion of all Loan categories both part of the IFRS 9 introduction. This Increase has been partially offset by decrease on repos due to managed reduction.

Trading market risk exposures

Value-at-Risk metrics of trading units of Deutsche Bank Group

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.

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.	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Average	27.5	29.8	(25.5)	(28.1)	17.6	20.2	16.4	19.7	10.0	8.7	8.3	8.4	0.6	0.8
Maximum	40.9	38.4	(35.0)	(37.6)	32.6	26.0	24.0	25.1	14.5	12.5	13.0	16.5	1.3	3.0
Minimum	19.8	20.1	(20.2)	(21.4)	12.4	13.5	13.0	13.5	6.9	4.4	3.8	4.2	0.2	0.1
Period-end	32.1	29.1	(26.9)	(22.5)	14.1	21.4	22.3	14.4	13.0	10.1	9.2	4.9	0.3	0.7

[1] Includes value-at-risk from gold and other precious metal positions.

Operational risk exposure

Operational risk – risk profile

Operational risk losses by event type (profit and loss view)

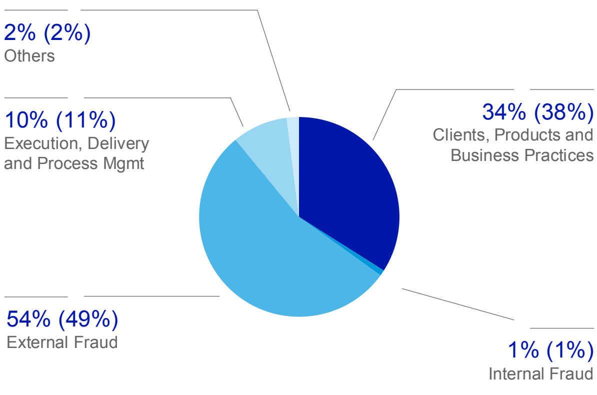
in € m.	2018	2017[1]
Clients, Products and Business Practices	156	513
Internal Fraud	13	(48)
External Fraud	50	19
Execution, Delivery and Process Management	44	224
Others	19	42
Group	**282**	**749**

[1] 2017 loss figures revised from prior year presentation due to subsequent capture of losses and reclassification.

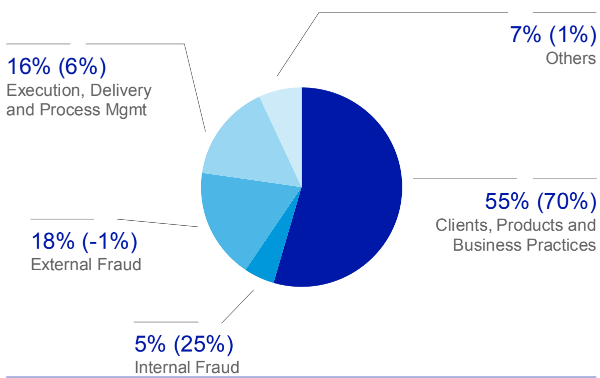
As of December 31, 2018, profit and loss based operational losses decreased by € 467 million or 62 % compared to year-end 2017. The decrease was driven by the event types “Clients, Products and Business Practices” and “Execution, Delivery and Process Management”, due to settlements reached and increased litigation reserves for unsettled cases in 2017.

Operational losses by event type occurred in the period 2018 (2013-2017)[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 2013-2017 period. Frequency and amounts can change subsequently.

The above left chart “Frequency of Operational Losses” summarizes operational risk events which occurred in 2018 compared to the five-year period 2013-2017 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 2018, 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 54 % and the event type “Clients, Products and Business Practices” with 34 % of all observed loss events. “Execution, Delivery and Process Management” contributes 10 %. “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 2018.

The above right chart “Distribution of Operational Losses” summarizes operational risk loss postings recognized in the profit/loss in 2018 compared to the five-year period 2013-2017. The event type “Clients, Products and Business Practices” dominates the operational loss distribution with a share of 55 % and is determined by outflows related to litigation, investigations and enforcement actions. “External Fraud” has the second highest share (18 %) which is related to one large event in 2018. Finally, the event types “Execution, Delivery and Process Management” (16 %), “Others” (7 %) and “Internal Fraud” (5 %) are minor, compared to other event types.

While we seek to ensure the comprehensive capture of operational risk loss events with a P&L impact of € 10.000 or greater, the totals shown in this section may be underestimated due to delayed detection and recording of loss events.

Liquidity risk exposure

Liquidity coverage ratio

Our weighted average LCR of 145 % (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.

The year-end LCR as of December 31, 2018 stands at 140.37 % compared to 139.70 % as of December 31, 2017.

LCR components

	Dec 31, 2018	Dec 31, 2017
in € bn. (unless stated otherwise)	Total adjusted weighted value (average)	Total adjusted weighted value (average)
Number of data points used in the calculation of averages	**12**	12
Liquidity buffer	**250**	247
Total net cash outflows	**172**	172
Liquidity Coverage Ratio (LCR) in %[1]	145 %	144 %

[1] The Liquidity Coverage Ratio (LCR) of Deutsche Bank AG as of December 31, 2018 stands at 121 % compared the 117 % as of December 31, 2017.

Compensation report

The Compensation Report provides information on the principles and the amount of the compensation of the Management Board and Supervisory Board members of Deutsche Bank AG. It complies with the requirements of Section 285 No. 9 of the German Commercial Code (HGB), the German Accounting Standard No. 17 “Reporting on Executive Body Remuneration, the German regulation on the supervisory requirements for compensation systems of banks (Instituts-Vergütungsverordnung) as well as the recommendations of the German Corporate Governance Code.

Introduction

The 2018 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 (compensation policies). It is followed by 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 (including DWS Group and Postbank units). The report provides details on the Group Compensation Framework and it outlines the decisions on Variable Compensation for 2018. Furthermore, this part contains quantitative disclosures specific to employees identified as Material Risk Takers (MRTs) in accordance with the 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.

Management board compensation report

Management board compensation governance

Compensation Control Committee

Prepares the resolutions regarding the compensation policies and the compensation level and presents them to the Supervisory Board.

Supervisory Board

Passes resolutions on the compensation policies and the compensation level. The resolved compensation policies are presented to the Annual General Meeting.

Annual General Meeting

Passes resolutions on the approval of the compensation policies.

The Supervisory Board, as a plenary body, is responsible for the structuring and design of the system for the compensation of the members of the Management Board (compensation policies) 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 policies 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 policies for the members of the Management Board. In the case of a change or restructuring of the compensation policies, the Supervisory Board 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. This was last seen in 2017, and the Supervisory Board will continue to use this possibility in accordance with the German Act Implementing the Second Shareholder Rights Directive which is currently in the legislative process.

Principles of the compensation policies

Numerous factors are to be considered when structuring the compensation policies 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 policies and the individual remuneration and have therefore been 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 policies 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 is both in line with customary market practices and competitive with comparable roles.
Group Strategy	Through the structure of the compensation policies 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 majority of 91 %. The compensation policies 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 2018 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. The total variable compensation may be reclaimed by the bank for up to two years after the expiry of the last deferral period in response to specific individual negative contributions to results made by the Management Board member (clawback).
Interests of the Shareholders	When designing the specific structure of the compensation policies, determining individual compensation amounts, and structuring compensation 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 policies and the compensation structures they encompass are reflected in the individual Management Board members' contracts.

Compensation structure

– 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 policies

Fixed compensation

- Base salary
- +
- Contribution to the company pension plan

Variable compensation

- Short-Term Award
  - Group component
  - Individual component
- +
- Long-Term Award

The compensation policies applicable since January 2017 consist 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, allowances, 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 Presidents receive an annual base salary of € 3 million. The annual base salary for ordinary Management Board members with responsibility for CIB is € 3 million and for all other ordinary board members € 2.4 million.

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 conjunction 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 required cap was implemented in 2014.

Under InstVV rules, the Supervisory Board is able to award optional functional allowances 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. Under the InstVV rules, functional allowances are considered part of fixed compensation and therefore are not subject to forfeiture or clawback conditions.

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)

The current compensation policies provide that compensation must be linked to transparent performance criteria. The structure 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. It consists of a two components:

- the Short-Term Award and
- the Long-Term Award.

The 2017 InstVV generally stipulates a three-year assessment period for the variable compensation. This requirement is taken into account by assigning a three-year reference period to each of the three objectives of the long-term component. If the relevant three years cannot be attributed to a member of the Management Board due to that member joining the bank only recently, performance will be determined for the period that can be attributed to the Management Board member. In addition, the deferral period of the variable compensation is extended by the number of years missing with respect to the assessment period.

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 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 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 policies for the Management Board members more closely with the compensation system for employees. This is achieved by using the annual 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 to CRR/CRD 4.
Adjusted costs	Total noninterest expenses, excluding restructuring and severance, litigation and impairment of goodwill and other intangible assets.
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 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 are used to determine the objective achievement level. As a general rule, three objectives per financial year are set for each Management Board member.

For the first time in 2018, the **Balanced Scorecard** was integrated in the compensation policies of the individual component of the Short Term Award to be determined by the Supervisory Board. The Balanced Scorecard allows for the operationalization of strategic objectives by transforming the latter into concrete measures while simultaneously creating an overview of priorities across the Group. The Balanced Scorecard of Management Board Members consists of two components, (i) the key performance indicators (KPI) and (ii) the key deliverables, the achievement level of which is determined at the end of the financial year. The Balanced Scorecard contains key financial figures as well as (non-financial) key performance indicators for client business, personnel, control environment and innovation. In order to link the Balanced Scorecard to the remuneration of the members of the Management Board, the Supervisory Board resolved that a ratio of 30 % of the individual component of the STA (i.e., 6-9 % of the total variable compensation) included in the component comprising the KPI will be accounted for in the performance evaluation of the Management Board members for the 2018 financial year. The component of the Balanced Scorecard comprising the key deliverables will also be accounted for in the performance evaluation as of the 2019 financial year.

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 individual objectives and key performance indicators of the Balanced Scorecard. 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.

			2018
in €	Minimum	Target	Maximum
Chairman			
Group component	0	500,000	1,000,000
Individual component	0	1,400,000	2,800,000
STA total[1]	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)

When determining the variable compensation, a clear focus is placed on the achievement of long-term objectives. 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 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 2018, 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 Euros). 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 2018, 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 Supervisory Board sets an objective designed to promote the growing and strengthening of the Bank, based on the notion of actual **organic capital growth.** 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 in the last year, 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 client relations for the 2018 financial year. One objective set by the Supervisory Board for all Management Board members is – this year again – 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 metrics are set to measure the achievement level of the objectives in a transparent way. 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 (2)	
	Individual Objectives	60 %
	Balanced Scorecard	30 %
	Discretion	10 %
Long-Term Award (LTA) (3)	Relative total shareholder return	33,34 %
	Organic Capital Growth	33,33 %
	Culture & Clients / 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

					2018	2017
	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	8,700,000
Maximum	3,400,000	1,000,000	2,800,000	5,100,000	12,300,000	12,300,000
Ordinary Board member (CIB)						
Target	3,000,000	500,000	1,400,000	2,800,000	7,700,000	7,700,000
Maximum	3,000,000	1,000,000	2,800,000	4,200,000	11,000,000	11,000,000
Ordinary Board member (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	10,200,000
Ordinary Board member (PCB)						
Target	2,400,000	500,000	1,100,000	2,800,000	6,800,000	6,800,000
Maximum	2,400,000	1,000,000	2,200,000	4,200,000	9,800,000	9,800,000
Ordinary Board member (Infrastructure/Region)						
Target	2,400,000	500,000	800,000	2,800,000	6,500,000	6,500,000
Maximum	2,400,000	1,000,000	1,600,000	4,200,000	9,200,000	9,200,000

[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 2018 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.

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.

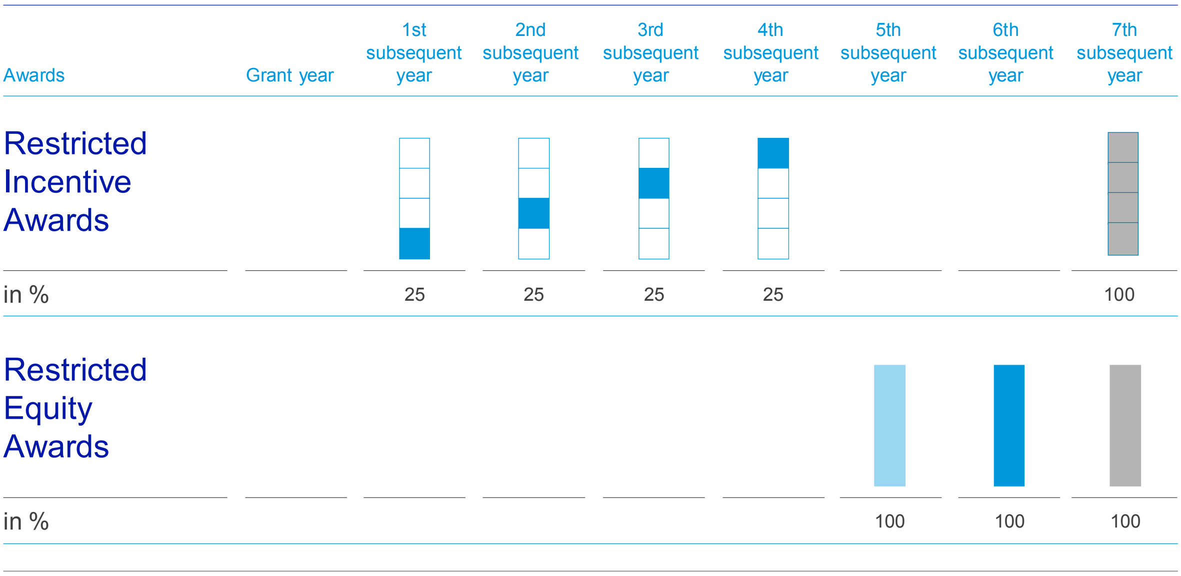
At least 75 % of the variable compensation is granted equity-based

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 fortfeiture, aligned with payment or delivery.
Vesting followed by a retention period until delivery; subject to individual fortfeiture conditions during the retention period.
End of possibility to demand the return ('Clawback') of already paid/delivered compensation components.

Forfeiture conditions / clawback

In order to create long-term incentives, the Restricted Equity Awards and the Restricted Incentive Awards compensation components are deferred or spread out over several years. 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 Awards may be completely forfeited 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 requires that “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 for up to two years after the expiry of the last deferral period. The clawback provision which had already been individually agreed with the Management Board members in 2017 is now for the first time applicable to the compensation elements granted in 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 continued 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, i.e., the equivalent of € 6,800,000. For other Management Board members the number of shares to be held is one time the annual base salary, i.e., the equivalent of € 2,400,000 or € 3,000,000, respectively.

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 ⅓ 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.

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.

Management board compensation for the 2018 financial year

Fixed compensation

In the 2018 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. For the period from November 2017 to August 2018, the Management Board member Stuart Lewis was granted a functional allowance of € 150,000 per month. The Supervisory Board had conferred on Stuart Lewis the additional responsibility to further improve the relationship with U.S. regulators, in addition to his areas of responsibility according to the business allocation plan. For the period from December 2017 to November 2020, Garth Ritchie will receive a monthly functional allowance of € 250,000. Mr. Ritchie has been entrusted with an additional responsibility in connection with the implications of Brexit, in addition to his areas of responsibility according to the business allocation plan.

Variable compensation

The Supervisory Board, acting on a proposal of the Compensation Control Committee, determined the variable compensation for the Management Board members for the 2018 financial year. The Supervisory Board calculated and determined the amount of the LTA and the STA based on the level of achievement of the respective objectives and/or key performance figures. The individual contribution to results was determined on the basis of the achievement of individually agreed objectives taking into account the results from the Balanced Scorecard.

Level of objective achievement

In the 2018 financial year, 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, the desired target level was achieved. The desired leverage ratio was not fully achieved; it improved year-on-year, even though the 2018 target level was not fully reached (please refer to section “Leverage Ratio” in the Risk Report for further detail). The desired 2018 target level for the adjusted noninterest expenses was fully reached. The 2018 post-tax-return target was not met.

In sum, the Supervisory Board determined an achievement level of 70 % for the Group Component.

70 % 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 2018, including those from the Scorecard. The objectives of the current Management Board members as of December 31, 2018 were as follows:

Christian Sewing

Objectives for Mr. Sewing as Management Board member with responsibility for PCB included achieving the objectives of the 2018 Resources Management Plan regarding employees, risk-weighted assets and cost. Another objective was a division-related IBIT target for the 2018 financial year. Mr. Sewing's objectives as Chairman of the Management Board included the development and implementation of a strategic plan, the communicated cost target of € 23 billion as well as stabilizing and/or improving client satisfaction and employee commitment.

Garth Ritchie

Objectives for Mr. Ritchie included the refocusing of CIB. Communication with clients and internal culture were to be improved. Another objective agreed with Mr. Ritchie as CEO was to create closer ties with regulators in Great Britain.

Karl von Rohr

One of the objectives for Mr. von Rohr was to implement the merger of Postbank AG into Deutsche Bank Privat- und Geschäftskunden AG with respect to legal and HR matters. Mr. von Rohr also had the delivery of the DWS IPO as well as the creation of corporate governance structures at DWS supervisory board level as objectives. The number of pending legal disputes – focusing on the matters posing the highest risk – was to be further reduced. In addition, cost targets were agreed with Mr. von Rohr for his area of responsibility.

Stuart Lewis

One objective for Mr. Lewis was to streamline the risk organization by transferring non-risk-initiatives to more appropriate areas. Another objective was to improve focus and co-operation with Finance. Finally, Mr. Lewis pursued the objective of immediately remediating supervisory findings.

Sylvie Matherat

In her responsibility for the Chief Regulatory Office, Ms. Matherat was mandated to further strengthen the bank's control environment in 2018. For Compliance, she was tasked with the enhancement of Surveillance, which included an effectiveness review and development of scenarios in Trade Surveillance, expansion of e-Communication Surveillance and automation in Voice Surveillance. In addition, she was to implement the requirements of the Fourth Anti Money Laundering Directive (4AMLD) in our Anti-Financial Crime (AFC) policies and roll out the framework for the investigation of financial crime. The third objective agreed with Ms. Matherat was to improve the monitoring of financial transactions. Finally, the strengthening and enhancement of cost management was an objective agreed with Ms. Matherat.

James von Moltke

Objectives for Mr. von Moltke included the design and roll-out of the strategic "Cost Catalyst" program which aims to identify and eliminate structural cost inefficiencies, improve our cost culture and contribute to achieving Deutsche Bank's near-term operating performance targets. Further objectives related to enhancing the Bank's liquidity reporting and management capabilities and executing on organizational enhancements in line with the priorities of the Finance organization.

Nicolas Moreau

Objectives for Mr. Moreau included generating net inflows and achieving a solid investment performance. Further objectives were the implementation of cost reductions and improving cost efficiency. Performance criteria for the objective to create a performance culture in DWS were increasing the percentage of women in management positions and improving employee commitment.

Werner Steinmüller

For the financial year 2018, a revenue target relating to Asia Pacific, the region for which Mr. Steinmüller is accountable, and a cost objective were agreed with Mr. Steinmüller. An additional franchise target was agreed to strengthen and expand Governance, control environment and the Deutsche Bank brand in the region.

Frank Strauß

Mr. Strauß had to achieve an IBIT and a revenue target for the Private & Commercial Clients division. The establishment of "The Bank for Germany" was another objective. A further objective was the 2018 Resources Management Plan regarding employees, risk-weighted assets and cost. Finally, Mr. Strauß was to roll out a digital banking platform.

80 % -154 % was the objective achievement level of the STA individual component

The individual level of achievement of the Management Board members who were in office for the entire year in 2018 is between 80 % and 154 %.

In the 2018 financial year, the development of the three performance metrics for the Group Component of **the LTA** was as follows: Although the RTSR improved year-on-year, the average performance in the relevant three-year-period (2016 to 2018) was 73.6 % and as a result was below the performance of the peer group; this resulted in an achievement level of 42 %. Organic Capital Growth as defined developed negatively from 2016 to 2018; the resulting achievement level was 0 %. The strengthening of the control environment was evaluated based on feedback from internal audit and supervisory authorities and has improved again in 2018; the achievement level was 81 %. As a result of these factors, the overall achievement level resolved by the Supervisory Board is 41 %.

41 % was the LTA objective achievement level

Total compensation

The members of the Management Board collectively received in/for the 2018 financial year compensation (without fringe benefits and pension service costs) totaling € 55,716,289 (2017: € 29,750,000). € 29,911,111 of this amount was for fixed compensation (2017: € 29,750,000). € 25,805,178 (2017: € 0) was received for performance-related components with long-term incentives.

The Supervisory Board determined the aforementioned compensation on an individual basis for 2018 and 2017 as follows:

						2018	2017
	Base salary	Functional allowance	STA[1]		LTA[2]	Total compensation	Total compensation
in €			Group component	Individual component			
Christian Sewing	3,291,111	0	350,000	2,035,931	1,327,037	7,004,079	2,900,000
Garth Ritchie	3,000,000	3,000,000	350,000	1,120,000	1,148,003	8,618,003	3,250,000
Karl von Rohr	2,836,667	0	350,000	1,200,000	1,148,003	5,534,670	2,400,000
Stuart Lewis	2,400,000	1,200,000	350,000	1,000,000	1,148,003	6,098,003	2,700,000
Sylvie Matherat	2,400,000	0	350,000	640,000	1,148,003	4,538,003	2,400,000
James von Moltke[3]	2,400,000	0	350,000	1,200,000	1,148,003	5,098,003	1,200,000
Nicolas Moreau[4]	1,200,000	0	175,000	520,000	574,001	2,469,001	2,400,000
Werner Steinmüller	2,400,000	0	350,000	880,000	1,148,003	4,778,003	2,400,000
Frank Strauß[5]	2,400,000	0	350,000	1,669,600	1,148,003	5,567,603	800,000
John Cryan[6]	1,133,333	0	116,667	175,000	464,668	1,889,668	3,400,000
Kimberly Hammonds[7]	1,000,000	0	145,833	200,000	478,335	1,824,168	2,400,000
Dr. Marcus Schenck[8]	1,250,000	0	145,833	422,917	478,335	2,297,085	2,900,000
Jeffrey Urwin[9]	0	0	0	0	0	0	600,000
Total	25,711,111	4,200,000	3,383,333	11,063,448	11,358,397	55,716,289	29,750,000

1 STA: Short-Term Award.
2 LTA: Long-Term Award.
3 Member since July 1, 2017.
4 Member until December 31, 2018. In his position as managing director of DWS Management GmbH a total compensation of € 2,916,667 was determined for 2018.
5 Member since September 1, 2017.
6 Member until April 8, 2018.
7 Member until May 24, 2018.
8 Member until May 24, 2018.
9 Member until March 31, 2017.

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 tables in accordance with the German Corporate Governance Code and DRS 17.

Share awards

The number of share awards granted to the members of the Management Board in the form of Restricted Equity Awards (REA) in 2019 for the 2018 financial year was calculated by dividing the respective amounts in Euro by the higher of both, the average Xetra closing price of the Deutsche Bank share during the last ten trading days in February 2019 or the Xetra closing price on March 1, 2019 (€ 8.173). No share awards had been granted in the previous year due to the Management Board members waiving the determination and grant of variable compensation.

Management Board members do not receive any compensation for mandates on boards of Deutsche Bank subsidiaries.

Members of the Management Board

Units	Year	Restricted Equity Award(s) (deferred with additional retention period)
Christian Sewing	2018	340,722
	2017	0
Garth Ritchie	2018	240,242
	2017	0
Karl von Rohr	2018	247,583
	2017	0
Stuart Lewis	2018	229,230
	2017	0
Sylvie Matherat	2018	196,195
	2017	0
James von Moltke[1]	2018	247,583
	2017	0
Nicolas Moreau[2]	2018	116,450
	2017	0
Werner Steinmüller	2018	218,218
	2017	0
Frank Strauß[3]	2018	290,676
	2017	0
John Cryan[4]	2018	69,405
	2017	0
Kimberly Hammonds[5]	2018	75,630
	2017	0
Dr. Marcus Schenck[6]	2018	96,086
	2017	0

[1] Member since July 1, 2017. The benefits granted to Mr. von Moltke in 2017 as a substitute for forfeited awards and not granted variable compensation from his previous employer are not displayed here.
[2] Member until December 31, 2018.
[3] Member since September 1, 2017.
[4] Member until April 8, 2018.
[5] Member until May 24, 2018.
[6] Member until May 24, 2018.

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 is set up for each participating member of the Management Board after appointment to the Management Board.

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, an additional contribution in the amount of 4 % per year of the amount reached on December 31 of the previous year will be credited to the pension account.

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.

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 and granted 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.

Management board share ownership, shareholding guidelines

As of February 15, 2019 and February 16, 2018, respectively, the current members of the Management Board held Deutsche Bank shares as presented below:

Members of the Management Board		Number of shares
Christian Sewing	2019	73,237
	2018	54,356
Garth Ritchie	2019	84,738
	2018	43,227
Karl von Rohr	2019	5,601
	2018	5,601
Frank Kuhnke[1]	2019	7,094
Stuart Lewis	2019	103,561
	2018	88,292
Sylvie Matherat	2019	0
	2018	0
James von Moltke[2]	2019	24,967
	2018	0
Werner Steinmüller	2019	146,905
	2018	119,688
Frank Strauß[3]	2019	10,772
	2018	7,172
Total	**2019**	**456,875**
	2018	318,336

[1] Member since January 1, 2019.
[2] Member since July 1, 2017.
[3] Member since September 1, 2017.

The current members of the Management Board held an aggregate of 456,875 Deutsche Bank shares on February 15, 2019, 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 16, 2018 and February 15, 2019 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 16, 2018	Granted	Delivered	Forfeited	Balance as of Feb 15, 2019
Christian Sewing	96,821	684	35,824	0	61,681
Garth Ritchie	618,736	2,242	76,424	0	544,554
Karl von Rohr	49,206	551	0	0	49,757
Frank Kuhnke[1]	–	–	–	–	104,507
Stuart Lewis	160,498	1,474	28,916	0	133,056
Sylvie Matherat	12,181	137	0	0	12,318
James von Moltke[2]	194,142	0	47,535	0	146,607
Werner Steinmüller	220,821	1,894	51,836	0	170,878
Frank Strauß[3]	46,983	20,019	6,857	0	60,144

[1] Member since January 1, 2019.
[2] Member since July 1, 2017.
[3] Member since September 1, 2017.

One Management Board member did not fulfill the retention obligation as of December 31, or else was unable to meet this obligation in time for that date, due to purchasing restrictions. At the time of this report, however, the obligation has been fulfilled. The remaining Management Board members fulfilled the retention obligations for shares in 2018 or are currently in the waiting period.

Pension benefits

The following table shows the annual contributions, the interest credits, the account balances and the annual service costs for the years 2018 and 2017 as well as the corresponding defined benefit obligations for each member of the Management Board in office in 2018 as of December 31, 2018 and December 31, 2017. 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	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	
in €	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Christian Sewing	1,007,500	1,046,500	0	0	3,831,500	2,824,000	879,750	899,307	3,366,182	2,450,830
Garth Ritchie	1,440,000	1,500,000	0	0	4,490,000	3,050,000	1,274,429	1,306,915	4,026,939	2,704,127
Karl von Rohr	845,000	871,000	0	0	2,368,001	1,523,001	796,009	807,465	2,249,165	1,434,564
Stuart Lewis	845,000	871,000	0	0	4,058,938	3,213,938	796,009	807,465	4,236,867	3,377,866
Sylvie Matherat	754,000	786,500	0	0	2,127,168	1,373,168	755,261	774,917	2,125,681	1,354,995
James von Moltke[1]	975,000	503,750	0	0	1,478,750	503,750	864,990	451,453	1,334,670	463,619
Nicolas Moreau[2]	0	1,340,000	0	0	0[7]	1,687,500	607,093	1,232,878	0	1,591,229
Werner Steinmüller	650,000	650,000	32,934	6,667	1,506,268	823,334	688,942	701,617	1,542,860	907,793
Frank Strauß[3]	1,007,500	348,834	0	0	1,356,334	348,834	876,266	313,391	1,202,739	321,839
John Cryan[4]	0	728,000	0	0	0[8]	1,875,250	733,807	748,829	0	1,916,940
Kimberly Hammonds[5]	0	936,000	0	0	0[9]	1,186,001	825,100	842,110	0	1,091,041
Dr. Marcus Schenck[6]	541,668	1,105,000	0	0	2,731,169	2,189,501	504,568	1,018,267	2,553,842	2,051,090

[1] Member since July 1, 2017.
[2] Member until December 31, 2018. In his position as managing director of DWS Management GmbH a service cost amount of € 607,093 was determined for 2018.
[3] Member since September 1, 2017.
[4] Member until April 8, 2018.
[5] Member until May 24, 2018.
[6] Member until May 24, 2018.
[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 € 2,084,667 and in the amount of € 579,694 for the DWS Management GmbH.
[8] 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 € 3,420,961.
[9] 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 € 2,231,933.

Other benefits upon early termination

In 2018, the Management Board members John Cryan, Kimberly Hammonds, Marcus Schenck and Nicolas Moreau left the Management Board. Termination payments to which they were entitled based on their employment contract were agreed with these members as follows:

John Cryan left the Management Board with effect from the end of April 8, 2018. On the basis of the termination agreement, compensation payments for a post-contractual restraint on competition already agreed in the employment contract in the amount of € 2,210,000 and a severance payment in the amount of € 8,674,000 were agreed. Of the severance, the first instalment in the amount of € 1,071,800 was disbursed in cash in May 2018. The second instalment in the amount of € 1,071,800 was granted in shares and becomes due for disbursement on April 30, 2019. A further instalment in the amount of € 3,265,200 was granted in the form of deferred cash compensation with a settlement period ending April 30, 2023. A final instalment in the amount of € 3,265,200 was granted in the form of deferred share-based compensation with a settlement period ending April 30, 2024. All contractually agreed provisions with respect to variable compensation elements apply accordingly to the severance payment, including the option to reclaim any variable compensation (clawback), and the severance payment is subject to a regulation for the offsetting of income received from other sources.

Kimberly Hammonds left the Management Board with effect from the end of May 24, 2018. On the basis of the termination agreement, compensation payments for a post-contractual restraint on competition already agreed in the employment contract in the amount of € 1,560,000 and a severance payment in the amount of € 3,303,834 were agreed. Of the severance, the first instalment in the amount of € 192,767 was disbursed in cash in May 2018. A second instalment in the amount of € 192,767 was granted in the form of shares and becomes due for disbursement on May 31, 2019. A further instalment in the amount of € 1,459,150 was granted in the form of deferred cash compensation with a settlement period ending May 31, 2023. A final instalment in the amount of € 1,459,150 was granted in the form of deferred share-based compensation with a settlement period ending May 31, 2024. All contractually agreed provisions with respect to variable compensation elements apply accordingly to the severance payment, including the option to reclaim any variable compensation (clawback), and the severance payment is subject to a regulation for the offsetting of income received from other sources. The contractually, but not legally vested present value of the pension account in the company pension plan at the time of Mrs. Hammond’s termination of the Management Board membership has been disbursed to her.

Marcus Schenck left the Management Board with effect from the end of May 24, 2018. On the basis of the termination agreement, compensation payments for a post-contractual restraint on competition were agreed in the aggregate amount of € 1,950,000, payable in 12 monthly instalments. Marcus Schenck informed the bank that he has taken up a new position as of February 1, 2019. Therefore, the payments ceased from this date onwards. No further severance payment was agreed.

Nicolas Moreau left the Management Board with effect from the end of December 31, 2018. On the basis of the termination agreement, compensation payments for a post-contractual restraint on competition agreed in the employment contract in the amount of € 960,000 and a severance payment in the amount of € 807,600 were agreed. Of the severance, the first instalment in the amount of € 403,800 was granted in the form of deferred cash compensation with a settlement period ending March 1, 2024. A second instalment in the amount of € 403,800 was granted as share-based compensation with a settlement period ending March 1, 2025. All contractually agreed provisions with respect to variable compensation elements apply accordingly to the severance payment, including the option to reclaim any variable compensation (clawback). Furthermore, the termination of the employment relationship between DWS Management GmbH and Nicolas Moreau as managing director of the GmbH was agreed. Based on this termination agreement, a severance payment in the amount of € 7,000,000 was agreed. The first instalment in the amount of € 1,400,000 was disbursed in cash in December 2018. The second instalment in the same amount was granted in shares and becomes due for disbursement on March 1, 2020. A further instalment in the amount of € 2,100,000 was granted in the form of deferred cash compensation with a settlement period ending March 1, 2024. A final instalment in the amount of € 2,100,000 was granted in the form of deferred share-based compensation with a settlement period ending March 1, 2025.

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 €	2018	2017	2018	2017
James von Moltke[1]	225,845	0	630,407	671,148
Stuart Lewis	(393,743)[2]	955,633	57,414	230,974

[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.

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 disbursals 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 2018 and 2017 financial years according to GCGC:

						Christian Sewing
				2018		2017
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	3,291,111	3,291,111	3,291,111	3,291,111	2,900,000	2,900,000
Functional allowance	0	0	0	0	0	0
Fringe benefits (fixed compensation)	91,805	91,805	91,805	91,805	80,307	80,307
Total	**3,382,916**	**3,382,916**	**3,382,916**	**3,382,916**	2,980,307	2,980,307
Variable compensation	3,712,968	5,055,000	0	8,491,667	0	4,400,000
thereof:						
Restricted Incentive Awards	928,242	1,818,333	0	3,636,666	0	1,600,000
Restricted Equity Awards	2,784,726	3,236,667	0	4,855,001	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**3,712,968**	**5,055,000**	**0**	**8,491,667**	0	4,400,000
Pension service costs	879,750	879,750	879,750	879,750	899,307	899,307
Total compensation (GCGC)	**7,975,634**	**9,317,666**	**4,262,666**	**12,754,333**	3,879,614	8,279,614
Total compensation[1]	**7,004,079**	**8,346,111**	**3,291,111**	**11,782,778**	2,900,000	7,300,000

[1] Without fringe benefits and pension service costs.

						Garth Ritchie
				2018		2017
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Functional allowance	3,000,000	3,000,000	3,000,000	3,000,000	250,000	250,000
Fringe benefits (fixed compensation)	189,609	189,609	189,609	189,609	269,457	269,457
Total	**6,189,609**	**6,189,609**	**6,189,609**	**6,189,609**	3,519,457	3,519,457
Variable compensation	2,618,003	4,700,000	0	8,000,000	0	4,700,000
thereof:						
Restricted Incentive Awards	654,500	1,900,000	0	3,800,000	0	1,900,000
Restricted Equity Awards	1,963,503	2,800,000	0	4,200,000	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**2,618,003**	**4,700,000**	**0**	**8,000,000**	0	4,700,000
Pension service costs	1,274,429	1,274,429	1,274,429	1,274,429	1,306,915	1,306,915
Total compensation (GCGC)	**10,082,041**	**12,164,038**	**7,464,038**	**15,464,038**	4,826,372	9,526,372
Total compensation[1]	**8,618,003**	**10,700,000**	**6,000,000**	**14,000,000**	3,250,000	7,950,000

[1] Without fringe benefits and pension service costs.

						Karl von Rohr
				2018		2017
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,836,667	2,836,667	2,836,667	2,836,667	2,400,000	2,400,000
Fringe benefits (fixed compensation)	49,853	49,853	49,853	49,853	23,642	23,642
Total	**2,886,520**	**2,886,520**	**2,886,520**	**2,886,520**	2,423,642	2,423,642
Variable compensation	2,698,003	4,100,000	0	6,800,000	0	4,100,000
thereof:						
Restricted Incentive Awards	674,500	1,300,000	0	2,600,000	0	1,300,000
Restricted Equity Awards	2,023,503	2,800,000	0	4,200,000	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**2,698,003**	**4,100,000**	**0**	**6,800,000**	0	4,100,000
Pension service costs	796,009	796,009	796,009	796,009	807,465	807,465
Total compensation (GCGC)	**6,380,532**	**7,782,529**	**3,682,529**	**10,482,529**	3,231,107	7,331,107
Total compensation[1]	**5,534,670**	**6,936,667**	**2,836,667**	**9,636,667**	2,400,000	6,500,000

[1] Without fringe benefits and pension service costs.

						Stuart Lewis
				2018		2017
in €	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	1,200,000	1,200,000	1,200,000	1,200,000	300,000	300,000
Fringe benefits (fixed compensation)	184,423	184,423	184,423	184,423	206,628	206,628
Total	**3,784,423**	**3,784,423**	**3,784,423**	**3,784,423**	2,906,628	2,906,628
Variable compensation	2,498,003	4,100,000	0	6,800,000	0	4,100,000
thereof:						
Restricted Incentive Awards	624,500	1,300,000	0	2,600,000	0	1,300,000
Restricted Equity Awards	1,873,503	2,800,000	0	4,200,000	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**2,498,003**	**4,100,000**	**0**	**6,800,000**	0	4,100,000
Pension service costs	796,009	796,009	796,009	796,009	807,465	807,465
Total compensation (GCGC)	**7,078,435**	**8,680,432**	**4,580,432**	**11,380,432**	3,714,093	7,814,093
Total compensation[1]	**6,098,003**	**7,700,000**	**3,600,000**	**10,400,000**	2,700,000	6,800,000

[1] Without fringe benefits and pension service costs.

						Sylvie Matherat
				2018		2017
in €	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 (fixed compensation)	6,392	6,392	6,392	6,392	16,338	16,338
Total	**2,406,392**	**2,406,392**	**2,406,392**	**2,406,392**	2,416,338	2,416,338
Variable compensation	2,138,003	4,100,000	0	6,800,000	0	4,100,000
thereof:						
Restricted Incentive Awards	534,500	1,300,000	0	2,600,000	0	1,300,000
Restricted Equity Awards	1,603,503	2,800,000	0	4,200,000	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**2,138,003**	**4,100,000**	**0**	**6,800,000**	0	4,100,000
Pension service costs	755,261	755,261	755,261	755,261	774,917	774,917
Total compensation (GCGC)	**5,299,656**	**7,261,653**	**3,161,653**	**9,961,653**	3,191,255	7,291,255
Total compensation[1]	**4,538,003**	**6,500,000**	**2,400,000**	**9,200,000**	2,400,000	6,500,000

[1] Without fringe benefits and pension service costs.

						James von Moltke[1]
				2018		2017
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	1,200,000	1,200,000
Fringe benefits (fixed compensation)	86,975	86,975	86,975	86,975	35,261	35,261
Total	**2,486,975**	**2,486,975**	**2,486,975**	**2,486,975**	1,235,261	1,235,261
Variable compensation	2,698,003	4,100,000	0	6,800,000	4,858,442[2]	2,050,000
thereof:						
Cash	0	0	0	0	355,404	0
Restricted Incentive Awards	674,500	1,300,000	0	2,600,000	1,600,227	650,000
Equity Upfront Awards	0	0	0	0	355,404	1,400,000
Restricted Equity Awards	2,023,503	2,800,000	0	4,200,000	2,547,407	0
Fringe benefits (variable compensation)	615,516	615,516	615,516	615,516	438,038	438,038
Total	**3,313,519**	**4,715,516**	**615,516**	**7,415,516**	5,296,480	2,488,038
Pension service costs	864,990	864,990	864,990	864,990	451,453	451,453
Total compensation (GCGC)	**6,665,484**	**8,067,481**	**3,967,481**	**10,767,481**	6,983,194	4,174,752
Total compensation[3]	**5,098,003**	**6,500,000**	**2,400,000**	**9,200,000**	6,058,442	3,250,000

[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]

	2018				2017	
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	1,200,000	1,200,000	1,200,000	1,200,000	2,400,000	2,400,000
Fringe benefits (fixed compensation)	129,407	129,407	129,407	129,407	59,383	59,383
Total	**1,329,407**	**1,329,407**	**1,329,407**	**1,329,407**	2,459,383	2,459,383
Variable compensation	1,269,001	2,300,000	0	3,900,000	0	4,600,000
thereof:						
Restricted Incentive Awards	317,250	900,000	0	1,800,000	0	1,800,000
Restricted Equity Awards	951,751	1,400,000	0	2,100,000	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**1,269,001**	**2,300,000**	**0**	**3,900,000**	0	4,600,000
Pension service costs	607,093	607,093	607,093	607,093	1,232,878	1,232,878
Total compensation (GCGC)	**3,205,501**	**4,236,500**	**1,936,500**	**5,836,500**	3,692,261	8,292,261
Total compensation[2]	**2,469,001**	**3,500,000**	**1,200,000**	**5,100,000**	2,400,000	7,000,000

[1] Member until December 31, 2018. In his position as managing director of DWS Management GmbH a total compensation (GCGC) of € 3,523,792 was determined for 2018.
[2] Without fringe benefits and pension service costs.

Werner Steinmüller

	2018				2017	
in €	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 (fixed compensation)	76,993	76,993	76,993	76,993	82,934	82,934
Total	**2,476,993**	**2,476,993**	**2,476,993**	**2,476,993**	2,482,934	2,482,934
Variable compensation	2,378,003	4,100,000	0	6,800,000	0	4,100,000
thereof:						
Restricted Incentive Awards	594,500	1,300,000	0	2,600,000	0	1,300,000
Restricted Equity Awards	1,783,503	2,800,000	0	4,200,000	0	2,800,000
Fringe benefits (variable compensation)	387,196	387,196	387,196	387,196	316,490	316,490
Total	**2,765,199**	**4,487,196**	**387,196**	**7,187,196**	316,490	4,416,490
Pension service costs	688,942	688,942	688,942	688,942	701,617	701,617
Total compensation (GCGC)	**5,931,134**	**7,653,131**	**3,553,131**	**10,353,131**	3,501,041	7,601,041
Total compensation[1]	**4,778,003**	**6,500,000**	**2,400,000**	**9,200,000**	2,400,000	6,500,000

[1] Without fringe benefits and pension service costs.

Frank Strauß[1]

	2018				2017	
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	2,400,000	2,400,000	2,400,000	2,400,000	800,000	800,000
Fringe benefits (fixed compensation)	71,892	71,892	71,892	71,892	26,893	26,893
Total	**2,471,892**	**2,471,892**	**2,471,892**	**2,471,892**	826,893	826,893
Variable compensation	3,167,603	4,400,000	0	7,400,000	0	1,466,667
thereof:						
Restricted Incentive Awards	791,900	1,600,000	0	3,200,000	0	533,333
Restricted Equity Awards	2,375,703	2,800,000	0	4,200,000	0	933,333
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**3,167,603**	**4,400,000**	**0**	**7,400,000**	0	1,466,667
Pension service costs	876,266	876,266	876,266	876,266	313,391	313,391
Total compensation (GCGC)	**6,515,761**	**7,748,158**	**3,348,158**	**10,748,158**	1,140,284	2,606,951
Total compensation[2]	**5,567,603**	**6,800,000**	**2,400,000**	**9,800,000**	800,000	2,266,667

[1] Member since September 1, 2017.
[2] Without fringe benefits and pension service costs.

John Cryan[1]

	2018				2017	
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	1,133,333	1,133,333	1,133,333	1,133,333	3,400,000	3,400,000
Fringe benefits (fixed compensation)	10,125	10,125	10,125	10,125	220,982	220,982
Total	**1,143,458**	**1,143,458**	**1,143,458**	**1,143,458**	3,620,982	3,620,982
Variable compensation	756,335	1,766,666	0	2,966,666	0	5,300,000
thereof:						
Restricted Incentive Awards	189,083	633,333	0	1,266,666	0	1,900,000
Restricted Equity Awards	567,252	1,133,333	0	1,700,000	0	3,400,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**756,335**	**1,766,666**	**0**	**2,966,666**	0	5,300,000
Pension service costs	733,807	733,807	733,807	733,807	748,829	748,829
Total compensation (GCGC)	**2,633,600**	**3,643,931**	**1,877,265**	**4,843,931**	4,369,811	9,669,811
Total compensation[2]	**1,889,668**	**2,899,999**	**1,133,333**	**4,099,999**	3,400,000	8,700,000

[1] Member until April 8, 2018.
[2] Without fringe benefits and pension service costs.

						Kimberly Hammonds[1]
				2018		2017
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	1,000,000	1,000,000	1,000,000	1,000,000	2,400,000	2,400,000
Fringe benefits (fixed compensation)	209,799	209,799	209,799	209,799	260,489	260,489
Total	**1,209,799**	**1,209,799**	**1,209,799**	**1,209,799**	2,660,489	2,660,489
Variable compensation	824,168	1,708,334	0	2,833,335	0	4,100,000
thereof:						
Restricted Incentive Awards	206,042	541,667	0	1,083,334	0	1,300,000
Restricted Equity Awards	618,126	1,166,667	0	1,750,001	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**824,168**	**1,708,334**	**0**	**2,833,335**	0	4,100,000
Pension service costs	825,100	825,100	825,100	825,100	842,110	842,110
Total compensation (GCGC)	**2,859,067**	**3,743,233**	**2,034,899**	**4,868,234**	3,502,599	7,602,599
Total compensation[2]	**1,824,168**	**2,708,334**	**1,000,000**	**3,833,335**	2,400,000	6,500,000

[1] Member until May 24, 2018.
[2] Without fringe benefits and pension service costs.

						Dr. Marcus Schenck[1]
				2018		2017
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	1,250,000	1,250,000	1,250,000	1,250,000	2,900,000	2,900,000
Fringe benefits (fixed compensation)	13,117	13,117	13,117	13,117	16,148	16,148
Total	**1,263,117**	**1,263,117**	**1,263,117**	**1,263,117**	2,916,148	2,916,148
Variable compensation	1,047,085	1,958,334	0	3,333,335	0	4,400,000
thereof:						
Restricted Incentive Awards	261,771	791,667	0	1,583,334	0	1,600,000
Restricted Equity Awards	785,314	1,166,667	0	1,750,001	0	2,800,000
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**1,047,085**	**1,958,334**	**0**	**3,333,335**	0	4,400,000
Pension service costs	504,568	504,568	504,568	504,568	1,018,267	1,018,267
Total compensation (GCGC)	**2,814,770**	**3,726,019**	**1,767,685**	**5,101,020**	3,934,415	8,334,415
Total compensation[2]	**2,297,085**	**3,208,334**	**1,250,000**	**4,583,335**	2,900,000	7,300,000

[1] Member until May 24, 2018.
[2] Without fringe benefits and pension service costs.

						Jeffrey Urwin[1]
				2018		2017
in €	Determined	Target	Min	Max	Determined	Target
Fixed compensation (base salary)	0	0	0	0	600,000	600,000
Fringe benefits (fixed compensation)	0	0	0	0	530	530
Total	**0**	**0**	**0**	**0**	600,530	600,530
Variable compensation	0	0	0	0	0	0
thereof:						
Restricted Incentive Awards	0	0	0	0	0	0
Restricted Equity Awards	0	0	0	0	0	0
Fringe benefits (variable compensation)	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	0	0
Pension service costs	0	0	0	0	557,370	557,370
Total compensation (GCGC)	**0**	**0**	**0**	**0**	1,157,900	1,157,900
Total compensation[2]	**0**	**0**	**0**	**0**	600,000	600,000

[1] Member until March 31, 2017.
[2] Without fringe benefits and pension service costs.

The following table provides the compensation disbursals in/for the 2018 and 2017 financial years according to GCGC

	Christian Sewing		Garth Ritchie		Karl von Rohr		Stuart Lewis	
in €	2018	2017	2018	2017	2018	2017	2018	2017
Fixed compensation	3,291,111	2,900,000	3,000,000	3,000,000	2,836,667	2,400,000	2,400,000	2,400,000
Functional allowance	0	0	3,000,000	250,000	0	0	1,200,000	300,000
Fringe benefits (fixed compensation)	91,805	80,307	189,609	269,457	49,853	23,642	184,423	206,628
Total	**3,382,916**	2,980,307	**6,189,609**	3,519,457	**2,886,520**	2,423,642	**3,784,423**	2,906,628
Variable compensation	0	0	0	0	0	0	431,973	999,285
thereof Cash:	0	0	0	0	0	0	0	0
thereof Restricted Incentive Awards:								
2013 Restricted Incentive Award for 2012	0	0	0	0	0	0	0	377,871
2014 Restricted Incentive Award for 2013	0	0	0	0	0	0	126,935	357,391
2015 Restricted Incentive Award for 2014	0	0	0	0	0	0	105,340	200,965
2017 Restricted Incentive Award: Buyout	0	0	0	0	0	0	0	0
thereof Equity Awards:								
2013 Equity Upfront Award for 2012	0	0	0	0	0	0	0	27,560
2014 Equity Upfront Award for 2013	0	0	0	0	0	0	0	35,498
2013 Restricted Equity Award for 2012	0	0	0	0	0	0	199,698	0
2017 Restricted Equity Award: Buyout	0	0	0	0	0	0	0	0
Fringe benefits (variable compensation)	0	0	0	0	0	0	0	0
Total	**0**	0	**0**	0	**0**	0	**431,973**	999,285
Pension service costs	879,750	899,307	1,274,429	1,306,915	796,009	807,465	796,009	807,465
Total compensation (GCGC)	**4,262,666**	3,879,614	**7,464,038**	4,826,372	**3,682,529**	3,231,107	**5,012,405**	4,713,378

	Sylvie Matherat		James von Moltke[1]		Nicolas Moreau[2]		Werner Steinmüller	
in €	2018	2017	2018	2017	2018	2017	2018	2017
Fixed compensation	2,400,000	2,400,000	2,400,000	1,200,000	1,200,000	2,400,000	2,400,000	2,400,000
Functional allowance	0	0	0	0	0	0	0	0
Fringe benefits (fixed compensation)	6,392	16,338	86,975	35,261	129,407	59,383	76,993	82,934
Total	**2,406,392**	2,416,338	**2,486,975**	1,235,261	**1,329,407**	2,459,383	**2,476,993**	2,482,934
Variable compensation	0	0	1,166,703	355,404	0	0	0	0
thereof Cash:	0	0	0	355,404	0	0	0	0
thereof Restricted Incentive Awards:								
2013 Restricted Incentive Award for 2012	0	0	0	0	0	0	0	0
2014 Restricted Incentive Award for 2013	0	0	0	0	0	0	0	0
2015 Restricted Incentive Award for 2014	0	0	0	0	0	0	0	0
2017 Restricted Incentive Award: Buyout	0	0	560,758	0	0	0	0	0
thereof Equity Awards:								
2013 Equity Upfront Award for 2012	0	0	0	0	0	0	0	0
2014 Equity Upfront Award for 2013	0	0	0	0	0	0	0	0
2013 Restricted Equity Award for 2012	0	0	0	0	0	0	0	0
2017 Restricted Equity Award: Buyout	0	0	605,945	0	0	0	0	0
Fringe benefits (variable compensation)	0	0	615,516	438,038	0	0	387,196	316,490
Total	**0**	0	**1,782,219**	793,442	**0**	0	**387,196**	316,490
Pension service costs	755,261	774,917	864,990	451,453	607,093	1,232,878	688,942	701,617
Total compensation (GCGC)	**3,161,653**	3,191,255	**5,134,184**	2,480,156	**1,936,500**	3,692,261	**3,553,131**	3,501,041

[1] Member since July 1, 2017. The benefits disbursed to Mr. von Moltke in 2017 as a substitute for forfeited awards and not granted variable compensation from his previous employer are displayed under "Variable Compensation".
[2] Member until December 31, 2018. In his position as managing director of DWS Management GmbH a total compensation of € 2,323,792 was paid in 2018.

	Frank Strauß[1]		John Cryan[2]		Kimberly Hammonds[3]		Dr. Marcus Schenck[4]	
in €	2018	2017	2018	2017	2018	2017	2018	2017
Fixed compensation	2,400,000	800,000	1,133,333	3,400,000	1,000,000	2,400,000	1,250,000	2,900,000
Functional allowance	0	0	0	0	0	0	0	0
Fringe benefits (fixed compensation)	71,892	26,893	10,125	220,982	209,799	260,489	13,117	16,148
Total	2,471,892	826,893	1,143,458	3,620,982	1,209,799	2,660,489	1,263,117	2,916,148
Variable compensation	0	0	0	0	0	0	0	0
thereof Cash:	0	0	0	0	0	0	0	0
thereof Restricted Incentive Awards:								
2013 Restricted Incentive Award for 2012	0	0	0	0	0	0	0	0
2014 Restricted Incentive Award for 2013	0	0	0	0	0	0	0	0
2015 Restricted Incentive Award for 2014	0	0	0	0	0	0	0	0
2017 Restricted Incentive Award: Buyout	0	0	0	0	0	0	0	0
thereof Equity Awards:								
2013 Equity Upfront Award for 2012	0	0	0	0	0	0	0	0
2014 Equity Upfront Award for 2013	0	0	0	0	0	0	0	0
2013 Restricted Equity Award for 2012	0	0	0	0	0	0	0	0
2017 Restricted Equity Award: Buyout	0	0	0	0	0	0	0	0
Fringe benefits (variable compensation)	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Pension service costs	876,266	313,391	733,807	748,829	825,100	842,110	504,568	1,018,267
Total compensation (GCGC)	3,348,158	1,140,284	1,877,265	4,369,811	2,034,899	3,502,599	1,767,685	3,934,415

[1] Member since September 1, 2017.
[2] Member until April 8, 2018.
[3] Member until May 24, 2018.
[4] Member until May 24, 2018.

	Jeffrey Urwin[1]	
in €	2018	2017
Fixed compensation	0	600,000
Functional allowance	0	0
Fringe benefits (fixed compensation)	0	530
Total	0	600,530
Variable compensation	0	0
thereof Cash:	0	0
thereof Restricted Incentive Awards:		
2013 Restricted Incentive Award for 2012	0	0
2014 Restricted Incentive Award for 2013	0	0
2015 Restricted Incentive Award for 2014	0	0
2017 Restricted Incentive Award: Buyout	0	0
thereof Equity Awards:		
2013 Equity Upfront Award for 2012	0	0
2014 Equity Upfront Award for 2013	0	0
2013 Restricted Equity Award for 2012	0	0
2017 Restricted Equity Award: Buyout	0	0
Fringe benefits (variable compensation)	0	0
Total	0	0
Pension service costs	0	557,370
Total compensation (GCGC)	0	1,157,900

[1] Member until March 31, 2017.

With respect to deferred awards scheduled to be delivered in the first quarter of 2019, the Supervisory Board has confirmed that the performance conditions relating to Group-wide IBIT for the financial year 2018 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 2018 financial year compensation totaling € 52,181,136 (2017: € 37,665,535). Of that, € 25,711,111 (2017: € 29,200,000) was for fixed compensation, € 4,200,000 (2017: € 550,000) for functional allowances, € 2,123,102 (2017: € 2,053,520) for fringe benefits and € 20,146,923 (2017: € 5,862,015) 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 2018 and 2017, including the non-performance-related fringe benefits.

Compensation according to GAS 17

	Christian Sewing		Garth Ritchie		Karl von Rohr		Stuart Lewis	
in €	2018	2017	2018	2017	2018	2017	2018	2017
Compensation								
Performance-related components								
Without long-term incentives								
Immediately paid out	0	0	0	0	0	0	0	0
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	0	0	232,275	936,228
Share-based								
Equity Upfront Award(s)	0	0	0	0	0	0	0	0
Restricted Equity Award(s)	2,784,726	0	1,963,503	0	2,023,503	0	1,873,503	0
Non-performance-related components								
Base salary	3,291,111	2,900,000	3,000,000	3,000,000	2,836,667	2,400,000	2,400,000	2,400,000
Functional allowance	0	0	3,000,000	250,000	0	0	1,200,000	300,000
Fringe benefits (fixed and variable compensation)	91,805	80,307	189,609	269,457	49,853	23,642	184,423	206,628
Total	**6,167,642**	2,980,307	**8,153,112**	3,519,457	**4,910,023**	2,423,642	**5,890,201**	3,842,856

	Sylvie Matherat		James von Moltke[1]		Nicolas Moreau[2]		Werner Steinmüller	
in €	2018	2017	2018	2017	2018	2017	2018	2017
Compensation								
Performance-related components								
With short-term incentives								
Cash	0	0	0	355,404	0	0	0	0
With long-term incentives								
Cash-based								
Restricted Incentive Award(s) paid	0	0	560,758	0	0	0	0	0
Share-based								
Equity Upfront Award(s)	0	0	0	355,404	0	0	0	0
Restricted Equity Award(s)	1,603,503	0	2,023,503	2,547,407	951,751	0	1,783,503	0
Non-performance-related components								
Base salary	2,400,000	2,400,000	2,400,000	1,200,000	1,200,000	2,400,000	2,400,000	2,400,000
Functional allowance	0	0	0	0	0	0	0	0
Fringe benefits (fixed and variable compensation)	6,392	16,338	702,491	473,299	129,407	59,383	464,189	399,424
Total	**4,009,895**	2,416,338	**5,686,752**	4,931,514	**2,281,158**	2,459,383	**4,647,692**	2,799,424

[1] Member since July 1, 2017.
[2] Member until December 31, 2018. In his position as managing director of DWS Management GmbH he received a total of € 2,466,699.

in €	Frank Strauß[1] 2018	Frank Strauß[1] 2017	John Cryan[2] 2018	John Cryan[2] 2017	Kimberly Hammonds[3] 2018	Kimberly Hammonds[3] 2017	Dr. Marcus Schenck[4] 2018	Dr. Marcus Schenck[4] 2017
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	0	0	0	0
Share-based								
Equity Upfront Award(s)	0	0	0	0	0	0	0	0
Restricted Equity Award(s)	2,375,703	0	567,252	0	618,126	0	785,314	0
Non-performance-related components								
Base salary	2,400,000	800,000	1,133,333	3,400,000	1,000,000	2,400,000	1,250,000	2,900,000
Functional allowance	0	0	0	0	0	0	0	0
Fringe benefits (fixed and variable compensation)	71,892	26,893	10,125	220,982	209,799	260,489	13,117	16,148
Total	**4,847,595**	826,893	**1,710,710**	3,620,982	**1,827,925**	2,660,489	**2,048,431**	2,916,148

[1] Member since September 1, 2017.
[2] Member until April 8, 2018.
[3] Member until May 24, 2018.
[4] Member until May 24, 2018.

in €	Jeffrey Urwin[1] 2018	Jeffrey Urwin[1] 2017	Total 2018	Total 2017
Compensation				
Performance-related components				
With short-term incentives				
Cash	0	0	0	355,404
With long-term incentives				
Cash-based				
Restricted Incentive Award(s) paid	0	0	793,033	2,603,800[2]
Share-based				
Equity Upfront Award(s)	0	0	0	355,404
Restricted Equity Award(s)	0	0	19,353,890	2,547,407
Non-performance-related components				
Base salary	0	600,000	25,711,111	29,200,000
Functional allowance	0	0	4,200,000	550,000
Fringe benefits (fixed and variable compensation)	0	530	2,123,102	2,053,520
Total	**0**	600,530	**52,181,136**	37,665,535[2]

[1] Member until March 31, 2017.
[2] The amount of € 1,667,572 for Mr. Fitschen reported in last year's annual report is included in total but no longer reported separately as he had already left the Management Board in the 2016 financial year.

With respect to deferred awards scheduled to be delivered in the first quarter of 2019, the Supervisory Board has confirmed that the performance conditions relating to Group-wide IBIT for the 2018 financial year have been met.

Employee compensation report

The content of the 2018 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).

This Compensation Report takes a consolidated view and covers all consolidated entities of the Deutsche Bank Group. In accordance with regulatory requirements, equivalent reports for 2018 are prepared for the following Significant Institutions within Deutsche Bank Group: Deutsche Bank Privat- und Firmenkundenbank AG, Germany; BHW Bausparkasse AG, Germany; Deutsche Bank Luxembourg S.A., Luxembourg; Deutsche Bank S.p.A., Italy; and Deutsche Bank Mutui S.p.A., Italy.

Regulatory environment

Ensuring compliance with regulatory requirements is an overarching consideration in our Group Compensation Strategy. We strive to be at the forefront of implementing regulatory requirements 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) globally, as transposed into German national law in the German Banking Act and InstVV. We adopted the rules in its current version for all of Deutsche Bank's subsidiaries and branches world-wide to the extent required in accordance with Section 27 InstVV. As a Significant Institution within the meaning of 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) 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 Significant Institutions.

Taking into account more specific sectorial legislation and in accordance with InstVV, some of Deutsche Bank's subsidiaries (in particular within the DWS Group) fall under the local transpositions of the Alternative Investments Fund Managers Directive (AIFMD) or the Undertakings for Collective Investments in Transferable Securities Directive (UCITS). We also identify Material Risk Takers in these subsidiaries. Identified employees are subject to the remuneration provisions outlined in the Guidelines on sound remuneration policies under AIFMD/UCITS published by the European Securities and Markets Authority (ESMA).

Deutsche Bank also takes into account the regulations targeted at employees who engage directly or indirectly with the bank's clients (for instance the local transpositions of the Markets in Financial Instruments Directive II – MiFID II). These provisions resulted in the implementation of a specific compensation policy, a review of compensation plans and the identification of employees deemed to be Relevant Persons to ensure that they act in the best interest of clients.

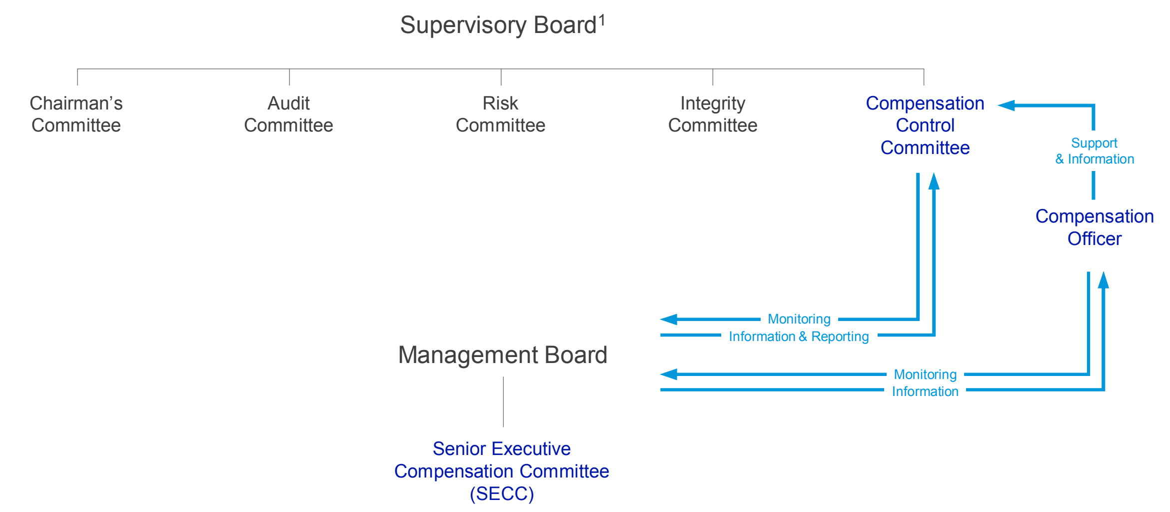
Where applicable, Deutsche Bank is also subject to specific rules and regulations implemented by local regulators. Many of these requirements are aligned with the InstVV. However, where variations are apparent, proactive and open discussions with regulators have enabled us to follow the local regulations whilst ensuring any impacted employees or locations remain within the bank's overall Group 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.

In line with their responsibilities, the bank's control functions are involved in the design and application of the bank's remuneration systems, in the identification of MRTs and in determining the total amount of VC. This includes assessing the impact of employees' behavior and the business-related risks, performance criteria, granting of remuneration and severances as well as ex-post risk adjustments.

Reward governance structure



[1] Does not comprise a complete list of Supervisory Board Committees.

Compensation Control Committee (CCC)

The Supervisory Board has setup 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 of Deutsche Bank Group, as established by the Management Board and the SECC. 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 of which are employee representatives. The Committee held five meetings in the calendar year 2018. In November, the members of the Risk Committee attended the Compensation Control Committee meeting as guests.

Compensation officer

The Management Board, in cooperation with the CCC, has appointed a Group Compensation Officer to support the Supervisory Boards of Deutsche Bank AG and of the bank's Significant Institutions in Germany 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. He supports and advises the CCC regularly.

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 Group and divisional 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 and control functions who are not aligned to any of the business divisions are members of the SECC. In 2018, 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 nonvoting members. The SECC generally meets on a monthly basis and it had 21 meetings with regard to the compensation process for performance year 2018.

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 business strategy, risk strategy, 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 about the implementation of the Compensation Strategy, governance processes as well as compensation structures and practices. All relevant documents are available to employees via our intranet site.

Group compensation framework

Our compensation framework emphasizes an appropriate balance between Fixed Pay (FP) and Variable Compensation (VC) – together Total Compensation (TC). It aligns incentives for sustainable performance at all levels of Deutsche Bank whilst ensuring the transparency of compensation decisions and their impact on shareholders and employees. The underlying principles of our compensation framework are applied to all employees equally, irrespective of differences in seniority, tenure or gender.

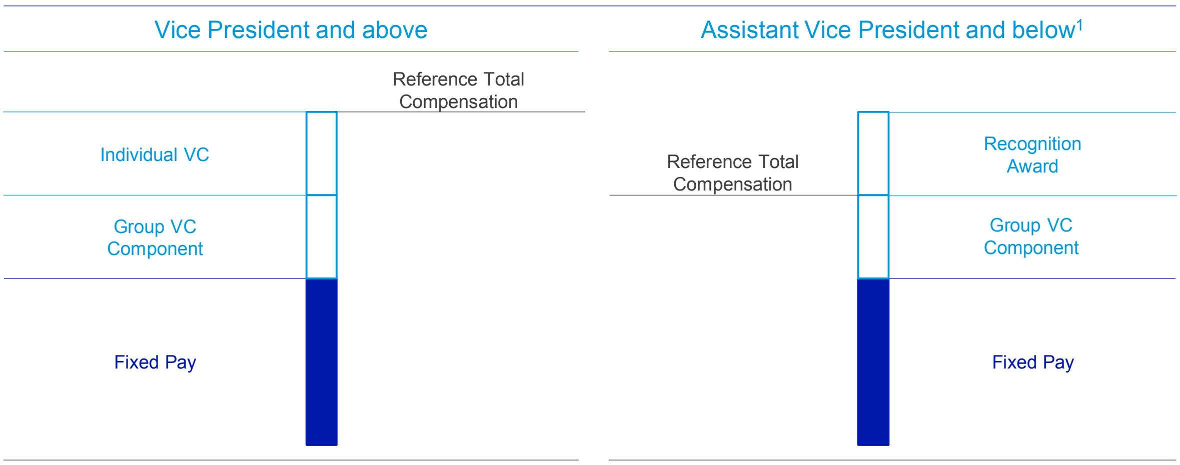
Pursuant to CRD 4 and the requirements subsequently adopted in the German Banking Act, Deutsche Bank is subject to a ratio of 1:1 with regard to fixed-to-variable remuneration components, which was increased to 1:2 with shareholder approval on May 22, 2014 with an approval rate of 95.27 %, based on valid votes by 27.68 % of the share capital represented at the Annual General Meeting. Nonetheless, the bank has determined that employees in specific infrastructure functions should continue to be subject to a ratio of at least 1:1 while Control Functions as defined by InstVV are subject to a ratio of 2:1 with regard to fixed-to-variable remuneration components.

The bank has assigned a Reference Total Compensation (RTC) to eligible employees that describes a reference value for their role. This value provides our employees orientation on their FP and VC. Actual individual TC 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 FP is determined with reference to the prevailing market rates for each role, internal comparisons and applicable regulatory requirements. FP 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, FP is the primary compensation component with a share of greater than 50 % of TC.

Variable Compensation reflects affordability and performance at Group, divisional, and individual level. It allows us 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 applicable for employees at the level of Vice President (VP) and above) or as Recognition Award (generally applicable for employees at the level of Assistant Vice President (AVP) and below). In cases of negative performance contributions or misconduct, an employee's VC can be reduced accordingly and can go down to zero. VC is granted and paid out subject to Group affordability. Under our compensation framework, there continues to be no guarantee of VC in an existing employment relationship. Such arrangements are utilized only on a very limited basis for new hires in the first year of employment and are subject to the bank's standard deferral requirements.

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 ensure an explicit link between VC and the performance of the Group. To assess our annual achievements in reaching our strategic targets, the four Key Performance Indicators (KPIs) utilized as the basis for determining the 2018 Group VC Component were: 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 nonfinancial factors, including the applicable divisional performance, the employee's individual performance, conduct, and adherence to values and beliefs, as well as additional factors such as the comparison of pay levels 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 timely and transparent manner. Generally, the overall size of the Recognition Award budget is directly linked to a set percentage of FP for the eligible population and it is currently paid out twice a year, based on a review of nominations and contributions in a process managed at the divisional level.

Employee benefits complement Total Compensation and are considered FP from a regulatory perspective, as they have no direct link to performance or discretion. They are granted in accordance with applicable local market practices and requirements. Pension expenses represent the main element of the bank's benefits portfolio, globally.

In the context of InstVV, severance payments are considered VC. The bank has updated its severance framework to ensure full alignment with the respective new InstVV requirements.

Limited to extraordinary circumstances, the bank reserves the right to grant Retention Awards to help induce select employees which are at risk of leaving and that are critical to the bank's future, to remain at the bank. Retention Awards are generally linked to certain critical events in which the bank has a legitimate interest in retaining the employee for a defined period of time. This serves to minimize operational, financial or reputational risk. These awards are considered VC in a regulatory sense and are generally subject to the same requirements as other VC elements.

Determination of performance-based variable compensation

Deutsche Bank applies a methodology when determining VC that reflects the risk-adjusted performance 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.

Group affordability is assessed to determine that relevant parameters are meeting the current and projected future regulatory and strategic goals. The affordability parameters used are fully aligned with our Risk Appetite Framework and ensure that the bank's capital as well as liquidity position and planning, its risk-bearing capacity, the combined capital buffer requirements, and results are adequately taken into account.

When assessing Group and divisional performance, we reference a range of considerations. The performance is assessed in context of divisional financial and – based on Balanced Scorecards – nonfinancial 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 mainly based on the achievement of cost targets and the Balanced Scorecards. 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 have to be taken into account when making Individual VC decisions. Our managers must fully appreciate the 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, individual performance based on quantitative and qualitative aspects, culture and behavioral considerations, and disciplinary sanctions. Managers of Material Risk Takers must specifically document the factors and risk metrics considered when making Individual VC decisions, and demonstrate how these factors influenced their decision. Generally, performance is assessed based on a one year period. However, for Management Board members of Significant Institutions, the performance across three years is taken into account.

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 require that an appropriate portion is deferred to ensure alignment to the sustainable performance of the Group.

At the same time, we 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.

We continue to go beyond regulatory requirements with the amount of VC that is deferred and Deutsche Bank's minimum deferral periods. Whilst ensuring lower compensated employees are not subject to deferrals, we ensure an appropriate amount of deferred VC for higher earners. We start to defer parts of variable compensation for Material Risk Takers where VC is set at or above € 50,000. For non-MRTs, deferrals start at higher levels of VC. The VC threshold for MRTs requiring at least 60 % deferral is set at € 500,000. Furthermore, Directors and Managing Directors in the Corporate & Investment Bank (CIB) with Fixed Pay in excess of € 500,000 are subject to a VC deferral of 100 %. Material Risk Takers are on average subject to deferral rates in excess of the minimum 40 % (60 % for Senior Management) as required by InstVV.

As detailed in the table below, deferral periods range from three to five years, dependent on employee groups.

Overview on 2018 award types (excluding DWS Group)

Award Type	Description	Beneficiaries	Deferral Period	Retention Period	Proportion
Upfront: Cash VC	Upfront cash portion	All eligible employees	N/A	N/A	InstVV MRTs: 50 % of upfront VC Non-MRTs: 100 % of upfront VC
Upfront: Equity Upfront Award (EUA)	Upfront equity portion (linked to Deutsche Bank's share price over the retention period)	All InstVV MRTs with VC >= € 50,000	N/A	Twelve months	50 % of upfront VC
Deferred: Restricted Incentive Award (RIA)	Deferred cash portion	All employees with deferred VC	Equal tranche vesting over CIB: four years Sen. Mgmt.: five years Other: three years[1]	N/A	50 % of deferred VC
Deferred: Restricted Equity Award (REA)	Deferred equity portion (linked to Deutsche Bank's share price over the vesting and retention period)	All employees with deferred VC	Equal tranche vesting over CIB: four years Sen. Mgmt.: five years Other: three years[1]	Twelve months for InstVV MRTs	50 % of deferred VC

N/A – Not applicable
[1] Senior Management, for the purposes of performance year 2018 annual awards, is defined as Deutsche Bank's Senior Leadership Cadre, plus Management Board members of Significant Institutions and their direct reports (excl. non-management/-strategic roles) – excluding DWS Executive Board. All Senior Management employees are also considered InstVV MRTs.

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, supported by the Compensation Officer, 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 key elements of deferred VC. As a result, all deferred awards are subject to performance conditions and forfeiture provisions as detailed below.

Overview on Deutsche Bank Group performance conditions and forfeiture provisions of variable compensation

Provision	Description	Forfeiture
DB Group's Common Equity Tier 1 Capital Ratio and Liquidity Coverage Ratio	If at the quarter end prior to vesting and delivery the Group CET 1 Capital Ratio, or the Liquidity Coverage Ratio are below a certain threshold	Next tranche of deferred award due for delivery (100 % of all undelivered Equity Upfront Awards)[1]
Group IBIT	If the Management Board determines that prior to delivery Group IBIT is negative	Next tranche of deferred award due for delivery
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)
Forfeiture Provisions[2]	– 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
Clawback	In the event an InstVV MRT participated in conduct that resulted in significant loss or regulatory sanction; or failed to comply with relevant external or internal rules regarding appropriate standards of conduct	100 % of award which has been delivered, before the second anniversary of the last vesting date for the award

[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 Capital Ratio, or the Liquidity Coverage Ratio are below the threshold. For Equity Upfront Awards, the Group CET 1 Capital Ratio, or the Liquidity Coverage Ratio are only assessed at the quarter end prior to delivery.
[2] Forfeiture provisions here are not a complete list, other provisions apply as outlined in the respective plan rules.

Employee groups with specific compensation structures

For some areas of the bank, compensation structures apply that deviate, within regulatory boundaries, in some aspects from the Group Compensation Framework outlined previously.

Postbank units

With effect from May 25, 2018, Deutsche Postbank AG merged with Deutsche Bank Privat- und Geschäftskunden AG to form DB Privat- und Firmenkundenbank AG. For the remainder of 2018, the Postbank units retained their compensation structures with some amendments for Material Risk Takers.

In line with Deutsche Bank Group practice, Postbank units utilize a Group and an Individual VC Component. However, for non-MRTs the Group VC Component is currently still based on Postbank business unit results. For Material Risk Takers, limited to performance year 2018, the Group VC Component reflects a combination of the objective achievement rate of both Postbank units and Deutsche Bank Group. For Senior Management, Material Risk Takers and other executive staff in Postbank units, the Group-wide deferral rules apply.

The compensation for nonexecutive staff in Postbank units is based on frameworks agreed with trade unions or with the respective workers' councils. Where no collective agreements exist, compensation is subject to individual contracts. In general, nonexecutive staff in Postbank units receive VC, but the structure and portion of VC differ between legal entities.

DWS

The vast majority of DWS asset management entities fall under AIFMD or UCITS while a limited number of entities remain in scope of the bank's Group Compensation Framework and InstVV. DWS has established its own compensation governance, policy, and structures, as well as Risk Taker identification process in line with AIFMD/UCITS requirements. These structures and processes are in line with InstVV where required, but tailored towards the Asset Management business.

DWS has implemented a self-imposed fixed-to-variable ratio of 1:2 for AIFMD/UCITS Control Function employees and 1:5 for other employees in order to align the compensation with industry standards. Generally, DWS applies remuneration rules that are equivalent to the Deutsche Bank Group approach, but use DWS Group-related parameters, where possible. Notable deviations from the Group Compensation Framework include the use of share-based instruments linked to DWS shares and fund-linked instruments. These serve to improve the alignment of employee compensation with DWS' shareholders' and investors' interests.

Control functions

In line with InstVV, the bank has defined control functions that are subject to specific regulatory requirements. These control functions comprise Risk, Compliance, Anti-Financial Crime, Group Audit, parts of Human Resources, and the Compensation Officer and his Deputy. To prevent conflicts of interests, the parameters used to determine the Individual VC Component of these control functions do not follow the same parameters being used for the business they oversee. Based on their risk profile, these functions are subject to a fixed-to-variable pay ratio of 2:1.

In addition, for some additional corporate functions that perform control roles (including Legal, Group Finance, Group Tax, Regulation, and other parts of Human Resources), the bank has determined a voluntary application of a fixed-to-variable pay ratio of 1:1.

Tariff staff

Within Deutsche Bank Group there are more than 21,000 tariff employees in Germany (based on full-time equivalent). These tariff employees are primarily employed by Deutsche Bank AG, DB Privat- und Firmenkundenbank AG, and subsidiaries within the Postbank unit. They are subject to a collective agreement (*Tarifvertrag für das private Bankgewerbe und die öffentlichen Banken*), as negotiated between trade unions and employer associations. Also, former Postbank units are subject to agreements as negotiated with the respective trade unions directly. The remuneration of tariff staff is included in the quantitative disclosures in this report.

Compensation decisions for 2018

Year-End considerations and decisions for 2018

For the determination of the total amount of VC for 2018, the Management Board considered many factors such as affordability and performance at both the Group and divisional level. The assessment of performance has been complemented by the consideration of other important aspects including the ongoing focus on achieving the bank's strategic objectives, regulatory requirements, 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 2018, Deutsche Bank's pre-tax earnings amounted to approximately € 1.3 billion. For the first time since 2014, the bank reported a net profit.

The SECC has monitored Group affordability throughout 2018 and confirmed that the bank's capital and liquidity positions remained comfortably above regulatory minimum requirements throughout the year. As such, the Management Board confirmed that the Group affordability parameters were met and the total amount of VC for performance year 2018 may be awarded.

In the context of the above considerations and taking into account the risk-adjusted financial performance, the Management Board has determined a total amount of performance-based VC for 2018 of € 1.9 billion (including the Individual VC Component, the Group VC Component, Recognition Awards, and VC for Postbank units). The determination of VC for the Management Board of Deutsche Bank AG was not part of this decision, as it was carried out by our Supervisory Board in a separate process (please refer to the Management Board Compensation Report). The VC for the Management Board is, however, included as part of performance-based VC for 2018 in the tables and charts below.

As part of the overall 2018 VC awards granted in March 2019, the Group VC Component was awarded to all eligible employees in line with the assessment of the four defined KPIs, as outlined in the chapter Group Compensation Framework. The Management Board determined a payout rate of 70 % for 2018.

Disclosure of total compensation for 2018

The VC for Postbank units will be included as part of performance-based VC from reporting period 2018 onwards.

In line with the new definitions of Fixed Pay and Variable Pay according to the updated Section 2 InstVV, additional compensation elements need to be included in the quantitative disclosures compared to previous years. The disclosed Fixed Pay amounts now also include pension expenses as material benefits. Disclosed Variable Pay now also includes severance payments. For ease of reference, prior year values in the following table have been adjusted to include these two elements as well as VC for Postbank units for the 2017 reporting period as well.

Based on the new definitions, compared to 2017, the Fixed Pay according to § 2 InstVV for 2018 (including pension expenses as required by InstVV) decreased by approximately 3 % from € 8.6 billion to € 8.3 billion, mainly due to headcount reductions. As established by our compensation framework, FP continues to remain the primary compensation component for the majority of our employees, especially those at the lower seniority levels.

The total amount of year-end performance-based VC for 2018 – the amount of VC that Deutsche Bank Group pays to its employees for their performance in 2018 – decreased by approximately 14 % from € 2.3 billion to € 1.9 billion. When excluding VC for the Management Board of Deutsche Bank AG, performance-based VC decreased by approximately 15 % year on year.

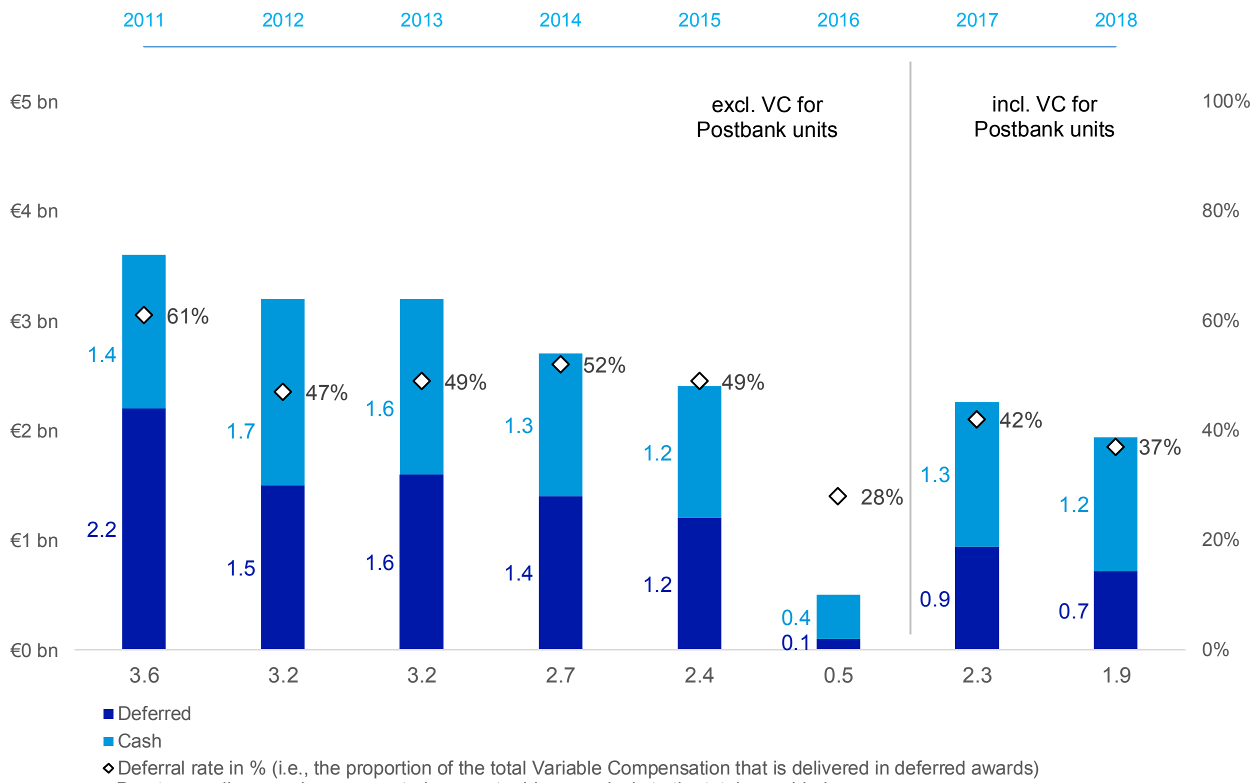
Variable Pay according to § 2 InstVV includes not only performance-based VC but also other VC commitments and severance payments. Compared to 2017, it decreased by approximately 8 %, mainly due to the reduced performance-based VC for 2018 – partially offset by increased severance cost in light of the bank's strategic priorities.

Compensation awards for 2018 – all employees

in € m. (unless stated otherwise)[1]	Supervisory Board[2]	Management Board[3]	CIB[3]	PCB[3]	DWS[3]	Independent Control Functions[3]	Corporate Functions[3]	Group Total 2018	Group Total 2017
Number of employees (full-time equivalent)	20	9	16,373	41,706	4,024	5,676	23,948	91,737	97,535
Total compensation	6	95	3,736	3,449	704	741	1,908	10,633	11,121
Base salary and allowances	6	31	2,381	2,730	440	597	1,506	7,684	7,901
Pension expenses	0	10	173	263	41	54	116	657	726
Fixed Pay according to § 2 InstVV[4]	6	42	2,555	2,992	480	651	1,622	8,341	8,628
Year-end performance-based VC[5]	**0**	**27**	**1,033**	**381**	**175**	**86**	**243**	**1,945**	2,256
Other VC[6]	0	0	104	12	23	1	4	143	113
Severance payments	0	26	45	64	26	4	39	203	123
Variable Pay according to § 2 InstVV[7]	0	53	1,181	457	224	91	286	2,292	2,493
Retention Award Program (Jan 2017)[8]								0	961

N/A – Not applicable
[1] The table may contain marginal rounding differences.
[2] Supervisory Board includes the Deutsche Bank AG board members at year-end. They are not considered for the Group Total Number of employees. Employee representatives are considered with their compensation for the Supervisory Board role only (their employee compensation is included in the relevant divisional column). The remuneration for members of the Deutsche Bank AG Supervisory Board is not reflected in the Group Total.
[3] Management Board includes the respective board members of Deutsche Bank AG at year-end. PCB includes Postbank units. DWS includes DWS Group – irrespective of whether employees are in scope of InstVV or AIFMD/UCITS V. Independent Control Functions includes Chief Risk Officer, Group Audit, Compliance, Anti-Financial Crime. Corporate Functions comprise any infrastructure function which is neither captured as an Independent Control Function nor part of any division.
[4] Fixed Pay according to § 2 InstVV includes base salary, allowances, and pension expenses.
[5] Year-end performance-based VC includes Individual/Group VC Components, Recognition Award, VC for Postbank units (for 2017 and for 2018), VC for Deutsche Bank AG Management Board.
[6] Other VC includes other contractual VC commitments in the period such as sign-on payments and retention awards.
[7] Variable Pay according to § 2 InstVV includes Deutsche Bank's year-end performance-based VC awards for 2018 and other VC commitments in the relevant period, as well as severance payments. € 26 million buyouts for new hires (replacement awards for lost entitlements from previous employers) are not included. Long-term Incentive Plans are not included as they will be considered as VC for the year in which the awards are due.
[8] Retention Award Program (Jan 2017) amount includes forfeitures and was FX-adjusted for 2017. For more information please refer to the Annual Report 2017.

Year-end performance-based variable compensation and deferral rates year over year



Due to rounding, numbers presented may not add up precisely to the totals provided.

Recognition and amortization of variable compensation

As of December 31, 2018, including awards for financial year 2018 granted in early March 2019, unamortized deferred VC expenses amount to approximately € 1.6 billion. The following table outlines the amount of VC recognized on the balance sheet for 2018 and the projected future amortization of outstanding deferred VC over the next financial years (future grants and forfeitures excluded).

Year-end performance-based variable compensation (including Retention Award Program in 2017), recognized as of December 31, 2018 and projected amortization of deferred compensation granted

			Projected amortization (excluding future grants and forfeitures)		
in € bn.	Recognized on balance sheet as of Dec 31, 2018	Not yet recognized on balance sheet as of Dec 31, 2018	2019	2020	2021 - 2024
Upfront Awards - 2018	1.2	0.1	0.1	0.0	-
Deferred - 2018	0.1	0.6	0.3	0.2	0.1
Deferred - 2017 and prior[1]	1.6	1.0	0.5	0.3	0.2
Total	2.9	1.6	0.9	0.5	0.3

Due to rounding, numbers presented may not add up precisely to the totals provided. Including Variable Compensation for Postbank units.
[1] Deferred Variable Compensation granted for performance year 2017 or earlier includes Variable Compensation for Postbank units for 2017 and 2017 Retention Award Program which was not designed to compensate for performance.

Of the year-end performance-based VC for 2018, € 1.3 billion is charged to the income statement for 2018, including the upfront cash VC awards for 2018 amounting to € 1.2 billion as well as € 0.1 billion of deferred awards for 2018 already recognized as of December 31, 2018 due to regulatory requirements. € 0.7 billion will be charged to future years, including € 0.1 billion of Equity Upfront Awards which are granted upfront but amortized over a twelve months retention period as well as € 0.6 billion of Restricted Incentive and Restricted Equity Awards.

In addition, the income statement for 2018 was charged with a VC of € 0.6 billion stemming from prior years' deferrals, recognized and amortized as Other liabilities. € 1.0 billion of prior years' deferrals were recognized in Equity for 2018 as they were still part of the treasury stock distributable as of December 31, 2018. These outstanding share awards will vest and will be recognized as compensation expense during 2019 or in future years. Additional prior years' deferrals amounting to € 1.0 billion will be charged to future years.

Material risk taker compensation disclosure

On a global basis, 1,913 employees were identified as Material Risk Takers according to InstVV for financial year 2018, compared to 1,907 employees for 2017 (excluding Postbank units: 1,795 MRTs). 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.

Aggregate remuneration for material risk takers according to InstVV

	2018								2017
in € m. (unless stated otherwise)[1]	Supervisory Board[2]	Management Board[3]	CIB[3]	PCB[3]	DWS[3]	Independent Control Functions[3]	Corporate Functions[3]	Group Total	Group Total
Number of MRTs (headcount)	49	45	1,109	334	17	180	179	1,913	1,795
Number of MRTs (FTE)	48	39	1,013	322	15	174	170	1,781	1,772
thereof: Senior Management[4]	0	25	35	119	7	29	37	252	
Total Pay	7	122	1,236	174	27	94	147	1,807	2,359
Total Fixed Pay	7	57	705	103	12	74	91	1,049	981
thereof:									
in cash (incl. pension expenses)[5]	5	57	705	103	12	74	91	1,048	
in shares or other instruments[6]	1	0	0	0	0	0	0	1	
Total Variable Pay for period[7]	0	65	530	71	16	20	56	758	1,379
thereof:									
in cash	0	34	273	38	12	11	30	398	685
in shares or share-based instruments	0	31	257	33	3	9	26	360	689
in other types of instruments	0	0	0	0	1	0	0	0	6
Total Variable Pay for period, deferred	0	42	447	39	5	8	29	569	1,087
thereof:									
in cash	0	14	223	20	2	4	15	278	535
in shares or share-based instruments	0	27	223	19	2	4	15	291	545
in other types of instruments	0	0	0	0	0	0	0	0	6
Total amount of variable pay still outstanding at the beginning of the year that was deferred in previous years	0	61	1,303	126	24	42	121	1,678	1,783
thereof:									
vested	0	10	54	14	3	5	9	95	704
vested and paid/delivered	0	9	53	11	3	5	9	90	
unvested	0	51	1,250	112	21	37	112	1,583	1,079
Deferred Variable Pay awarded, paid out or reduced during period									
awarded during period	0	27	683	58	11	20	44	842	762
paid out during period	0	16	315	52	7	17	40	447	639
reduced through explicit risk adjustments[8]	0	0	7	0	0	0	0	7	3
Number of beneficiaries of guaranteed variable remuneration (incl. sign-on payments)	0	0	4	0	0	0	0	4	27
Total amount of guaranteed variable pay (incl. sign-on payments)	0	0	2	0	0	0	0	2	21
Total amount of severance payments granted during period[9]	0	29	15	3	8	0	2	58	21
Number of beneficiaries of severance payments granted during period	1	6	82	7	3	3	6	108	53
Highest severance payment granted to an individual during period	0	11	1	1	4	0	2	11	5

[1] The table may contain marginal rounding differences. Employees are allocated to columns based on their primary role. 2017 values are based on the values disclosed in the 2017 report and include the full value of the Retention Award Program granted to MRTs in 2017.
[2] Supervisory Board includes the Supervisory Board members of all Significant Institutions within Deutsche Bank Group at year-end. Employee representatives solely identified due to their Supervisory Board role are considered with their compensation for the Supervisory Board role only.
[3] Management Board includes the respective board members of all Significant Institutions within Deutsche Bank Group at year-end. PCB includes Postbank units. As the determination of VC for some employees in Postbank units continues even beyond the publication of this report, the VC for MRTs in Postbank units is considered based on preliminary data. Final values will be disclosed in the compensation reports of DB Privat- und Firmenkundenbank AG as well as BHW Bausparkasse AG. DWS includes only InstVV Material Risk Takers within DWS Group. Independent Control Functions include Chief Risk Officer, Group Audit, Compliance, Anti-Financial Crime. Corporate Functions comprise any infrastructure function which is neither captured as an Independent Control Function nor part of any division.
[4] Senior Management is defined as Deutsche Bank's Senior Leadership Cadre, plus Management Board members of Significant Institutions and their direct reports (excl. non-management/-strategic roles) – excluding DWS Executive Board. All Senior Management employees are also considered InstVV MRTs. Management Board members of Significant Institutions are only included in the Management Board column.
[5] Fixed Pay in cash includes base salary, allowances and material benefits (pension expenses).
[6] Fixed Pay in shares is only granted to members of the Deutsche Bank AG Supervisory Board as described in the chapter Compensation System for Supervisory Board Members.
[7] Total Variable Pay for period includes Deutsche Bank's year-end performance-based VC awards for 2018 and other VC commitments in the relevant period, as well as severance payments. Buyouts and Long-term Incentive Plans are not included.
[8] Includes penalty (malus) and clawback.
[9] Severance payments are generally paid out in the year in which they have been granted.

Remuneration of high earners

	2018
in €	Number of employees
Total Pay	
1,000,000 to 1,499,999	356
1,500,000 to 1,999,999	125
2,000,000 to 2,499,999	61
2,500,000 to 2,999,999	31
3,000,000 to 3,499,999	15
3,500,000 to 3,999,999	22
4.000,000 to 4,499,999	5
4,500,000 to 4,999,999	3
5,000,000 to 5,999,999	14
6,000,000 to 6,999,999	8
7,000,000 to 7,999,999	1
8,000,000 to 8,999,999	0
9,000,000 to 9,999,999	2
10,000,000 to 10,999,999	0
Total	643

[1] Compared to 2017, high earners in Postbank units and pension expenses as well as severance payments are considered for the first time. Buyouts and Long-term Incentive Plans not included.

In total, 643 employees received a Total Pay of € 1 million or more for 2018, compared to 705 employees in 2017 and 316 employees in 2016. Based on the same definitions as used in previous years – excluding pension expenses and severances – the number of high earners for 2018 would be 607 employees.

The table above does not include the four members of the Group Management Board who left the Management Board in 2018. In addition to the fixed and variable remuneration and the service costs (IFRS) for pension benefits, termination agreements were concluded with all four members of the Management Board in which termination benefits (severance payments and compensation for waiting periods) were agreed to which the members of the Management Board are entitled on the basis of their service contracts (in one case two service contracts). If all compensation components are added, the total amount in one case is between € 4.5 and 5 million, in one case between € 7 and 8 million, in one case between € 13 and 14 million and in one case between € 15 and 16 million. Details of all components are disclosed in the Management Board Compensation Report.

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:

	Dec 31, 2018	
Committee in €	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
Strategy Committee	100,000	50,000
Technology, Data and Innovation 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 2018 financial year

Individual members of the Supervisory Board received the following compensation for the 2018 financial year (excluding value added tax).

	Compensation for fiscal year 2018		Compensation for fiscal year 2017	
Members of the Supervisory Board in €	Fixed	Thereof payable in 1st quarter 2019	Fixed	Thereof paid in 1st quarter 2018
Dr. Paul Achleitner[1]	858,333	643,750	800,000	683,333
Detlef Polaschek[2]	262,500	196,875	0	0
Stefan Rudschäfski[3]	125,000	125,000	300,000	225,000
Ludwig Blomeyer-Bartenstein[2]	175,000	131,250	0	0
Wolfgang Böhr[3]	83,333	83,333	200,000	150,000
Frank Bsirske[4]	279,167	235,417	250,000	187,500
Mayree Carroll Clark[2]	204,167	153,125	0	0
Dina Dublon[5]	175,000	175,000	300,000	225,000
Jan Duscheck[4]	187,500	151,042	100,000	75,000
Dr. Gerhard Eschelbeck[6]	129,167	96,875	58,333	43,750
Katherine Garrett-Cox	241,667	181,250	200,000	150,000
Timo Heider[4]	229,167	192,708	200,000	150,000
Sabine Irrgang[3]	83,333	83,333	200,000	150,000
Prof. Dr. Henning Kagermann[3]	104,167	104,167	250,000	187,500
Martina Klee[4]	170,833	148,958	200,000	150,000
Peter Löscher[7]	0	0	83,333	83,333
Henriette Mark[4]	229,167	192,708	200,000	150,000
Richard Meddings	429,167	321,875	400,000	300,000
Louise Parent[3]	125,000	125,000	400,000	300,000
Gabriele Platscher[4]	258,333	214,583	200,000	150,000
Bernd Rose[4]	229,167	192,708	200,000	150,000
Gerd Alexander Schütz[8]	129,167	107,292	58,333	43,750
Prof. Dr. Stefan Simon	487,500	365,625	216,667	162,500
Stephan Szukalski[2]	116,667	87,500	0	0
Dr. Johannes Teyssen[3]	104,167	104,167	250,000	187,500
John Alexander Thain[2]	116,667	87,500	0	0
Michele Trogni[2]	175,000	131,250	0	0
Prof. Dr. Klaus Rüdiger Trützschler[7]	0	0	83,333	83,333
Prof. Dr. Norbert Winkeljohann[9]	58,333	43,750	0	0
Total	**5,766,669**	**4,676,041**	5,150,000	3,987,500

[1] Member was re-elected on May 18, 2017.
[2] Member since May 24, 2018.
[3] Member until May 24, 2018.
[4] As Employee representatives on April 26, 2018 re-elected.
[5] Member since July 31, 2018.
[6] Member since May 18, 2017.
[7] Member until May 18, 2017.
[8] Member since May 18, 2017. Re-elected on May 24, 2018.
[9] Member since August 1, 2018.

Following the submission of invoices 25 % of the compensation determined for each Supervisory Board member for the 2018 financial year was converted into notional shares of the company on the basis of a share price of € 7.9747 (average closing price on the Frankfurt Stock Exchange (Xetra) during the last ten trading days of January 2019). Members who left the Supervisory Board in 2018 were paid the entire amount of compensation in cash. For members whose term of office ended in 2018, 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 month 2019 as part of their 2018 compensation as well as the number of notional shares accrued from previous years as part of the compensation 2013 to 2017 accumulated during the respective membership in the Supervisory Board and the total amounts paid out in February 2019 for departed or re-elected members.

Members of the Supervisory Board	Number of notional shares			
	Converted in February 2019 as part of the compensation 2018	Total prior-year amounts as part of the compensation from 2013 to 2017	Total (cumulative)	In February 2019 payable in €[1]
Dr. Paul Achleitner[2]	26,908.013	7,547.235	34,455.248	0
Detlef Polaschek[3]	8,229.150	0	8,229.150	0
Stefan Rudschäfski[4]	0	4,851.794	4,851.794	38,692
Ludwig Blomeyer-Bartenstein[3]	5,486.100	0	5,486.100	0
Wolfgang Böhr[4]	0	5,273.861	5,273.861	42,057
Frank Bsirske[5]	5,486.100	13,855.697	19,341.797	110,495
Mayree Carroll Clark[3]	6,400.450	0	6,400.450	0
Dina Dublon[6]	0	15,297.428	15,297.428	121,992
Jan Duscheck[5]	4,571.750	2,181.701	6,753.451	17,398
Dr. Gerhard Eschelbeck	4,049.264	943.404	4,992.668	0
Katherine Garrett-Cox	7,576.043	4,363.401	11,939.444	0
Timo Heider[5]	4,571.750	11,105.005	15,676.755	88,559
Sabine Irrgang[4]	0	11,105.005	11,105.005	88,559
Prof. Dr. Henning Kagermann[4]	0	14,560.688	14,560.688	116,117
Martina Klee[5]	2,743.050	11,387.001	14,130.051	90,808
Henriette Mark[5]	4,571.750	12,130.752	16,702.502	96,739
Richard Meddings	13,454.007	13,330.645	26,784.652	0
Louise Parent[4]	0	14,763.082	14,763.082	117,731
Gabriele Platscher[5]	5,486.100	11,848.755	17,334.855	94,490
Bernd Rose[5]	4,571.750	11,566.759	16,138.509	92,241
Gerd Alexander Schütz[7]	2,743.050	943.404	3,686.454	7,523
Prof. Dr. Stefan Simon	15,282.707	3,955.622	19,238.329	0
Stephan Szukalski[3]	3,657.400	0	3,657.400	0
Dr. Johannes Teyssen[4]	0	11,015.673	11,015.673	87,847
John Alexander Thain[3]	3,657.400	0	3,657.400	0
Michele Trogni[3]	5,486.100	0	5,486.100	0
Prof. Dr. Norbert Winkeljohann[8]	1,828.700	0	1,828.700	0
Total	**136,760.634**	182,026.912	**318,787.546**	**1,211,250**

1 At a value of € 7.9747 based on the average closing price on the Frankfurt Stock Exchange (Xetra or successor system) during the last ten trading days of January 2019.
2 Member was re-elected on May 18, 2017.
3 Member since May 24, 2018.
4 Member until May 24, 2018.
5 As Employee representatives on April 26, 2018 re-elected.
6 Member until July 31, 2018.
7 Member since May 18, 2017. On May 24, 2018 re-elected.
8 Member since August 1, 2018.

All employee representatives on the Supervisory Board, with the exception of Frank Bsirske, Jan Duscheck and Stephan Szukalski, are employed by us. In the 2018 financial year, we paid such members a total amount of € 1.11 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 2018, 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 € 225,000 (2017: € 248,000) were provided and reimbursements for expenses amounting to € 218,672 (2017: € 197,679) were paid during the 2018 financial year.

Corporate governance statement according to section 289f HGB

The entire Corporate Governance Statement is available on our website under www.db.com/ir/en/reports.htm and is not part of the Management Report.

Internal control over financial reporting

General

Management of Deutsche Bank and its consolidated subsidiaries is responsible for establishing and maintaining adequate internal control over financial reporting (ICOFR). Our internal control over financial reporting is a process designed under the supervision of our chairman and our Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the company's consolidated financial statements for external reporting purposes in accordance with International Financial Reporting Standards (IFRS). ICOFR includes our disclosure controls and procedures designed to prevent misstatements.

Risks in financial reporting

The main risks in financial reporting are that either financial statements do not present a true and fair view due to inadvertent or intentional errors (fraud) or the publication of financial statements is not done on a timely basis. These risks may reduce investor confidence or cause reputational damage and may have legal consequences including banking regulatory interventions. A lack of fair presentation arises when one or more financial statement amounts or disclosures contain misstatements (or omissions) that are material. Misstatements are deemed material if they could, individually or collectively, influence economic decisions that users make on the basis of the financial statements.

To confine those risks of financial reporting, management of the Group has established ICOFR with the aim of providing reasonable but not absolute assurance against material misstatements and conducted an assessment of the effectiveness of the Group's 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). COSO recommends the establishment of specific objectives to facilitate the design and evaluate adequacy of a control system. As a result in establishing ICOFR, management has adopted the following financial statement objectives:

- Existence - assets and liabilities exist and transactions have occurred.
- Completeness - all transactions are recorded, account balances are included in the financial statements.
- Valuation - assets, liabilities and transactions are recorded in the financial reports at the appropriate amounts.
- Rights and Obligations and ownership - rights and obligations are appropriately recorded as assets and liabilities.
- Presentation and disclosures - classification, disclosure and presentation of financial reporting is appropriate.
- Safeguarding of assets - unauthorized acquisition, use or disposition of assets is prevented or detected in a timely manner.

However, any internal control system, including ICOFR, no matter how well conceived and operated, can provide only reasonable, but not absolute assurance that the objectives of that control system are met. As such, disclosure controls and procedures or systems for ICOFR may not prevent all errors and fraud. 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 policies or procedures may deteriorate. 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.

On January 1, 2018, we adopted IFRS 9 for our consolidated financial statements and have updated and modified certain internal controls over financial reporting as a result of the new accounting standard.

Controls to minimize the risk of financial reporting misstatement

The system of ICOFR includes those policies and procedures that:

- Pertain to the maintenance of records, that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the company's assets;
- 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 the company's management and;
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use of disposition of the company's assets that could have a material effect on the financial statements.

The above controls are performed for primary GAAP IFRS and apply to our financial statements under HGB accordingly. In addition to these controls specific HGB related controls are implemented which include:

Intra-company elimination. Inter-branch reconciliation and elimination are performed for HGB specific balances.

Analytical review. Review of revaluation and reclassification items between IFRS and HGB on branch and parent company level.

Measuring effectiveness of internal control

Each year, management of the Group undertakes a formal evaluation of the adequacy and effectiveness of the system of ICOFR. This evaluation incorporates an assessment of the effectiveness of the control environment as well as individual controls which make up the system of ICOFR taking into account:

- The financial misstatement risk of the financial statement line items, considering such factors as materiality and the susceptibility of the particular financial statement item to misstatement.
- The susceptibility of identified controls to failure, considering such factors as the degree of automation, complexity, and risk of management override, competence of personnel and the level of judgment required.

These factors determine in their entirety the type and scope of the evidence required by § 315 HGB, which the management needs to assess whether or not the established ICOFR is effective. The evidence itself is generated from procedures integrated within the daily responsibilities of staff or from procedures implemented specifically for purposes of the ICOFR evaluation. Information from other sources also form an important component of the evaluation since such evidence may either bring additional control issues to the attention of management or may corroborate findings. Such information sources include:

- Reports on audits carried out by or on behalf of regulatory authorities;
- External Auditor reports; and,
- Reports commissioned to evaluate the effectiveness of outsourced processes to third parties.

In addition, Group Audit evaluates the design and operating effectiveness of ICOFR by performing periodic and ad-hoc risk-based audits. Reports are produced summarizing the results from each audit performed which are distributed to the responsible managers for the activities concerned. These reports also provide evidence to support the annual evaluation by management of the overall operating effectiveness of the ICOFR.

As a result of the evaluation, management has concluded that ICOFR is appropriately designed and operating effectively as of December 31, 2018.

Non-financial Statement

Deutsche Bank AG's approach to sustainability is in line with group-wide principles. As parent company, our approach to sustainability includes our affiliated entities. Therefore, our financial statement includes certain group-wide descriptions.

Approach to sustainability

To inform our approach to sustainability and our non-financial reporting, we identify topics deemed material by our internal and external stakeholders. In doing so, we are guided by the international sustainability standard of the Global Reporting Initiative (GRI). We consider the opinions of our stakeholders and we analyze relevant sources – for example, topics discussed at our Annual General Meeting, the thematic components in sustainability ratings, internal and external media reports and insight from competitor analyses.

In 2017 we reviewed the list of material topics, re-categorized certain topics to make them more visible and understandable, and to give due consideration to what is required by the new requirements of the German Commercial Code (Handelsgesetzbuch, "HGB") on the disclosure of non-financial information.

In accordance with § 289c (1) HGB the Non-Financial Statement is part of the Management Report. For a comprehensive overview on our approach to sustainability please refer to the separately published Deutsche Bank Group Non-Financial Report.

According to § 289c (3 no. 3 and 4) HGB, Deutsche Bank is required to report on all known significant risks in connection with its own business activities and business relations, as well as its products and services that are very likely and have or will have a severely negative impact on material non-financial topics. No such risks were identified.

A description of the business model of Deutsche Bank AG according to sections 289c (1) HGB can be found in the management report starting on page 4. The description of the business model is part of Deutsche Bank's separate non-financial statement.

As environmental and human-rights related matters at Deutsche Bank do not fulfil the materiality criteria of § 289c HGB, we disclose relevant information such as our management approach, as well as results on environmental and human-rights related matters in the Deutsche Bank Group Non-Financial Report outside of the Non-Financial Statement.

We monitor all non-financial topics and their impacts on Deutsche Bank's situation and development closely in order to be able to identify changes of materiality and disclose them accordingly in future reports.

Identifying material topics

To assess the materiality of the relevant topics we follow our internal bank-wide risk assessment processes and conduct a regular materiality assessment, in which we comply with the German Commercial Code (Handelsgesetzbuch, HGB).

All legally required disclosures in accordance with § 289c of the German Commercial Code are reflected in this Non-Financial Statement of Deutsche Bank AG.

Business integrity

Deutsche Bank strives to put an ethical business culture at the heart of how it operates which we regard as vital to achieving sustainable success. Our culture is guided by our values of Integrity, Sustainable Performance, Client Centricity, Innovation, Discipline, and Partnership. These values inform our behavior and decision-making, underpinning how employees interact with each other, but also with clients, investors, and society at large.

Revised Code of Conduct

The values enshrined in our Code of Conduct articulate what our bank stands for, what we want our overall culture to be, and those standards of conduct to which we should adhere. An updated Code of Conduct was published in July 2018 in order to provide staff with better guidance on our values and how they should be employed in their day-to-day work. It was accompanied by e-learning training launched in December 2018.The revised Code has been very well received by employees and external stakeholders.

Through our Code of Conduct we want to foster an open and diverse environment in which a climate of speaking up and challenging is not just welcomed and respected, but also a core part of our responsibilities, especially where actions or failures to act are inconsistent with the Code. Our Code and other policies and procedures require employees to escalate potential misconduct, inappropriate behavior, or any serious potential conduct risk to their supervisors, Compliance, Legal, or HR. Employees can also report any concerns or suspicions in line with the arrangements set out in the bank's Whistleblowing Policy.

While, compliance with the Code of Conduct is enforced by the respective policy owning functions of the underlying policies mentioned by the Code, we also seek to drive the right behaviors through a number of key initiatives.

The Culture, Integrity, and Conduct program

Deutsche Bank drives culture and ethical conduct through the Culture, Integrity, and Conduct (CIC) program. The objective of the program and the CIC plan is to reinforce the bank's values, as articulated in the Code of Conduct and desired outcomes, and deliver enhanced conduct and integrity across all businesses, geographies, and infrastructure functions within the Deutsche Bank Group. The bank's Management Board has overall responsibility for achieving the desired cultural outcomes. While the CIC program is sponsored by the CEO, each Management Board member is accountable for culture in his/her division or function, and the Executive Committees are responsible for developing and implementing culture-related initiatives.

In 2018, the bank took steps to elevate the importance of CIC by creating the CIC Committee. The Committee's mandate is to oversee the implementation and management of the CIC Framework, aligning culture-related activities pursued in each area of the bank's activities with its global culture vision. The Committee meets at least six times a year, establishes Group-wide CIC initiatives, and drives the CIC themes and messages that are to be embedded in divisional, regional, and country culture plans.

This formal committee of the Management Board is chaired by the Chief Regulatory Officer and Chief Administrative Officer and comprises representatives from each division, function, and region who are nominated by the respective Management Board member. Group-wide coordination of conduct, and integrity-related initiatives is supported by the Conduct & Integrity Operating Forum (C&I OpFo), which regularly reports to the CIC Committee.

The CIC Framework is used to implement a coherent, consistent and sustainable Group-wide CIC strategy, using the following methodology:

- Defining values and desired outcomes through the Code of Conduct, culture guiding standards, and similar frameworks;
- Communicating through campaigns, training, and employee engagement;
- Reinforcing values and desired outcomes through embedding them in the bank's processes and frameworks;
- Implementing Group-wide CIC initiatives, priority themes, and annual CIC plans at a divisional or functional level;
- Measuring and identifying areas for enhancement through periodic diagnostics, ongoing metrics monitoring, focus groups, and People Survey findings.

For 2018/19, the CIC Committee reviewed the bank's current strategic priorities and the results of the People Survey and identified three of the bank's six values as focus values for the coming year along with corresponding outcomes. These are:

- Integrity: enhance positive conduct/reduce misconduct, enhance ethical decision-making, and enhance a speak-up culture;
- Discipline: individual accountability, fiscal responsibility, and
- Client Centricity: treat customers fairly, and create products that provide value to our clients.

The Group-wide focus values and outcomes are incorporated into the annual culture plan of each business and infrastructure function, which is tailored to their specific needs.

While we are fully aware that a business culture is difficult to measure, we capture a number of existing metrics from various bank-wide sources to evaluate progress against our culture objectives. These metrics cover qualitative data, such as conduct-related People Survey findings, as well as quantitative measures currently tracked and governed as part of our HR, Risk, Communications, and Compliance processes, among others. Examples include indices on brand perception and gender diversity, as well as town hall attendance. The dashboard is produced and reported to the CIC Committee on a quarterly basis.

Key initiatives in 2018

Some examples of the key initiatives currently being implemented on a Group-wide basis are:

- An integrated conduct and speak-up awareness campaign and training program was launched in July 2018 and is continuing into 2019. We believe that a culture where employees feel free to express their conduct-related concerns with no fear of reprisal or retaliation increases the likelihood that problems will be identified. The bank's Code of Conduct has a specific section encouraging "speaking up, raising concerns and reporting misconduct" and the bank's Whistleblowing Policy is designed to protect any employees raising their concerns about potential or actual misconduct, and illegal or unethical behavior. The awareness campaign is a multi-channel communications campaign targeting all employees via a dedicated microsite, posters, brand screens, and management communications with the aim of creating a broad awareness of good conduct, escalation channels, and the "speak up" culture;
- An enhanced global whistleblowing policy was published in April 2018 and the dedicated microsite was updated accordingly;
- An integrated Consequence Management Framework was launched with an interactive guide in September 2018 and was accompanied by WebEx calls. It has the aim of promoting a better understanding of the bank's approach to managing positive outcomes and negative consequences. It makes clear what it means to live up to our standards of performance (delivery, behavior and conduct), and how this impacts both our people and the bank;
- Market Conduct and Integrity classroom training was launched in September 2018 with 90-minute classroom sessions delivered by business line compliance officers with the assistance of business heads. The training consisted of two scenarios that were designed to further deepen the understanding of our desired values and what good conduct means in practice by exploring and discussing judgment and decision making, possible pitfalls of grey areas, and how to Speak Up. Revenue generators[1] and their immediate support areas totaling just under 4,000 employees were trained. The classroom training was completed in December 2018, with those who could not attend the face-to-face sessions receiving an interactive recording.

Conduct risk management

The Global Conduct Risk Management Framework Policy sets the framework for the management of conduct risk across the bank. The policy requires the timely identification, reporting, escalation, and remediation of any issues where conduct risk is defined as "the risk that the firm's employees or representatives or the firm's business practices could inappropriately and adversely affect the bank's clients, the bank, or the integrity of financial markets."

Risk culture

We strive to foster an environment where employees are empowered and encouraged to act as risk managers. A standards-based assessment of risk culture, in particular focusing on risk awareness, ownership, and management within our risk appetite, has been undertaken. The results of the assessment of our risk culture are incorporated into existing risk reporting to reinforce the message that risk culture is an integral part of effective day-to-day risk management.

[1] Revenue generators were defined as those within the Designated Market Activities ("DMA") population, which spans across Wealth Management, Global Transaction Banking, Corporate Finance, Treasury and Global Markets.

Business integrity in client relationships

Our Code of Conduct lays down the guidelines for behaving responsibly and with integrity towards clients.

As our divisions are responsible for implementing the Code of Conduct, they are thus accountable for treating clients fairly at every stage from the development of products to selling our products and services. Specific control functions support the divisions in living out their responsibility. Legislation and regulations, e.g. MiFID II, help us to recognize relevant topics in good time and define action areas, including market screenings of products to identify those that best fit our specific customer needs. The bank's internal guidelines address these topics and regulate important aspects of them.

In view of our client groups' differing profiles, our divisions enjoy varying degrees of freedom in implementing these guidelines. Their interpretation is determined, for example, by a specific client group's touch points with the bank, the need for client protection, or how much a client group knows about financial transactions. In order to ensure we are acting with integrity in a customer-centric manner, we regularly train all employees involved in client relationships. The topics we pay particular attention to include a responsible attitude to new products and how to deal with new product-related requirements, advising clients responsibly, helping clients to avoid becoming heavily indebted, and knowing how to deal with conflicts of interest.

Responsibly designing and approving products

A Group-wide New Product Approval (NPA) and Systematic Product Review (SPR) process defines the design and approval of new products and services. Regional or divisional NPA councils approve any new product, as well as material developments affecting existing products, such as new risk factors or businesses. We also systematically review our products throughout their life cycles to ensure they remain fit for purpose and consistent with the needs, characteristics, and objectives of their target market(s). Additionally, any features causing concern, including a potential reputational impact on the bank from environmental or social issues, for example, are referred to the relevant management approval committees, such as our Regional Reputational Risk Committees or, ultimately, to the Group Reputational Risk Committee.

Our investment activities are based on a process designed to ensure decisions are taken in the best interests of our clients. To ensure that we provide products and advice that match the specific needs of our clients within a given market environment, our analysis of market conditions is conducted separately from our sales planning. This process provides transparency for current and prospective clients with regard to the bank's view on specific investment topics, asset classes, and market events. In our Asset Management (AM) and Private and Commercial Business divisions, for example, this investment process leads to the formulation of the Chief Investment Officer (CIO) View, which draws on the expertise of senior staff and is used to inform both our portfolio managers and our client advisors. The CIO View is further refined at a regional level to fine-tune client portfolios so they take into account the clients' varying professional, cultural, and regional backgrounds.

Living out product and advisory principles

Minimum standards for our product lines commit us to offering ethically justifiable and transparent products and services that are based on processes and principles designed to ensure compliance with legal and regulatory requirements. For example, our guidelines on product oversight governance, covering products within the scope of MiFID II product governance, require frequent monitoring on whether products have been sold only to the appropriate group of clients (target market). Moreover, we always strive to offer clients responsible and foresighted advice that fulfils their needs and clearly reveals the respective benefits and risks. To ensure the suitability and appropriateness of our products we assess a variety of parameters, including the complexity of a product and the client's knowledge of and experience with a product, as well as a client's regulatory classification and investment objectives, and select the product that matches the desired client demand.

Our basic principles require that we do not sell any product or service if it becomes obvious that a client does not need the product, cannot afford it in the mid-term, has not understood the product, or if a product does not meet the client's risk profile. Furthermore, our products must be designed in such a way that their features also overcompensate for the cost of investing in the product. We have due diligence processes in place, that help us implement these principles.

The principles we apply also state that our products should be beneficial to the individual but not have detrimental side effects to society at large. This rules out products or investments that, for example, involve the manufacturing or sale of nuclear weapons, cluster munitions, and landmines, promote or use child labor, violate human rights, or in any way support drug trafficking or money laundering.

In our Investment Advisory business, we advise on and offer both Deutsche Bank and third-party products, which enables us to only provide products that best fit specific client needs. Our Product Guidelines for Investment and Insurance Products also define products that are not to be advised to clients, e.g. investments in soft commodities (agricultural goods) or Contracts for Difference (CFD). Furthermore, we do not launch new products based on momentum strategies in soft commodities.

Client satisfaction

As loyal and satisfied clients are vital for our ongoing success, we regularly work on our client advisory processes to ensure their client centricity and compliance with the legal requirements for such advice. To measure client satisfaction, we apply different methods from division to division, depending on the kind of contact we have with the client. For us it is important that clients have an opportunity to express their opinion on how well we are doing our job. To this end, we use a variety of specially developed tools and call on the services of external market research specialists.

In our Corporate & Investment Bank (CIB), we employ Broker Reviews to gain a client-specific understanding of where improvement potential exists. We contact our clients – usually once or twice per year – to obtain a detailed assessment of our relative performance by coverage team and product category. This well-informed dialog puts us in a position to take educated decisions on proposed changes. In 2018, our Global Transaction Banking and Corporate Finance teams jointly engaged in our Voice of the Client process, which covers over 80 % of our corporate client activities globally end-to-end (across coverage and sales/implementation, and service activities). We used the feedback of about 1,850 key decision makers and service recipients to create client-specific action plans and initiate product developments. In 2018, 80 % of our clients stated they were mostly or fully satisfied with how we dealt with their feedback (assessment with 1 or 2 on a five-point scale).

During 2018, Wealth Management (WM) continued the Net Promoter Scores (NPS) and Client Satisfaction Survey in Germany (provided to a majority of eligible clients) and will extend these activities to the Americas and Asia Pacific (APAC) in 2019. A survey of WM's competitiveness conducted by Scorpio Partnership in March 2018 revealed that clients rated the overall performance as slightly better than global and regional competitors (overall performance score 85.2 % to 83.5 % for global competitors). The NPS from Scorpio's analysis indicates that 52 % of WM clients globally would recommend Deutsche Bank to friends, family, or colleagues (versus 58 % for global competitors).

Public policy and regulation

The risk of changing rules and regulations is inherent to our daily business. To address this adequately, we have a holistic framework in place to identify and implement new or revised regulations. We use a systematic approach that prioritizes significant regulatory risks to the bank and allocates clear accountability for the identification, impact assessment, and implementation of regulatory changes.

Governance

Deutsche Bank has a clearly structured framework that governs how we manage regulatory change risk and helps build our profile in regulatory policy debates. This enables us to engage constructively with regulatory stakeholders. It also ensures informed strategic decision-making, provides oversight and control over how key initiatives are implemented, and delivers insights to senior management on upcoming public policy issues. This process is supported by the Regulatory Management Council (RMC), which focuses on cross-bank issues in each stage of the regulatory adherence life cycle. To further contribute to the policymaking process, we provide political and regulatory stakeholders (e.g. governmental organizations, policymakers, and supervisory authorities) with information and data that set out our business strategy and determinants.

In 2018, we took further steps to promote simplification and reduce complexity. To this end, we brought together our regulatory interaction and regulatory change functions by merging the Regulatory Management Group and Regulatory Compliance into Regulatory Affairs. This has aligned all the regulatory adherence activities of Deutsche Bank. The entire team is led by the Global Head of Government & Regulatory Affairs, who reports to the Group Chief Regulatory Officer. Through these functions we manage Deutsche Bank's day-to-day relationships with its core authorities, identify relevant political and regulatory developments at an early stage, and coordinate Group policy positions accordingly. Our aim is to ensure compliance with relevant political and regulatory requirements (inbound) and include industry-relevant topics in the public discussions (outbound). Our Government & Public Affairs offices in Berlin, Brussels, and Washington, D.C., manage our relationships with key policy makers and provide them with information and data, while setting out the bank's business strategy and its determinants. Additionally, we liaise with our Chief Regulatory Office (CRegO) colleagues in the Beijing office to cover China.

Key topics in 2018

We regularly define a set of key topics that will inform our focus in the following twelve months. In 2018 these topics related to the digitalization of banking and society, the renewal of the eurozone, Brexit, and the green/sustainable finance agenda. On each issue, we convened and participated in seminars, public panels, and individual conversations with policy makers. As green or sustainable finance was a topic of particular interest throughout 2018 a more detailed overview is provided below.

Promoting sustainable finance

One of the main topics that accompanied us through 2018 was sustainable finance, along with the associated opportunities for and impact on Deutsche Bank. In March 2018, the European Commission published their Action Plan on Sustainable Finance, which focuses on the reorientation of capital flows towards investments taking environmental, social, and governance considerations into account. The Action Plan aims at managing financial risk, stemming climate change, and related demands to foster the transparency of products and corporate strategies. In this context, the Commission released the first four legislative proposals in May 2018:

– EU-wide Sustainability Taxonomy aimed at developing a common understanding of “green” and “sustainable” investments;
– Regulation requiring asset managers to integrate ESG factors into investment decisions;
– New category in the EU Benchmarks Regulation to include low-carbon and positive-carbon impact benchmarks;
– Update to the Markets in Financial Instruments Directive (MiFID II) to require investment firms to consider their clients’ sustainability preferences when providing investment advice.

By belonging to a broad sustainable finance network, we ensure that Deutsche Bank is in a position to identify, assess, and react to material developments globally. Together with trade associations like the Association for Financial Markets in Europe (AFME), the European Banking Federation (EBF), and Bundesverband deutscher Banken (BdB), we discuss these developments and respond to consultation and discussion papers. This also provides us with the opportunity to emphasize that Deutsche Bank welcomes the activities of the European Commission as an important milestone to help the EU deliver on its Paris Climate Agreement goals and wider sustainability agenda.

Guiding employee-stakeholder interaction

We set clear rules and procedures for interactions between our employees and external political and regulatory stakeholders. Through our global policy on Minimum Standards for Management of Supervisory Authorities we ensure consistent communications with Deutsche Bank’s supervisory authorities. All staff must adhere to our global Gifts, Entertainment, and Business Events Policy, which regulates the conduct and recording of any gifts and event participations offered by or accepted by Deutsche Bank representatives. For interactions with EU institutions, our mandatory policy on Pre-Clearance of All Communications with EU Institutions to discuss Policy Issues ensures consistent communication at EU level and centralized clearance of all contacts with EU officials. In the US we act in line with our internal policy on Political Contributions in the US and US Lobbying Activities.

Ensuring financial transparency

We are signatories to the EU Transparency Register, which requires us to disclose certain financial data and comply with a code of conduct. In the US we are registered with the Office of the Clerk of the Senate and Clerk of the US House of Representatives, and we file a quarterly disclosure on all relevant legislative issues with the Office of the Clerk of the House of Representatives.

Anti-financial crime

Deutsche Bank believes it is vital to combat financial crime in order to ensure the stability of banks and the integrity of the international financial system. Failure to identify and manage risks relating to financial crime exposes Deutsche Bank and its staff to potential criminal and/or regulatory liability, civil lawsuits, and a loss of reputation. As one of Europe's largest banks, we strongly support international efforts to combat money laundering, the financing of terrorism, and other criminal acts. Consequently, we have a zero-tolerance approach to financial crime, in line with our Code of Conduct. Given the strict regulatory and legal environment in which we operate, we regularly invest in our controls with a view to the prevention of all types of financial crime.

Managing financial crime risks

Deutsche Bank's Management Board is ultimately responsible for the management and mitigation of financial crime risks within the bank. The Management Board delegates tasks relating to those obligations to the Anti-Financial Crime function (AFC). The Chief Regulatory Officer (CRegO) is the responsible Management Board member for AFC. AFC is a second-line-of-defence control function, managing and mitigating the financial crime risks assigned to it in the bank's Non-Financial Risk Type Taxonomy. This relates to the prevention of money laundering, countering terrorism financing, observing sanctions and embargoes, and the prevention of fraud, bribery and corruption. AFC develops and implements, or oversees the development by other areas of the bank of, policies, procedures and processes that form the bank's control framework for those risks. AFC also oversees the bank's broader control framework as it relates to countering other criminal activities, including controls for which other functions or divisions of the bank are accountable.

Within AFC, specialized functions exist to handle specific areas of financial crime risk. The Anti-Money Laundering (AML) function, among other things, institutes measures to prevent money laundering and combat the financing of terrorism and proliferation. The Anti-Fraud, Bribery and Corruption (AFBC) function monitors and advises on compliance with fraud, bribery, and corruption laws, regulations, and international standards; the ongoing design and development of appropriate measures; and the administration of controls and safeguards to mitigate fraud, bribery, and corruption risk. The Sanctions and Embargoes function is accountable for performing measures to comply with finance and trade sanctions and embargoes, especially detecting, evaluating, and, if required, ensuring the observance of sanctions, law-related publications, and binding requirements in connection with the financial and trade sanctions of the respective authorities. As the first line of defense managers and staff in Deutsche Bank's business divisions are accountable for the appropriate structuring and execution of business activities and their corresponding processes in accordance with applicable law, rules, regulations, and Deutsche Bank policies. In response to regulatory requirements and in line with the objective of further strengthening the AFC division in 2018, staff numbers rose by about 20 % during the year (Full Time Equivalent, FTE).

The AFC Charter sets out the mandate and responsibilities of AFC across Deutsche Bank. Global AFC policies set the minimum standards for the management of financial crime risks, which are supplemented by further, country-specific policy requirements. All AFC policy documents are reviewed at least once a year to ensure that relevant new or revised legislation and regulations are properly reflected, and to take into account any lessons learned.

In 2018, we enhanced our frameworks and policies (e.g. AFC Charter, KYC Policy, Sanctions Policy, Whistleblowing Policy, and Transaction Monitoring Policy) to further strengthen Deutsche Bank's risk management approach in these areas. We also upgraded our tools and systems across all AFC areas, including better identification of suspicious transactions and improved filtering of transactions in the Sanctions and Embargoes function; launch of a strategic daily client screening system; enhanced anti-fraud, bribery, and corruption controls; and improved processes for the identification of new legislation and regulations, and their reflection in AFC policy documents.

To identify and assess the money-laundering, terrorism-financing, disregarding sanctions and embargos, fraud, bribery, and corruption risks resulting from our products, services, client activities, and operational geographies, the global AFC risk assessment team assess clients, products, and transactions annually, as well as quarterly via a Group-wide Top Risk reporting process, which is part of our non-financial risk framework. Assessments are continuously enhanced and reviewed so they can be adjusted to new regulatory requirements and take any lessons learned into account.

The vision of our AFC department is to proactively protect our clients, society, and the bank from financial crime risk. To achieve this vision, our key objectives for 2019 are:

- Enhance our connectivity with the business and other control functions to further increase effectiveness. We are working on a communication strategy for the AFC division as a key element to achieve this;
- Strengthen our transaction monitoring capabilities with a strong focus on better modelling, which will reduce the occurrence of unproductive alerts and improve our ability to focus investigative capacity on relevant alerts.

Training and engaging employees

Awareness of the risks related to financial crime and our exposure to it is a prerequisite for combating financial crime and fulfilling our duties as a good corporate citizen. This not only protects the reputation and the financial health of Deutsche Bank, but by deepening our awareness of financial crime and by bolstering our internal controls and governance, we strengthen our ability to live up to what is expected of each and every one of us. To that end, we established a global awareness campaign to prevent financial crime. In 2018, the campaign entered its third and final wave in support of the Group-wide Anti-Financial Crime Transformation and Remediation Program, a key bank-wide initiative to ensure we better understand and manage the financial crime risks we face. Employees from across the globe saw the Wave 3 “Stay Sharp” posters, banners and brand-screen displays to raise awareness of the need to continuously be aware of financial crime risks, and stay up to date with the latest skills essential to combating financial crime.

To ensure employees have the necessary technical knowledge and skills, and to keep pace with a constantly changing regulatory environment, Deutsche Bank offers training or development opportunities suited to a particular stage in an employee’s career. Our AFC curriculum includes courses on anti-money laundering, anti-fraud, bribery and corruption, and sanctions. The course uptake is very high, with minimal overdue ratios for late or non-completion of mandatory training. Participation is monitored and delayed completion will be escalated to an employee’s line manager; it can also result in red flags for employees or their managers, which are taken into account in annual promotion and compensation decisions. Through Deutsche Bank’s partnership with the Association of Certified Anti-Money Laundering Specialists, AFC employees have access to a broad range of specialist material, analyzes, and training.

Knowing our clients

The Deutsche Bank’s Know Your Customer (KYC) Policy lays down the rules governing our Group-wide approach. KYC is an ongoing process throughout the life cycle of a client relationship. As such, we not only need to know the client (including their ownership structure, ultimate beneficial owners, and source of funds where applicable), but also the anticipated nature of the client relationship.

The New Client Adoption process governs the onboarding of potential clients. No funds or assets may be accepted or transacted, nor any legal commitment entered into (e.g. operation of an account, sale of a product, or rendering of a service), until this process has been completed. As part of our regular client due diligence, we screen our relationships against internal and external criteria, e.g. relating to Politically Exposed Persons (PEPs), terrorism, or sanctions. As a consequence, a client relationship may be declined or subject to monitoring or conditions imposed on accounts, transactions, or product usage. In 2018, we further improved the effectiveness and efficiency of our screening program by investing in new technology, enhancing our methodology, and improving our alert investigation process.

In order to periodically assess client relationships, the relevant business function is required to ensure that regular reviews of all existing clients are initiated and duly performed. Review cycles depend on the risk category of a client relationship and take country, industry, product, and entity type risk into consideration. In general, high-risk clients have to be reviewed annually, medium-risk clients every two years, and low-risk clients every five years. For medium- and low-risk clients, Postbank brand normally carries out only event-related reviews and adjustments. The primary objective of risk segmenting the client base is to conduct appropriate due diligence and ensure a comprehensive client profile is in place so the results of ongoing monitoring can be compared and any discrepancies identified.

Whistleblowing

The Whistleblowing Policy sets forth the framework for staff members to report any concerns or suspicions regarding possible violations, including the prohibition against retaliation. Deutsche Bank takes any reports of possible violations very seriously and investigates such reports as appropriate. One of the channels employees can use to report such issues is Deutsche Bank’s Integrity Hotline, which can be used anonymously. The bank prohibits retaliation in any form against employees who make such reports in accordance with its Whistleblowing Policy. All individuals engaged for or on behalf of Deutsche Bank are called upon to report any concerns or suspicions regarding possible violations of laws, rules, or regulations, or possible violations of internal policies or procedures, including the bank’s Code of Conduct. Any reports received are reviewed to establish their nature, content, and urgency. If necessary, an internal investigation of the incident will be initiated, which can, for example, result in disciplinary actions against employees or changes to our processes.

Combating money laundering and terrorism financing

The AML unit has been designed in such a way as to comply, as a minimum, with German rules and with the local laws and regulations in all countries Deutsche Bank operates in. This includes policies, procedures, a designated Money Laundering Officer, independent controls, and regular employee training. Deutsche Bank is part of the Wolfsberg Group of Banks, has adopted the Wolfsberg Anti-Money Laundering Principles, and has signed the Wolfsberg Statement on the Suppression of the Financing of Terrorism.

The AML unit undertakes measures to comply with rules and regulations regarding identification (authentication), recording and archiving; to develop, update and execute internal policies, procedures, and controls; and to detect suspicious transactions and process suspicious activity alerts. In this way, we provide valuable information to regulatory and government bodies in line with existing legal and regulatory requirements, and hence support them in their fight against financial crime. In addition, we receive and use information from authorities and law enforcement enquiries to strengthen our control and detection environment. We also share information with peer institutions, within legal boundaries, as part of financial crime networks such as the Joint Money Laundering Intelligence Taskforce (JMLIT) in the UK, which consists of representatives of law enforcement agencies and leading financial institutions. In parallel, irrespective of the value or amount involved, if there is reasonable suspicion that funds have been derived from illegal origins or may be used in the context of terrorism financing, a transaction will always be declined.

As AML is considered to be a Top Risk under the bank's Non-Financial Risk Management Framework, this unit is closely monitored. A Transformation & Remediation Program has been set up to improve key processes, such as KYC and transaction monitoring.

Respecting sanctions and embargoes

At Deutsche Bank we have a responsibility to monitor, evaluate, and observe laws and binding requirements relating to financial and trade sanctions set by the EU, the Bundesbank, Germany's Federal Office for Economic Affairs and Export Control, and other authorities, such as the US Office of Foreign Assets Control (OFAC) and the UK Treasury Department. Our Group-wide Sanctions Policy and a specific policy relating to the US OFAC have procedures that help us to assess and reduce client risk as part of our on-boarding process and periodically thereafter. These policies also help us to manage risks relating to particular transactions, countries, and goods. The bank has entered into agreements with certain US regulatory and law enforcement agencies to resolve investigations concerning US embargo-related matters.

As breaching sanctions and embargoes is considered to be a Top Risk under the bank's Non-Financial Risk Management Framework, this function and topic is closely monitored. A Sanctions & Embargoes Transformation Program has been set up to deliver strategic improvements to the control environment.

Preventing fraud

Our Group-wide Anti-Fraud Policy defines fraud as any intentional act or omission, including a misrepresentation that misleads or conceals, or attempts to mislead or conceal, in order to gain a personal or business advantage, or to avoid a personal or business disadvantage. The Anti-Fraud Policy applies to all employees and explains how to immediately escalate any known or suspected fraudulent incident. Employees who engage in fraudulent acts may be subject to internal disciplinary action, prosecution, and/or regulatory sanction. Deutsche Bank may refer such employees to law enforcement agencies and regulatory agencies and may seek redress from the employee. Employees are also expected to comply with any local requirements relating to fraud.

In relevant business divisions mandatory time away (MTA) is an important anti-fraud control mechanism for preventing or detecting unauthorized or inappropriate activity by staff in sensitive positions. MTA enforcement acts as a deterrent to employees from undertaking any unauthorized or inappropriate activity that might require continuous on-site presence and/or system access.

Combating bribery and corruption

In accordance with our Code of Conduct and international law (e.g. the UK Bribery Act 2010, the US Foreign Corrupt Practices Act 1977, the German Criminal Code (StGB), Singapore's Prevention of Corruption Act (PCA), and the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions), Deutsche Bank does not accept or tolerate any knowing or willfully negligent involvement in or association with bribery and corruption in any form. This includes a clear prohibition on giving or authorizing facilitation payments.

The Anti-Bribery and Corruption (ABC) Policy sets out the minimum standards that govern Deutsche Bank's approach to the mitigation and detection of bribery and corruption risk, and the behavior expected by all employees. These requirements also apply to partners, suppliers, service providers, and third parties to the extent they perform services for Deutsche Bank and counterparts contractually bound to Deutsche Bank or associated with Deutsche Bank's business and business interests. The ABC team administers controls and safeguards to mitigate bribery and corruption risks, for example in respect of joint ventures, offering and accepting gifts and entertainment, hiring practices, high-risk client relationships, transactions, and new products.

Every employee is responsible for the prevention, detection, and reporting of bribery and other forms of corruption in connection with the bank's business. Bribery and corruption have serious consequences for employees and the bank as they may result in legal, reputational, and regulatory risks. We take action against employees who violate the bank's ABC Policy, Code of Conduct, or applicable laws and regulations. Deutsche Bank will terminate relationships with any third party if they violate the ABC Policy, give, receive, or agree to give or receive a bribe, commit a criminal and/or regulatory offence, and potentially expose the bank to corporate criminal and/or regulatory liability, as well as civil lawsuits, locally and globally. To deliver on this policy, regional teams are responsible for reviewing and analyzing escalated ABC matters, developing and administering controls, monitoring, advising on compliance with ABC obligations, training, and awareness.

Preventing other criminal activities

The Head of AFC is also responsible for ensuring that measures to prevent any other criminal activities that could endanger institutional assets (see Section 25, German Banking Act) are fit for purpose. The examples derived from the German Penal Code include damage to property, robbery, cybercrimes, antitrust, and tax offences. The Head of AFC has established and chairs a Global Financial Crime Governance Committee to support the governance and oversight of the Financial Crime risks, as defined in Section 25h, German Banking Act. The Global Financial Crime Governance Committee is supported by the Regional Financial Crime Governance Committees, which are chaired by the respective Regional Heads of AFC.

Reporting on recent events

Despite all our efforts to prevent money laundering, there have been instances in which the bank agreed to pay civil monetary penalties to settle investigations into the bank's AML control function.

On September 21, 2018, the BaFin issued an order requiring us to implement measures on specified timelines over the coming months and years to improve our control and compliance infrastructure relating to anti-money laundering and, in particular, the know your customer (KYC) processes in CIB. The BaFin also appointed KPMG as special representative, reporting to the BaFin, to monitor the implementation of these measures. In February 2019, the BaFin extended the special representative's mandate to cover our internal controls in the correspondent banking business.

In October and November 2018, there were media reports about Deutsche Bank's involvement in activities performed by Danske Bank AS Estonia Branch (Danske Estonia). Deutsche Bank acted as one of the correspondent banks for Danske Estonia. Our role was to process correspondent banking transactions on behalf of customers of Danske Estonia prior to cessation of the corresponding banking relationship with that branch in 2015. We are conducting an internal investigation into these matters, including of whether any violations of law, regulation or policy occurred and the effectiveness of the related internal control environment, and are cooperating with the investigating authorities. Separately, over the last two to three years Deutsche Bank has completed a significant de-risking of its Correspondent Banking client portfolio. Additionally, the Correspondent Banking business at Deutsche Bank went through a comprehensive remediation program, significantly strengthening the overall risk management framework including policies and procedures, governance and oversight, and client due diligence/KYC. As a result of these measures, Deutsche Bank has reduced its global Correspondent Banking client portfolio substantially since 2016, including clients rated as high risk.

On November 29, 2018, several Deutsche Bank offices in Germany were searched by German law enforcement authorities in connection with information available through the so-called Panama Papers leak. The Public Prosecutor's Office in Frankfurt/Main accuses two Deutsche Bank employees – and as-yet unidentified further individuals – of potentially aiding and abetting money-laundering activities, and specifically that they did not report indications of potential money laundering immediately, but only after publication of the Panama Papers in the media. The Bank is cooperating in the investigation, as has been publicly acknowledged by the Frankfurt Public Prosecutor's Office. Independently of this, Deutsche Bank had already concluded an internal review into the Panama Papers and in January 2018, BaFin had informed us that it was closing its own investigation and requested no further action from us.

Information security

Digitalization opens up a wealth of opportunities for financial institutions, allowing banks to offer personalized services and streamline business processes. Clients expect access to their bank's services anytime, anywhere, and through a variety of channels. At the same time, cyberattacks on businesses are increasing in scale, speed, and sophistication. In 2018, European Central Bank (ECB) Banking Supervision identified and assessed the risks faced by eurozone banks and defined cybercrime and IT disruptions as one of the key risk drivers. Consequently, more attention is being paid to cybersecurity requirements by global regulators. The financial and reputational impact of an incident is evident, as is the litigation risk resulting from cybersecurity attacks and potential breaches. As the external threat landscape continues to evolve, information security remains a top risk for the bank. We continue to make significant investment in our capabilities with a view to mitigating the external threat landscape risk.

Deutsche Bank's Group Information Security Strategy provides the framework for the bank's activities geared at protecting our ability to deliver suitable products and services to our clients and thereby protecting revenue. Preserving the confidentiality, integrity, and availability of our clients' and partners' data and the bank's information assets is essential for upholding the trust placed in Deutsche Bank by our clients, shareholders, employees, and social stakeholders. Deutsche Bank continues to strengthen its cyber and physical security capabilities to keep pace with threats. Our strategic direction is reviewed and confirmed regularly and is underpinned by our information security governance model.

Our Chief Security Office (CSO) embraces the opportunities digitalization offers by supporting the bank's digital projects and our Digital Factory. This cooperation model ensures that the necessary information security controls are conducted, while adapting to an agile model. CSO provides project support at all working levels from the idea to the finalized product, e.g. through open consultation hours or awareness sessions.

We evolve our technology delivery service offerings to clients and processes by building on partnerships with service providers and with the integration of FinTech developments. In 2018, we launched the eSafe project with our partner DSwiss to allow for personal documents, invoices, and passwords to be archived safely in a digital safe.

Governance

CSO is responsible for the bank's security matters. We implement technology and physical security protection in accordance with the Group's Risk Appetite. CSO develops and drives the global implementation and operationalization of our Group-wide information security strategy and ensures that the bank's people and assets are appropriately protected. An IT Security Committee with delegated authority from the Management Board's Representative oversees all IT security activities, including potential escalations.

We deploy international standards and best practices to structure Deutsche Bank's information security policy landscape and implementation. Our Information Security Management System has been certified to ISO 27001 since 2012 and was successfully re-certified in 2018. Our governance framework and cybersecurity program are regularly enhanced to ensure that security policies and standards continue to keep pace with evolving business requirements, regulatory guidance, and emerging cyber threats. Information security policies support Deutsche Bank in complying with these parameters and form the basis for actively managing and governing information-security-related implementation processes.

We appointed Divisional Chief Information Security Officers (Divisional CISOs) in 2018 to further strengthen our information security management in our business divisions. As the senior accountable officers for information security, the Divisional CISOs ensure alignment to Deutsche Bank policies and standards.

Third party risk

Reliance on vendors, as well as all outsourced products and services that support critical IT operations, could increase the bank's risk posture. As such, new and evolving cyberattack vectors target vendors and lead to additional requirements for oversight and continuous monitoring of vendor security. This also results in increased regulatory activity in this space. Deutsche Bank manages third party risk through its vendor management program which assesses the risk outsourcing relationships present to Deutsche Bank.

Defense against cyber threats

To protect the bank's information and systems, we take a multi-layered, defense-in-depth approach to building information security controls into every layer of technology, including data, devices, and applications. This delivers end-to-end protection, while also providing multiple opportunities to detect, prevent, respond, and recover from cyber threats. This approach is a key facet of our Group Information Security Strategy to increase security and stability of the technology platforms.

In addition to prevention methods and controls like threat intelligence, data leakage prevention, vulnerability management, and continuous staff awareness programs, we also prioritize detection, backed up by a robust incident response process. Our Cyber Intelligence and Response Centers in Singapore, Germany, and the US are set up to provide 24/7 coverage across different time zones (Follow the Sun model), thus improving the bank's capability to detect threats and respond to incidents worldwide.

"The target is you"

In 2018, we continued to roll out to all Deutsche Bank Group staff our global multichannel awareness campaign covering a broad range of information and corporate security topics, including the 2018 Information Security Month with a month of activities at several locations of Deutsche Bank. The goal of the "Time to be aware – the target is you" campaign is to help staff understand common yet significant security threats and their responsibility and contribution in helping to protect the bank against these threats. The campaign also focuses on tips and relevant basic practices to help employees protect themselves and the bank in their daily working life, both in the office and on the go.

Besides awareness measures, we recognize the importance of continuous training and education in a highly dynamic cyber-threat environment. Deutsche Bank employees are educated in mandatory sessions that are complemented by specific training for individuals in specialist roles and target groups. Additionally, we use information material, e.g. explanatory videos, and stage events to inform our clients about cyber threats and how the bank protects their assets.

Engaging stakeholders

We work closely with regulators to understand and collaborate on their requirements. Also, we work with national and international security organizations, government authorities, and peer organizations, such as the Financial Services Information Sharing and Analysis Centre (FS-ISAC) to share best practices and threat information. As sharing relevant indicators of compromise (i.e. forensic data that identifies malicious activity on a system or network) and further intelligence reduces the risk for all involved parties, Deutsche Bank has established a dedicated team to coordinate this exchange and to further develop these relationships. Engaging stakeholders helps to ensure that we apply the most up-to-date information security approaches and technology.

Data protection

Data protection has never been a more socially significant issue, particularly since the EU General Data Protection Regulation (GDPR) took effect on May 25, 2018. As almost all Deutsche Bank's business involves processing personal data, protecting such data is a matter of special concern to us. This is not only because noncompliance with GDPR entails substantial fines; it is above all due to a shift in societal awareness. The expectations of clients, employees, and regulators have risen, and we are striving to meet them.

Data protection management

Our Group Data Privacy (GDP) department is a specialized and independent function controlling the collection, processing, and use of personal data, and is complemented by a Data Protection Unit at Postbank brand. The GDP team reports directly to the Management Board and is supported by local Data Protection Officers in the countries where we conduct business. This set-up ensures direct and indirect reporting lines, as well as regular exchanges on data protection topics within our centralized and decentralized organization. In response to the increased controls required to ensure compliance with GDPR provisions, GDP is being expanded to ensure we have enough personnel to monitor, test, and assess Deutsche Bank's data privacy and protection setup.

Deutsche Bank also contributes to the development and interpretation of industry-specific and prevailing standards on data privacy and protection by proactively participating in data protection committees and working groups, such as the Federal Association of German Banks, IBM Guide Share Europe, and Bitkom. Developments in data protection regulations are regularly analyzed and control processes revised accordingly. The same applies to technical developments and new digital business models.

Our GDPR program is one of the bank's core change initiatives for implementing these regulatory requirements across the Group (with parallel activities having been performed at Postbank brand). Our response has involved rolling out a new control framework, implementing a revised Global Data Protection and Privacy Policy, introducing six additional data protection procedures to meet the main GDPR requirements, and amending or introducing new operational processes within the business divisions. Three Management Board members are monitoring the implementation of the bank's GDPR program and GDPR compliance across the Group.

Educating and training about GDPR

Staff training on the implications of GDPR for our day-to-day business is a key factor in ensuring effective data protection in all our operational processes. Some 50,000 employees in the Europe, Middle East and Africa (EMEA) region have been trained. The red flag nature of this e-learning program means non-attendance is being sanctioned. E-learning programs with a slightly different focus have also been rolled out in other countries outside of the EU. We are aiming to achieve 100 % coverage in the course of 2019 in all countries where we conduct business, even in those countries where GDPR is not applicable. Classroom training sessions have also been conducted if required by specific business needs. Moreover, an internal awareness campaign is ensuring employees are informed of what GDPR means to them. Other informative measures have included distributing some 20 million privacy notices on specific data-related topics to, in the main, clients (though also to employees) and amending vendor contracts to take GDPR requirements into account.

No substantial data breaches observed

Various reporting and escalation processes from the business to GDP have been implemented to ensure that potential data breaches can be assessed and handled in a timely manner. This approach has also been outlined in a global data protection procedure that has been rolled out as part of the GDPR program. No data breaches of systemic relevance were observed in 2018.

People strategy

The success of Deutsche Bank largely depends on the ideas, competence, commitment, and health of its employees. That is why the bank attaches great importance to offering its employees an attractive working environment so they can help the company become more innovative. The bank's Human Resources (HR) agenda seeks to create an environment where people can work in partnership and are enabled to deliver sustainable organizational performance.

Our HR strategy is embedded within individual Management Board objectives, which have been agreed with the Supervisory Board. In doing so, individual aspects and focus areas (e.g. achieving agreed diversity ratios) help us to measure individual performance and progress. This was reflected in our strategic HR priorities for 2018:

- Strengthening our talent agenda by expanding bank-wide leadership and Director/Vice President acceleration program coverage;
- Investing in the future of work;
- Further embedding diversity and inclusion in all people processes;
- Prioritizing the management of employee health;
- Supporting restructuring measures and enabling internal mobility.

Details of our HR priorities and programs, including personnel data, can be found in the Human Resources Report (Link).

Implementing HR policies and standards

HR has a clear governance structure. Our global priorities and standards are defined and monitored by the Global HR Executive Committee. This includes the global heads of HR, the divisions and entities sharing responsibility for HR management, as well as the HR heads responsible for processes and products in the regions, and is responsible for defining and controlling Group-wide HR standards and policies. Deutsche Bank's revised Code of Conduct governs employee behavior by guiding them on how to act ethically, responsibly, and sustainably, and explaining how to deal with relevant risks, conflicts of interest, and confidential information.

Policies are a fundamental part of the bank's control environment and can be accessed by our employees via the Deutsche Bank Policy Portal. Our global HR policies cover a wide range of HR topics, e.g. hiring, managing, and developing performance and careers, assessment of the suitable members of management bodies and key function holders, international assignments, compensation, off-boarding, termination, and employee-related incident management. Additionally, there are guidelines and policies for performance management procedures, disciplinary and dismissal procedures, grievance, and anti-harassment and bullying procedures, for example.

Recruiting and developing talent

Recruiting talent continues to be a key priority for Deutsche Bank. Filling open positions in front-office roles and operations centers was again a priority in 2018, as was hiring talent to meet the growing demand in regulatory roles (e.g. Anti-Financial Crime, Audit, and Compliance). Additionally, talent acquisition focused on hiring 452 graduates and vocational trainees (2017: 347).

Graduates and vocational trainees

We remain committed to the strategic priority of hiring graduates, as they contribute to our agenda of change, build culture, reflect our future clients, and diversify our organization. In 2018, we hired 382 graduates (2017: 279). This increase was due to additional investments in the Corporate & Investment Bank (CIB) and our Technology function, where the intake doubled in a year-on-year comparison.

For the first time, the bank ran two separate orientation and training programs – one regionally in India for the bank's local Technology cohort and one in London, as in previous years.

Vocational training and dual studies are an important component of our junior staff strategy and offer an additional opportunity, particularly in Germany, to attract young talent to our company. This is of particular importance in the current training market, which is characterized by difficult recruitment conditions and declining target-group interest. Thanks to our marketing strategy #dbKarrierestart implemented in 2018 and the DB-Insider initiative, we were able to attract more attention to our offers in the course of the year and the number of applications received rose by about a fifth. In 2018, we hired 70 new vocational trainees (2017: 68).

Internal career mobility

Internal mobility plays a vital role in retaining qualified and talented employees and keeping their expertise and experience within the bank. In 2018, we continued to develop and embed our internal mobility strategy and uphold our commitment to filling vacant positions with suitable internal candidates. All vacant positions are first advertised to internal staff for at least two weeks. Prioritizing internal candidates helps employees affected by restructuring find new roles at the bank. We also promote cross-divisional mobility to enable employees to expand their skills and experience for rounded careers. Furthermore, internal mobility helps reduce the bank’s redundancy and recruitment costs.

Leadership development

Launched in September 2018, the bank-wide speak-up campaign – Be on the right side - speak up – aims to support the introduction of the revised Code of Conduct, anchor the bank's values in our day-to-day business, and encourage all employees to promote an open and honest culture of discussion within the bank.

Deutsche Bank’s Leadership Capability Model and our values and beliefs define what we expect from our leaders, as well as providing a shared view of the capabilities that are vital to leading employees and ensuring business success in line with our strategy and culture. These frameworks represent the foundation for our approach to developing leaders through a range of flagship programs.

We run two mandatory Management Fundamentals programs for new managers. The core program is designed for new managers up to vice presidents who are taking on people management responsibilities at the bank for the first time. The executive program is tailored to the needs of managing directors and directors. Both programs are built around three key areas: managing people, driving business success, and shaping culture. To date, more than 1,300 employees have attended these cross-divisional programs around the world. We also offer skill practice pods for experienced managers, focusing on topics such as Building Talent and Leading in Challenging Times. As of year-end 2018, 209 participants had attended skill pods (2017: 232).

Acceleration development

To help our employees develop professionally and personally and advance their careers, the talent acceleration programs at Deutsche Bank follow a cross-divisional approach. In June 2018, the fifth cohort of the Accomplished Top Leaders Advancement Strategy (ATLAS) acceleration program for female Managing Directors started with 14 female executives. This is the largest cohort to date due to the strong talent pool identified for this program. The bank-wide Director Acceleration Program (DAP), which was launched in 2017 and received strong feedback following the first round, had 94 participants in 2018, with their development journey spanning twelve months. The Vice President Acceleration Program completed its third year in 2018. 41 % female participation was the highest proportion in the program to date. This six-month development journey comprises two modules held in Europe (London, Frankfurt, Milan), the Americas (New York), and Asia (Singapore).

Embracing diversity and inclusion

As a global organization, Deutsche Bank is committed to an inclusive culture that respects and embraces the diversity of our employees, clients, and communities. As diversity and inclusion are central to the bank’s culture, we seek to:

- Build talented and diverse teams to drive business results;
- Create a respectful and inclusive environment where people can thrive;
- Strengthen our relationship with clients, partners, regulators, communities, and potential employees.

We aim to attract, develop, and retain the best people from all cultures, countries, races, ethnicities, genders, sexual orientations, abilities, beliefs, backgrounds, and experiences. To this end, and to prepare for opportunities and challenges arising from changing demographics and digitalization, we follow an integrated and multi-dimensional approach to diversity and inclusion.

Throughout 2018, the bank continued its journey to embed diversity and inclusion in our people processes. The key focus areas in 2018 were as follows:

- Renewing our commitment to improve gender diversity: given that the current voluntary declaration to substantially raise the proportion of all female managers globally came to an end at the end of 2018, the Management Board agreed to set voluntary next-level goals;
- Strengthening the role and visibility of Employee Resource Groups (ERG): ERGs are critical to our employee engagement efforts and continue to be a key demonstration of our inclusive and diverse culture, both internally and externally;
- Advancing LGBTQI (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex) inclusion worldwide: LGBTQI inclusion is widely seen as a leading indicator for the diversity and inclusion maturity of an organization.

Continuing our focus on gender diversity

Deutsche Bank continued its efforts to advance women in the workplace throughout 2018. The percentage of women on the Supervisory Board stood at 30 % at the end of the year (2017: 35 %), which met the statutory requirement of 30 % for listed and co-determined German companies under gender quota legislation introduced in 2015.

The Supervisory Board’s latest target for the Management Board was set in 2017 as at least 20 % female members by June 30, 2022. This translates to two women given a Management Board size of between eight and twelve members. With one woman (Chief Regulatory Officer) currently on the Management Board, this target has not yet been met. Within the Diversity Principles of the Suitability Guidelines for selecting the members of the Management Board, the Supervisory Board is working towards the 2022 target.

As of year-end 2018, 20.8 % of positions at the first management level below the Management Board were held by female executives (2017: 18 %). At the second level below the Management Board, this percentage stood at 20.9 % (2017: 19.6 %). In accordance with legal requirement in Germany, the bank set targets for December 31, 2020 of 20 % and 25 %, respectively.

In 2011, Deutsche Bank signed a voluntary declaration to substantially raise the proportion of female managers globally by the end of 2018. As of year-end 2018, the percentage of female Managing Directors and Directors stood at 23 % (2017: 22 %). The share of female officers was 32.9 % (2017: 32.2 %). In total, the share of female employees amounted to 38.1 % (2017: 37.5 %).

While women’s representation at Deutsche Bank is not where we want it to be, we continue to monitor and report on our progress to the Management Board. We have a variety of measures in place including talent development programs, manager training, best practices on people-related decisions, internal monitoring, and significant support for grassroots, employee-driven initiatives.

The Management Board remains committed to increasing the representation of women in leadership positions. In March 2019, the Management Board decided to restate our voluntary group-wide aspirational goals for the representation of women. Since transparency facilitates change, we have disaggregated our goals for December 2021 to focus on our top three corporate titles individually (in headcount): Managing Director (21%), Director (28%) and Vice President (35%). This will also strengthen the internal pipeline for the two levels below the Management Board. We believe improved gender balance in leadership roles will meaningfully contribute to the future success of Deutsche Bank.

Creating an inclusive work environment

For the first time in 2018, Deutsche Bank made the list of the top 100 most inclusive companies on the Thomson Reuters D&I Index. Now in its third year, this investable index is informed by ESG data and evaluates companies on various components of inclusion. Deutsche Bank ranks #68 of all the 2,173 companies evaluated. This puts us in the top 100, which is the investible index referenced. In the banking services category, we ranked fourth out of 185 companies and sixth out of 84 German companies.

As one of many activities to support LGBTQI inclusion and to support the bank's LGBTQI colleagues, Deutsche Bank has a long-standing Allies program. These visible Allies, who do not self-identify with a particular LGBTQI group, play a key role to foster a culture of inclusion across the bank. As leaders and advocates of change at all levels of the organization they are helping LGBTQI employees to feel safe at work, to bring their whole self to work, and subsequently also to be more productive.

During almost 20 years of experience in diversity and inclusion, a number of key external partnerships were built across the globe. These partnerships not only help us to drive our internal agenda. They also enable us to share good practice and to positively impact on the societies we are operating in. We are convinced that his helps us to strengthen relationships with clients, partners and communities.

- In Germany the bank is a founding member and currently management board member of the *Charta der Vielfalt* (Charter of Diversity), an association under the patronage of Chancellor Angela Merkel that actively fosters diversity in the workplace.
- Elsewhere, Deutsche Bank is a founding signatory of the UK Treasury's Women in Finance Charter, promoting a more gender-balanced financial services industry, as well as the *Charte de la Diversité* in Luxembourg, the *Charter Diversidad* in Spain, the Manifesto for Women's Employment in Italy, and i-Gen, the Portuguese business forum for gender diversity.

Information pursuant to Section 289 (4) of the German Commercial Code and explanatory report

Structure of the share capital including authorized and conditional capital

For information regarding Deutsche Bank's share capital please refer to Note 34 "Common Shares" to the Consolidated Financial Statements.

Restrictions on voting rights or the transfer of shares

Under Section 136 of the German Stock Corporation Act the voting right of the affected shares is excluded by law. As far as the bank held own shares as of December 31, 2018 in its portfolio according to Section 71b of the German Stock Corporation Act no rights could be exercised. We are not aware of any other restrictions on voting rights or the transfer of shares.

Shareholdings which exceed 10% of the voting rights

The German Securities Trading Act (Wertpapierhandelsgesetz) requires that any investor whose share of voting rights reaches, exceeds or falls below certain thresholds as the result of purchases, disposals or otherwise, must notify us and the German Federal Financial Supervisory Authority (BaFin) thereof. The lowest threshold is 3 %. We are not aware of any shareholder holding directly or indirectly 10 % or more of the voting rights.

Shares with special control rights

Shares which confer special control rights have not been issued.

System of control of any employee share scheme where the control rights are not exercised directly by the employees

The employees, who hold Deutsche Bank shares, exercise their control rights as other shareholders in accordance with applicable law and the Articles of Association (Satzung).

Rules governing the appointment and replacement of members of the management board

Pursuant to the German Stock Corporation Act (Section 84) and the Articles of Association of Deutsche Bank (Section 6) the members of the Management Board are appointed by the Supervisory Board. The number of Management Board members is determined by the Supervisory Board. According to the Articles of Association, the Management Board has at least three members. The Supervisory Board may appoint one or two members of the Management Board as Chairpersons of the Management Board. Members of the Management Board may be appointed for a maximum term of up to five years. They may be reappointed or have their term extended for one or more terms of up to a maximum of five years each. The German Co-Determination Act (Mitbestimmungsgesetz; Section 31) requires a majority of at least two thirds of the members of the Supervisory Board to appoint members of the Management Board. If such majority is not achieved, the Mediation Committee shall give, within one month, a recommendation for the appointment to the Management Board. The Supervisory Board will then appoint the members of the Management Board with the majority of its members. If such appointment fails, the Chairperson of the Supervisory Board shall have two votes in a new vote. If a required member of the Management Board has not been appointed, the Local Court (Amtsgericht) in Frankfurt am Main shall, in urgent cases, make the necessary appointments upon motion by any party concerned (Section 85 of the Stock Corporation Act).

Pursuant to the German Banking Act (Kreditwesengesetz) and Regulation (EU) No 468/2014 of the European Central Bank (SSM Framework Regulation) evidence must be provided to the European Central Bank (ECB), the German Federal Financial Supervisory Authority (BaFin) and the Deutsche Bundesbank that the member of the Management Board has adequate theoretical and practical experience of the businesses of the Bank as well as managerial experience before the member is appointed (Sections 24 (1) No. 1 and 25c (1) of the Banking Act, Article 93 of the SSM Framework Regulation).

The Supervisory Board may revoke the appointment of an individual as member of the Management Board or as Chairperson of the Management Board for good cause. Such cause includes in particular a gross breach of duties, the inability to manage the Bank properly or a vote of no-confidence by the shareholders' meeting (Hauptversammlung, referred to as the General Meeting), unless such vote of no-confidence was made for obviously arbitrary reasons.

The ECB or the BaFin may appoint a special representative and transfer to such special representative the responsibility and powers of individual members of the Management Board if such members are not trustworthy or do not have the required competencies or if the credit institution does not have the required number of Management Board members. In any such case, the responsibility and powers of the Management Board members concerned are suspended (Section 45c (1) through (3) of the Banking Act, Article 93 (2) of the SSM Framework Regulation).

If the discharge of a bank's obligations to its creditors is endangered or if there are valid concerns that effective supervision of the bank is not possible, the BaFin may take temporary measures to avert that risk. It may also prohibit members of the Management Board from carrying out their activities or impose limitations on such activities (Section 46 (1) of the Banking Act). In such case, the Local Court Frankfurt am Main shall, at the request of the BaFin appoint the necessary members of the Management Board, if, as a result of such prohibition, the Management Board no longer has the necessary number of members in order to conduct the business (Section 46 (2) of the Banking Act).

Rules governing the amendment of the Articles of Association

Any amendment of the Articles of Association requires a resolution of the General Meeting (Section 179 of the Stock Corporation Act). The authority to amend the Articles of Association in so far as such amendments merely relate to the wording, such as changes of the share capital as a result of the issuance of authorized capital, has been assigned to the Supervisory Board by the Articles of Association of Deutsche Bank (Section 20 (3)). Pursuant to the Articles of Association, the resolutions of the General Meeting are taken by a simple majority of votes and, in so far as a majority of capital stock is required, by a simple majority of capital stock, except where law or the Articles of Association determine otherwise (Section 20 (1)). Amendments to the Articles of Association become effective upon their entry in the Commercial Register (Section 181 (3) of the Stock Corporation Act).

Powers of the management board to issue or buy back shares

The Annual General Meeting of May 18, 2017 authorized the Management Board pursuant to Section 71 (1) No. 7 of the Stock Corporation Act to buy and sell, for the purpose of securities trading, own shares of Deutsche Bank AG on or before April 30, 2022, at prices which do not exceed or fall short by more than 10 % of the average of the share prices (closing auction prices of the Deutsche Bank share in Xetra trading and/or in a comparable successor system on the Frankfurt Stock Exchange) on the respective three preceding stock exchange trading days. In this context, the shares acquired for this purpose may not, at the end of any day, exceed 5 % of the share capital of Deutsche Bank AG.

The Annual General Meeting of May 24, 2018 authorized the Management Board pursuant to Section 71 (1) No. 8 of the Stock Corporation Act to buy, on or before April 30, 2023, own shares of Deutsche Bank AG in a total volume of up to 10 % of the share capital at the time the resolution was taken or – if the value is lower – of the share capital at the time this authorization is exercised. Together with own shares acquired for trading purposes and/or for other reasons and which are from time to time in the company's possession or attributable to the company pursuant to Sections 71a et seq. of the Stock Corporation Act, the own shares purchased on the basis of this authorization may not at any time exceed 10 % of the company's respectively applicable share capital. The own shares may be bought through the stock exchange or by means of a public purchase offer to all shareholders. The countervalue for the purchase of shares (excluding ancillary purchase costs) through the stock exchange may not be more than 10 % higher or more than 20 % lower than the average of the share prices (closing auction prices of the Deutsche Bank share in Xetra trading and/or in a comparable successor system on the Frankfurt Stock Exchange) on the last three stock exchange trading days before the obligation to purchase. In the case of a public purchase offer, it may not be more than 10 % higher or more than 20 % lower than the average of the share prices (closing auction prices of the Deutsche Bank share in Xetra trading and/or in a comparable successor system on the Frankfurt Stock Exchange) on the last three stock exchange trading days before the day of publication of the offer. If the volume of shares offered in a public purchase offer exceeds the planned buyback volume, acceptance must be in proportion to the shares offered in each case. The preferred acceptance of small quantities of up to 50 of the company's shares offered for purchase per shareholder may be provided for.

The Management Board has also been authorized to dispose of the purchased shares and of any shares purchased on the basis of previous authorizations pursuant to Section 71 (1) No. 8 of the Stock Corporation Act on the stock exchange or by an offer to all shareholders. The Management Board has been authorized to dispose of the purchased shares against contribution-in kind and with the exclusion of shareholders' pre-emptive rights for the purpose of acquiring companies or shareholdings in companies or other assets that serve the company's business operations. In addition, the Management Board has been authorized, in case it disposes of such own shares by offer to all shareholders, to grant to the holders of the option rights, convertible bonds and convertible participatory rights issued by the company and its affiliated companies pre-emptive rights to the shares to the extent that they would be entitled to such rights if they exercised their option and/or conversion rights. Shareholders' pre-emptive rights are excluded for these cases and to this extent.

The Management Board has also been authorized to use shares purchased on the basis of authorizations pursuant to § 71 (1) No. 8 Stock Corporation Act to issue staff shares, with the exclusion of shareholders' pre-emptive rights, to employees and retired employees of the company and its affiliated companies or to use them to service option rights on shares of the company and/or rights or duties to purchase shares of the company granted to employees or members of executive or non-executive management bodies of the company and of affiliated companies.

Furthermore, the Management Board has been authorized, with the exclusion of shareholders' pre-emptive rights, to sell such own shares to third parties against cash payment if the purchase price is not substantially lower than the price of the shares on the stock exchange at the time of sale. Use may only be made of this authorization if it has been ensured that the number of shares sold on the basis of this authorization does not exceed 10 % of the company's share capital at the time this authorization becomes effective or – if the amount is lower – at the time this authorization is exercised. Shares that are issued or sold during the validity of this authorization with the exclusion of pre-emptive rights, in direct or analogous application of Section 186 (3) sentence 4 Stock Corporation Act, are to be included in the maximum limit of 10 % of the share capital. Also to be included are shares that are to be issued to service option and/or conversion rights from convertible bonds, bonds with warrants, convertible participatory rights or participatory rights, if these bond or participatory rights are issued during the validity of this authorization with the exclusion of pre-emptive rights in corresponding application of Section 186 (3) sentence 4 Stock Corporation Act.

The Management Board has also been authorized to cancel shares acquired on the basis of this or a preceding authorization without the execution of this cancellation process requiring a further resolution by the General Meeting.

The Annual General Meeting of May 24, 2018 authorized the Management Board pursuant to Section 71 (1) No. 8 of the Stock Corporation Act to execute the purchase of shares under the resolved authorization also with the use of put and call options or forward purchase contracts. The company may accordingly sell to third parties put options based on physical delivery and buy call options from third parties if it is ensured by the option conditions that these options are fulfilled only with shares which themselves were acquired subject to compliance with the principle of equal treatment. All share purchases based on put or call options are limited to shares in a maximum volume of 5 % of the actual share capital at the time of the resolution by the General Meeting on this authorization. The term of the options must be selected such that the share purchase upon exercising the option is carried out at the latest on April 30, 2023.

The purchase price to be paid for the shares upon exercise of the put options or upon the maturity of the forward purchase may not exceed more than 10 % or fall below 10 % of the average of the share prices (closing auction prices of the Deutsche Bank share in Xetra trading and/or in a comparable successor system on the Frankfurt Stock Exchange) on the last three stock exchange trading days before conclusion of the respective transaction in each case excluding ancillary purchase costs but taking into account the option premium received. The call options may only be exercised if the purchase price to be paid does not exceed by more than 10 % or fall below 10 % of the average of the share prices (closing auction prices of the Deutsche Bank share in Xetra trading and/or in a comparable successor system on the Frankfurt Stock Exchange) on the last three stock exchange trading days before the acquisition of the shares.

To the sale and cancellation of shares acquired with the use of derivatives the general rules established by the General Meeting apply.

Own shares may continue to be purchased using existing derivatives that were agreed on the basis and during the existence of previous authorizations.

Significant agreements which take effect, alter or terminate upon a change of control of the company following a takeover bid

Significant agreements which take effect, alter or terminate upon a change of control of the company following a takeover bid have not been entered into.

Agreements for compensation in case of a takeover bid

If a member of the Management Board leaves the bank within the scope of a change of control, she or he receives a one-off compensation payment described in greater detail in the Compensation Report.

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Annual Financial Statements

Balance sheet as of December 31, 2018

Assets in € m.				Dec 31, 2018	Dec 31, 2017
Cash reserve					
a) cash on hand			75		72
b) balances with central banks			135,157		168,791
thereof: with Deutsche Bundesbank	69,318				103,736
				135,232	168,862
Debt instruments of public-sector entities and bills of exchange eligible for refinancing at central banks					
a) Treasury bills, discountable Treasury notes and similar debt instruments of public-sector entities			222		279
thereof: eligible for refinancing at Deutsche Bundesbank	0				0
b) bills of exchange			9		14
				231	293
Receivables from banks					
a) Mortgage loans			878		604
b) loans to or guaranteed by public-sector entities			168		217
c) other receivables			106,433		130,742
				107,480	131,562
thereof:					
repayable on demand	44,281				46,604
receivables collateralized by securities	1,135				2,757
Receivables from customers					
a) Mortgage loans			11,967		11,901
b) loans to or guaranteed by public-sector entities			4,356		5,599
c) other receivables			222,759		214,100
				239,081	231,600
thereof: receivables collateralized by securities	12,713				7,249
Bonds and other fixed-income securities					
a) money market instruments					
aa) of public-sector issuers		31			630
thereof: eligible as collateral for Deutsche Bundesbank	0				0
			1,153		630
b) bonds and notes					
ba) of public-sector issuers		30,431			33,378
thereof: eligible as collateral for Deutsche Bundesbank	7,079				12,471
bb) of other issuers		8,214			4,437
thereof: eligible as collateral for Deutsche Bundesbank	3,549				2,564
			38,644		37,815
c) own debt instruments			0		29
nominal amount	0				30
				39,798	38,474
Equity shares and other variable-yield securities				559	472
Trading assets				303,702	601,755
Participating interests				367	474
thereof: in banks	9				9
in financial services institutions	195				178
Investments in affiliated companies				45,624	43,561
thereof: in banks	19,000				11,088
in financial services institutions	193				200
Assets held in trust				37	29
thereof: loans on a trust basis	14				14
Intangible assets					
a) Self-developed intangible assets			3,452		3,279
b) Purchased intangible assets			635		749
c) Goodwill			9		19
d) Down-payments for intangible assets			0		0
				4,097	4,046
Tangible assets				1,012	1,025
Sundry assets				7,685	5,950
Prepaid expenses					
a) from the issuance and loan business			5		17
b) other			567		811
				572	828
Deferred tax assets				2,498	2,369
Overfunded plan assets				587	944
Total assets				**888,562**	**1,232,245**

Liabilities and Shareholders' Equity in € m.						Dec 31, 2018	Dec 31, 2017
Liabilities to banks							
c)		other liabilities			172,463		216,541
						172,463	216,541
		thereof:					
		repayable on demand	71,383				96,160
Liabilities to customers							
a)		registered Mortgage Pfandbriefe issued			1,126		965
c)		savings deposits					
	ca)	with agreed notice period of three months		2,316			2,419
	cb)	with agreed notice period of more than three months		935			1,106
					3,251		3,524
d)		other liabilities			287,631		302,314
						292,008	306,803
		thereof:					
		repayable on demand	183,284				200,953
Liabilities in certificate form							
a)		bonds in issue					
	aa)	Mortgage Pfandbriefe		6,408			6,581
	ac)	other bonds		87,549			83,879
					93,957		90,460
b)		other liabilities in certificate form			4,919		10,149
						98,876	100,610
		thereof:					
		money market instruments	4,046				9,289
		own acceptances and promissory notes in circulation	75				246
Trading liabilities						236,161	519,913
Liabilities held in trust						37	29
thereof:		loans on a trust basis	14				14
Sundry liabilities						10,097	7,719
Deferred income							
a)		from the issuance and loan business			54		72
b)		other			730		886
						784	958
Provisions							
a)		provisions for pensions and similar obligations			48		46
b)		provisions for taxes			574		599
c)		other provisions			3,811		5,116
						4,433	5,761
Subordinated liabilities						9,468	12,072
Instruments for Additional Tier 1 Regulatory Capital						4,876	4,771
Fund for general banking risks						4,726	2,726
thereof:		trading-related special reserve according to Section 340e (4) HGB	1,476				1,476
Capital and reserves							
a)		subscribed capital		5,291			5,291
		less notional par value of own shares		0			1
					5,290		5,290
		conditional capital € 563 m. (Dec 31, 2017: € 563 m.)					
b)		capital reserve			42,085		42,081
c)		revenue reserves					
	ca)	statutory reserve		13			13
	cd)	other revenue reserves		6,760			6,560
					6,772		6,573
d)		distributable profit			486		399
						54,634	54,343
Total liabilities and shareholders' equity						**888,562**	1,232,245
Contingent liabilities							
b)		liabilities from guarantees and indemnity agreements			49,111		47,513
c)		liability arising from the provision of collateral for third-party liabilities			6		5
						49,118	47,518
Other obligations							
b)		placement and underwriting obligations			0		0
c)		irrevocable loan commitments			124,508		115,480
						124,508	115,480

Income statement for the period from January 1 to December 31, 2018

in € m.			2018	2017
Interest income from				
a) lending and money market business	11,918			9,816
thereof: negative interest income from lending and money market business	576			605
b) fixed-income securities and government-inscribed debt	1,648			1,394
		13,566		11,210
Interest expenses		11,503		8,959
thereof: negative interest expenses		491		359
			2,063	2,251
Current income from				
a) equity shares and other variable-yield securities		1,859		2,641
b) participating interests		9		13
c) investments in affiliated companies		2,178		1,708
			4,047	4,362
Income from profit-pooling, profit-transfer and partial profit-transfer agreements			2,915	1,298
Commission income		7,411		7,678
Commission expenses		1,411		1,560
			6,001	6,118
Net trading result			1,629	2,164
thereof: release of trading-related special reserve according to section 340e (4) HGB		0		0
Other operating income			1,924	2,380
Administrative expenses				
a) staff expenses				
aa) wages and salaries	3,768			4,284
ab) compulsory social security contributions and expenses for pensions and other employee benefits	860			819
		4,629		5,103
thereof: for pensions € 241 m. (2017: € 147 m.)				
b) other administrative expenses		7,342		7,568
			11,971	12,671
Depreciation, amortization and write-downs of and value adjustments to tangible and intangible assets			1,235	1,110
Other operating expenses			2,535	2,775
Write-downs of and value adjustments to claims and certain securities as well as additions to provisions for loan losses			(91)	475
Write-downs of and value adjustments to participating interests, investments in affiliated companies and securities treated as fixed assets			198	276
Expenses from assumption of losses			1	2
Releases from/Additions (–) to the fund for general banking risks			(2,000)	(300)
Result from ordinary activities			**732**	962
Extraordinary income		77		0
Extraordinary expenses		288		64
Extraordinary result			(211)	(64)
Income taxes		(75)		166
thereof: deferred taxes € 882 m. (2017: negative € 38 m.)				
Other taxes, unless reported under "Other operating expenses"		81		88
			6	254
Net income			**514**	644
Profit carried forward from the previous year			172	55
			686	699
Allocations to revenue reserves				
– to other revenue reserves		200		300
			200	300
Distributable profit			**486**	399

General information

Deutsche Bank AG's legal name is Deutsche Bank Aktiengesellschaft and it is incorporated in Frankfurt am Main. It is registered in the Commercial Register of the District Court Frankfurt am Main under registration number HRB 30000.

The annual financial statements of Deutsche Bank AG for the financial year 2018 have been prepared in accordance with the German Commercial Code ("HGB") as well as the Statutory Order on Banks' and Financial service institutions' Accounts ("RechKredV"). Company-law regulations have been complied with. For the sake of clarity, the figures are reported in million euros (€).

Basis of presentation

Accounting policies for:

Receivables

Receivables which are held with a trading intent are accounted for as described in the separate paragraph "Trading activities".

Receivables from banks and customers which do not qualify as trading assets are generally reported at their nominal amount or at acquisition cost less necessary impairments. If, in a subsequent period, the amount of the impairment loss decreases and the decrease in impairment can be objectively related to an event occurring after the impairment was recognized, the previously recognized impairment is reversed through the income statement.

Risk provisioning

Provisioning for loan losses comprises impairments and provisions for all identifiable credit and country risks, for inherent default risks and the provision for general banking risks. Provisions for credit risks are reflected in accordance with the prudence principle at the amount of expected losses.

The transfer risk for loans to borrowers in foreign states (country risk) is assessed using a rating system that takes into account the economic, political and regional situation. When recognizing provisions for cross-border exposures to certain foreign states the prudence principle is applied.

Provisions for inherent credit risk are reflected in the form of general value adjustments in accordance with commercial law principles. In addition, general banking risks are provisioned pursuant to Section 340f HGB. The offsetting option available under Section 340f (3) HGB has been utilized.

In the past year, the expected loss approach to project credit risk was harmonized within Deutsche Bank Group. The calculation of expected loss is now fully based on the parameters probability of default (PD), loss given default (LGD) and exposure at default (EAD). For the latter parameter, all risk relevant contracts are included. Credit risk for off-balance exposures such as guarantees and loan commitments are presented as provisions. The credit risk projection has been supplemented by macro-economic factors (for example growth rates of GDP and unemployment rates in Europe and US) to better reflect the portfolio risk.

The bank recognizes a credit loss allowance at an amount equal to 12-month expected credit losses. This represents the portion of lifetime expected credit losses from default events that are expected within 12 months of the reporting date, assuming that credit risk has not increased to trigger an impairment. For those Financial Assets that are credit-impaired, the bank recognizes a loss allowance at an amount equal to lifetime expected credit losses, reflecting a Probability of Default of 100 %, via the expected recoverable cash flows for the asset.

Securities

Bonds and other fixed income securities as well as equity shares and other variable-yield securities which are held for trading purposes are accounted for as described in the separate paragraph “Trading activities”.

Certain holdings of bonds and other fixed-income securities for which the intent is to hold them for the foreseeable future are classified as non-current assets and accounted for using the moderate lower-of-cost-or-market rule. This means that the respective securities are carried at acquisition cost less other than temporary impairment.

If bonds and other fixed-income securities are neither held for the foreseeable future nor form part of the trading portfolio, they are classified as current assets and are accounted for using the strict lower-of-cost-or-market rule. This means that they are carried at the lower of acquisition cost or market respectively attributable value.

The same applies to equity shares and other variable-yield securities which, if they are not part of the trading portfolio, are generally accounted for as current assets.

Securities are written up pursuant to the requirement to reinstate original values if the reason for the write-up can be objectively related to an event occurring after the write-down was recognized.

Embedded derivatives

Some hybrid contracts contain both a derivative and a non-derivative component. In such cases, the derivative component is referred to as embedded derivative, with the non-derivative component representing the host contract. Where 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 as a trading activity at fair value through profit or loss, the embedded derivative is bifurcated following general principles. The host contract is accounted for at amortized cost or settlement amount.

Credit derivatives

Credit derivatives held or incurred with a trading intent are accounted for as described in the separate paragraph “Trading activities”.

Other credit derivatives held which qualify as collateral for incurred credit risk are not accounted for separately, but rather taken into account in the risk provisioning for the underlying transaction.

Trading activities

Financial instruments (including positive and negative market values of derivative financial instruments) as well as precious metals which are held or incurred with a trading intent are recognized at fair value less risk adjustment. In addition to the value-at-risk adjustment a de-facto limit on profit distribution for net trading P&L exists because each fiscal year a certain portion of net trading revenues has to be allocated to a trading-related special reserve which is part of the fund for general banking risk.

Fair value is defined as the amount at which a financial instrument could be exchanged in a current transaction between knowledgeable, willing and unrelated parties, other than in a forced sale or liquidation. Where available, fair value is based on observable market prices and parameters or derived from such prices or parameters. The availability of observable data varies by product and market and may change over time. Where observable prices or inputs are not available, valuation techniques appropriate to the particular instrument are applied.

If fair value is estimated by using a valuation technique or derived from observable prices or parameters, significant judgment may be required. Such estimates are inherently uncertain and susceptible to change. Therefore, actual results and the financial position may differ from these estimates.

The fair valuation of financial instruments includes valuation adjustments for close-out costs, liquidity risk and counterparty risk as well as funding considerations for uncollateralized trading derivatives.

In order to reflect any remaining realization risk for unrealized gains, the result of the fair value measurement is reduced by a risk adjustment, which is deducted from trading assets. The risk adjustment is based on value-at-risk which is calculated using a holding period of ten days and a confidence level of 99 %.

The trading-related special reserve is provided for by taking at least 10 % of the net trading revenues (after risk adjustment) and must not exceed the total amount of net trading revenues of the respective fiscal year. It has to be provided for until the trading-related special reserve corresponds to 50 % of the five-year average of net trading revenues after risk adjustment.

The reserve may only be consumed to either release an amount exceeding the 50 % limit or to cover net trading losses.

Financial instruments and precious metals held for trading are separately presented as “Trading assets” or “Trading liabilities” on the face of the balance sheet. Forward contracts to buy or sell commodities do basically not qualify as financial instruments and can therefore not be assigned to trading assets.

Any changes in fair value after risk adjustment are recognized as “Net trading result”.

Under certain conditions, trading derivatives are offset against cash collateral posted by counterparties. On an individual counterparty basis, such derivatives qualify for offsetting which have been contracted under a master agreement with a credit support annex (“CSA”) and daily exchange of cash collateral. For each counterparty, the amount offset includes the carrying value of the derivatives as well as the collateral posted.

Up to 2017, the bank applied this principle by only allowing offsetting for the collaterals which were paid or received as of the balance sheet date. For year-end 2018, the bank started to offset also positive and negative market values beyond the posted cash collaterals as far as the related CSA stipulated a daily exchange of cash collateral. This change lead to an increase in offsetting by € 201 billion as of December 2018. The expanded offsetting does better reflect the economic nature of the master netting agreements and improves clarity of the balance sheet.

Valuation units (hedge accounting)

In instances in which for accounting purposes assets, liabilities, pending transactions or highly probable forecasted transactions (hedged items) and financial instruments (hedging instruments) are designated in a valuation unit to achieve an offset for changes in fair value or cash flows attributable to the hedged risk the general measurement rules are not applicable. The bank generally utilizes the freeze method, which means that offsetting value changes related to the hedged risk are not recorded. Consequently, negative fair value changes related to the same type of risk are not recognized during the period of the hedge unless a net loss, i.e., negative ineffectiveness, arises which is recognized as a provision for imminent losses.

For the purpose of hedge accounting forward contracts to buy or sell commodities are treated as financial instruments.

Reclassifications

Receivables and securities have to be classified as trading activities, liquidity reserve or non-current investments at inception.

A reclassification into trading after initial recognition is not permitted and a reclassification from trading activities is only allowed if the intent changes due to exceptional market conditions, especially conditions that adversely affect the ability to trade. Furthermore, financial instruments held with a trading intent may be designated subsequently as hedging instruments into a valuation unit.

A reclassification between the categories liquidity reserve and non-current investments occurs when there is a clear change in management intent after initial recognition which is documented.

The reclassifications are made when the intent changes and at the fair value as of the reclassification date.

Participating interests and investments in affiliated companies

Participating interests are recognized either at cost or utilizing the option available under Section 253 HGB at their lower fair value.

Investments in affiliated companies are accounted for at moderate lower-of-cost-or-market. This means that write-downs are only recognized if the impairment is considered other than temporary.

To determine the fair value of affiliated companies, a discounted cash-flow model is applied. The model discounts the expected free cash-flows for a five year horizon using a risk-adjusted interest rate. For the time after the five year period, the sustainable plan development is projected to determine the terminal value. The valuation includes measurable synergies for certain affiliated companies.

Participating interests and investments in affiliated companies are written up pursuant to the requirement to reinstate original values if the reason for the write-up can be objectively related to an event occurring after the write-down was recognized. The offsetting option available under Section 340c (2) HGB has been utilized.

Tangible and intangible assets

Tangible and intangible assets are reported at their acquisition or manufacturing cost less any depreciation or amortization. Self-developed brands, mastheads, publishing titles, customer lists and similar intangible assets are not recognized.

Write-downs are made for any impairment that is likely to be permanent.

Tangible and intangible assets have to be written up to a maximum of the amortized cost if the increase in value can be objectively related to an event occurring after the write-down was recognized.

Low-value assets are written off in the year in which they are acquired.

Derecognition of assets

An asset is generally derecognized when legal ownership is transferred.

However, if the seller irrespective of the asset's legal transfer retains the majority of risks and rewards of ownership, the asset is not derecognized.

Securities lending/borrowing transactions in accordance with Section 246 (1) sentence 2 HGB remain recognized in the transferor's balance sheet. Therefore the securities lent are not derecognized by the transferor because he remains exposed to the majority of risks and rewards of ownership.

Liabilities

Liabilities are recognized at their settlement or nominal amounts. Zerobonds issued at a discount are reported at their present value, using the original effective interest rate.

Instruments qualifying as additional tier 1 capital

The instruments issued qualify as liabilities and are recognized at their settlement or nominal amount. Interest is accrued based on the expected payments to the investors in the instruments.

Provisions

Provisions for pensions and similar obligations are recognized in accordance with actuarial principles. Pension provisions are calculated using the projected unit credit method and using the average market rate for an assumed remaining term of 15 years as published by the German Federal Bank unless the pension plan's remaining term is shorter. The valuation of the defined benefit obligation for the German plans as of December 31, 2018 are based for the first time on Heubeck 2018G mortality tables. The tables reflect the latest statistics of the statutory German social security pension system and of the Federal Statistical Office.

Assets which are exclusively used to settle pensions and similar obligations and which are controlled neither by Deutsche Bank AG nor any creditor (plan assets) are fair valued and offset with the respective provisions. Overfunded obligations are recognized on the balance sheet as a net asset after offsetting of provisions. For underfunded pension obligations and obligations from the bank's internally financed plans, the relevant provisions are made.

If the settlement amount of pensions and similar obligations is solely based on the fair value of securities held as non-current financial assets, the provision is measured at the fair value of these securities if the fair value exceeds the guaranteed minimum.

Other provisions for uncertain liabilities or for onerous contracts (excluding trading activities) are recognized at their expected settlement amount applying the principles of prudent commercial judgment. Provisions for uncertain liabilities are discounted if the related cash outflows are not expected to arise within twelve months after the balance sheet date.

The assessment whether to recognize a provision for imminent losses comprises an evaluation whether a net loss is probable to arise for all interest-earning and interest-bearing positions which are not held with a trading intent, i.e., all positions within the banking book existing as of the reporting date.

The assessment whether a net loss is probable in respect of interest-earning and interest-bearing positions within the banking book requires comparing expected future net interest and expected future directly attributable fees with expected future funding and credit risk expenses as well as future expected administrative expenses associated with the interest-earning and interest-bearing positions as of the reporting date.

The assessment of a potential provision is aligned with the internal management of the interest-related position in the banking book. For interest-related positions of the banking book a present value based approach is used supplemented by an analysis of the historic cost coverage of risk and administrative costs by net interest surpluses for the positions hedged against interest rate risk.

Deferred taxes

Deferred tax assets and deferred tax liabilities on temporary differences between the accounting and tax base for assets, liabilities and accruals are offset against each other and presented net on the balance sheet as either deferred tax assets or deferred tax liabilities. In determining deferred tax assets unused tax losses are taken into account, but only to the extent that they can be utilized within the following five years.

Treasury shares

If Deutsche Bank AG acquires its own shares (treasury shares) they are openly deducted at cost from capital and distributable reserves in a separate column on the face of the balance sheet with no gain or loss being recognized in the income statement.

If such treasury shares are subsequently sold the previously mentioned deduction is reversed and any amount exceeding the original acquisitions costs is to be recognized within capital reserves whereas a loss on the subsequent sale is to be recognized in revenue reserves.

Currency translation

Currency translation is consistent with the principles set forth in Sections 256a and 340h HGB.

Assets denominated in foreign currency and treated as fixed assets, but not separately covered in the same currency, are shown at historical cost unless the change in the foreign currency rate is other than temporary so that the assets have to be written down. Other foreign currency denominated assets and liabilities and outstanding cash deals are translated at the mid spot rate at the balance sheet date, and forward exchange deals at the forward rate at the balance sheet date.

The definition of those positions in foreign currency for which the bank applies the special coverage method according to Section 340h HGB reflects internal risk management procedures.

The accounting for gains and losses from currency translation depends on to which foreign currency positions they relate. Gains and losses from currency translation of trading assets and trading liabilities as well as gains and losses from the translation of positions which are specifically covered are recognized in the income statement. The same applies to foreign currency positions which are not specifically covered but have a remaining term of one year or less. In contrast, for foreign currency positions which are not specifically covered and have a remaining term of more than year in accordance with the imparity principle only the losses from currency translation are recognized. The result of currency translation is included in the net trading result and in other operating income and expenses.

The items on the balance sheets and the income statements of foreign branches are translated into euros at mid-rates at the respective balance sheet dates (closing-rate method). Differences resulting from the translation of balance sheet items within the bank – with the exception of exchange rate losses on the translation of the capital allocated to the branches outside Germany (including gains and losses carried forward) – are reported as sundry assets or sundry liabilities not affecting net income.

Notes to the balance sheet

Maturity structure of receivables

in € m.	Dec 31, 2018	Dec 31, 2017
Other Receivables from banks without receivables repayable on demand	63,198	84,958
with a residual period of		
up to three months	17,777	23,262
more than three months and up to one year	15,960	15,731
more than one year and up to five years	10,816	19,763
more than five years	18,646	26,203
Receivables from customers	239,081	231,600
with a residual period of		
up to three months	124,716	126,124
more than three months and up to one year	28,789	23,717
more than one year and up to five years	54,220	53,548
more than five years	27,798	26,305
with an indefinite period	3,557	1,906

Securities

The table below provides a breakdown of the marketable securities contained in the listed balance sheet positions.

		listed		unlisted
in € m.	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
Bonds and other fixed-income securities	33,450	31,807	6,348	6,667
Equity shares and other variable-yield securities	275	149	15	6
Participating interests	0	0	40	40
Investments in affiliated companies	0	0	0	1,125

Of the bonds and other fixed-income securities of € 39.8 billion, € 9.3 billion mature in 2019.

Investments in investment funds

The following table shows a breakdown of investments in German and foreign investment funds by investment purpose where the fund units held exceeded 10 %.

				Dec 31, 2018
in € m.	Carrying value	Fair value	Difference between fair value and carrying value	Distribution in 2018
Equity funds	259	259	0	0
Bond funds	213	213	0	0
Mixed funds	1,008	1,008	0	0
Total	1,479	1,479	0	0

The investments in the funds were assigned to trading assets. Their carrying values corresponded to their fair values. The majority of the funds were exchange traded funds established by Deutsche Bank.

The conditions to postpone the redemption of fund units may vary from fund to fund. They may be based on a minimum asset value or make it discretionary to the fund directors. Restrictions for daily redemption of the fund units relate to cases where too many investors try to redeem at a specific point in time. In these cases the funds might postpone the redemption until such time that they can fulfill the redemption request.

Transactions subject to sale and repurchase agreements

The book value of assets reported on the balance sheet and sold subject to a repurchase agreement in the amount of € 21.9 billion related exclusively to securities sold under repo agreements.

Trading assets and liabilities

Financial instruments held with a trading intent

The following table provides a breakdown of trading assets and trading liabilities.

Dec 31, 2018 in € m.	Trading assets	in € m.	Trading liabilities
Derivative financial instruments	88,617	Derivative financial instruments	80,803
Receivables	89,800	Liabilities	155,358
Bonds and other fixed-income securities	62,642		
Equity shares and other variable-yield securities	60,736		
Sundry assets	2,192		
Risk adjustment	(286)		
Total	303,702	Total	236,161

The basic assumptions to determine the fair value using accepted valuation methods are presented in detail in the section “Basis of Presentation”.

Derivatives held for trading purposes that were traded under master agreements together with a credit support annex allowing for daily exchange of collateral were netted for each counterparty in the balance sheet. The netting for each counterparty encompasses both the carrying amount of the derivatives and the collateral provided. This involved offsetting positive fair values of €235.6 billion (2017: €34.6 billion) with negative fair values of €222.0 billion (2017: €11.8 billion) on derivatives held for trading with the associated receivables (€20.9 billion, 2017: €11.8 billion) and liabilities (€34.5 billion, 2017: €34.6 billion) from collateral provided. Please refer to the basis of presentation regarding the offsetting.

The subsequent table breaks down the derivatives valued at fair value which correspond to trading derivatives, by type and volume.

in € m.	Dec 31, 2018 Notional amount
OTC products	35,934,548
interest rate-linked transactions	28,873,393
exchange rate-linked transactions	5,741,225
credit derivatives	448,921
equity- and index-linked transactions	850,269
other transactions	20,740
Exchange-traded products	8,053,234
interest rate-linked transactions	7,418,906
equity- and index-linked transactions	18,963
exchange rate-linked transactions	589,268
other transactions	26,097
Total	43,987,782

The amount, timing and the reliability of future cash flows are impacted by the interest rate environment, from the development in the equity and debt markets as well as the credit spreads and defaults.

Method and assumptions and risk adjustment amount

The calculation of the risk adjustment is based on the model to calculate the regulatory value-at-risk which incorporates financial instruments held or incurred for trading purposes. The valuation of trading assets might require various valuation adjustments e.g. for liquidity risks which are explained in more detail under "Basis of Presentation" in the section "Trading activities".

The calculation of the value-at-risk adjustment ("VaR-adjustment") is based on a holding period of ten days and a confidence level of 99 %. The observation period is 261 trading days.

In addition to the regulatory VaR-adjustment the risk adjustment was supplemented by additional risk figures related to Deutsche Bank's own credit risk which is not covered by the VaR calculation.

The absolute amount of the risk adjustment is € 286 million.

Change of criteria for the classification of financial instruments as trading

During the year 2018 the criteria related to the assignment of financial instruments to trading assets and liabilities remained unchanged.

Subordinated assets

The table below presents an overview of the subordinated assets contained in the respective balance sheet positions.

in € m.	Dec 31, 2018	Dec 31, 2017
Receivables from banks	635	690
Receivables from customers	0	126
Bonds and other fixed-income securities	1,228	1,261
Trading assets	4,875	4,131

Derivative financial instruments

Forward transactions

Forward transactions outstanding at the balance sheet date consisted mainly of the following types of business:

– interest rate-linked transactions: forward deals linked to debt instruments, forward rate agreements, interest rate swaps, interest futures, option rights in certificate form, option deals and option contracts linked to interest rates and indices;
– exchange rate-linked transactions: foreign exchange and precious metal forwards, cross-currency swaps, option rights in certificate form, option deals and option contracts linked to foreign exchange and precious metals, foreign exchange and precious metal futures;
– share-/index-related transactions: equity forwards and futures, index futures, option rights in certificate form, option deals and option contracts linked to equities and indices;
– credit derivatives: credit default swaps (CDS), total return swaps (TRS), credit linked notes (CLN).

The above types of transactions are concluded almost exclusively to hedge interest rate, exchange rate and market price fluctuations in trading activities.

Derivatives not accounted for at fair value

The subsequent table presents derivative financial instruments recorded as banking book derivatives that are generally not accounted for at fair value.

					Dec 31, 2018
	Notional	Carrying value		Fair value	
in € m.	amount	positive	negative	positive	negative
OTC products					
interest rate-related transactions	619,348	541	619	2,657	1,977
exchange rate-related transactions	96,153	223	258	1,191	5,515
credit derivatives	2,972	6	11	9	11
other transactions	43	0	0	0	13
Total	718,515	771	889	3,858	7,516

The carrying values of derivatives generally not recorded at fair value are reported in “Sundry Assets” and “Sundry Liabilities”.

Valuation units (hedge accounting)

Deutsche Bank AG enters into valuation units via fair value hedges, to protect itself essentially through interest rate swaps and options against fair value changes of fixed rate securities resulting from changes in market rates.

In case credit derivatives in the banking book do not qualify for loan collateral treatment, hedge accounting is applied in line with pronouncement IDW RS BFA 1.

Additional risks resulting from bifurcatable derivatives embedded in hybrid financial instruments are hedged as well via microhedge relationships.

In addition to the cases described above Deutsche Bank hedges commodity risks via micro- and portfolio-hedge relationships.

The subsequent table provides an overview of the hedged items in valuation units including the amount of hedged risks. For hedged assets and hedged liabilities the carrying value is presented as well.

		Dec 31, 2018
in € m.	Carrying value	Amount of secured risk
Secured assets, total	31,944	33
Secured liabilities, total	89,912	(1,475)
	Notional amount	Amount of secured risk
Pending transactions	74,006	843

The amount of hedged risk, if negative, represents the cumulative decrease in fair value for assets respectively the cumulative increase of fair value for liabilities since inception of the hedge relationship that were not recognized in profit and loss net, after considering hedges. Positive amounts of hedged risk correspond to the cumulative increase in fair value of assets respectively the cumulative decrease in fair value of liabilities that were not recognized in profit and loss net, after considering hedges.

Using foreign exchange forwards and swaps, Deutsche Bank AG contracts fair value hedges of foreign-exchange risks of its branches dotational capital and profit/loss carried forward representing the net asset value exposed to foreign exchange risk. The carrying amount of the net position hedged via macro hedges amounts to € 30.2 billion. The amount of hedged risk is positive € 645 million. The final offset of the mirroring spot rate changes takes place at the point in time when the dotational capital is redeemed.

In instances where the contractual terms of hedged item and hedging instrument are exactly offsetting, both prospective assessment of effectiveness and retrospective measurement of ineffectiveness of a valuation unit are based on the matching of critical terms. In addition the bank may utilize statistic methods and regression analysis for the assessment of effectiveness. Deutsche Bank AG compares the amounts of the changes of fair values of hedged items and hedging instruments (dollar-offset method). The valuation units are generally established over the remaining maturity of the hedged items.

Information on affiliated, associated and related companies

	Affiliated companies		Associated and related companies	
in € m.	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
Receivables from banks	58,955	82,516	0	0
Receivables from customers	97,978	57,427	11	20
Bonds and other fixed-income securities	2,199	2,291	3	3
Liabilities to banks	67,334	95,030	1	1
Liabilities to customers	31,080	28,066	19	36
Liabilities in certificate form	1,023	1,023	0	0
Subordinated liabilities	2,661	5,194	0	0

A complete list of the Shareholdings of Deutsche Bank AG (including companies, where the holding equals or exceeds 20% and holdings in large corporations, where the holding exceeds 5% of the voting rights) can be found in the Note “Shareholdings”.

Trust business

	Assets held in trust			Liabilities held in trust	
in € m.	Dec 31, 2018	Dec 31, 2017	in € m.	Dec 31, 2018	Dec 31, 2017
Receivables from banks	8	0	Liabilities to banks	1	0
Receivables from customers	14	14	Liabilities to customers	36	29
Bonds and other fixed-income securities	3	7			
Equity shares and other variable-yield securities	1	3			
Participating interests	5	4			
Sundry assets	7	1			
Total	37	29	Total	37	29

Fixed assets

The following schedule shows the changes in fixed assets.

	Acquisition/manufacturing costs			Depreciation/amortization, write-downs and value adjustments			Book value	
in € m.	Balance at Jan 1, 2018	Additions	Disposals	Cumulative	therein current year	therein disposals	Balance at Dec 31, 2018	Balance at Dec 31, 2017
Intangible assets	7,328	1,446	1,029	3,648	1,008	582	4,097	4,046
Self-developed intangible assets	5,513	1,410[1]	1,017	2,454	851	570	3,452	3,279
Purchased intangible assets	1,115	35	11	504	147	11	635	749
Goodwill	698	1	0	690	10	0	9	19
Down-payments	0	0	0	0	0	0	0	0
Tangible assets	2,947	213	133	2,015	231	129	1,012	1,025
Land and buildings	78	0	3	21	5	(2)	54[2]	56
Office furniture and equipment	2,856	213	130	1,985	222	131	954	961
Leasing assets	13	0	0	9	4	0	4	8
			Change					
Participating interests			(107)				367	474
Investments in affiliated companies			2,063				45,624	43,561
Money market instruments			(24)				0	24
Bonds and other fixed-income securities			(3,170)				0	3,170
thereof: included in valuation units according to Section 254 HGB			0				0	0
Equity shares and other variable-yield securities			51				51	0
thereof: included in valuation units according to Section 254 HGB			0				0	0

The option to combine financial assets pursuant to Section 34 (3) RechKredV has been utilized. Exchange rate changes at foreign branches resulting from currency translation at closing rates have been recognized in acquisition/manufacturing costs (balance at January 1, 2018) and in cumulative depreciation/amortization, write-downs and value adjustments.

[1] Additions to self-developed intangible assets relate to self-developed software.
[2] Land and buildings with a total book value of € 54 million were used as part of our own activities.
[3] Investments in affiliated companies increased by € 2.1 billion to € 45.6 billion. Additions to investments in affiliated companies amounted to € 10.2 billion compared to decreases of € 8.2 billion. The increase was mainly attributable to capital increases of € 5.0 billion, the transfer of affiliated companies which were previously held indirectly of € 4.6 billion and a positive impact of foreign currency translation of € 0.5 billion. It was partially offset by capital decreases of € 7.5 billion and net write-downs of € 0.3 billion.

Intangible assets

The goodwill reported under intangible assets is amortized over its estimated useful life of between five and 15 years. Its determination is based on economic and organizational factors such as future growth and profit prospects, mode and duration of expected synergies, leveraging customer base and assembled workforce of the acquired business. Software classified as an intangible asset is amortized over its useful life, which extends over a period of up to 10 years.

Sundry assets

Sundry assets of € 7.7 billion mainly consist of receivables from profit pooling agreements of € 2.9 billion, balloon-payments from swaps of € 1.9 billion, tax claims of € 0.7 billion and dividend receivables of € 0.6 billion.

Prepaid expenses

Prepaid expenses include discounts between the issuance and redemption amount for liabilities of € 22 million.

Deferred taxes

Deferred taxes are determined for temporary differences between commercial carrying amounts of assets and liabilities and accruals and their tax bases when it is anticipated that such differences will reverse in subsequent reporting periods. In this context, temporary differences of consolidated tax group subsidiaries/partnerships where Deutsche Bank AG is a shareholder/partner are included in the determination of Deutsche Bank AG's deferred taxes as well. Deutsche Bank AG – New York Branch executed the tax allocation agreement whereby it is reimbursed for its deductible temporary differences, unused tax losses and tax credits. In addition, unused tax losses are taken into account when determining deferred tax assets, to the extent that they will be utilized within the following five years. The measurement of deferred taxes is based on the combined income tax rate of the tax group of Deutsche Bank AG which is currently 31.3 %. The combined income tax rate includes corporate tax, trade tax and solidarity surcharge.

By contrast, deferred taxes arising from temporary differences in German investments in the form of a partnership are measured based on a combined income tax rate which includes only the corporate income tax and solidarity surcharge; this currently amounts to 15.83 %.

Deferred taxes in foreign branches are measured with the applicable statutory tax rates which are mainly within a range of 20 % and 35 %.

In the reporting period an overall deferred tax asset of € 2.5 billion was presented on the balance sheet. Significant contributors were – Deutsche Bank AG – "domestic bank", including deferred taxes of consolidated tax group subsidiaries, Deutsche Bank AG – New York Branch and Deutsche Bank AG – London Branch. These are mainly based on unused tax losses and temporary differences, the latter mainly relating to staff related obligations and fair value measurements of loan portfolios and trading books.

Maturity structure of liabilities

in € m.	Dec 31, 2018	Dec 31, 2017
Liabilities to banks with agreed period or notice period	**101,080**	120,381
with a residual period of		
up to three months	79,421	58,256
more than three months and up to one year	9,628	38,706
more than one year and up to five years	7,557	13,980
more than five years	4,473	9,438
Savings deposits with agreed notice period of more than three months	**935**	1,106
with a residual period of		
up to three months	425	507
more than three months and up to one year	501	587
more than one year and up to five years	9	11
more than five years	0	0
Other liabilities to customers with agreed period or notice period	**105,465**	102,319
with a residual period of		
up to three months	48,024	52,233
more than three months and up to one year	31,602	29,772
more than one year and up to five years	16,772	11,199
more than five years	9,068	9,114
Other liabilities in certificate form	**4,919**	10,149
with a residual period of		
up to three months	1,912	4,697
more than three months and up to one year	3,006	5,433
more than one year and up to five years	1	20
more than five years	0	0

Of the issued bonds and notes of € 94.0 billion, € 21.9 billion mature in 2019.

Liabilities for which assets were pledged as collateral

For the following liabilities assets were pledged as collateral in the amount stated in the table.

in € m.	Dec 31, 2018	Dec 31, 2017
Liabilities to banks	8,707	11,522
Liabilities to customers	4,164	14,798
Trading liabilities	395	4,896
Other liabilities	0	957

Sundry liabilities

Sundry liabilities of € 10.1 billion mainly contain the equalization of assessment regarding specially covered FX positions according to §340h HGB amounting to € 3.9 billion, liabilities due to failed derecognition amounting to € 2.7 billion, FX revaluation effects for dotational capital and P&L carried forward of € 1.2 billion and operating expenditure to be paid amounting to € 0.8 billion.

Pensions and similar obligations

Deutsche Bank AG sponsors post-employment benefit plans for its employees (pension plans) which contain defined contribution as well as defined benefit plans.

The majority of the beneficiaries of these pension plans are located in Germany. The value of a participant's accrued benefit is based primarily on each employee's remuneration and length of service.

December 31 is the measurement date for all defined benefit plans. All plans are valued using the projected unit-credit method. The valuation requires the application of certain actuarial assumptions such as demographic developments, increase in remuneration for active staff and in pensions as well as inflation rates. The discount rate is determined pursuant to the rules of Section 253 (2) HGB.

Assumptions used for pension plans	Dec 31, 2018	Dec 31, 2017
Discount rate	3.01 %	3.56 %
Inflation rate	1.70 %	1.80 %
Rate of nominal increase in future compensation levels	2.20 %	2.30 %
Rate of nominal increase for pensions in payment	1.60 %	1.70 %
Mortality/disability tables	Richttafeln Heubeck 2018 G	Richttafeln Heubeck 2005 G

Driven by the adoption of the revised longevity assumption tables (Heubeck 2018 G) the pension obligation has increased by € 36 million which has been recognized as an expense.

The obligations from these defined benefit pension benefits are, for the most part, externally funded. Overfunded obligations are recognized on the balance sheet as a net asset after netting of provisions. For underfunded pension obligations and obligations from the bank's internally financed plans, the relevant provisions are recognized.

For defined contribution plans in Germany, where Deutsche Bank AG and other financial institutions are members of BVV, the subsidiary liability of employers contain the benefit payments and their legally required increases.

Furthermore, provisions are recognized for other similar long-term obligations, primarily in Germany, for example, for anniversary years of service or early retirement schemes. The bank funds these plans on a cash basis as the benefits are due.

in € m.	Pension plans Dec 31, 2018	Dec 31, 2017
Pension obligation (recognized in the Financials)	**5,128**	4,848
Notional pension obligation based on 7-year-average discount rate	5,711	5,371
Income recognized due to discount rate difference	583	524
Fair value of plan assets	**5,667**	5,746
thereof:		
cost of plan assets	5,368	5,356
total of unrealized gains within plan assets	299	390
Net overfunded amount at year end	**539**	898
Net pension asset	**539**	898
thereof:		
recognized as “Overfunded plan assets related to pension plans”	587	944
recognized as “Provisions for pensions and similar obligations”	48	46

As in the year 2016 adopting the revised valuation principles according to §253 (6) HGB results in a valuation difference between the defined benefit obligation recognized in the financials using the 10-year-average discount rate and the 7-year-average discount rate. This difference of € 583 million is subject to dividend blocking provisions.

in € m.	Pension plans 2018	2017
Return from plan assets	**(96)**	29
Interest costs for the unwind of discount of pension obligations	**(480)**	353
Net interest income (expense)	**(577)**	(324)
thereof: recognized as “Other operating income”	0	0
thereof: recognized as “Other operating expenses”	577	324

Other provisions

in € m.	Dec 31, 2018
Provisions for loan losses	354
Provisions for imminent losses	267
Remaining other provisions	3,190
Total other provisions	**3,811**

The remaining Other Provisions are set for the following (main) types of risk:

Staff related provisions have been set up to reflect additional compensation and benefits to employees. They relate to variable payments and deferred compensation, share-based compensation, obligations for early retirement and others. The provided amount totals € 1.7 billion.

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. The provision for this risk is € 480 million per year end 2018.

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. The provision for this risk is € 283 million per year end 2018.

Operational provisions arise out of operational risk and exclude civil litigation and regulatory enforcement provisions, which are presented as separate classes of provisions. The provision for this risk is € 194 million per year end 2018. 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 litigations or 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.

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. The provision for these activities is € 145 million per year end 2018.

Sundry provisions are set to € 354 million per year end 2018.

Subordinated liabilities

Contractually subordinated liabilities are issued in the form of fixed rate and floating rate securities, registered and bearer bonds and borrower's note loans and have original maturities mostly within ten and 20 years.

Deutsche Bank AG is not obliged to redeem subordinated liabilities in advance of the specified maturity date, however in some cases early redemption at the issuer's option is possible. In the event of liquidation or insolvency, the receivables and interest claims arising from these liabilities are subordinate to the non-subordinated receivables of all creditors of Deutsche Bank AG. The conversion of these funds into equity or another form of debt is not anticipated under the terms of the notes. These conditions also apply to subordinated liabilities not specified individually.

Material subordinated liabilities above € 1.0 billion

Currency	Amount in million	Type	Year of issuance	Coupon	Maturity/Next call date
€	1,084[1]	Bearer bond	2010	5.000 %	6/24/2020
U.S.$	1,500[1]	Registered bond	2013	4.296 %	5/24/2023
U.S.$	1,385[2]	Registered bond	2008	8.050 %	3/31/2019
€	1,250[1]	Bearer bond	2015	2.750 %	2/17/2025
U.S.$	1,500[1]	Bearer bond	2015	4.500 %	4/1/2025

[1] Maturity date of bonds. Bonds have some extraordinary call features, which are subject to approval by regulators or changes in tax laws.
[2] Next call date of bonds.

Expenses for all contractually subordinated liabilities of € 9.5 billion totaled € 365 million, including results from hedging derivatives. Accrued but not yet matured interest of € 145 million included in this figure is reported in sundry liabilities.

In addition, certain liabilities are subordinated by law according to section 46f para 6 German Banking Act, if their original maturity is above one year and the redemption amount or interest amount is not dependent on events uncertain at the time of issuance. These non-preferred liabilities amount to € 69.8 billion as of December 2018.

Instruments for additional tier 1 regulatory capital

In 2014, Deutsche Bank AG placed Additional Tier 1 Notes (the "AT1 Notes" or "Notes"), amounting to € 4.7 billion. Since then no further AT1 Notes were issued.

The AT1 Notes constitute unsecured and subordinated notes of Deutsche Bank. The Notes bear interest on their nominal amount from the issue date to the first call date at a fixed annual rate. Thereafter the interest rate will be reset at five year intervals. The Notes contain features that may require Deutsche Bank and will permit Deutsche Bank in its sole and absolute discretion at all times and for any reason to cancel any payment of interest. If cancelled, interest payments are non-cumulative and will not increase to compensate for any shortfall in interest payments in any previous year. The Notes do not have a maturity date. They are redeemable by Deutsche Bank at its discretion on the respective first call date and at five year intervals thereafter or in other limited circumstances. In each case, the Notes are subject to limitations and conditions as described in the terms and conditions for example, the Notes can be redeemed by Deutsche Bank at its discretion, in whole but not in part, for certain regulatory or taxation reasons. Any redemption is subject to the prior consent of the competent supervisory authority. The redemption amount and the nominal amount of the Notes may be written down upon the occurrence of a trigger event. A trigger event occurs if the Common Equity Tier 1 capital ratio of Deutsche Bank Group, determined on a consolidated basis falls below 5.125 %. The Notes may also be written up, following a trigger event, subject to meeting certain conditions.

As of December 31, 2018 the notes amounted to € 4.9 billion compared to € 4.8 billion last year. The increase is related to FX-effects. Interest expense on the notes for 2018 totaled € 320 million and included € 218 million of accrued interest as of year-end 2018, which was recorded within other liabilities.

AT1 Notes outstanding as of December 31, 2018

Currency	Amount in million	Type	Year of issuance	Coupon	First call date
€	1,750	Undated Non-cumulative Fixed to Reset Rate Additional Tier 1 Notes	2014	6.000 %	4/30/2022
U.S.$	1,250	Undated Non-cumulative Fixed to Reset Rate Additional Tier 1 Notes	2014	6.250 %	4/30/2020
GBP	650	Undated Non-cumulative Fixed to Reset Rate Additional Tier 1 Notes	2014	7.125 %	4/30/2026
U.S.$	1,500	Undated Non-cumulative Fixed to Reset Rate Additional Tier 1 Notes	2014	7.500 %	4/30/2025

Foreign currencies

The total amount of assets denominated in foreign currencies was equivalent to € 639.1 billion at the balance sheet date; the total value of liabilities was equivalent to € 563.3 billion.

Capital and reserves

Own shares

In the course of 2018, the bank or its affiliated companies bought 354,094,715 Deutsche Bank shares at prevailing market prices and sold 354,089,953 Deutsche Bank shares at prevailing market prices for trading purposes. The purchase of its own shares was based on the authorization given by the General Meeting on May 18, 2017 pursuant to Section 71 (1) No. 7 AktG, whose limitations were adhered to for each share purchase and sale transaction. The average purchase price was € 11.04 and the average selling price was € 11.04 per share. The result was recognized in the capital reserve.

The bank's own shares bought and sold for trading purposes during 2018 represented about 17 % of its share capital. The largest holding on any individual day was 0.02 % and the average daily holding 0.01 % of its share capital.

In addition, the bank was authorized to buy own shares by the General Meetings of May 24, 2018 and of May 18, 2017 pursuant to Section 71 (1) No. 8 AktG. The respective limitations were adhered to for each purchase and sale transaction. The authorization for the bank to purchase its own shares, which was given by the General Meeting on May 18, 2017 and valid until April 30, 2022, was cancelled once the authorization of May 24, 2018 came into effect. The new authorization was approved until April 30, 2023.

Additionally the Annual General Meeting of May 24, 2018 authorized the Management Board pursuant to Section 71 (1) No. 8 AktG to execute the purchase of shares under the resolved authorization also with the use of put and call options or forward purchase contracts. The limitations concerning the use of such derivatives were adhered to for each purchase and sale transaction.

At the end of 2018, Deutsche Bank AG held 179.132 own shares pursuant to Section 71 (1) No. 7 AktG. Its holdings pursuant to Section 71 (1) No. 8 AktG amounted to 1,165,012 shares, or 0.06 % of its share capital. On December 31, 2018, 9,238,143 (end of 2017: 7,598,801) Deutsche Bank shares, i.e. 0.45 % (end of 2017: 0.37 %) of our share capital, were pledged to the bank and its affiliated companies as security for loans.

Changes in subscribed, authorized and conditional capital

The bank's subscribed capital is divided into 2,066,773,131 registered no-par-value shares and each share has a nominal value of € 2.56. Excluding holdings of the bank's own shares, the number of shares outstanding at December 31, 2018 was 2,065,428,987 (end of 2017: 2,066,490,672). The average number of shares outstanding in the reporting period was 2,063,902,675.

in €	Subscribed capital	Authorized capital	Conditional capital (yet to be utilized)
Balance as of Dec 31, 2017	5,290,939,215.36	2,560,000,000.00	563,200,000.00
Balance as of Dec 31, 2018	5,290,939,215.36	2,560,000,000.00	563,200,000.00

[1] Includes nominal value of treasury shares.

Details with regard to the authorized and the yet to be utilized conditional capital are presented in the note concerning the Information pursuant to Section 289 (4) of the German Commercial Code.

Changes in capital and reserves

in € m.		
Balance as of Dec 31, 2017		54,343
Distribution in 2018		(227)
Profit carried forward		(172)
Treasury shares		
– Change in notional value in treasury shares	0	
– Change of acquisition costs	6	
– Realized net gains (non-trading)	4	
– Realized result (trading)	(6)	
– Realized net losses (non-trading)	0	4
Profit allocation to other revenue reserves		200
Distributable profit for 2018		486
Balance as of Dec 31, 2018		54,634

Taking into account the profit carried forward from the prior year of € 172 million and the profit allocation to other revenue reserves of € 200 million, the distributable profit amounted to € 486 million as of December 31, 2018. The Bank will propose to the Annual General Meeting to pay a dividend of € 0.11 per share and to carry forward the remaining distributable profit.

Off-balance sheet transactions

The bank discloses contingent liabilities and irrevocable loan commitments as off-balance sheet transactions as far as no provisions have been established for them. The decision, whether the disclosure of the contingent liabilities and irrevocable loan commitments will be shown off-balance sheet or recognized as provisions is taken upon the result of the evaluation of the credit risk. Contingent liabilities and irrevocable loan commitments are also reduced by the amount of cash collateral received, which is recorded as liability on the balance sheet.

The risk of losses from claims under contingent liabilities is mitigated by the possibility to recourse towards the respective customer and hence is based predominantly on the credit risk of the customer.

The bank evaluates the risk of losses from claims under contingent liabilities and irrevocable credit commitments before irrevocably entering into an obligation within a credit risk assessment of the customer or using an assessment of the customer’s expected compliance with the underlying obligation. Additionally the bank regularly assesses during the lifetime of the commitment whether losses are expected from claims under contingent liabilities and irrevocable loan commitments. In certain circumstances the bank requests the provision of collateral to reduce the risk of losses from claims. Loss amounts assessed within such evaluations are recorded on the balance sheet as provisions.

Irrevocable loan commitments

Irrevocable loan commitments amounted to € 124.5 billion as of December 31, 2018 and included commitments of € 123.8 billion for loans and discounts in favor of non-banks.

Deutsche Bank AG enters into irrevocable loan commitments to meet the financing needs of its customers. Irrevocable loan commitments represent the undrawn portion of Deutsche Bank's obligation to grant loans which cannot be withdrawn by Deutsche Bank. These commitments are shown with the contractual amount after consideration of cash collateral received and provisions as recorded on the balance sheet. The amounts stated above do not represent expected future cash flows as many of these contracts will expire without being drawn. Even though the irrevocable loan commitments are not recognized on the balance sheet, Deutsche Bank AG considers them in monitoring the credit exposure. If the credit risk monitoring provides sufficient perception about a loss from an expected drawing, a provision is established.

Deutsche Bank AG is engaged in various business activities with certain entities, referred to as special purpose entities ("SPEs"), which are designed to achieve a specific business purpose. The principal uses of SPEs are to provide clients with access to specific portfolios of assets and risks and to provide market liquidity for clients through securitizing financial assets. Typically, Deutsche Bank AG will benefit by receiving service fees and commissions for the creation of the SPEs, or because it acts as investment manager, custodian or in some other function. SPEs may be established as corporations, trusts or partnerships. While our involvement with these entities can take many different forms, it consists primarily of liquidity facilities, which are disclosed off balance sheet as irrevocable loan commitments within "other obligations" below the line of the balance sheet. Deutsche Bank AG provides financial support to SPEs in connection with commercial paper conduit programs, asset securitizations, mutual funds and real estate leasing funds. Such vehicles are critical to the functioning of several significant investor markets, including the mortgage-backed and other asset-backed securities markets, since they offer investors access to specific cash flows and risks created through the securitization process. As of December 31, 2018, Deutsche Bank AG's exposure has not had a material impact on its debt covenants, capital ratios, credit ratings or dividends.

Contingent liabilities

In the normal course of business Deutsche Bank AG enters regularly into guarantees, letters of credit and credit liabilities on behalf of its customers. Under these contracts Deutsche Bank AG is required to make payments to the beneficiary based on third party's failure to meet its obligations or to perform under an obligation agreement. For such contingencies it is not known to the bank in detail, if, when and to which extend claims will be made. If the credit risk monitoring provides sufficient perception about a loss from an expected drawing, a provision is recognized.

The following table shows the total potential payments under guarantees, letters of credit and credit liabilities after deduction of cash collateral and provisions recorded on the balance sheet. It shows the maximum amount of the potential utilization of Deutsche Bank AG in case all obligations entered into must be fulfilled and at the same time all recourse claims to the customers are not satisfied. The table therefore does not show the expected future cash flows from these contracts as many of these agreements will expire without being drawn or drawings will counterbalanced by recourse to the customer.

in € m.	Dec 31, 2018	Dec 31, 2017
Guarantees	39,492	37,418
Letters of credit	3,725	4,044
Credit liabilities	5,894	6,051

Sundry obligations

Purchase obligations are legally enforceable and binding agreements to purchase goods or services at pre-defined terms such as minimum quantities or prices. When Deutsche Bank AG enters into such agreements there is the potential risk that terms and conditions of the contract are less favorable than terms and conditions at the time the goods or services are delivered or that related costs are higher than the economic benefit received. In case of an anticipated loss, Deutsche Bank AG may set aside a provision for onerous contracts.

Purchase obligations for goods and services amount to € 1.2 billion as of December 31, 2018, which include future payments for, among others, services such as information technology and facility management.

Leases are contracts in which the owner of an asset (lessor) grants the right to use this asset to another party (lessee) for a specific period of time in return for regular payments. A leasing contract is classified as Operating Lease if the agreement includes a limited or unlimited right of termination for the lessee. All main risks and benefits linked with the ownership of the asset remain with the lessor, the lessor remains economic owner. Operating leases provide an alternative to ownership as they enable the lessee to benefit from not having its resources invested in the asset. Deutsche Bank AG's existing obligations arising from operating leases involve rental and leasing agreements for buildings, office furniture and equipment. The majority of these are leasing agreements for buildings, where Deutsche Bank AG is the lessee. As of December 31, 2018 payment obligations under rental agreements and leases amounted to € 2.9 billion (€ 91 million were related to subsidiaries) and had residual maturities of up to 28 years.

As of December 31, 2018, including awards granted in early March 2019, unamortized deferred variable compensation costs amount to approximately € 0.8 billion.

Liabilities for possible calls on not fully paid-up shares in public and private limited companies and other shares amounted to € 24 million at the end of 2018, of which € 15 million were related to a subsidiary.

Liabilities for possible calls on other shares totaled € 0.1 million at December 31, 2018.

Pursuant to Section 5 (10) of the Statute of the Deposit Protection Fund Deutsche Bank AG has undertaken to indemnify Bundesverband deutscher Banken e.V., Berlin, for any losses incurred through measures taken in favor of banks majority-held or controlled by Deutsche Bank AG.

Pursuant to Section 3 (1a) of the Statute of the Deposit Protection Fund for Banks' Building and Loan Associations, Deutsche Bank AG has also undertaken to indemnify Fachverband für Bank-Bausparkassen e.V. for any losses incurred through measures taken in favor of Deutsche Bank Bauspar AG, Frankfurt am Main.

Irrevocable payment commitments for to bank levy related to the Single Resolution Fund (SFR) and German deposit protection amounted to € 441 million.

As part of the business activity of our foreign branches, collateral security of € 1.7 billion was required by statutory regulations.

Obligations arising from transactions on futures and options exchanges and towards clearing houses for which securities were pledged as collateral amounted to € 12.7 billion as of December 31, 2018.

Also, there are contingent liabilities totaling € 68 million.

Notes to the income statement

Income by geographical market

The total amount of interest income, of current income from equity shares and other variable-yield securities, participating interests and investments in affiliated companies, of commission income, of net trading result and of other operating income is originated across various regions as shown by the following breakdown pursuant to Section 34 (2) RechKredV.

in € m.	2018	2017
Germany	8,297	9,475
Europe excl. Germany	10,846	10,122
Americas	5,691	4,904
Africa/Asia/Australia	3,744	3,292
Total	**28,579**	27,793

The increase of income in Americas is mainly attributable to higher interest revenues from banks. The decrease of income in Germany is mainly attributable to a lower trading result.

Interest income and interest expenses

Interest income from lending and money market business included € 576 million of negative interest, i.e. interest expenses on receivables which were mainly related to receivables from banks and to trading assets. Interest expenses included € 491 million of negative interest, i.e. interest income on liabilities which was mainly related to liabilities to banks. Interest expenses in the amount of € 373 million relate to prior years in connection with hedging transactions.

Administrative and agency services provided for third parties

The following administrative and agency services were provided for third parties: custody services, referral of mortgages, insurance policies and home savings contracts, administration of assets held in trust, and asset management.

Other operating income and expenses

Other operating income of € 1.9 billion mainly consists of the result from non-trading derivatives of € 1.2 billion and income from the release of provisions of € 203 million. Within the result of non-trading derivatives, an amount of € 293 million relates to prior years in connection with hedging transactions.

Other operating expenses of € 2.5 billion include the result from non-trading derivatives of € 960 million, expenses related to defined benefit plans of € 577 million, expenses related to allocations to provisions of € 224 million as well as expenses from currency translation regarding assets and liabilities, which amounted to € 153 million.

Extraordinary result

Extraordinary income of € 77.2 million relates to the reversal of restructuring provisions (2017: income of € 0.4 million related to the reversal of restructuring provisions). Extraordinary expenses of € 288.4 million reflect restructuring activities (2017: expenses of € 64.4 million).

Extraordinary income and expenses net to an extraordinary result of negative € 211.2 million (2017: negative € 64.0 million).

Information regarding amount blocked according to sections 253 (6) and 268 (8) HGB

The following table presents the amounts pursuant to sections 268 (8) HGB and 253 (6) HGB that should be considered for profit distribution. According to the second rule, the difference in the valuation of pension obligations based on average rates, either employing a ten year or a seven year period, has to be calculated. Please refer to our notes to the balance sheet, pensions and similar obligations. At Deutsche Bank AG the total distributable reserves after profit distribution plus the distributable profit are at least equal to the amounts to be considered. The individual positions include deferred tax liabilities, if applicable; therefore the amounts shown in the table may deviate from the corresponding balance sheet positions.

in € m.	Dec 31, 2018	Dec 31, 2017
Self-developed intangible assets	3,206	3,075
Deferred tax assets	2,945	2,743
Unrealized gains of plan assets	280	384
Valuation difference related to discounting of provisions for pension obligations	401	360
Total undistributable amount	**6,832**	6,562

Shareholdings

The following pages show the Shareholdings of Deutsche Bank AG pursuant to Section 285 Number 11 HGB including information pursuant to Section 285 Number 11a HGB. Pursuant to Section 286 (3) Sentence 1 Number 1 HGB, Deutsche Bank AG does not disclose own funds and annual result of individual holdings to the extent that those disclosures are insignificant for the presentation of assets and liabilities, financial position, and results of operations of Deutsche Bank AG.

Footnotes:

1 Profit and loss transfer agreement, annual result is not disclosed.
2 Own funds and annual result of business year 2017; local GAAP figures for business year 2018 are not yet available.
3 Own funds and annual result of the subgroup. The following companies starting with a dash are part of the subgroup; their own funds and annual result are incorporated in the subgroup data.
4 Status as shareholder with unlimited liability pursuant to Section 285 Number 11a HGB.
5 General Partnership.

Companies, where the holding exceeds 20%

Serial No.	Name of company	Domicile of company	Foot-note	Share of Capital in %	Own funds in € million	Result in € million
1	ABATE Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
2	ABRI Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
3	Acacia (Luxembourg) S.à r.l.	Luxembourg		100.0		
4	Acamar Holding S.A.	Luxembourg		95.0		
5	Accounting Solutions Holding Company, Inc.	Wilmington		100.0		
6	ACHTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
7	ACHTUNDZWANZIGSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
8	ACHTZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
9	ACIS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
10	ACTIO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
11	Adara S.A.	Luxembourg		95.0		
12	ADEO Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
13	ADLAT Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
14	ADMANU Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
15	Agena S.A.	Luxembourg		95.0		
16	AGLOM Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
17	AGUM Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
18	AKA Ausfuhrkredit-Gesellschaft mit beschränkter Haftung	Frankfurt		26.9	238.7	11.1
19	ALANUM Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
20	Alfred Herrhausen Gesellschaft mbH	Berlin		100.0		
21	ALMO Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
22	ALTA Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
23	Amber Investments S.à r.l.	Luxembourg		100.0		
24	Ambidexter GmbH	Frankfurt	1	100.0	43.0	0.0
25	ANDOT Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
26	APUR Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
27	Argantis GmbH i.L.	Cologne		50.0		
28	Asia Core Real Estate Fund SCA SICAV-RAIF	Luxembourg		24.0		
29	ATAUT Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
30	Atena SPV S.r.l	Conegliano		60.0		
31	AVOC Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
32	Baigo Capital Partners Fund 1 Parallel 1 GmbH & Co. KG	Bad Soden am Taunus		49.8		
33	BAKTU Beteiligungsgesellschaft mbH	Schoenefeld		50.0		
34	Baldur Mortgages Limited	London		100.0		
35	BALIT Beteiligungsgesellschaft mbH	Schoenefeld		50.0		
36	Bankers Trust Investments Limited	London		100.0		
37	BANKPOWER GmbH Personaldienstleistungen	Frankfurt		30.0	5.6	3.3
38	Banks Island General Partner Inc.	Toronto		50.0		
39	Bayan Delinquent Loan Recovery 1 (SPV-AMC), Inc.	Makati City		100.0		
40	Benefit Trust GmbH	Luetzen		100.0	7,085.8	4.6
41	Bestra Gesellschaft für Vermögensverwaltung mit beschränkter Haftung	Duesseldorf		49.0		
42	Betriebs-Center für Banken AG	Frankfurt		100.0	179.5	(11.7)
43	BFDB Tax Credit Fund 2011, Limited Partnership	New York		99.9	6.5	(2.1)
44	BHW - Gesellschaft für Wohnungswirtschaft mbH	Hameln	1	100.0	1,161.3	0.0
45	BHW Bausparkasse Aktiengesellschaft	Hameln		100.0	1,233.7	6.6
46	BHW Holding GmbH	Hameln	1	100.0	727.5	0.0
47	BHW Kreditservice GmbH	Hameln		100.0	11.0	2.6
48	BIMES Beteiligungsgesellschaft mbH	Schoenefeld		50.0		
49	Biomass Holdings S.à r.l.	Luxembourg		100.0		
50	Birch (Luxembourg) S.à r.l.	Luxembourg		100.0		
51	BLI Beteiligungsgesellschaft für Leasinginvestitionen mbH	Duesseldorf		33.2		
52	BLI Internationale Beteiligungsgesellschaft mbH	Duesseldorf		32.0		
53	Borfield Sociedad Anonima	Montevideo		100.0		
54	BrisConnections Holding Trust	Kedron		35.6		
55	BrisConnections Investment Trust	Kedron		35.6		
56	BT Globenet Nominees Limited	London		100.0		
57	Cape Acquisition Corp.	Wilmington		100.0		
58	CapeSuccess Inc.	Wilmington		100.0		
59	CapeSuccess LLC	Wilmington		82.6		
60	Cardales UK Limited	London		100.0	16.4	0.0
61	Career Blazers LLC	Wilmington		100.0		
62	Career Blazers Management Company, Inc.	Albany		100.0		
63	Career Blazers Personnel Services of Washington, D.C., Inc.	Washington D.C.		100.0		
64	Career Blazers Personnel Services, Inc.	Albany		100.0		
65	Cathay Advisory (Beijing) Co., Ltd.	Beijing		100.0		

Serial No.	Name of company	Domicile of company	Foot-note	Share of Capital in %	Own funds in € million	Result in € million
66	Cathay Asset Management Company Limited	Ebène		100.0		
67	Cathay Capital Company (No 2) Limited	Ebène		67.6	285.1	55.2
68	Cedar (Luxembourg) S.à r.l.	Luxembourg		100.0		
69	Centennial River 2 Inc.	Austin		100.0		
70	Centennial River Corporation	Wilmington		100.0		
71	CITAN Beteiligungsgesellschaft mbH	Frankfurt	1	100.0	13.6	0.0
72	City Leasing (Thameside) Limited	London		100.0		
73	City Leasing Limited	London		100.0		
74	Comfund Consulting Limited	Bangalore		30.0		
75	Consumo S.p.A.	Milan		100.0		
76	Craigs Investment Partners Limited	Tauranga		49.9	34.2	10.1
77	D B Investments (GB) Limited	London	2	100.0	1,672.5	5.7
78	D&M Turnaround Partners Godo Kaisha	Tokyo		100.0		
79	DAHOC (UK) Limited (in members' voluntary liquidation)	London		100.0		
80	DAHOC Beteiligungsgesellschaft mbH	Frankfurt		100.0		
81	Danube Properties S.à r.l., en faillite	Luxembourg		25.0		
82	DB (Barbados) SRL	Christ Church		100.0		
83	DB (Malaysia) Nominee (Asing) Sdn. Bhd.	Kuala Lumpur		100.0		
84	DB (Malaysia) Nominee (Tempatan) Sendirian Berhad	Kuala Lumpur		100.0		
85	DB Advisors SICAV	Luxembourg		95.6	7,970.5	63.9
86	DB Aotearoa Investments Limited	George Town		100.0		
87	DB Apex Management Limited	George Town		100.0		
88	DB Beteiligungs-Holding GmbH	Frankfurt	1	100.0	6,303.9	0.0
89	DB Capital Investments Sàrl	Luxembourg		100.0	(90.4)	(102.2)
90	DB Capital Markets (Deutschland) GmbH	Frankfurt	1	100.0	1,175.1	0.0
91	DB Cartera de Inmuebles 1, S.A.U.	Pozuelo de Alarcón		100.0		
92	DB Chestnut Holdings Limited	George Town		100.0		
93	DB Commodity Services LLC	Wilmington		100.0	47.9	15.1
94	DB Consorzio S. Cons. a r. l.	Milan		100.0		
95	DB Corporate Advisory (Malaysia) Sdn. Bhd.	Kuala Lumpur		100.0		
96	DB Covered Bond S.r.l.	Conegliano		90.0		
97	DB Credit Investments S.à r.l.	Luxembourg		100.0		
98	DB Delaware Holdings (Europe) Limited	George Town		100.0		
99	DB Direkt GmbH	Frankfurt	1	100.0		
100	DB Energy Commodities Limited (in members' voluntary liquidation)	London		100.0		
101	DB Enfield Infrastructure Holdings Limited	St. Helier		100.0	34.1	(0.1)
102	DB Equity Limited	London	2	100.0	27.1	0.0
103	DB Finance International GmbH	Eschborn		100.0		
104	DB Global Technology SRL	Bucharest		100.0	25.2	3.9
105	DB Group Services (UK) Limited	London		100.0		
106	DB HR Solutions GmbH	Eschborn		100.0		
107	DB Immobilienfonds 2 GmbH & Co. KG i.L.	Frankfurt		74.0		
108	DB Impact Investment (GP) Limited	London		100.0		
109	DB Impact Investment Fund I, L.P.	Edinburgh		100.0		
110	DB Industrial Holdings Beteiligungs GmbH & Co. KG	Luetzen		100.0	1,653.8	4.4
111	DB Industrial Holdings GmbH	Luetzen		100.0	1,573.0	67.4
112	DB International (Asia) Limited	Singapore		100.0	436.0	26.0
113	DB International Investments Limited	London		100.0		
114	DB International Trust (Singapore) Limited	Singapore		100.0	5.3	3.4
115	DB Investment Services GmbH	Frankfurt	1	100.0	46.0	0.0
116	DB London (Investor Services) Nominees Limited	London		100.0		
117	DB Management Support GmbH	Frankfurt		100.0		
118	DB Municipal Holdings LLC	Wilmington		100.0	19.4	10.3
119	DB Nexus American Investments (UK) Limited (in members' voluntary liquidation)	London		100.0		
120	DB Nexus Investments (UK) Limited (in members' voluntary liquidation)	London		100.0		
121	DB Nominees (Hong Kong) Limited	Hong Kong		100.0		
122	DB Nominees (Singapore) Pte Ltd	Singapore		100.0		
123	DB Operaciones y Servicios Interactivos Agrupación de Interés Económico	Pozuelo de Alarcón		99.9		
124	DB Overseas Holdings Limited	London	2	100.0	49.9	11.2
125	DB Placement, LLC	Wilmington		100.0		
126	DB Print GmbH	Frankfurt	1	100.0		
127	DB Privat- und Firmenkundenbank AG	Frankfurt	1	100.0	8,638.0	0.0
128	DB RC Investments II, LLC	Wilmington		99.9		
129	DB Re S.A.	Luxembourg		100.0		
130	DB Real Estate Canadainvest 1 Inc.	Toronto		100.0		
131	DB Real Estate Global Opportunities IB (Offshore), L.P.	Camana Bay		34.3		
132	DB Safe Harbour Investment Projects Limited (in members' voluntary liquidation)	London		100.0		

Serial No.	Name of company	Domicile of company	Foot-note	Share of Capital in %	Own funds in € million	Result in € million
133	DB Service Centre Limited	Dublin	2	100.0	15.9	2.8
134	DB Service Uruguay S.A.	Montevideo		100.0		
135	DB Servizi Amministrativi S.r.l.	Milan		100.0		
136	DB STG Lux 10 S.à r.l.	Luxembourg		100.0		
137	DB STG Lux 11 S.à r.l.	Luxembourg		100.0		
138	DB STG Lux 12 S.à r.l.	Luxembourg		100.0		
139	DB STG Lux 9 S.à r.l.	Luxembourg		100.0		
140	DB Strategic Advisors, Inc.	Makati City		100.0		
141	DB Structured Finance 1 Designated Activity Company	Dublin		100.0		
142	DB Structured Finance 2 Designated Activity Company	Dublin		100.0		
143	DB Trustee Services Limited	London		100.0		
144	DB Trustees (Hong Kong) Limited	Hong Kong		100.0		
145	DB UK Bank Limited	London	2	100.0	635.7	(2.6)
146	DB UK Holdings Limited	London	2	100.0	547.9	61.0
147	DB UK PCAM Holdings Limited	London		100.0	10.2	0.0
148	DB USA Corporation (Sub-group)	Wilmington	3	100.0	11,097.1	457.8
149	-ABFS I Incorporated	Lutherville-Timonium		100.0		
150	-ABS MB Ltd.	Lutherville-Timonium		100.0		
151	-Alex. Brown Financial Services Incorporated	Lutherville-Timonium		100.0		
152	-Alex. Brown Investments Incorporated	Lutherville-Timonium		100.0		
153	-Argent Incorporated	Lutherville-Timonium		100.0		
154	-Barkly Investments Ltd.	St. Helier		100.0		
155	-Blue Cork, Inc.	Wilmington		100.0		
156	-BTAS Cayman GP	George Town		100.0		
157	-Charlton (Delaware), Inc.	Wilmington		100.0		
158	-China Recovery Fund, LLC	Wilmington		85.0		
159	-Cyrus J. Lawrence Capital Holdings, Inc.	Wilmington		100.0		
160	-D.B. International Delaware, Inc.	Wilmington		100.0		
161	-DB (Pacific) Limited	Wilmington		100.0		
162	-DB (Pacific) Limited, New York	New York		100.0		
163	-DB Abalone LLC	Wilmington		100.0		
164	-DB Alex. Brown Holdings Incorporated	Wilmington		100.0		
165	-DB Alps Corporation	Wilmington		100.0		
166	-DB Asia Pacific Holdings Limited (in voluntary liquidation)	George Town		100.0		
167	-DB Aster II, LLC	Wilmington		100.0		
168	-DB Aster III, LLC	Wilmington		100.0		
169	-DB Aster, Inc.	Wilmington		100.0		
170	-DB Aster, LLC	Wilmington		100.0		
171	-DB Boracay LLC	Wilmington		100.0		
172	-DB Capital Partners, Inc.	Wilmington		100.0		
173	-DB Elara LLC	Wilmington		100.0		
174	-DB Energy Trading LLC	Wilmington		100.0		
175	-DB Equipment Leasing, Inc.	New York		100.0		
176	-DB Finance (Delaware), LLC	Wilmington		100.0		
177	-DB Ganymede 2006 L.P.	George Town		100.0		
178	-DB Global Technology, Inc.	Wilmington		100.0		
179	-DB Holdings (New York), Inc.	New York		100.0		
180	-DB Holdings (South America) Limited	Wilmington		100.0		
181	-DB Intermezzo LLC	Wilmington		100.0		
182	-DB Investment Managers, Inc.	Wilmington		100.0		
183	-DB Investment Partners, Inc.	Wilmington		100.0		
184	-DB Investment Resources (US) Corporation	Wilmington		100.0		
185	-DB Investment Resources Holdings Corp.	Wilmington		100.0		
186	-DB Io LP	Wilmington		100.0		
187	-DB IROC Leasing Corp.	New York		100.0		
188	-DB Litigation Fee LLC	Wilmington		100.0		
189	-DB Managers, LLC	West Trenton		100.0		
190	-DB Omega BTV S.C.S.	Luxembourg		100.0		
191	-DB Omega Holdings LLC	Wilmington		100.0		
192	-DB Omega Ltd.	George Town		100.0		
193	-DB Omega S.C.S.	Luxembourg		100.0		
194	-DB Overseas Finance Delaware, Inc.	Wilmington		100.0		
195	-DB Portfolio Southwest, Inc.	Dallas		100.0		
196	-DB Private Clients Corp.	Wilmington		100.0		
197	-DB Private Wealth Mortgage Ltd.	New York		100.0		
198	-DB RC Holdings, LLC	Wilmington		100.0		
199	-DB Services Americas, Inc.	Wilmington		100.0		
200	-DB Structured Derivative Products, LLC	Wilmington		100.0		
201	-DB Structured Products, Inc.	Wilmington		100.0		

Serial No.	Name of company	Domicile of company	Footnote	Share of Capital in %	Own funds in € million	Result in € million
202	-DB U.S. Financial Markets Holding Corporation	Wilmington		100.0		
203	-DB USA Core Corporation	West Trenton		100.0		
204	-DBAB Wall Street, LLC	Wilmington		100.0		
205	-DBAH Capital, LLC	Wilmington		100.0		
206	-DBFIC, Inc.	Wilmington		100.0		
207	-DBNZ Overseas Investments (No.1) Limited	George Town		100.0		
208	-DBUSBZ1, LLC	Wilmington		100.0		
209	-Deutsche Bank Americas Holding Corp.	Wilmington		100.0		
210	-Deutsche Bank Holdings, Inc.	Wilmington		100.0		
211	-Deutsche Bank Insurance Agency Incorporated	Lutherville-Timonium		100.0		
212	-Deutsche Bank Insurance Agency of Delaware	Wilmington		100.0		
213	-Deutsche Bank National Trust Company	Los Angeles		100.0		
214	-Deutsche Bank Securities Inc.	Wilmington		100.0		
215	-Deutsche Bank Trust Company Americas	New York		100.0		
216	-Deutsche Bank Trust Company Delaware	Wilmington		100.0		
217	-Deutsche Bank Trust Company, National Association	New York		100.0		
218	-Deutsche Bank Trust Corporation	New York		100.0		
219	-Deutsche Inversiones Limitada	Santiago		100.0		
220	-Deutsche Leasing New York Corp.	New York		100.0		
221	-Deutsche Master Funding Corporation	Wilmington		100.0		
222	-Deutsche Mortgage & Asset Receiving Corporation	Wilmington		100.0		
223	-Deutsche Securities SpA	Santiago		100.0		
224	-G Finance Holding Corp.	Wilmington		100.0		
225	-G918 Corp.	Wilmington		100.0		
226	-GAC-HEL, Inc.	Wilmington		100.0		
227	-Gemini Technology Services Inc.	Wilmington		100.0		
228	-German American Capital Corporation	Lutherville-Timonium		100.0		
229	-GWC-GAC Corp.	Wilmington		100.0		
230	-Kelsey Street LLC	Wilmington		100.0		
231	-87 Leonard Development LLC	Wilmington		100.0		
232	-MHL Reinsurance Ltd.	Burlington		100.0		
233	-MIT Holdings, Inc.	Baltimore		100.0		
234	-MortgageIT Securities Corp.	Wilmington		100.0		
235	-MortgageIT, Inc.	New York		100.0		
236	-New 87 Leonard, LLC	Wilmington		100.0		
237	-PARTS Funding, LLC	Wilmington		100.0		
238	-Quantum 13 LLC	Wilmington		100.0		
239	-REO Properties Corporation	Wilmington		100.0		
240	-Route 28 Receivables, LLC	Wilmington		100.0		
241	-Sharps SP I LLC	Wilmington		100.0		
242	-Singer Island Tower Suite LLC	Wilmington		100.0		
243	-Structured Finance Americas, LLC	Wilmington		100.0		
244	-World Trading (Delaware) Inc.	Wilmington		100.0		
245	-Zumirez Drive LLC	Wilmington		100.0		
246	DB Valoren S.à r.l.	Luxembourg		100.0	567.9	71.0
247	DB Value S.à r.l.	Luxembourg		100.0	39.9	(4.3)
248	DB VersicherungsManager GmbH	Frankfurt	1	100.0		
249	DB Vita S.A.	Luxembourg		75.0	23.3	1.1
250	DBCIBZ1	George Town		100.0		
251	DBCIBZ2	George Town		100.0		
252	DBG Eastern Europe II L.P.	St. Helier		25.9	27.0	(4.6)
253	DBOI Global Services (UK) Limited	London	2	100.0	12.6	6.8
254	DBOI Global Services Private Limited	Mumbai		100.0	117.8	25.8
255	DBR Investments Co. Limited	George Town		100.0	134.6	26.2
256	DBRE Global Real Estate Management IA, Ltd.	George Town		100.0		
257	DBRE Global Real Estate Management IB, Ltd.	George Town		100.0		
258	DBRE Global Real Estate Management US IB, L.L.C.	Wilmington		100.0		
259	DBRMS4	George Town		100.0	327.6	7.1
260	DBRMSGP1	George Town	4, 5	100.0	327.6	7.1
261	DBUK PCAM Limited	London		100.0	(-100.0)	(0.7)
262	DBUSBZ2, S.à r.l.	Luxembourg		100.0		
263	DBX Advisors LLC	Wilmington		100.0	(5.1)	(10.0)
264	DBX Strategic Advisors LLC	Wilmington		100.0		
265	DBÖ Vermögensverwertung GmbH	Vienna		100.0	15.6	(1.1)
266	De Meng Innovative (Beijing) Consulting Company Limited	Beijing		100.0		
267	DeAM Infrastructure Limited (in members' voluntary liquidation)	London		100.0		
268	DEBEKO Immobilien GmbH & Co Grundbesitz OHG	Eschborn	4	100.0	172.6	71.5
269	DEE Deutsche Erneuerbare Energien GmbH	Duesseldorf		100.0		
270	Delowrezham de México S. de R.L. de C.V.	Mexico City		100.0		

Serial No.	Name of company	Domicile of company	Foot-note	Share of Capital in %	Own funds in € million	Result in € million
271	DEUFRAN Beteiligungs GmbH	Frankfurt		100.0		
272	DEUKONA Versicherungs-Vermittlungs-GmbH	Frankfurt		100.0	3.9	3.1
273	Deutsche (Aotearoa) Capital Holdings New Zealand	Auckland		100.0		
274	Deutsche (Aotearoa) Foreign Investments New Zealand	Auckland		100.0		
275	Deutsche (Mauritius) Limited	Port Louis		100.0		
276	Deutsche Aeolia Power Production Société Anonyme	Paiania		95.6		
277	Deutsche Alt-A Securities, Inc.	Wilmington		100.0		
278	Deutsche Alternative Asset Management (France) SAS	Paris		100.0		
279	Deutsche Alternative Asset Management (UK) Limited	London		100.0	43.7	(4.0)
280	Deutsche Asia Pacific Holdings Pte Ltd	Singapore		100.0	278.0	19.1
281	Deutsche Asset Management (India) Private Limited	Mumbai		100.0	10.6	0.0
282	Deutsche Asset Management (Japan) Limited	Tokyo		100.0	38.6	1.0
283	Deutsche Asset Management (Korea) Company Limited	Seoul	2	100.0	15.9	2.1
284	Deutsche Asset Management S.A.	Luxembourg		100.0	485.7	197.1
285	Deutsche Asset Management S.G.I.I.C., S.A.	Madrid		100.0		
286	Deutsche Australia Limited (Sub-group)	Sydney	2, 3	100.0	226.7	46.2
287	-Baincor Nominees Pty Limited	Sydney		100.0		
288	-Bainpro Nominees Pty Ltd	Sydney		100.0		
289	-BNA Nominees Pty Limited	Sydney		100.0		
290	-BTD Nominees Pty Limited	Sydney		100.0		
291	-Deutsche Access Investments Limited	Sydney		100.0		
292	-Deutsche Capital Markets Australia Limited	Sydney		100.0		
293	-Deutsche Finance Co 1 Pty Limited	Sydney		100.0		
294	-Deutsche Finance Co 2 Pty Limited	Sydney		100.0		
295	-Deutsche Finance Co 3 Pty Limited	Sydney		100.0		
296	-Deutsche Finance Co 4 Pty Limited	Sydney		100.0		
297	-Deutsche Group Services Pty Limited	Sydney		100.0		
298	-Deutsche Securities Australia Limited	Sydney		100.0		
299	-Deutsche Securitisation Australia Pty Limited	Sydney		100.0		
300	-DNU Nominees Pty Limited	Sydney		100.0		
301	-DTS Nominees Pty Limited	Sydney		100.0		
302	-OPS Nominees Pty Limited	Sydney		100.0		
303	-Pan Australian Nominees Pty Ltd	Sydney		100.0		
304	-R.B.M. Nominees Pty Ltd	Sydney		100.0		
305	-RTS Nominees Pty Limited	Sydney		100.0		
306	Deutsche Bank (Cayman) Limited	George Town		100.0	64.2	6.7
307	Deutsche Bank (Chile)	Santiago		100.0	19.1	0.3
308	Deutsche Bank (China) Co., Ltd.	Beijing		100.0	1,193.7	95.8
309	Deutsche Bank (Malaysia) Berhad	Kuala Lumpur		100.0	396.1	42.5
310	Deutsche Bank (Suisse) SA	Geneva		100.0	621.2	3.8
311	Deutsche Bank (Uruguay) Sociedad Anónima Institución Financiera Externa	Montevideo		100.0		
312	DEUTSCHE BANK A.S.	Istanbul		100.0	97.1	20.2
313	Deutsche Bank Bauspar-Aktiengesellschaft	Frankfurt		100.0	451.2	0.1
314	Deutsche Bank Capital Finance LLC I	Wilmington		100.0	300.0	0.0
315	Deutsche Bank Contingent Capital LLC II	Wilmington		100.0	698.9	0.0
316	Deutsche Bank Contingent Capital LLC V	Wilmington		100.0	1,210.0	0.0
317	Deutsche Bank Europe GmbH	Frankfurt	1	100.0	10.0	0.0
318	Deutsche Bank Financial Company	George Town		100.0	42.1	(7.7)
319	Deutsche Bank International Limited	St. Helier		100.0	156.0	(14.3)
320	Deutsche Bank Investments (Guernsey) Limited	St. Peter Port		100.0		
321	Deutsche Bank Luxembourg S.A.	Luxembourg		100.0	5,319.3	132.8
322	Deutsche Bank Mutui S.p.A.	Milan		100.0	33.4	(5.8)
323	Deutsche Bank México, S.A., Institución de Banca Múltiple	Mexico City		100.0	80.2	(14.6)
324	Deutsche Bank Nominees (Guernsey) Limited (in members' voluntary liquidation)	St. Peter Port		100.0		
325	Deutsche Bank Nominees (Jersey) Limited	St. Helier		100.0		
326	Deutsche Bank Polska Spólka Akcyjna	Warsaw		100.0	590.7	(41.7)
327	Deutsche Bank Representative Office Nigeria Limited	Lagos		100.0		
328	Deutsche Bank S.A. - Banco Alemão	Sao Paulo		100.0	358.8	(2.4)
329	Deutsche Bank Securities Limited	Toronto		100.0	90.1	0.7
330	Deutsche Bank Services (Jersey) Limited	St. Helier		100.0		
331	Deutsche Bank Società per Azioni	Milan		99.9	1,599.1	(217.9)
332	Deutsche Bank, Sociedad Anónima Española	Madrid		99.8	1,192.3	45.5
333	Deutsche Capital Finance (2000) Limited	George Town		100.0		
334	Deutsche Capital Hong Kong Limited	Hong Kong		100.0	14.4	0.2
335	Deutsche Capital Management Limited	Dublin		100.0		
336	Deutsche Capital Partners China Limited	George Town		100.0		
337	Deutsche Cayman Ltd.	George Town		100.0		
338	Deutsche CIB Centre Private Limited	Mumbai		100.0	40.2	9.1

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339	Deutsche Colombia S.A.S.	Bogotá		100.0		
340	Deutsche Custody N.V.	Amsterdam		100.0		
341	Deutsche Equities India Private Limited	Mumbai		100.0	44.0	12.0
342	Deutsche Finance No. 2 Limited	George Town	2	100.0	25.6	(17.2)
343	Deutsche Gesellschaft für Immobilien-Leasing mit beschränkter Haftung	Duesseldorf		100.0		
344	Deutsche Global Markets Limited	Tel Aviv		100.0	78.7	(0.3)
345	Deutsche Group Holdings (SA) Proprietary Limited	Johannesburg		100.0	64.1	12.0
346	Deutsche Grundbesitz Beteiligungsgesellschaft mbH	Eschborn		100.0		
347	Deutsche Grundbesitz-Anlagegesellschaft mit beschränkter Haftung	Frankfurt	1	99.8		
348	Deutsche Gulf Finance	Riyadh		29.1	129.3	9.1
349	Deutsche Holdings (BTI) Limited	London		100.0		
350	Deutsche Holdings (Luxembourg) S.à r.l.	Luxembourg		100.0	2,876.6	(4.4)
351	Deutsche Holdings (Malta) Ltd.	Valletta		100.0	392.5	32.8
352	Deutsche Holdings Limited	London	2	100.0	1,470.6	4.7
353	Deutsche Holdings No. 2 Limited	London	2	100.0	158.5	0.0
354	Deutsche Holdings No. 3 Limited	London	2	100.0	330.8	120.9
355	Deutsche Holdings No. 4 Limited	London		100.0	141.6	(29.2)
356	Deutsche Immobilien Leasing GmbH	Duesseldorf	1	100.0	26.5	0.0
357	Deutsche India Holdings Private Limited	Mumbai		100.0	65.5	11.7
358	Deutsche International Corporate Services (Ireland) Limited	Dublin		100.0	13.8	(1.0)
359	Deutsche International Corporate Services Limited	St. Helier		100.0	1.9	(3.3)
360	Deutsche International Custodial Services Limited	St. Helier		100.0		
361	Deutsche Inversiones Dos S.A. (en Liquidación)	Santiago		100.0	20.9	0.2
362	Deutsche Investments (Netherlands) N.V.	Amsterdam		100.0		
363	Deutsche Investments India Private Limited	Mumbai		100.0	111.0	3.4
364	Deutsche Investor Services Private Limited	Mumbai		100.0		
365	Deutsche Knowledge Services Pte. Ltd.	Singapore		100.0	50.6	5.0
366	Deutsche Mandatos S.A.	Buenos Aires		100.0		
367	Deutsche Mexico Holdings S.à r.l.	Luxembourg		100.0	155.0	(0.1)
368	Deutsche Morgan Grenfell Group Public Limited Company	London	2	100.0	943.3	3.7
369	Deutsche Mortgage Securities, Inc.	Wilmington		100.0		
370	Deutsche Nederland N.V.	Amsterdam		100.0		
371	Deutsche New Zealand Limited (Sub-group)	Auckland	3	100.0	1.7	0.3
372	-Deutsche (New Munster) Holdings New Zealand Limited	Auckland		100.0		
373	-Deutsche Domus New Zealand Limited	Auckland		100.0		
374	-Deutsche Foras New Zealand Limited	Auckland		100.0		
375	-Deutsche Overseas Issuance New Zealand Limited	Auckland		100.0		
376	Deutsche Nominees Limited	London		100.0		
377	Deutsche Oppenheim Family Office AG	Grasbrunn	1	100.0		
378	Deutsche Postbank Finance Center Objekt GmbH	Schuettringen		100.0		
379	Deutsche Postbank Funding LLC I	Wilmington		100.0		
380	Deutsche Postbank Funding LLC II	Wilmington		100.0		
381	Deutsche Postbank Funding LLC III	Wilmington		100.0		
382	Deutsche Private Asset Management Limited	London		100.0		
383	Deutsche Regis Partners, Inc.	Makati City		49.0	11.2	3.7
384	Deutsche River Investment Management Company S.à r.l., en faillite clôture	Luxembourg		49.0		
385	Deutsche Securities (India) Private Limited	New Delhi		100.0	10.1	0.3
386	Deutsche Securities (Proprietary) Limited	Johannesburg		100.0	29.2	6.2
387	Deutsche Securities (SA) (Proprietary) Limited	Johannesburg		100.0	2.1	2.0
388	Deutsche Securities Asia Limited	Hong Kong		100.0	218.4	8.5
389	Deutsche Securities Inc.	Tokyo		100.0	1,150.3	36.3
390	Deutsche Securities Israel Ltd.	Tel Aviv		100.0	11.2	0.3
391	Deutsche Securities Korea Co.	Seoul		100.0	172.3	1.0
392	Deutsche Securities Mauritius Limited	Ebène		100.0		
393	Deutsche Securities Menkul Degerler A.S.	Istanbul		100.0		
394	Deutsche Securities S.A.	Buenos Aires		100.0		
395	Deutsche Securities Saudi Arabia (a closed joint stock company)	Riyadh		100.0	101.0	(6.2)
396	Deutsche Securities Venezuela S.A.	Caracas		100.0		
397	Deutsche Securities, S.A. de C.V., Casa de Bolsa	Mexico City		100.0	31.6	(0.2)
398	Deutsche Services Polska Sp. z o.o.	Warsaw		100.0		
399	Deutsche StiftungsTrust GmbH	Frankfurt	1	100.0		
400	Deutsche Strategic Investment Holdings Yugen Kaisha	Tokyo		100.0		
401	Deutsche TISCO Investment Advisory Company Limited	Bangkok		49.0		
402	Deutsche Trust Company Limited Japan	Tokyo		100.0		
403	Deutsche Trustee Company Limited	London		100.0	22.7	6.2
404	Deutsche Trustee Services (India) Private Limited	Mumbai		100.0		
405	Deutsche Trustees Malaysia Berhad	Kuala Lumpur		100.0		
406	Deutsche Zurich Pensiones Entidad Gestora de Fondos de Pensiones, S.A.	Barcelona		50.0		
407	Deutscher Pensionsfonds Aktiengesellschaft	Bonn		25.1		

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408	Deutsches Institut für Altersvorsorge GmbH	Frankfurt		78.0		
409	DG China Clean Tech Partners	Tianjin		49.9		
410	DI Deutsche Immobilien Treuhandgesellschaft mbH	Frankfurt	1	100.0		
411	DIB-Consult Deutsche Immobilien- und Beteiligungs-Beratungsgesellschaft mbH i.L.	Duesseldorf		100.0		
412	DIL Fonds-Beteiligungsgesellschaft mbH i.L.	Duesseldorf		100.0		
413	DIL Internationale Leasinggesellschaft mbH	Duesseldorf		50.0		
414	DISCA Beteiligungsgesellschaft mbH	Duesseldorf	1	100.0		
415	Domus Beteiligungsgesellschaft der Privaten Bausparkassen mbH	Berlin		21.1		
416	DONARUM Holding GmbH	Duesseldorf		50.0		
417	DREIUNDZWANZIGSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
418	DREIZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
419	DRITTE Fonds-Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
420	DRITTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
421	DSL Portfolio GmbH & Co. KG	Bonn		100.0		
422	DSL Portfolio Verwaltungs GmbH	Bonn		100.0		
423	Durian (Luxembourg) S.à r.l.	Luxembourg		100.0		
424	dwins GmbH	Frankfurt		21.2		
425	DWS Alternatives Global Limited	London		100.0	176.7	(4.5)
426	DWS Alternatives GmbH	Frankfurt	1	100.0	16.5	0.0
427	DWS Beteiligungs GmbH	Frankfurt	1	99.1	336.4	0.0
428	DWS CH AG	Zurich		100.0	15.8	4.9
429	DWS Distributors, Inc.	Wilmington		100.0	73.6	7.3
430	DWS Far Eastern Investments Limited	Taipei		60.0		
431	DWS Group GmbH & Co. KGaA	Frankfurt		79.5	8,010.7	331.4
432	DWS Group Services UK Limited	London		100.0	54.0	8.7
433	DWS Grundbesitz GmbH	Frankfurt	1	99.9	21.7	0.0
434	DWS International GmbH	Frankfurt	1	100.0	82.3	0.0
435	DWS Investment GmbH	Frankfurt	1	100.0	193.6	0.0
436	DWS Investment Management Americas, Inc.	Wilmington		100.0	1,791.7	58.1
437	DWS Investments Australia Limited	Sydney		100.0	127.4	(0.9)
438	DWS Investments Hong Kong Limited	Hong Kong		100.0	16.0	(0.2)
439	DWS Investments Shanghai Limited	Shanghai		100.0		
440	DWS Investments Singapore Limited	Singapore		100.0	260.0	32.7
441	DWS Investments UK Limited	London		100.0	189.0	0.0
442	DWS Management GmbH	Frankfurt		100.0		
443	DWS Real Estate GmbH	Frankfurt	1	99.9	52.7	0.0
444	DWS Service Company	Wilmington		100.0	9.0	(9.3)
445	DWS Trust Company	Salem		100.0	26.1	0.9
446	DWS USA Corporation	Wilmington		100.0	1,301.7	23.1
447	EC EUROPA IMMOBILIEN FONDS NR. 3 GmbH & CO. KG i.I.	Hamburg		65.2		
448	EINUNDZWANZIGSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
449	Eisler Capital (TA) Ltd	London		33.3		
450	Elba Finance GmbH	Eschborn		100.0		
451	Elbe Properties S.à r.l.	Luxembourg		25.0		
452	ELC Logistik-Centrum Verwaltungs-GmbH	Erfurt		50.0		
453	ELFTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
454	Elizabethan Holdings Limited	George Town		100.0		
455	Elizabethan Management Limited	George Town		100.0		
456	Elmo Funding GmbH	Eschborn	1	100.0	10.3	0.0
457	Elmo Leasing Vierzehnte GmbH	Eschborn	1	100.0		
458	Emerald Asset Repackaging Designated Activity Company	Dublin		100.0		
459	eolec	Issy-les-Moulineaux		33.3		
460	equiNotes Management GmbH	Duesseldorf		50.0		
461	Erste Frankfurter Hoist GmbH	Eschborn		100.0		
462	European Value Added I (Alternate G.P.) LLP	London		100.0		
463	EVROENERGIAKI S.A.	Athens		40.0		
464	Exinor SA (opening faillissement)	Bastogne		100.0		
465	FARAMIR Beteiligungs- und Verwaltungs GmbH	Cologne		100.0		
466	Fiduciaria Sant' Andrea S.r.L.	Milan		100.0		
467	Finanzberatungsgesellschaft mbH der Deutschen Bank	Berlin		100.0		
468	FRANKFURT CONSULT GmbH	Frankfurt	1	100.0		
469	Franz Urbig- und Oscar Schlitter-Stiftung Gesellschaft mit beschränkter Haftung	Frankfurt		100.0		
470	FÜNFTE Fonds-Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
471	FÜNFTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
472	Fünfte SAB Treuhand und Verwaltung GmbH & Co. "Leipzig-Magdeburg" KG	Bad Homburg		41.2		
473	Fünfte SAB Treuhand und Verwaltung GmbH & Co. Dresden "Louisenstraße" KG	Bad Homburg		30.6		

Serial No.	Name of company	Domicile of company	Foot-note	Share of Capital in %	Own funds in € million	Result in € million
474	Fünfte SAB Treuhand und Verwaltung GmbH & Co. Suhl "Rimbachzentrum" KG	Bad Homburg		74.9		
475	FÜNFUNDZWANZIGSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH i.L.	Duesseldorf		50.0		
476	FÜNFZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
477	G.O. IB-US Management, L.L.C.	Wilmington		100.0		
478	German Public Sector Finance B.V.	Amsterdam		50.0		
479	Gesellschaft für Kreditsicherung mit beschränkter Haftung	Berlin		36.7	4.9	2.9
480	giropay GmbH	Frankfurt		33.3		
481	Glor Music Production GmbH & Co. KG	Tegernsee		26.6		
482	GLOR Music Production II GmbH & Co. KG	Tegernsee		21.3		
483	Gordian Knot Limited	London		24.7		
484	Grundstücksgesellschaft Frankfurt Bockenheimer Landstraße GbR	Troisdorf		94.9		
485	Grundstücksgesellschaft Köln-Ossendorf VI GbR	Troisdorf		44.9		
486	Grundstücksgesellschaft Leipzig Petersstraße GbR	Troisdorf		36.1		
487	Grundstücksgesellschaft Wiesbaden Luisenstraße/Kirchgasse GbR	Berlin		64.7	3.1	12.1
488	Grundstücksvermietungsgesellschaft Wilhelmstr. mbH i.L.	Gruenwald		100.0		
489	Harvest Fund Management Co., Ltd.	Shanghai		30.0	595.4	148.6
490	HR "Simone" GmbH & Co. KG i.l.	Jork		24.3		
491	HTB Spezial GmbH & Co. KG	Cologne		100.0		
492	Huarong Rongde Asset Management Company Limited	Beijing		40.7	1,133.5	149.4
493	ILV Immobilien-Leasing Verwaltungsgesellschaft Düsseldorf mbH	Duesseldorf		50.0		
494	Immobilien-Vermietungsgesellschaft Schumacher GmbH & Co. Objekt Rolandufer KG	Berlin		20.5		
495	Immobilienfonds Büro-Center Erfurt am Flughafen Bindersleben II GbR	Troisdorf		50.0		
496	Inn Properties S.à r.l., en faillite	Luxembourg		25.0		
497	Intermodal Finance I Ltd.	George Town		49.0		
498	IOG Denali Upton, LLC	Dover		23.0		
499	IOG NOD I, LLC	Dover		22.5		
500	IOS Finance EFC, S.A.	Madrid		55.3	43.4	2.8
501	Isaac Newton S.A.	Luxembourg		95.0		
502	Isar Properties S.à r.l., en faillite	Luxembourg		25.0		
503	ISTRON Beteiligungs- und Verwaltungs-GmbH	Cologne		100.0		
504	IVAF I Manager, S.à r.l.	Luxembourg		100.0		
505	IZI Düsseldorf Informations-Zentrum Immobilien Gesellschaft mit beschränkter Haftung	Duesseldorf		21.1		
506	IZI Düsseldorf Informations-Zentrum Immobilien GmbH & Co. Kommanditgesellschaft	Duesseldorf		22.9		
507	J R Nominees (Pty) Ltd	Johannesburg		100.0		
508	Joint Stock Company Deutsche Bank DBU	Kiev		100.0	11.5	1.4
509	Jyogashima Godo Kaisha	Tokyo		100.0		
510	KEBA Gesellschaft für interne Services mbH	Frankfurt	1	100.0		
511	Kidson Pte Ltd	Singapore		100.0	32.3	0.3
512	Kinneil Leasing Company	London		35.0		
513	KOMPASS 3 Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
514	KOMPASS 3 Erste Beteiligungsgesellschaft mbH & Co. Euro KG i.L.	Duesseldorf		96.1		
515	KOMPASS 3 Zweite Beteiligungsgesellschaft mbH & Co. USD KG i.L.	Duesseldorf		97.0		
516	Konsul Inkasso GmbH	Essen	1	100.0		
517	Kradavimd UK Lease Holdings Limited (in members' voluntary liquidation)	London	2	100.0	0.0	2.1
518	KVD Singapore Pte. Ltd.	Singapore		30.1	346.3	33.4
519	LA Water Holdings Limited	George Town		75.0		
520	LAWL Pte. Ltd.	Singapore		100.0	20.7	0.8
521	Leasing Verwaltungsgesellschaft Waltersdorf mbH	Schoenefeld		100.0		
522	Leo Consumo 2 S.r.l.	Conegliano		70.0		
523	Leonardo III Initial GP Limited	London		100.0		
524	Lindsell Finance Limited	St. Julian's		100.0		
525	London Industrial Leasing Limited	London		100.0		
526	M Cap Finance Mittelstandsfonds GmbH & Co. KG	Frankfurt		77.1	74.1	7.7
527	Macondo Spain SL	Madrid		100.0		
528	Maestrale Projects (Holding) S.A.	Luxembourg		49.7		
529	Maher Terminals Holdings (Toronto) Limited	Vancouver		100.0	259.7	2.8
530	MCT Südafrika 3 GmbH & Co. KG i.l.	Hamburg		38.4		
531	MEF I Manager, S. à r.l.	Luxembourg		100.0		
532	Metro plus Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		40.0		
533	Midsel Limited (in members' voluntary liquidation)	London		100.0		
534	Moon Leasing Limited (in members' voluntary liquidation)	London		100.0		
535	Motion Picture Productions One GmbH & Co. KG	Frankfurt		100.0		
536	MPP Beteiligungsgesellschaft mbH	Frankfurt		100.0		
537	MT "CAPE BEALE" Tankschiffahrts GmbH & Co. KG	Hamburg		32.2		

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538	MT "KING DANIEL" Tankschiffahrts GmbH & Co. KG	Hamburg		30.1		
539	MT "KING DOUGLAS" Tankschiffahrts GmbH & Co. KG	Hamburg		30.1		
540	MT "KING EDWARD" Tankschiffahrts GmbH & Co. KG	Hamburg		35.3		
541	MT "KING ERIC" Tankschiffahrts GmbH & Co. KG	Hamburg		34.5		
542	Navegator - SGFTC, S.A.	Lisbon		100.0		
543	NBG Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
544	NCW Holding Inc.	Vancouver		100.0		
545	NEUNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
546	NEUNZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
547	New Energy Biomasse Hellas GmbH i.L.	Duesseldorf		50.0		
548	Nexus Infrastruktur Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
549	Nineco Leasing Limited (in members' voluntary liquidation)	London		100.0		
550	NOFA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
551	Nordwestdeutscher Wohnungsbauträger Gesellschaft mit beschränkter Haftung	Frankfurt	1	100.0		
552	norisbank GmbH	Bonn	1	100.0	433.9	0.0
553	North Coast Wind Energy Corp.	Vancouver		96.7		
554	Oder Properties S.à r.l., en faillite	Luxembourg		25.0		
555	OOO "Deutsche Bank TechCentre"	Moscow		100.0	13.5	1.0
556	OOO "Deutsche Bank"	Moscow		100.0	201.7	12.3
557	Opal Funds (Ireland) Public Limited Company (in liquidation)	Dublin		100.0		
558	OPB Verwaltungs- und Beteiligungs-GmbH	Cologne		100.0		
559	OPB Verwaltungs- und Treuhand GmbH	Cologne		100.0		
560	OPB-Holding GmbH	Cologne		100.0	14.3	0.0
561	OPB-Nona GmbH	Frankfurt		100.0		
562	OPB-Oktava GmbH	Cologne		100.0		
563	OPB-Quarta GmbH	Cologne		100.0		
564	OPB-Quinta GmbH	Cologne		100.0		
565	OPB-Septima GmbH	Cologne		100.0		
566	OPPENHEIM Buy Out GmbH & Co. KG i.L.	Cologne		27.7		
567	OPPENHEIM Capital Advisory GmbH	Cologne		100.0		
568	OPPENHEIM Flottenfonds V GmbH & Co. KG	Cologne		100.0		
569	OPPENHEIM PRIVATE EQUITY Manager GmbH	Cologne		100.0		
570	OPPENHEIM PRIVATE EQUITY Verwaltungsgesellschaft mbH	Cologne		100.0		
571	OVT Trust 1 GmbH	Cologne	1	100.0		
572	OVV Beteiligungs GmbH	Cologne		100.0		
573	P.F.A.B. Passage Frankfurter Allee Betriebsgesellschaft mbH	Berlin		22.2		
574	PADEM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
575	PADUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
576	PAGUS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
577	PALDO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
578	PANIS Grundstücks-Vermietungsgesellschaft mbH i.I.	Duesseldorf		50.0		
579	PANTUR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
580	PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
581	PB Factoring GmbH	Bonn	1	100.0	11.5	0.0
582	PB Firmenkunden AG	Bonn	1	100.0		
583	PB International S.A.	Schuettringen		100.0	56.3	(1.0)
584	PB Spezial-Investmentaktiengesellschaft mit Teilgesellschaftsvermögen	Bonn		98.1	3,626.8	72.6
585	PBC Banking Services GmbH	Frankfurt	1	100.0	120.0	0.0
586	PCC Services GmbH der Deutschen Bank	Essen	1	100.0		
587	PEDIS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
588	PEDUM Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
589	PENDIS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
590	PENTUM Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
591	PERGOS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
592	PERGUM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
593	PERILLA Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
594	PERLIT Mobilien-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
595	PERLU Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
596	PERNIO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
597	Peruda Leasing Limited	London		100.0		
598	PERXIS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
599	PETA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
600	Philippine Opportunities for Growth and Income (SPV-AMC), INC.	Makati City		95.0	14.6	0.1
601	Plantation Bay, Inc.	St. Thomas		100.0		
602	PONTUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
603	Postbank Akademie und Service GmbH	Hameln		100.0		
604	Postbank Beteiligungen GmbH	Bonn	1	100.0	762.0	0.0
605	Postbank Direkt GmbH	Bonn		100.0	20.2	4.3
606	Postbank Filialvertrieb AG	Bonn	1	100.0	31.1	0.0

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607	Postbank Finanzberatung AG	Hameln		100.0	62.2	4.6
608	Postbank Immobilien GmbH	Hameln	1	100.0		
609	Postbank Immobilien und Baumanagement GmbH	Bonn	1	100.0	18.9	0.0
610	Postbank Immobilien und Baumanagement GmbH & Co. Objekt Leipzig KG	Bonn		90.0	26.6	1.1
611	Postbank Leasing GmbH	Bonn	1	100.0		
612	Postbank Service GmbH	Essen		100.0	4.7	4.5
613	Postbank Systems AG	Bonn	1	100.0	60.2	0.0
614	PRADUM Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
615	PRASEM Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
616	PRATES Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
617	Prestipay S.p.A.	Udine		40.0		
618	PRISON Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
619	Private Equity Invest Beteiligungs GmbH	Duesseldorf		50.0		
620	Private Equity Life Sciences Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
621	Private Equity Solutions SCSp	Munsbach		99.1		
622	PT Deutsche Sekuritas Indonesia	Jakarta		99.0	20.4	1.6
623	PT. Deutsche Verdhana Sekuritas Indonesia	Jakarta		40.0		
624	PUDU Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
625	PUKU Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
626	PURIM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
627	QUANTIS Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
628	QUELLUM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
629	QUOTAS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
630	Reference Capital Investments Limited	London		100.0		
631	REON - Park Wiatrowy I Sp. z o.o.	Warsaw		50.0		
632	REON-Park Wiatrowy II Sp. z o.o.	Warsaw		50.0		
633	REON-Park Wiatrowy IV Sp. z o.o.	Warsaw		50.0		
634	Rhine Properties S.à r.l., en faillite	Luxembourg		25.0		
635	Riviera Real Estate	Paris		100.0		
636	RoPro U.S. Holding, Inc.	Wilmington		100.0	255.6	39.7
637	RREEF America L.L.C.	Wilmington		100.0	219.5	38.8
638	RREEF China REIT Management Limited	Hong Kong		100.0		
639	RREEF DCH, L.L.C.	Wilmington		100.0		
640	RREEF European Value Added I (G.P.) Limited	London		100.0		
641	RREEF Fund Holding Co.	George Town		100.0	20.3	3.3
642	RREEF India Advisors Private Limited	Mumbai		100.0		
643	RREEF Management L.L.C.	Wilmington		100.0	196.5	10.2
644	SAB Real Estate Verwaltungs GmbH	Hameln		100.0		
645	SABIS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
646	SAGITA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
647	Sal. Oppenheim Alternative Investments GmbH	Cologne	1	100.0	33.3	0.0
648	Sal. Oppenheim jr. & Cie. AG & Co. Kommanditgesellschaft auf Aktien	Cologne	1	100.0	504.7	0.0
649	Sal. Oppenheim jr. & Cie. Beteiligungs GmbH	Cologne		100.0	40.5	0.7
650	Sal. Oppenheim jr. & Cie. Komplementär AG	Cologne	1	100.0		
651	SALIX Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
652	SALUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
653	SALUS Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Dresden KG	Duesseldorf		58.5		
654	SANCTOR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
655	SANDIX Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
656	SANO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
657	SAPIO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0	2.3	2.3
658	SARIO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
659	SATINA Mobilien-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
660	SCANDO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
661	SCHEDA Grundstücks-Vermietungsgesellschaft mbH i.L.	Duesseldorf		50.0		
662	Schumacher Beteiligungsgesellschaft mbH	Duesseldorf		33.2		
663	SCITOR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
664	SCITOR Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Heiligenstadt KG i.L.	Duesseldorf		71.1	0.0	2.0
665	SCUDO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
666	SECHSTE Fonds-Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
667	SECHSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
668	SECHZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
669	SEDO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
670	SEGES Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
671	SEGU Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
672	SELEKTA Grundstücksverwaltungsgesellschaft mbH	Duesseldorf		50.0		
673	SENA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		

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674	SENA Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Fehrenbach KG i.L.	Duesseldorf		94.7		
675	SENA Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Kamenz KG	Duesseldorf		100.0		
676	SERICA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
677	Service Company Four Limited	Hong Kong		100.0		
678	SIDA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
679	SIEBTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
680	SIEBZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
681	SIFA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
682	SILANUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
683	SILEX Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
684	SILEX Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Berlin KG i.L.	Duesseldorf		83.8		
685	SILIGO Mobilien-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
686	SILUR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
687	SIMILA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
688	Sixco Leasing Limited (in members' voluntary liquidation)	London		100.0		
689	SOLATOR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
690	SOLIDO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
691	SOLON Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
692	SOLON Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Heizkraftwerk Halle KG i.L.	Halle/Saale		30.5		
693	SOLUM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
694	SOMA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
695	Somkid Immobiliare S.r.l.	Conegliano		100.0		
696	SOREX Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
697	SOSPITA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
698	SPINO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
699	SPLENDOR Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
700	SRC Security Research & Consulting GmbH	Bonn		22.5		
701	STABLON Grundstücks-Vermietungsgesellschaft mbH i.L.	Duesseldorf		100.0		
702	STAGIRA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
703	Starpool Finanz GmbH	Berlin		49.9		
704	STATOR Heizkraftwerk Frankfurt (Oder) Beteiligungsgesellschaft mbH	Schoenefeld		100.0		
705	SUBLICA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
706	SUBU Mobilien-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
707	SULPUR Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
708	SUPERA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
709	SUPLION Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
710	SUSA Mobilien-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
711	SUSIK Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
712	Swabia 1. Vermögensbesitz-GmbH	Eschborn		100.0		
713	Süddeutsche Vermögensverwaltung Gesellschaft mit beschränkter Haftung	Frankfurt		100.0		
714	TABA Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
715	TACET Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
716	TAGO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
717	Tagus - Sociedade de Titularização de Creditos, S.A.	Lisbon		100.0	14.2	0.5
718	TAGUS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
719	TAKIR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
720	TEBOR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
721	Teesside Gas Transportation Limited	London		45.0	(139.7)	9.2
722	TELO Beteiligungsgesellschaft mbH	Schoenefeld		100.0		
723	TEMATIS Grundstücks-Vermietungsgesellschaft mbH i.L.	Duesseldorf		100.0		
724	Tempurrite Leasing Limited	London		100.0		
725	TERRUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
726	TESATUR Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
727	TESATUR Beteiligungsgesellschaft mbH & Co. Objekt Halle I KG	Duesseldorf		100.0	13.6	22.1
728	TESATUR Beteiligungsgesellschaft mbH & Co. Objekt Nordhausen I KG	Duesseldorf		100.0		
729	Thai Asset Enforcement and Recovery Asset Management Company Limited	Bangkok		100.0		
730	Tianjin Deutsche AM Fund Management Co., Ltd.	Tianjin		100.0		
731	TIEDO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
732	TIEDO Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Lager Nord KG	Duesseldorf		25.0		
733	TOSSA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
734	TRAGO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
735	Trave Properties S.à r.l., en faillite	Luxembourg		25.0		
736	TREMA Grundstücks-Vermietungsgesellschaft mbH	Berlin		50.0		
737	TRENTO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
738	Treuinvest Service GmbH	Frankfurt		100.0		
739	TRINTO Beteiligungsgesellschaft mbH	Schoenefeld		50.0		

Serial No.	Name of company	Domicile of company	Foot-note	Share of Capital in %	Own funds in € million	Result in € million
740	TRIPLA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		100.0		
741	Triplereason Limited	London		100.0	330.3	0.1
742	Triton Beteiligungs GmbH i.L.	Frankfurt		33.1		
743	TRS Aria LLC	Wilmington		100.0		
744	TRS Birch II LTD	George Town		100.0		
745	TRS Birch LLC	Wilmington		100.0		
746	TRS Cypress II LTD	George Town		100.0		
747	TRS Elm II LTD	George Town		100.0		
748	TRS Leda LLC	Wilmington		100.0		
749	TRS Maple II LTD	George Town		100.0		
750	TRS Oak II LTD	George Town		100.0		
751	TRS Oak LLC	Wilmington		100.0		
752	TRS Poplar II LTD	George Town		100.0		
753	TRS Scorpio LLC	Wilmington		100.0		
754	TRS Spruce II LTD	George Town		100.0		
755	TRS SVCO LLC	Wilmington		100.0		
756	TRS Sycamore II LTD	George Town		100.0		
757	TRS Tupelo II LTD	George Town		100.0		
758	TRS Venor LLC	Wilmington		100.0		
759	TRS Walnut II LTD	George Town		100.0		
760	TRS Walnut LLC	Wilmington		100.0		
761	TUDO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
762	TUGA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
763	TYRAS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
764	U.S.A. ITCF XCI L.P.	New York		99.9		
765	UKE, s.r.o.	Belá		100.0		
766	VARIS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
767	VCJ Lease S.à r.l.	Luxembourg		95.0		
768	VCL Lease S.à r.l.	Luxembourg		95.0		
769	Vesta Real Estate S.r.l.	Milan		100.0		
770	VIERTE Fonds-Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
771	VIERTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
772	VIERUNDZWANZIGSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
773	VIERZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
774	Volbroker.com Limited	London		22.5		
775	VÖB-ZVD Processing GmbH	Bonn		100.0	33.2	8.0
776	Wealthspur Investment Ltd.	Labuan		100.0		
777	WEPLA Beteiligungsgesellschaft mbH	Frankfurt		100.0	138.8	7.6
778	Weser Properties S.à r.l.	Luxembourg		25.0		
779	Whale Holdings S.à r.l.	Luxembourg		100.0		
780	Wohnungs-Verwaltungsgesellschaft Moers mbH	Duesseldorf		50.0		
781	Wohnungsgesellschaft HEGEMAG GmbH i.L.	Darmstadt		50.0		
782	XARUS Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
783	XELLUM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
784	XENTIS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
785	XERA Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
786	ZABATUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
787	ZAKATUR Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
788	ZALLUS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
789	ZARAT Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
790	ZARAT Beteiligungsgesellschaft mbH & Co. Leben II KG i.L.	Duesseldorf		98.1		
791	ZARGUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
792	ZEA Beteiligungsgesellschaft mbH	Schoenefeld		25.0		
793	ZEHNTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
794	zeitinvest-Service GmbH	Eschborn		25.0		
795	ZELAS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
796	ZELAS Beteiligungsgesellschaft mbH & Co. Leben I KG i.L.	Duesseldorf		98.2		
797	ZENO Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
798	ZEPTOS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
799	ZEREVIS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
800	ZERGUM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
801	Zhong De Securities Co., Ltd	Beijing		33.3	160.1	15.1
802	ZIDES Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
803	ZIMBEL Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
804	ZINDUS Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
805	ZINUS Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
806	ZIRAS Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		
807	ZITON Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
808	ZITUS Grundstücks-Vermietungsgesellschaft mbH	Schoenefeld		50.0		

Serial No.	Name of company	Domicile of company	Foot-note	Share of Capital in %	Own funds in € million	Result in € million
809	ZONTUM Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
810	ZORUS Grundstücks-Vermietungsgesellschaft mbH	Duesseldorf		50.0		
811	ZURET Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
812	ZWANZIGSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
813	ZWEITE Fonds-Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
814	ZWEITE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
815	ZWEIUNDZWANZIGSTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
816	ZWÖLFTE PAXAS Treuhand- und Beteiligungsgesellschaft mbH	Duesseldorf		50.0		
817	ZYLUM Beteiligungsgesellschaft mbH	Schoenefeld		25.0		
818	ZYRUS Beteiligungsgesellschaft mbH	Schoenefeld		25.0		
819	ZYRUS Beteiligungsgesellschaft mbH & Co. Patente I KG i.L.	Schoenefeld		20.4		

Holdings in large corporations, where the holding exceeds 5% of voting rights

Serial No.	Name of company	Domicile of company	Foot-note	Share of capital in %	Own funds in € million	Result in € million
820	ABRAAJ Holdings (in provisional liquidation)	George Town		8.8		
821	BBB Bürgschaftsbank zu Berlin-Brandenburg GmbH	Berlin		5.6		
822	BÜRGSCHAFTSBANK BRANDENBURG GmbH	Potsdam		8.5		
823	Bürgschaftsbank Mecklenburg-Vorpommern GmbH	Schwerin		8.4		
824	Bürgschaftsbank Sachsen GmbH	Dresden		6.3		
825	Bürgschaftsbank Sachsen-Anhalt GmbH	Magdeburg		8.2		
826	Bürgschaftsbank Schleswig-Holstein Gesellschaft mit beschränkter Haftung	Kiel		5.6		
827	Bürgschaftsbank Thüringen GmbH	Erfurt		8.7		
828	Bürgschaftsgemeinschaft Hamburg GmbH	Hamburg		8.7		
829	China Polymetallic Mining Limited	George Town		5.7		
830	MTS S.p.A.	Rome		5.0		
831	Prader Bank S.p.A.	Bolzano		9.0		
832	Private Export Funding Corporation	Wilmington		6.0		
833	PT Trikomsel OKE Tbk	Jakarta		12.0		
834	Saarländische Investitionskreditbank Aktiengesellschaft	Saarbruecken		11.8		
835	Silver Creek Low Vol Strategies, Ltd.	George Town		10.5		
836	Yensai.com Co., Ltd.	Tokyo		7.1		

Other information

Declaration of backing

Deutsche Bank AG ensures, except in the case of political risk, that the following subsidiaries are able to meet their contractual liabilities:

D B Investments (GB) Limited, London

DB International (Asia) Limited, Singapore

DB Privat- und Firmenkundenbank AG, formerly Deutsche Bank Privat- und Geschäftskunden AG, Frankfurt am Main

Deutsche Australia Limited, Sydney

DEUTSCHE BANK A.Ş., Istanbul

Deutsche Bank Americas Holding Corp., Wilmington

Deutsche Bank (China) Co., Ltd., Beijing

Deutsche Bank Europe GmbH, Frankfurt am Main

Deutsche Bank Luxembourg S.A., Luxembourg

Deutsche Bank (Malaysia) Berhad, Kuala Lumpur

Deutsche Bank Polska Spółka Akcyjna, Warsaw[1]

Deutsche Bank S.A. – Banco Alemão, São Paulo

Deutsche Bank, Sociedad Anónima Española, Madrid

Deutsche Bank Società per Azioni, Milan

Deutsche Bank (Suisse) SA, Geneva

Deutsche Bank Trust Company Americas, New York

Deutsche Holdings (Malta) Ltd., St. Julians

Deutsche Immobilien Leasing GmbH, Düsseldorf

Deutsche Morgan Grenfell Group Public Limited Company, London

Deutsche Securities Inc., Tokyo

Deutsche Securities Asia Limited, Hong Kong

Deutsche Securities Saudi Arabia (a closed joint stock company), Riyadh

norisbank GmbH, Bonn

Joint Stock Company Deutsche Bank DBU, Kiev

OOO "Deutsche Bank", Moscow

Sal. Oppenheim jr. & Cie. AG & Co. KGaA, Köln

[1] With the transfer from Deutsche Bank Polska Spólka Akcyjna to Santander Bank Polska, of the Polish Private & Commercial Bank business excluding its foreign currency denominated retail mortgage portfolio, the declaration of backing for Deutsche Bank Polska Spólka Akcyjna was withdrawn and terminated by Deutsche Bank AG with respect to the divested business with effect as of 10 November 2018. In all other respects, the declaration of backing issued in favor of Deutsche Bank Polska Spólka Akcyjna continues to apply.

Disclosures according to Section 28 of the Pfandbrief Act

The following tables show the disclosures required by Section 28 of the Pfandbrief Act.

Overall exposure (Section 28 (1) No. 1 Pfandbrief Act)

					Dec 31, 2018
in € m.	Nominal Value	Present Value	Present Value - High Interest Rate Stress Scenario	Present Value - Low Interest Rate Stress Scenario	Present Value - Worst Case Interest and FX Rate Stress Scenario
Mortgage Pfandbriefe	7,988.4	8,130.3	7,112.7	9,496.7	7,112.7
Cover Assets	10,502.7	11,710.0	10,285.7	13,517.5	10,285.7
Cover Assets acc. to § 12 (1)	10,031.7	11,227.3	9,852.0	12,977.0	9,852.0
Cover Assets acc. to § 19 (1) No. 1	0	0	0	0	0
Cover Assets acc. to § 19 (1) No. 2 [1]	0	0	0	0	0
as % of Mortgage Pfandbriefe	0	0	0	0	0
Cover Assets acc. to § 19 (1) No. 3 [2]	471.0	482.6	433.8	540.5	433.8
as % of Mortgage Pfandbriefe	5.9	5.9	6.1	5.7	6.1
Cover Assets acc. to § 19 (1) No. 4 (Claims)	0	0	0	0	0
as % of Total Cover Assets	0	0	0	0	0
Cover Assets acc. to § 19 (1) No. 4 (Liabilities)	0	0	0	0	0
as % of Mortgage Pfandbriefe	0	0	0	0	0
Over-Collateralization	2,514.3	3,579.7	3,173.0	4,020.8	3,173.0
as % of Mortgage Pfandbriefe	31.5	44.0	44.6	42.3	44.6

* According to § 5 (1) No. 1 and § 6 (2) No. 1 PfandBarwertV static approach.
[1] Excluding Cover Assets according to § 4 (1) sentence 2 No. 1 and No. 2 PfandBG.
[2] Including Cover Assets according to § 19 (1) No. 2 PfandBG and including Cover Assets according to § 4 (1) sentence 2 No. 1 and No. 2 PfandBG.

					Dec 31, 2017
in € m.	Nominal Value	Present Value	Present Value - High Interest Rate Stress Scenario	Present Value - Low Interest Rate Stress Scenario	Present Value - Worst Case Interest and FX Rate Stress Scenario
Mortgage Pfandbriefe	7,538.4	7,664.5	6,731.3	8,950.8	6,731.3
Cover Assets	9,859.8	11,011.9	9,720.5	12,634.6	9,720.5
Cover Assets acc. to § 12 (1)	8,954.7	10,095.9	8,899.0	11,604.5	8,899.0
Cover Assets acc. to § 19 (1) No. 1	0	0	0	0	0
Cover Assets acc. to § 19 (1) No. 2 [1]	0	0	0	0	0
as % of Mortgage Pfandbriefe	0	0	0	0	0
Cover Assets acc. to § 19 (1) No. 3 [2]	905.1	916.0	821.5	1,030.1	821.5
as % of Mortgage Pfandbriefe	12.0	12.0	12.2	11.5	12.2
Cover Assets acc. to § 19 (1) No. 4 (Claims)	0	0	0	0	0
as % of Total Cover Assets	0	0	0	0	0
Cover Assets acc. to § 19 (1) No. 4 (Liabilities)	0	0	0	0	0
as % of Mortgage Pfandbriefe	0	0	0	0	0
Over-Collateralization	2,321.4	3,347.4	2,989.2	3,683.8	2,989.2
as % of Mortgage Pfandbriefe	30.8	43.7	44.4	41.2	44.4

* According to § 5 (1) No. 1 and § 6 (2) No. 1 PfandBarwertV static approach.
[1] Excluding Cover Assets according to § 4 (1) sentence 2 No. 1 and No. 2 PfandBG.
[2] Including Cover Assets according to § 19 (1) No. 2 PfandBG and including Cover Assets according to § 4 (1) sentence 2 No. 1 and No. 2 PfandBG.

All cover assets are receivables from customers which are secured by mortgages and further cover assets are bonds and other fixed income securities as per Pfandbrief Act.

Maturity profile (section 28 (1) no. 2 Pfandbrief Act)

Maturity profile	Maturity structure of outstanding Pfandbriefe		Fixed rate terms for cover pool	
in € m.	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
Term up to 6 months	589.9	1,000.0	643.2	373.4
Term more than 6 months up to 12 months	170.0	0	380.7	365.8
Term more than 12 months up to 18 months	200.0	589.9	402.7	655.3
Term more than 18 months up to 2 years	750.0	170.0	335.9	451.0
Term more than 2 years up to 3 years	375.0	950.0	807.1	768.7
Term more than 3 years up to 4 years	700.0	375.0	680.2	847.3
Term more than 4 years up to 5 years	910.0	700.0	835.5	671.4
Term more than 5 years up to 10 years	3,280.0	2,365.0	4,004.4	3,816.3
Term more than 10 years	1,013.5	1,388.5	2,412.9	1,910.7
Total	**7,988.4**	7,538.4	**10,502.6**	9,859.9

Portion of derivatives included in the cover pool (section 28 (1) no. 3 Pfandbrief Act)

As of December 31, 2018 and December 31, 2017, there were no derivatives in the cover pool.

Cover assets by nominal value (section 28 (2) no. 1a Pfandbrief Act)

Single cover assets included in the total amount of € 10 billion (2017: € 9 billion) with a nominal value of less than € 0.3 million amounted to € 7.5 billion (2017: € 6.6 billion), with a nominal value between € 0.3 million and € 1 million amounted to € 1.8 billion (2017: € 1.6 billion), with a nominal value between € 1 million and € 10 million amounted to € 730 million (2017: € 713 million) and with a nominal value of more than € 10 million amounted to € 0 million (2017: € 0 million).

Loans used as cover for mortgage Pfandbriefe by country in which mortgaged real estate is based and by type of use (section 28 (2) no. 1b and 1c Pfandbrief Act)

Dec 31, 2018	Residential					Commercial						
in € m.	Apartments	Single Family Houses	Multi-family Houses	Other	Total	Office buildings	Retail buildings	Industrial buildings	Other commercially used buildings	Total	Land held for building	Total
Germany	1,694.9	4,630.8	2,574.8	0	8,900.5	513.6	169.2	146.8	301.5	1,131.1	0	10,031.4
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,694.9	4,630.8	2,574.8	0	8,900.5	513.6	169.2	146.8	301.5	1,131.1	0	10,031.4

Dec 31, 2017	Residential					Commercial						
in € m.	Apartments	Single Family Houses	Multi-family Houses	Other	Total	Office buildings	Retail buildings	Industrial buildings	Other commercially used buildings	Total	Land held for building	Total
Germany	1,431.3	4,202.5	2,347.6	0	7,981.4	403.3	142.8	127.2	300.0	973.3	0	8,954.7
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,431.3	4,202.5	2,347.6	0	7,981.4	403.3	142.8	127.2	300.0	973.3	0	8,954.7

Payments outstanding on mortgage loans used as cover for mortgage Pfandbriefe (section 28 (2) no. 2 Pfandbrief Act)

As of December 31, 2018 and December 31, 2017, there were no payments 90 days or more past due on mortgage loans used as cover for Mortgage Pfandbriefe.

Additional information on mortgage loans (section 28 (2) no. 4 Pfandbrief Act)

At year end 2018 and 2017 there were no foreclosures pending. In 2018 and 2017, no foreclosures were performed and Deutsche Bank AG did not take over properties to prevent losses on the mortgages. Furthermore, there were no arrears on interest payable by the mortgagors.

Fixed interest share comparison (section 28 (1) no. 9 Pfandbrief Act)

	Nominal Value	
in € m. (if not stated otherwise)	Dec 31, 2018	Dec 31, 2017
Fixed Interest Mortgage Pfandbriefe	7,529	7,079
As % of Mortgage Pfandbriefe	94	94
Fixed Interest Cover Assets	10,384	9,735
As % of Total Cover Assets	99	99

Net present value per currency (section 28 (1) no. 10 Pfandbrief Act)

	Net Present Value	
currency in € m.	Dec 31, 2018	Dec 31, 2017
Euro	3,173	2,989

Additional characteristic factors (section 28 (1) no. 7, section 28 (1) no. 11, section 28 (2) no. 3 Pfandbrief Act)

in € m.	Dec 31, 2018	Dec 31, 2017
Average Loan-to-Value Ratio weighted using the Mortgage Lending Value[1]	53	53
Volume-weighted Average in Years of the Maturity that has passed since the Mortgage Loan was granted[2]	5	5
Total Claims exceeding the Limits of § 13 (1) PfandBG (Countries without preferential right)[3]	0	0

[1] According to § 28 (2) No. 3 Pfand Act.
[2] According to § 28 (1) No. 11 Pfand Act.
[3] According to § 28 (1) No. 7 Pfand Act.

Information pursuant to section 160 (1) no. 8 AktG

As of December 31, 2018 we were aware of the following shareholders who reported a share of at least 3 % in the voting rights each pursuant to Section 33 of the German Securities Trading Act (Wertpapierhandelsgesetz):

BlackRock, Inc., Wilmington, DE, has notified us that as of December 23, 2018 it held 4.81 % of our shares. We have received no further notification by BlackRock, Inc., Wilmington, DE, through December 31, 2018.

Douglas L. Braunstein (Hudson Executive Capital LP), has notified us that as of October 31, 2018 he held 3.14 % of our shares. We have received no further notification by Douglas L. Braunstein (Hudson Executive Capital LP), December 31, 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 December 31, 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 December 31, 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 December 31, 2018.

C-QUADRAT Special Situations Dedicated Fund, Cayman Islands, has notified us that as of July 13, 2018 it held 1.01 % of our shares (total percentage of voting rights: 7.64 % (voting rights attached to shares: 1.01 %, voting rights through financial instruments: 6.63 %)). We have received no further notification by C-QUADRAT Special Situations Dedicated Fund, Cayman Islands, through December 31, 2018.

Management board and supervisory board

The total remuneration paid to the Management Board is detailed in the Compensation Report starting on page 62. Former members of the Management Board of Deutsche Bank AG or their surviving dependents received € 22,943,159 and € 27,694,325 for the years ended December 31, 2018 and 2017, respectively.

The compensation principles for Supervisory Board members are set forth in our Articles of Association. The 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. The members of the Supervisory Board receive fixed annual 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. 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 (notional shares) according to the provisions of the Articles of Association. 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 according to the provisions of the Articles of Association, 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 members of the Supervisory Board received for the financial year 2018 a total remuneration of € 5,776,669 (2017: € 5,150,000), of which € 4,676,041 will be paid out in 1st quarter 2019 (1st quarter 2018: € 3,987,500) according to the provisions of the Articles of Association.

Provisions for pension obligations to former members of the Management Board and their surviving dependents amounted to € 172,799,372 and € 180,723,687 at December 31, 2018 and 2017, respectively.

Loans and advances granted and contingent liabilities assumed for members of the Management Board amounted to € 11,180,396 and € 12,337,886 and for members of the Supervisory Board of Deutsche Bank AG to € 33,425,239 and € 35,210,035 for the years ended December 31, 2018 and 2017, respectively. Members of the Supervisory Board repaid € 4,662,819 loans in 2018.

The members of the Management Board and the Supervisory Board are listed on pages 175 to 177.

Employees

The average number of full-time equivalent staff employed during the reporting year was 27,397 (2017: 29,259), 10,358 of whom were women (2017: 10,962). Part-time employees are included proportionately in these figures based on their working hours. An average of 16,042 (2017: of 17,686) staff members worked at branches outside Germany.

Corporate governance

The bank has issued the declaration required by Section 161 German Stock Corporation Act (AktG). The Declaration of Conformity dated October 25, 2018, and all of the previous versions of the Declaration of Conformity are published on Deutsche Bank's website at www.db.com/ir/en/documents.htm.

Additional services rendered by the auditor

Deutsche Bank AG and its subsidiaries have received certain audit-related and tax-related services by Deutsche Bank AG's auditor of the annual financial statements, KPMG AG Wirtschaftprüfungsgesellschaft, Germany.

The Audit-related services include 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. Tax-related services include 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.

For information on the fees paid to Deutsche Bank AG's auditor please refer to the Group's Annual Report.

Events after the reporting period

After the reporting date no material events occurred which had a significant impact on our results of operations, financial position and net assets.

Management bodies

Management board

In the year 2018 the following members belonged to the Management Board:

John Cryan
Chairman
(until April 8, 2018)

Christian Sewing
Chairman (since April 8, 2018)
President (until April 8, 2018)

Dr. Marcus Schenck
President (until April 8, 2018)
(until May 24, 2018)

Garth Ritchie
President (since April 8, 2018)

Karl von Rohr
President (since April 8, 2018)

Kimberly Hammonds
(until May 24, 2018)

Stuart Lewis

Sylvie Matherat

James von Moltke

Nicolas Moreau
(until December 31, 2018)

Werner Steinmüller

Frank Strauß

Supervisory board

In the year 2018 the following members belonged to the Supervisory Board.
In addition, the place of residence of the members of the Supervisory Board is specified.

Dr. Paul Achleitner
– Chairman
Munich
Germany

Detlef Polaschek*
– Deputy Chairman
(since May 24, 2018)
Essen
Germany

Stefan Rudschäfski*
– Deputy Chairman
(until May 24, 2018)
Kaltenkirchen
Germany

Ludwig Blomeyer-Bartenstein*
(since May 24, 2018)
Bremen
Germany

Wolfgang Böhr*
(until May 24, 2018)
Dusseldorf
Germany

Frank Bsirske*
Berlin
Germany

Mayree Carroll Clark
(since May 24, 2018)
New York
USA

Dina Dublon
(until July 31, 2018)
New York
USA

Jan Duscheck*
Berlin
Germany

Dr. Gerhard Eschelbeck
Cupertino
USA

Katherine Garrett-Cox
Brechin, Angus
United Kingdom

Prof. Dr. Henning Kagermann
(until May 24, 2018)
Königs Wusterhausen
Germany

Timo Heider*
Emmerthal
Germany

Sabine Irrgang*
(until May 24, 2018)
Mannheim
Germany

Martina Klee*
Frankfurt am Main
Germany

Henriette Mark*
Munich
Germany

Richard Meddings
Cranbrook
United Kingdom

Louise M. Parent
(until May 24, 2018)
New York*
USA

Gabriele Platscher*
Braunschweig
Germany

Bernd Rose*
Menden
Germany

Gerd Alexander Schütz
Vienna
Austria

Prof. Dr. Stefan Simon
Zurich
Switzerland

Stephan Szukalski*
(since May 24, 2018)
Ober-Mörlen
Gemany

Dr. Johannes Teyssen
(until May 24, 2018) Dusseldorf
Germany

John Alexander Thain
(since May 24, 2018)
Rye
USA

Michele Trogni
(since May 24, 2018)
Riverside
USA

Prof. Dr. Norbert Winkeljohann
(since August 1, 2018)
Osnabrück
Germany

*Employees representatives

Committees

Chairman's Committee
Dr. Paul Achleitner, Chairman
Frank Bsirske*, Prof. Dr. Henning Kagermann (until May 24, 2018), Detlef Polaschek* (since May 24, 2018), Stefan Rudschäfski* (until May 24, 2018), Prof. Dr. Stefan Simon (since May 24, 2018)

Nomination Committee
Dr. Paul Achleitner, Chairman
Frank Bsirske*, Prof. Dr. Henning Kagermann (until May 2018), Detlef Polaschek* (since May 24, 2018), Stefan Rudschäfski* (until May 24, 2018), Gerd Alexander Schütz (since May 24, 2018), Prof. Dr. Stefan Simon (since May 24, 2018, Dr. Johannes Teyssen (until May 24, 2018)

Audit Committee
Prof. Dr. Norbert Winkeljohann, Chairman (since January 1, 2019, Member since November 1, 2018), Richard Meddings, Chairman (until December 31, 2018)
Dr. Paul Achleitner, Katherine Garrett-Cox (until October 31, 2018 and January 1, 2019), Henriette Mark*, Gabriele Platscher*, Detlef Polaschek* (since May 24, 2018), Bernd Rose*, Prof. Dr. Stefan Simon,

Risk Committee
Mayree Carroll Clark, Chairperson (since May 24, 2018), Dina Dublon, Chairperson (until May 24, 2018, Member until July 31, 2018)Dr. Paul Achleitner, Ludwig Blomeyer-Bartenstein* (since May 24, 2018), Wolfgang Böhr* (until May 24, 2018), Jan Duscheck* (since May 24, 2018), Richard Meddings (until December 31, 2018), Louise M. Parent (until May 24, 2018), Stephan Szukalski* (since May 24, 2018), Michele Trogni (since May 24, 2018), Prof. Dr. Norbert Winkeljohann (since January 1, 2019)

Integrity Committee
Prof. Dr. Stefan Simon, Chairman
Dr. Paul Achleitner, Ludwig Blomeyer-Bartenstein* (since May 24, 2018), Kathrine Garrett-Cox (since May 24, 2018), Sabine Irrgang* (until May 24, 2018), Timo Heider*, Martina Klee* (until May 24, 2018),
Louise M. Parent (until May 24, 2018), Gabriele Platscher* (since May 24, 2ß18), Dr. Johannes Teyssen (until May 24, 2018)

Compensation Control Committee
Dr. Paul Achleitner, Chairman
Frank Bsirske*, Prof. Dr. Henning Kagermann (until May 24, 2018), Detlef Polaschek* (since May 24, 2018), Stefan Rudschäfski* (until May 24, 2018), Prof. Dr. Stefan Simon (since May 24, 2018)

Strategy Committee (since May 24, 2018)
John Alexander Thain, Chairman
Dr. Paul Achleitner, Frank Bsirske*, Mayree Carroll Clark, Timo Heider* Henriette Mark*, Richard Meddings, Detlef Polaschek*

Technology, Data and Innovation Committee (since May 24, 2018)
Michele Trogni, Chairperson
Dr. Paul Achleitner, Jan Duscheck*, Dr. Gerhard Eschelbeck, Martina Klee*, Bernd Rose*

Mediation Committee
Dr. Paul Achleitner, Chairman
Frank Bsirske* (since May 24, 2018), Wolfgang Böhr* (until May 24, 2018), Prof. Dr. Henning Kagermann (until May 24, 2018), Detlef Polaschek* (since May 24, 2018), Stefan Rudschäfski* (until May 24, 2018), Prof. Dr. Stefan Simon (since May 24, 2018)

*Employees representatives

Regional advisory boards

According to Deutsche Bank's Articles of Association, the Management Board
may establish regional Advisory Councils and Advisory Boards. Further information is published on Deutsche Bank's website at www.db.com/company/en/advisory-boards.htm.

List of mandates

Supervisory board

Mandates according to § 285 No. 10 German Commercial Code (HGB) in conjunction with § 125 (1) sentence 5 Stock Corporation Act (AktG)

Memberships in statutory supervisory boards of German corporations and in comparable supervisory bodies of German and foreign business enterprises. Changes in memberships during the year are noted with the date of joining and/or leaving.

As of: February 2019

For Supervisory Board members who left earlier, the mandates are shown as of the date they left. For new Supervisory Board members, the mandates shown are as of the date they joined.

Members of the Supervisory Board

Mandate-Holder	Position	Company	Mandate
Dr. Paul Achleitner	Chairman of the Supervisory Board, Deutsche Bank AG	External mandates	
		Bayer AG	Member of the Supervisory Board
		Daimler AG	Member of the Supervisory Board
Ludwig Blomeyer-Bartenstein (since May 2018)	Spokesman of the Management and Head of the Market Region Bremen, Deutsche Bank AG	External mandates	
		Frowein & Co. Beteiligungs AG	Member of the Supervisory Board
		Bürgschaftsbank Bremen GmbH	Member of the Board of Directors
Wolfgang Böhr (until May 2018)	Chairman of the Staff Council of Deutsche Bank, Dusseldorf; Member of the General Staff Council of Deutsche Bank; Member of the Group Staff Council of Deutsche Bank	External mandates	
		Betriebskrankenkasse Deutsche Bank AG	Member of the Advisory Board
Frank Bsirske	Chairman, trade union ver.di (Vereinte Dienstleistungsgewerkschaft)	External mandates	
		innogy SE	Deputy Chairman of the Supervisory Board
		Kreditanstalt für Wiederaufbau	Member of the Board of Supervisory Directors (until December 2018)
		RWE AG	Deputy Chairman of the Supervisory Board
		Mandates in the Group	
		Deutsche Postbank AG	Deputy Chairman of the Supervisory Board (until May 2018)
		DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board (since May 2018)
Mayree Carroll Clark (since May 2018)	Managing Partner, Eachwin Capital LP	External mandates	
		Ally Financial, Inc.	Member of the Board of Directors
		Regulatory Data Corp., Inc.	Member of the Board of Directors
		Taubmann Centers, Inc.	Member of the Board of Directors
Dina Dublon (until July 2018)		External mandates	
		PepsiCo Inc.	Member of the Board of Directors
Jan Duscheck	Head of national working group Banking, trade union ver.di (Vereinte Dienstleistungsgewerkschaft)	No memberships or directorships subject to disclosure	
Dr. Gerhard Eschelbeck	Vice President Security & Privacy Engineering, Google Inc.	External mandates	
		Onapsis Inc.	Member of the Board of Directors (since January 2019)
Katherine Garrett-Cox	Managing Director and Chief Executive Officer, Gulf International Bank (UK) Ltd.	No memberships of directorships subject to disclosure	

Members of the Supervisory Board

Mandate-Holder	Position	Company	Mandate
Timo Heider	Chairman of the General Staff Council of BHW Bausparkasse AG/Postbank Finanzberatung AG; Chairman of the General Staff Council of BHW Kreditservice GmbH; Deputy Chairman of the Group Staff Council of Deutsche Bank AG	Mandates in the Group	
		BHW Bausparkasse AG	Deputy Chairman of the Supervisory Board
		Deutsche Postbank AG	Member of the Supervisory Board (until May 2018)
		Pensionskasse der BHW Bausparkasse AG VVaG	Deputy Chairman of the Supervisory Board
Sabine Irrgang (until May 2018)	Head of Human Resources Baden-Württemberg, Deutsche Bank AG	No memberships or directorships subject to disclosure	
Professor Dr. Henning Kagermann (until May 2018)	President of acatech – German Academy of Science and Engineering	External mandates	
		Deutsche Post AG	Member of the Supervisory Board
		KUKA AG	Member of the Supervisory Board
		Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft	Member of the Supervisory Board
Martina Klee	Deputy Chairperson of the Staff Council PWCC Center Frankfurt, Deutsche Bank AG	External mandates	
		Sterbekasse für die Angestellten der Deutsche Bank-Gruppe VVaG	Member of the Supervisory Board
Henriette Mark	Chairperson of the Combined Staff Council Southern Bavaria; Member of the General Staff Council and member of the Group Staff Council of Deutsche Bank	No memberships or directorships subject to disclosure	
Richard Meddings	Executive Chairman of the Board, TSB Bank PLC	External mandates	
		HM Treasury	Non-Executive Director (until September 2018)
		Jardine Lloyd Thompson Group PLC	Non-Executive Director
		TSB Bank PLC	Non-Executive Chairman of the Board (until September 2018)
Louise M. Parent (until May 2018)	Of Counsel, Cleary Gottlieb Steen & Hamilton LLP	External mandates	
		Fidelity National Information Services Inc.	Member of the Board of Directors
		Zoetis Inc.	Member of the Board of Directors
Gabriele Platscher	Chairperson of the Staff Council Niedersachsen Ost, Deutsche Bank	External mandates	
		BVV Pensionsfonds des Bankgewerbes AG	Deputy Chairperson of the Supervisory Board
		BVV Versicherungsverein des Bankgewerbes a.G.	
		BVV Versorgungskasse des Bankgewerbes e.V.	
Detlef Polaschek (since May 2018)	Deputy Chairman of the Supervisory Board; Member of the General Staff Council; Chairman of the Staff Council Niederrhein and Ruhrgebiet Mitte/Ost, Deutsche Bank	No memberships or directorships subject to disclosures	

Members of the Supervisory Board

Mandate-Holder	Position	Company	Mandate
Bernd Rose	Chairman of the General Staff Council of Postbank Filialvertrieb AG; Member of the Group Staff Council and member of the European Staff Council of Deutsche Bank	External mandates	
		ver.di Vermögensverwaltungs-gesellschaft m.b.H.	Deputy Chairman of the Supervisory Board
		Mandates in the Group	
		Deutsche Postbank AG	Member of the Supervisory Board (until May 2018)
		Postbank Filialvertrieb AG	Member of the Supervisory Board
		DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board (since December 2018)
Stefan Rudschäfski (until May 2018)	Deputy Chairman of the Supervisory Board of Deutsche Bank AG, Frankfurt; 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	External mandates	
		Betriebskrankenkasse Deutsche Bank AG	Member of the Advisory Board
Gerd Alexander Schütz	Member of the Management Board, C-QUADRAT Investment AG	External mandates	
		MyBucks S.A.	Non-Executive Chairman of the Board of Directors (until February 2018)
Professor Dr. Stefan Simon	Self-employed attorney at law with his own law firm, SIMON GmbH	External mandates	
		Leop. Krawinkel GmbH & Co. KG	Chairman of the Advisory Council
Stephan Szukalski (since May 2018)	Federal Chairman of the German Association of Bank Employees (Deutscher Bankangestellten-Verband e.V. (DBV))	No memberships or directorships subject to disclosure	
Dr. Johannes Teyssen (until May 2018)	Chairman of the Management Board of E.ON SE	External mandates	
		Nord Stream AG	Member of the Shareholders' Committee
John Alexander Thain (since May 2018)		External mandates	
		Uber Technologies, Inc.	Member of the Board of Directors
		Enjoy Technology Inc.	Member of the Board of Directors
Michele Trogni (since May 2018)		External mandates	
		Morneau Shepell Inc.	Member of the Board of Directors
		Capital Markets Gateway Inc.	Chairperson of the Board of Directors (since July 2018)
		Global Atlantic Financial Group Ltd.	Non-Executive Director (since August 2018)
Professor Dr. Norbert Winkeljohann (since August 2018)	Self-employed corporate consultant, Norbert Winkeljohann Advisory & Investments	External mandates	
		Bayer AG	Member of the Supervisory Board
		Heristo AG	Chairman of the Supervisory Board
		Georgsmarienhütte Holding GmbH	Member of the Supervisory Board
		Sievert AG	Chairman of the Supervisory Board (since January 2019)

Management board

Mandates according to § 285 No. 10 German Commercial Code (HGB) in conjunction with § 125 (1) sentence 5 Stock Corporation Act (AktG)

Memberships in statutory supervisory boards of German corporations and in comparable supervisory bodies of German and foreign business enterprises. Changes in memberships during the year are noted with the date of joining and/or leaving.

Memberships in statutory supervisory bodies of large German and foreign corporations according to Section 340a (4) No. 1 of the German Commercial Code (HGB) are marked with *.

As of: February 2019

For Management Board members who left earlier, the mandates are shown as of the date they left. For new Management Board members, the mandates shown are as of the date they joined.

Members of the Management Board

Mandate-Holder	Position	Company	Mandate
John Cryan (until April 2018)	Chairman of the Management Board	External mandates	
		MAN Group PLC	Non-Executive Director
Dr. Marcus Schenck (until May 2018)	President	No memberships or directorships subject to disclosure	
Christian Sewing	Chairman of the Management Board (since April 2018)	Mandates in the Group	
		Deutsche Bank Privat- und Geschäftskunden AG*	Chairman of the Supervisory Board (until May 2018)
		Deutsche Postbank AG*	Member of the Supervisory Board (until May 2018)
		DB Privat- und Firmenkundenbank AG*	Chairman of the Supervisory Board (since May 2018)
Garth Ritchie	President (since April 2018)	No memberships or directorships subject to disclosure	
Karl von Rohr	President (since April 2018)	External mandates	
		BVV Versicherungsverein des Bankgewerbes a.G.	Member of the Supervisory Board (until July 2018)
		BVV Versorgungskasse des Bankgewerbes e.V.	Member of the Supervisory Board (until July 2018)
		Mandates in the Group	
		Deutsche Postbank AG*	Member of the Supervisory Board (until May 2018)
		DWS Group GmbH & Co. KGaA*	Chairman of the Supervisory Board (since March 2018)
Kimberly Hammonds (until May 2018)	Member of the Management Board	External mandates	
		Cloudera Inc., USA	Non-Executive Director
		Red Hat Inc., USA	Member of the Board of Directors
Frank Kuhnke (since January 2019)	Member of the Management Board	Mandates in the Group	
		Deutsche Bank Società per Azioni*	Member of the Supervisory Board
Stuart Lewis	Member of the Management Board	Mandates in the Group	
		DEUKONA Versicherungs-Vermittlungs-GmbH	Chairman of the Advisory Board
		Deutsche Bank Società per Azioni*	Chairman of the Supervisory Board
Sylvie Matherat	Member of the Management Board	Mandates in the Group	
		DB USA Corporation*	Member of the Board of Directors
		DWS Group GmbH & Co. KGaA*	Member of the Supervisory Board (since March 2018)
James von Moltke	Member of the Management Board	External mandates	
		BVV Versicherungsverein des Bankgewerbes a.G.	Member of the Supervisory Board (since July 2018)
		BVV Versorgungskasse des Bankgewerbes e.V.	Member of the Supervisory Board (since July 2018)

Members of the Management Board

Mandate-Holder	Position	Company	Mandate
Nicolas Moreau (until December 2018)	Member of the Management Board	Mandates in the Group	
		DWS Management GmbH (as General Partner of DWS Group GmbH & Co. KGaA)	Chairman of the Management
Werner Steinmüller	Member of the Management Board	Mandates in the Group	
		Deutsche Postbank AG*	Chairman of the Supervisory Board (until May 2018)
		DB Privat- und Firmenkundenbank AG*	Member of the Supervisory Board (since May 2018)
Frank Strauß	Member of the Management Board	Mandates in the Group	
		Deutsche Postbank AG*	Chairman of the Management Board (until May 2018)
		DB Privat- und Firmenkundenbank AG*	Chairman of the Management Board (since May 2018)

Employees of Deutsche Bank AG

Mandates according to section 340a (4) No. 1 of the German Commercial Code (HGB)

Memberships in statutory supervisory bodies of large German and foreign corporations.
As of: December 31, 2018

Employees of Deutsche Bank AG		
Mandate-Holder	Company	Mandate
Ashok Aram	Mandates in the Group	
	Deutsche Bank Luxembourg S.A.	Chairman of the Supervisory Board
Dr. Michael Berendes	Mandates in the Group	
	Deutsche Bank Bauspar-Aktiengesellschaft	Chairman of the Supervisory Board
Brigitte Bomm	Mandates in the Group	
	DB USA Corporation	Member of the Board of Directors
Jörg Bongartz	Mandates in the Group	
	OOO “Deutsche Bank“	Member of the Supervisory Board
Oliver Bortz	Mandates in the Group	
	Deutsche Bank Bauspar-Aktiengesellschaft	Member of the Supervisory Board
Rüdiger Bronn	Mandates in the Group	
	Deutsche Bank Luxembourg S.A.	Member of the Supervisory Board
	Deutsche Holdings (Luxembourg) S.à.r.l.	Member of the Supervisory Board
Ralf Brümmer	External mandates	
	Bankpower GmbH Personaldienstleistungen	Deputy Chairman of the Supervisory Board
Matthias Buck	Mandates in the Group	
	PCC Services GmbH der Deutschen Bank	Member of the Supervisory Board
Thomas Buschmann	External mandates	
	VSM Vereinigte Schmirgel- und Maschinen-Fabriken AG	Member of the Supervisory Board
Ulrich Christmann	Mandates in the Group	
	Deutsche Bank Bauspar-Aktiengesellschaft	Deputy Chairman of the Supervisory Board
Andrea Corsi	External mandates	
	Lewisham Homes Ltd.	Non-Executive Director
Petra Crull	Mandates in the Group	
	DB Investment Services GmbH	Member of the Supervisory Board
Karin Dohm	External mandates	
	Ceconomy AG	Member of the Supervisory Board
	Deutsche EuroShop AG	Deputy Chairperson of the Supervisory Board
	Mandates in the Group	
	Deutsche Bank Luxembourg S.A.	Member of the Supervisory Board
Andreas Dörhöfer	External mandates	
	Düsseldorfer Hypothekenbank AG	Member of the Supervisory Board
Boudewijn Dornseiffen	Mandates in the Group	
	OOO „Deutsche Bank“	Member of the Supervisory Board
David Gary	External mandates	
	CLS Group Holdings AG	Non-Executive Director
Verena Grohs	Mandates in the Group	
	Deutsche Bank Bauspar-Aktiengesellschaft	Member of the Supervisory Board
Dr. Jürgen Harengel	Mandates in the Group	
	Betriebs-Center für Banken AG	Member of the Supervisory Board
Sandra Heinrich	Mandates in the Group	
	PCC Services GmbH der Deutschen Bank	Member of the Supervisory Board
Natacha Hilger	External mandates	
	MTS S.p.A.	Non-Executive Director
Stefan Hoops	External mandates	
	Eurex Clearing AG	Member of the Supervisory Board
Kees Hoving	Mandates in the Group	
	Deutsche Bank Luxembourg S.A.	Member of the Supervisory Board
Mihai Ionescu	External mandates	
	One United Properties S.A.	Non-Executive Director
Anna Issel	Mandates in the Group	
	DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board
	Sal. Oppenheim jr. & Cie AG & Co. KGaA	Member of the Supervisory Board
Stephan Jugenheimer	Mandates in the Group	
	DWS Alternatives GmbH (formerly RREEF Spezial Invest GmbH)	Member of the Supervisory Board

Employees of Deutsche Bank AG

Mandate-Holder	Company	Mandate
Daniel Kalczynski	Mandates in the Group	
	Sal. Oppenheim jr. & Cie. AG & Co. KGaA	Chairman of the Supervisory Board
Dr. Tobias Kampmann	Mandates in the Group	
	Deutsche Bank Polska Spólka Akcyjna	Member of the Supervisory Board
Rene-W Keller	Mandates in the Group	
	Deutsche Bank Società per Azioni	Member of the Supervisory Board
Thomas Keller	External mandates	
	GEZE GmbH	Member of the Supervisory Board
Stefan Knoll	Mandates in the Group	
	DWS Grundbesitz GmbH (formerly RREEF Investment GmbH)	Member of the Supervisory Board
Dr. Karen Kuder	Mandates in the Group	
	DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board
Philip Laucks	Mandates in the Group	
	DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board
Tiina Lee	External mandates	
	CAF Bank	Non-Executive Director
Andreas Lötscher	Mandates in the Group	
	DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board
Sebastien Martineau	External mandates	
	OTCDerivNet Limited	Non-Executive Director
Tiberio Massaro	Mandates in the Group	
	Deutsche Bank Securities Inc.	Member of the Board of Directors
Lothar Meenen	Mandates in the Group	
	Deutsche Bank Polska Spólka Akcyjna	Member of the Supervisory Board
Gianluca Minella	External mandates	
	IHS Markit Ltd	Non-Executive Director
Alain Moreau	Mandates in the Group	
	Deutsche Investment GmbH (formerly Deutsche Asset Management Investment GmbH)	Member of the Supervisory Board
Mario Muth	External mandates	
	TradeWeb Markets LLC	Non-Executive Director
Henning Oldenburg	External mandates	
	Beutin AG	Member of the Supervisory Board
Kai-David Ortmann	Mandates in the Group	
	Deutsche Holdings (Luxembourg) S.à.r.l.	Member of the Supervisory Board
Jorge Otero	Mandates in the Group	
	OOO “Deutsche Bank”	Member of the Supervisory Board
Jay Patel	External mandates	
	iSwap	Non-Executive Director
Thomas Pemsel	External mandates	
	BayBG Bayerische Beteiligungsgesellschaft mbH	Member of the Supervisory Board
Christiana Riley	Mandates in the Group	
	DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board
Frank Rueckbrodt	Mandates in the Group	
	Deutsche Bank Luxembourg S.A.	Member of the Supervisory Board
	Deutsche Bank Società per Azioni	Member of the Supervisory Board
	Deutsche Bank, Sociedad Anónima Española	Non-Executive Director
Dr. Anke Sahlén	Mandates in the Group	
	Sal. Oppenheim jr. & Cie. AG & Co. KGaA	Member of the Supervisory Board
Daniel Schmand	Mandates in the Group	
	Deutsche Bank, Sociedad Anónima Española	Non-Executive Director
	OOO „Deutsche Bank“	Member of the Supervisory Board
Werner Schmidt	External mandates	
	AKA Ausfuhrkreditgesellschaft mbH	Deputy Chairman of the Supervisory Board
Frank Schütz	External mandates	
	AKA Ausfuhrkreditgesellschaft mbH	Member of the Supervisory Board
Rich Shannon	Mandates in the Group	
	Deutsche Bank Securities Inc.	Member of the Board of Directors
Eric-M Smith	Mandates in the Group	
	Deutsche Bank Trust Company Americas	Member of the Board of Directors
	Deutsche Bank Americas Holding Corp.	Member of the Board of Directors
Michael Spiegel	Mandates in the Group	
	DB Privat- und Firmenkundenbank AG	Member of the Supervisory Board
Till Staffeldt	Mandates in the Group	
	Deutsche Bank Società per Azioni	Member of the Supervisory Board

Employees of Deutsche Bank AG

Mandate-Holder	Company	Mandate
Gülabatin Sun	Mandates in the Group	
	Betriebs-Center für Banken AG	Member of the Supervisory Board
	DB Investment Services GmbH	Member of the Supervisory Board
	PCC Services GmbH der Deutschen Bank	Chairperson of the Supervisory Board
Andreas Torner	Mandates in the Group	
	norisbank GmbH	Member of the Supervisory Board
Holger Wegmann	Mandates in the Group	
	DB Investment Services GmbH	Chairman of the Supervisory Board
Dr. Michael Welker	Mandates in the Group	
	Deutsche Holdings (Luxembourg) S.à.r.l.	Member of the Supervisory Board
	OOO “Deutsche Bank“	Member of the Supervisory Board
Christian Westerhaus	External mandates	
	S.W.I.F.T SCRL	Member of the Board of Directors
Peter Wharton-Hood	Mandates in the Group	
	Deutsche Bank Luxembourg S.A.	Member of the Supervisory Board
Andreas Wienhues	Mandates in the Group	
	DB Investment Services GmbH	Member of the Supervisory Board
Peter Yearley	Mandates in the Group	
	DB USA Corporation	Member of the Board of Directors
Christoph Zschaetzsch	Mandates in the Group	
	Deutsche Bank Bauspar-Aktiengesellschaft	Member of the Supervisory Board

Frankfurt am Main, March 12, 2019

Deutsche Bank Aktiengesellschaft

The Management Board

Christian Sewing	Garth Ritchie	Karl von Rohr
Frank Kuhnke	Stuart Lewis	Sylvie Matherat
James von Moltke	Werner Steinmüller	Frank Strauß

3
Confirmations

Responsibility Statement by the Management Board

To the best of our knowledge, and in accordance with the applicable reporting principles, the financial statements of Deutsche Bank AG give a true and fair view of the assets, liabilities, financial position and profit or loss of the Deutsche Bank AG, and the management report of Deutsche Bank AG includes a fair review of the development and performance of the business and the position of Deutsche Bank AG, together with a description of the principal opportunities and risks associated with the expected development of the Deutsche Bank AG.

Frankfurt am Main, March 12, 2019

Christian Sewing	Garth Ritchie	Karl von Rohr
Frank Kuhnke	Stuart Lewis	Sylvie Matherat
James von Moltke	Werner Steinmüller	Frank Strauß

Independent Auditor’s Report

To Deutsche Bank Aktiengesellschaft, Frankfurt am Main

Report on the Audit of the Annual Financial Statements and of the Management Report

Opinions

We have audited the financial statements of Deutsche Bank Aktiengesellschaft, Frankfurt am Main, which comprise the balance sheet as at December 31, 2018, and the statement of the income for the financial year from January 1 to December 31, 2018, and notes to the financial statements, including the recognition and measurement policies presented therein. In addition, we have audited the management report of Deutsche Bank Aktiengesellschaft, Frankfurt am Main, for the financial year from January 1 to December 31, 2018. In accordance with the German legal requirements, we have not audited the content of non-financial statement which is included in the section “Non-financial statement” in the management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law as applicable to credit institutions and give a true and fair view of the net assets, liabilities and financial position of the Bank as at December 31, 2018, and of its financial performance for the financial year from January 1, 2018 to December 31, 2018, in compliance with German Legally Required Accounting Principles, and
- the accompanying management report as a whole provides an appropriate view of the Bank’s position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the management report does not cover the content of the non-financial statement mentioned above.

Pursuant to Section 322(3) sentence 1 HGB [Handelsgesetzbuch – German Commercial Code], we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and of the management report.

Basis for the Opinions

We conducted our audit of the annual financial statements and of the management report in accordance with Section 317 HGB and the EU- Audit Regulation No 537/2014 (referred to subsequently as “EU Audit Regulation”) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report” section of our auditor’s report. We are independent of the Bank in accordance with requirements of European law and German commercial and professional law, and we have fulfilled our other responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the annual financial statements and on the management report.

Key Audit Matters in the Audit of the Annual Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the financial year from January 1 to December 31, 2018. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Valuation of Investments in Affiliated Companies

With regard to applied accounting and valuation principles, we refer to the notes “Basis of Presentation” and “Notes to the Balance Sheet”. Disclosures on the business development can be found in the Section “Economic Environment” in the management report.

The Financial Statement Risk

The annual financial statements as of December 31, 2018 of Deutsche Bank AG contains investments in affiliated companies amounting to EUR 45.6bn.

Investments in affiliated companies are carried at acquisition cost or, in the case of a permanent impairment, at the lower fair value. The fair value of investments in affiliated companies is generally determined by means of recognized valuation methods, in particular the discounted cash flow method. If the fair value is lower than the book value, qualitative and quantitative criteria are used to determine whether the impairment is considered to be permanent.

The valuation methods are subject to judgments, particularly with regard to the valuation parameters used ((plan) assumptions and discount rates). The assessment, based on qualitative and quantitative factors, of whether there is a permanent impairment loss is also judgmental.

The financial statement risk arises from a permanent impairment of investments in affiliated companies as of the balance sheet date that was not appropriately presented because its fair value was determined on the basis of inappropriate valuation models, assumptions and valuation parameters or an incorrect estimate of the permanence of the impairment loss was made

Our Audit Approach

To determine our audit approach, we have performed a risk assessment with respect to the Bank's investments in affiliated companies with respect to the models, assumptions and parameters used by Deutsche Bank in the valuation. Based on this risk assessment, we have developed an audit approach that includes control and substantive testing.

As part of the audit procedures relating to the internal control system, we first obtained an understanding of the design and implementation of the valuation process. In addition, we have tested operating effectiveness of selected relevant controls for the identification of impairment needs and the performance of the related valuations for investments in affiliated companies.

Subsequently, we performed substantive audit procedures in particular for a risk-based selection of affiliated companies, including our internal KPMG valuation specialists, on the appropriateness of the valuation model for the valuation carried out by the Bank or an independent expert commissioned by the Bank, as well as on key valuation assumptions and parameters.

In doing so, we have:

- assessed the appropriateness of the models used,
- assessed the parameters used in the models (plan assumptions and discount rates) and, for this purpose, have reconciled and verified them with other available projections of Deutsche Bank AG (e. g. for tax purposes) or externally available parameters for discount rates (risk-free interest rates, market risk premiums and beta factors),
- verified the quality of Deutsche Bank AG's forecast to date by backtesting forecasts for the previous financial year with the actual results and analyzing deviations,
- checked the arithmetical correctness of the valuation model used,
- reconstructed the accounting treatment of value adjustments, and
- assessed the independent expert's competence, skills and objectivity, gained an understanding of his activities and assessed the suitability of his work as evidence of the appropriateness of the expert's work for the valuation of investments.

Our Observations

Based on the results of our key controls testing and substantive audit procedures, we consider the valuation models, assumptions and parameters underlying the valuation of investments in affiliated companies to be appropriate. We consider the Bank's assessment of whether there is a permanent reduction in value to be reasonable.

Unobservable Inputs used for the Valuation of Financial Instruments

A description of the management of market risks is included in the management report in the sections “Risk Profile” and “Market Risk”. Significant accounting and valuation principles are described in note “Basis of Presentation”.

The Financial Statement Risk

The annual financial statements of Deutsche Bank Aktiengesellschaft contain trading assets amounting to EUR 303.7bn and trading liabilities of EUR 236.1bn. Both positions also contain financial instruments of which valuation inputs are unobservable.

By definition, market prices are not observable for the valuation of these financial instruments. The fair values are therefore to be determined on the basis of accepted valuation methods. These valuation methods may consist of complex models and can include assumptions and estimates over unobservable inputs which require judgment.

The financial statement risk arises particularly with respect to complex valuation models or unobservable valuation parameters that are inappropriately used in determining fair values of financial instruments.

Our Audit Approach

To determine our audit approach, we initially evaluated the general suitability and the potential for misstatements in models and parameters including unobservable inputs and, where applicable, associated valuation adjustments used for the valuation of financial instruments.

Based on our risk assessment we established an audit approach including control and substantive testing.

In order to assess the adequacy of the Bank’s internal controls regarding the valuation of financial instruments and determination of unobservable inputs therein we evaluated the design and implementation and tested operating effectiveness of key controls. We also made use of KPMG-internal valuation specialists as needed. Audit procedures included but were not limited to controls over:

- monthly independent price verification procedures performed by the Bank to assure the adequacy of input parameters used for these financial instruments,
- model validation of valuation models used by the Bank including respective governance and
- calculation and recording of valuation adjustments for credit risk and others required by accounting standards to determine fair values.

Where we had findings regarding design or effectiveness of controls, we tested additional compensating controls. We considered our audit results when designing nature and scope of additional substantive audit procedures.

We performed substantive procedures amongst others on a risk-based sample of financial instruments with unobservable valuation inputs. These include in particular:

- performance of independent price verification, with usage of KPMG-internal valuation specialists on selected individual transactions of financial instruments,
- independent recalculation of selected valuation adjustments, and
- performance of procedures to determine adequacy of models used, including key inputs and their usage in the respective pricing models.

Our Observations

Based on the results of our key controls testing and substantive audit procedures, we consider models and related parameters used for valuing financial instruments with unobservable valuation inputs to be appropriate.

Recognition and Measurement of Deferred Tax Assets

For a description of the significant accounting policies and critical accounting estimates as well as underlying assumptions for the recognition and measurement of deferred tax assets, we refer to the notes “Basis of Presentation” and “Notes to the Balance Sheet”.

The Financial Statement Risk

The annual financial statements contain deferred tax assets of net EUR 2.5bn.

Recognition and measurement of deferred tax assets contain judgment and besides objective factors also numerous estimates regarding future taxable profit and the usability of unused tax losses and tax credits.

The financial statement risk arises particularly from future utilization of the deferred tax assets being estimated inappropriately. The estimation of future utilization depends on future taxable profit potential based on the business plan, that is subjected to uncertainties and taking into account the expected development of key value-determining assumptions and parameters included therein. These include in particular assumptions on the development of pre-tax earnings, the influence of potential special items, and permanent effects which determine the taxable profit available in the future. Such estimates also consider current political and economic developments (such as the implementation of the referendum on the withdrawal of the United Kingdom from the European Union) and jurisdiction specific tax considerations.

Our Audit Approach

We conducted a risk assessment to gain an understanding of the applicable tax laws and regulations relevant to the Bank. Based on that, we performed both tests of related internal key controls and substantive audit procedures with the assistance of KPMG-internal tax specialists. As part of our audit, we examined, amongst others, the test of design, the implementation and operating effectiveness of internal controls with respect to recognition of deferred tax assets in the Bank.

Furthermore, we performed substantive audit procedures amongst others for a risk-based sample of deferred tax assets in different countries. This included, but was not limited to:

- the assessment of the Bank’s methodology used for the recognition and measurement of deferred tax assets in accordance with Section 274 HGB,
- assessment of the appropriateness of parameters applied to the business plans, including sub-plans for relevant countries where appropriate. In doing so, we scrutinized the appropriateness of the planning parameters applied that are relevant to the Bank’s significant subdivisions by considering potential positive and negative indicators regarding recoverability or occurrence of planning parameters and assumptions, and
- review of the reconciliation from pre-tax income to the planned taxable profit for certain countries.

Our Observations

The utilization of the deferred tax assets is assessed to be appropriate on the basis of future taxable income potential on the basis of the business plan, taking into account the expected development of significant value-determining assumptions and parameters contained therein.

IT Access Management in the financial reporting process

For a description of internal controls over the financial reporting process including IT access management controls, we refer to the management report in section "Internal Control over Financial Reporting".

The Financial Statement Risk

The financial reporting process is highly dependent on information technology and the completeness and accuracy of electronic data due to the size and the complexity of the Bank. The inappropriate granting of or ineffective monitoring of access rights to IT systems therefore presents a risk to the accuracy of financial reporting. This risk applies in particular to systems with access rights which do not correspond to a "need to know" or "need to have" principle, i.e. access is granted solely based on the requirements of the role and no further authorization requirement is in place, or the segregation of duties principle, i.e. between IT and specialist departments as well as between development and application operations.

Unauthorized or extensive access rights and a lack of segregation of duties cause a risk of intended or unintended manipulation of data that could have a material effect on the completeness and accuracy of the financial statements. Therefore, the design of and compliance with respective precautions is a significant matter for our audit.

Our Audit Approach

We obtained an understanding of the Bank's business IT related control environment. Furthermore we conducted a risk assessment and identified IT applications, databases and operating systems that are relevant to our audit.

For relevant IT-dependent controls within the financial reporting process (so-called IT application controls) we identified supporting general IT controls and evaluated their design, implementation, and operating effectiveness. We tested key controls particularly in the area of access protection and linkage of such controls to the completeness and accuracy of financial reporting. Our audit procedures included, but were not limited to, the following:

- Tests of controls regarding initial access granted to IT systems for new employees or employees changing roles, whether that access was subject to appropriate screening and if it was approved by an authorized person in line with the role based authorization concept.
- Test of controls regarding removal of employee or former employee access rights within an appropriate period of time after having changed roles or leaving the company.
- Test of controls regarding the appropriateness of system access rights for privileged or administrative authorizations (superuser) being subject to a restrictive authorization assignment procedure and the regular review thereof.

Moreover, we conducted specific testing procedures in the area of password protection, security settings regarding modifications for applications, databases, and operating systems, the segregation of specialist department and IT users and the segregation of employees responsible for program development and those responsible for system operations. Where we had findings regarding design or effectiveness of controls, we tested additional compensating controls for other compensating evidence.

Considering the results of our control tests, we decided on the nature and scope of further substantive audit procedures to be performed. Particularly, where we identified user authorizations not being withdrawn on time after leaving the Bank, we performed an inspection of the activity log of individual users to determine whether unauthorized activities had occurred that would materially affect the completeness and accuracy of financial information processed.

Also, by tests of detail we assessed if program developers had approval rights in the modification process and whether they were able to carry out any modifications in the productive versions of applications, databases, and operating systems to assess if these responsibilities were functionally segregated. We have also analyzed the segregation of duties on critical trading and payment systems in order to assess whether the segregation of duties between front and back offices has been adhered to.

Our Observations

Based on the results of our key controls testing and substantive audit procedures, we consider the IT access management in the financial reporting process to generally address the requirements for completeness and accuracy of financial reporting relevant data.

Other Information

Management is responsible for the other information. The other information comprises

- the non-financial statement, and
- the other parts of the annual report, except the audited financial statements and the management report as well as our auditor’s report,

Our opinions on the annual financial statements and on the management report do not cover the other information and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the annual financial statements, with the management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibility of Management and the Supervisory Board for the Annual Financial Statements and the Management Report

Management is responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law applicable to credit institutions, and that the annual financial statements give a true and fair view of the net assets, liabilities, financial position and financial performance of the Bank in compliance with German Legally Required Accounting Principles. In addition, management is responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, management is responsible for assessing the Bank’s ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, management is responsible for the preparation of the management report that as a whole provides an appropriate view of the Bank’s position and is, in all material aspects, consistent with the annual financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The supervisory board is responsible for overseeing the Bank’s financial reporting process for the preparation of the annual financial statements and of the management report.

Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Bank's position and, in all material aspects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the annual financial statements and of the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements and of the management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures (systems) relevant to the audit of the management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems of the Bank.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of the management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the net assets, liabilities, financial position and financial performance of the Bank in compliance with German Legally Required Accounting Principles.
- Evaluate the consistency of the management report with the annual financial statements, its conformity with German law, and the view of the Bank's position it provides.
- Perform audit procedures on the prospective information presented by management in the management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on May 24, 2018. We were engaged by the Supervisory Board on July 24, 2018. We or our predecessor firms have served as auditor to Deutsche Bank Aktiengesellschaft and its predecessor companies since 1952.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

The non-audit services provided by us in addition to the financial statement audit are disclosed in note "Other Information".

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Burkhard Böth.

Frankfurt am Main, March 15, 2019

KPMG AG
Wirtschaftsprüfungsgesellschaft

Pukropski	Böth
Wirtschaftsprüfer	Wirtschaftsprüfer

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2019
Financial Calendar

April 26, 2019
Earnings Report as of March 31, 2019

May 23, 2019
Annual General Meeting in the Festhalle Frankfurt am Main (Exhibition Center)

May 28, 2019
Dividend payment

July 24, 2019
Interim Report as of June 30, 2019

October 30, 2019
Earnings Report as of September 30, 2019

2020
Financial Calendar

January 30, 2020
Preliminary results for the 2019 financial year

March 20, 2020
Annual Report 2019 and Form 20-F

April 29, 2020
Earnings Report as of March 31, 2020

May 20, 2020
Annual General Meeting in the Festhalle Frankfurt am Main (Exhibition Center)

May 25, 2020
Dividend payment
(in case of a distributable profit and the decision of the AGM to pay a dividend)

July 29, 2020
Interim Report as of June 30, 2020

October 28, 2020
Earnings Report as of September 30, 2020