

**SECOND SUPPLEMENT DATED 14 FEBRUARY 2020  
TO THE BASE PROSPECTUS DATED 25 JUNE 2019**

*This document constitutes a supplement (the "**Second Supplement**") within the meaning of Article 46(3) of Regulation (EU) 2017/1129 of the European Parliament and the Council of 14 June 2017 (the "**Prospectus Regulation**") in connection with Article 13 Luxembourg law relating to prospectuses for securities dated 10 July 2005, as amended, (Loi relative aux prospectus pour valeurs mobilières, the "**Luxembourg Law 2005**") to the base prospectus of Deutsche Bank AG in respect of non-equity securities within the meaning of Art. 22 No. 6(4) of the Commission Regulation (EC) No. 809/2004 of 29 April 2004, as amended ("**Non-Equity Securities**").*

This Second Supplement is supplemental to, and must be read in conjunction with, the Structured Covered Bond Programme Prospectus dated 25 June 2019 ("**Structured Covered Bond Programme Prospectus**"), as supplemented by the first supplement dated 8 November 2019 (the "**First Supplement**") to the Structured Covered Bond Programme Prospectus (the First Supplement and the Structured Covered Bond Programme Prospectus together, the "**Prospectus**").

**Deutsche Bank Aktiengesellschaft**

(Frankfurt am Main, Germany)

**€ 35,000,000,000**

**Structured Covered Bond Programme**

**guaranteed as to payments of interest and principal by  
SCB Alspitze UG (haftungsbeschränkt)**

(Frankfurt am Main, Germany)

(the "**Programme**")

The purpose of this Second Supplement is to amend disclosure contained in the Prospectus and relating to the Issuer.

The Issuer has requested the Luxembourg *Commission de Surveillance du Secteur Financier* (the "**Commission**") in its capacity as competent authority under the Luxembourg law relating to prospectuses for securities dated 16 July 2019 (*Loi du 16 juillet 2019 relative aux prospectus pour valeurs mobilières et portant mise en œuvre du règlement (UE) 2017/1129*), which implements the Prospectus Regulation, to approve this Second Supplement.

This Second Supplement has been approved by the Commission, has been filed with said authority and will be published in electronic form on the website of the Luxembourg Stock Exchange ([www.bourse.lu](http://www.bourse.lu)) and on the website ([www.db.com/ir](http://www.db.com/ir)) of the Issuer.

Deutsche Bank Aktiengesellschaft with its registered office in Frankfurt am Main, Federal Republic of Germany ("**Deutsche Bank**", the "**Bank**", or the "**Issuer**") accepts responsibility for the information given in this Second Supplement.

The Issuer hereby declares that, having taken all reasonable care to ensure that such is the case, the information contained in this Second Supplement for which it is responsible is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

Terms defined or otherwise attributed meanings in the Prospectus have the same meaning in this Second Supplement.

This Second Supplement shall only be distributed in connection with the Prospectus. It should only be read in conjunction with the Prospectus.

To the extent that there is any inconsistency between any statement in this Second Supplement and any other statement in or incorporated by reference into the Prospectus, the statements in this Second Supplement will prevail.

Save as disclosed in this Second Supplement, there has been no other significant new factor, material mistake or material inaccuracy relating to information included in the Prospectus which is capable of affecting the assessment of Notes issued under the Programme since the publication of the Prospectus.

The Issuer has confirmed to the Dealers that the information contained in the Prospectus and the Second Supplement with respect to the Issuer and the Guarantor is accurate in all material respects and is not misleading; that any opinions and intentions expressed therein are honestly held; that there are no other facts with respect to the Issuer the omission of which would make the Prospectus as supplemented by this Second Supplement as a whole or any of such information or the expression of any such opinions or intentions misleading and that the Issuer has made all reasonable enquiries to ascertain all facts material for the purposes aforesaid.

No person has been authorised to give any information which is not contained in or not consistent with the Prospectus or this Second Supplement or any other document entered into in relation to the Programme or any information supplied by the Issuer or any other information in the public domain and, if given or made, such information must not be relied upon as having been authorised by the Issuer, the Dealers or any of them.

To the extent permitted by the laws of any relevant jurisdiction, neither the Arranger nor any Dealer nor any other person mentioned in the Prospectus or this Second Supplement, excluding the Issuer, is responsible for the information contained in the Prospectus or this Second Supplement or any Final Terms or any other document incorporated therein by reference, and accordingly, and to the extent permitted by the laws of any relevant jurisdiction, none of these persons accepts any responsibility for the accuracy and completeness of the information contained in any of these documents.

## REPLACEMENT INFORMATION

### I. Replacement information pertaining to the section "THE ISSUER", sub-section "ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES"

The sub-section "Administrative, Management and Supervisory Bodies" of the section "The Issuer" on page 394 of the Prospectus (as replaced by the First Supplement) shall be deleted and replaced by the following:

#### "ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES"

In accordance with German law, Deutsche Bank has both a **Management Board** (*Vorstand*) and a **Supervisory Board** (*Aufsichtsrat*). These Boards are separate; no individual may be a member of both. The Supervisory Board appoints the members of the Management Board and supervises the activities of this Board. The Management Board represents Deutsche Bank and is responsible for the management of its affairs.

The **Management Board** consists of:

Christian Sewing	Chairman; Communications and Corporate Social Responsibility (CSR); Group Audit (administratively only, in all other aspects collective responsibility of the Management Board); Research; Head of Investment Bank (IB); Head of Corporate Bank (CB)
Karl von Rohr	Deputy Chairman; Chief Administrative Officer; Head (CEO) of Region Germany; Head of Private Bank (PB); Head of Asset Management (AM)
Fabrizio Campelli	Chief Transformation Officer (CTO) and MB Member for HR; Human Resources (incl. Corporate Executive Matters); Transformation Roadmap Office; Cost Catalyst Office; Group Management Consulting; Strategic and Competitive Analysis
Frank Kuhnke	Chief Operating Officer; Corporate Services; CB/IB/CRU Operations (excl. Settlement Operations); CB/IB/CRU KYC Operations; Head of Capital Release Unit (CRU); Head of Region EMEA
Bernd Leukert	Chief Technology; Data and Innovation Officer; Chief Information Office incl. CB/IB/PB; Chief Technology Office; Chief Data Office; Chief Security Office; CB/IB/CRU Settlement Operations
Stuart Wilson Lewis	Chief Risk Officer; Corporate Insurance; Compliance; Anti-Financial Crime; Business Selection and Conflicts Office; Head of Region UKI (UK & Ireland)
James von Moltke	Chief Financial Officer; Investor Relations
Christiana Riley	Head (CEO) of Region Americas
Werner Steinmüller	Head (CEO) of Region APAC

The **Supervisory Board** consists of the following members:

Dr. Paul Achleitner	Chairman of the Supervisory Board of Deutsche Bank AG
Detlef Polaschek*	Deputy Chairman of the Supervisory Board of Deutsche Bank AG; Member of the General Staff Council of Deutsche Bank AG and DB Privat- und Firmenkundenbank AG
Ludwig Blomeyer-Bartenstein*	Spokesperson of the Management and Head of the Market Region Bremen of Deutsche Bank AG
Frank Bsirske*	Former Chairman of the trade union ver.di ( <i>Vereint Dienstleistungsgewerkschaft</i> )
Mayree Carroll Clark	Founder and Managing Partner of Eachwin Capital LP; Member of the Board of Directors, Ally Financial, Inc Detroit, USA; Member of the Board of Directors, Regulatory Data Corp Inc., Pennsylvania, USA; Member of the Board of Directors, Taubman Centers, Inc Bloomfield Hills, USA
Jan Duscheck*	Head of national working group Banking, trade union ver.di
Dr. Gerhard Eschelbeck	Member of the Board of Directors, Onapsis Inc., Boston, USA
Katherine Garrett-Cox	Managing Director and Chief Executive Officer, Gulf International Bank (UK) Ltd.
Timo Heider*	Chairman of the General Staff Council of BHW Bausparkasse AG / Postbank Finanzberatung AG; Chairman of the General Staff Council of PCC Services GmbH der Deutschen Bank; Chairman of the Staff Council of BHW Bausparkasse AG, PCC Services GmbH der Deutschen Bank, Postbank Finanzberatung AG and BHW Holding GmbH;
Martina Klee*	Deputy Chairperson of the Staff Council PWCC Center Frankfurt of Deutsche Bank
Henriette Mark*	Chairperson of the Combined Staff Council Southern Bavaria of Deutsche Bank; Member of the General Staff Council of Deutsche Bank;
Gabriele Platscher*	Member of the Group Staff Council of Deutsche Bank Chairperson of the Staff Council Niedersachsen Ost of Deutsche Bank

Bernd Rose*	Chairman of the General Staff Council of Postbank Filialvertrieb AG; Member of the Group Staff Council of Deutsche Bank; Member of the European Staff Council of Deutsche Bank
Gerd Alexander Schütz	Founder and Member of the Management Board, C-QUADRAT Investment Aktiengesellschaft
Stephan Szukalski*	Federal Chairman of the German Association of Bank Employees ( <i>Deutscher Bankangestellten-Verband; DBV</i> ) – Trade Union of Financial Service Providers ( <i>Gewerkschaft der Finanzdienstleister</i> )
John Alexander Thain	Member of the Board of Directors, Aperture Investors LLC, New York, USA; Member of the Board of Directors, Uber Technologies, Inc., San Francisco, USA
Michele Trogni	Member of the Board of Directors, Morneau Shepell Inc., Toronto, Canada; Chairperson of the Board of Directors, Capital Markets Gateway Inc., Chicago, USA; Non-Executive Director, Global Atlantic Financial Group Limited, Bermuda
Dr. Dagmar Valcárcel	Member of the Supervisory Board of amedes Holding GmbH
Prof. Dr. Norbert Winkeljohann	Self-employed corporate consultant, Norbert Winkeljohann Advisory & Investments; Member of the Supervisory Board of Bayer AG; Member of the Supervisory Board of Georgsmarienhütte Holding GmbH; Chairman of the Supervisory Board of Heristo Aktiengesellschaft; Chairman of the Supervisory Board of Sievert AG

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\* Elected by the employees in Germany.

The members of the Management Board accept membership on the Supervisory Boards of other corporations within the limits prescribed by law.

The business address of each member of the Management Board and of the Supervisory Board of Deutsche Bank is Taunusanlage 12, 60325 Frankfurt am Main, Germany.

There are no conflicts of interest between any duties to Deutsche Bank and the private interests or other duties of the members of the Supervisory Board and the Management Board.

Deutsche Bank has issued and made available to its shareholders the declaration prescribed by § 161 of the German Stock Corporation Act (*Aktiengesetz, AktG*)."

## **II. Replacement information pertaining to the section "THE ISSUER", sub-section "MAJOR SHAREHOLDERS"**

In the sub-section "Major Shareholders" of the section "The Issuer" on page 394 of the Prospectus (as replaced by the First Supplement) the last paragraph shall be deleted and replaced by the following:

"The German Securities Trading Act (*Wertpapierhandelsgesetz*) requires investors in publicly-traded corporations whose investments reach certain thresholds to notify both the corporation and BaFin of such change within four trading days. The minimum disclosure threshold is 3 per cent. of the corporation's issued voting share capital. To the Bank's knowledge, there are only six shareholders holding more than 3 per cent. of Deutsche Bank shares or to whom more than 3 per cent. of voting rights are attributed, and none of these shareholders holds more than 10 per cent. of Deutsche Bank shares or voting rights."

## **III. Replacement information pertaining to the section "THE ISSUER", sub-section "TREND INFORMATION"**

In the sub-section "Trend Information" of the section "The Issuer" on page 394 of the Prospectus (as replaced by the First Supplement) the paragraph "Recent Developments" shall be deleted and replaced by the following:

### ***"Recent Developments"***

On 17 March 2019, Deutsche Bank announced that in light of arising opportunities the Management Board of Deutsche Bank has decided to review strategic options. However, there is no certainty that any transaction will occur. In this context Deutsche Bank confirmed discussions with Commerzbank Aktiengesellschaft.

On 25 April 2019, Deutsche Bank announced that after careful analysis, the Management Board of Deutsche Bank has concluded on that day that a combination with Commerzbank would not have created sufficient benefits to offset the additional execution risks, restructuring costs and capital requirements associated with such a large-scale integration. As a result, the two banks have decided to discontinue discussions. Deutsche Bank will continue to review all alternatives to improve long-term profitability and shareholder returns.

On 30 January 2020, Deutsche Bank reported preliminary unaudited figures for the fourth quarter 2019 and the full year 2019, as follows:

Deutsche Bank today announced delivery on all major elements of its transformation strategy planned for 2019. Results were in line with, or ahead of, all 2019 financial targets.

Deutsche Bank's full-year net loss of 5.3 billion euros was entirely driven by transformation-related effects<sup>1</sup>. As a result of progress on its transformation strategy announced on 7 July 2019, Deutsche Bank reported a pre-tax loss of 2.6 billion euros in 2019 after absorbing transformation charges<sup>2</sup> of 1.1 billion euros, goodwill impairments of 1.0 billion euros and restructuring and severance expenses of 805 million euros. The bank's full-year net loss additionally included transformation-related deferred tax asset valuation adjustments of 2.8 billion euros. All these transformation-related effects were broadly in line with projections. As at the end of 2019, Deutsche Bank had recognised 70 per cent. of the anticipated cumulative costs to achieve its transformation strategy between 2019 and 2022.

In the fourth quarter of 2019, Deutsche Bank reported a pre-tax loss of 1.3 billion euros, including transformation charges of 608 million euros as well as restructuring and severance expenses of

473 million euros. A net loss of 1.5 billion euros reflects the aforementioned effects and transformation-related deferred tax asset valuation adjustments of approximately 400 million euros.

### **Core Bank: stabilising and building momentum**

The Core Bank, which excludes the Capital Release Unit, reported a pre-tax profit of 543 million euros in 2019. Adjusting for transformation charges of 635 million euros, goodwill impairments of 1.0 billion euros, restructuring and severance expenses of 649 million euros and specific revenue items<sup>3</sup> of 108 million euros, pre-tax profit in the Core Bank would have been 2.8 billion euros, up 7 per cent. versus 2018 similarly adjusted.

Core Bank revenues were 23.0 billion euros, down 2 per cent. year-on-year. Excluding specific revenue items, revenues were stable despite a more challenging interest rate environment and uncertainties in the global economic outlook which intensified during 2019.

In the fourth quarter the Core Bank reported a pre-tax loss of 437 million euros. Adjusting for transformation charges, restructuring and severance expenses and specific revenue items, pre-tax profit would have been 465 million euros, up from a profit before tax of 78 million euros in the prior year quarter. Fourth-quarter revenues were 5.5 billion euros, up 5 per cent. year-on-year, or 8 per cent. adjusted for specific revenue items.

### **Capital Release Unit: costs in line with expectations, deleveraging ahead of target**

The Capital Release Unit reported a pre-tax loss of 856 million euros in the fourth quarter and a full-year pre-tax loss of 3.2 billion euros, in line with expectations. This reflects both residual expenses and the non-recurrence of revenues associated with discontinued business activities. In addition, revenues in the third and fourth quarters were impacted by hedging and de-risking costs relating to reductions in leverage exposures and risk weighted assets which were better than plan as at year-end 2019.

### **Delivering on targets: capital strength**

The Common Equity Tier 1 (CET1) capital ratio improved to 13.6 per cent. during the fourth quarter, comfortably meeting recent guidance of above 13 per cent. for year-end 2019.

Deutsche Bank reduced risk weighted assets (RWAs) by 18 billion euros on an FX-neutral basis to 324 billion euros during the quarter. This contributed a positive impact of 73 basis points on Deutsche Bank's CET1 ratio, which more than offset the negative impact on this ratio arising from reduced capital of 47 basis points, principally relating to the bank's fourth-quarter net loss.

The Capital Release Unit reduced RWAs by 10 billion euros to 46 billion euros during the fourth quarter, down from 72 billion euros at the end of 2018, a reduction of 36 per cent. This was 6 billion euros better than the Unit's year-end target for RWAs of 52 billion euros.

Deutsche Bank reaffirmed its confidence in meeting its target of a CET1 ratio above 12.5 per cent. at all times during execution of the transformation strategy through 2022. The bank reaffirms its confidence in its ability to finance its transformation through existing capital resources.

### **Leverage reduction ahead of target**

Deutsche Bank reduced leverage exposure by 123 billion euros during the quarter to 1,168 billion euros at year-end. This was driven primarily by progress in the Capital Release Unit, which reduced leverage exposure by 50 billion euros to 127 billion euros, versus a target of approximately

140 billion euros. Further reductions arose from a reduction in cash balances, seasonal reductions in the Investment Bank and currency movements, partly offset by loan growth.

As a result, Deutsche Bank's leverage ratio improved to 4.3 per cent. on a phase-in basis and 4.2 per cent. on a fully loaded basis during the quarter, ahead of its 4 per cent. year-end 2019 target. The bank reaffirmed its goal of increasing its leverage ratio to 4.5 per cent. by the end of 2020 and to around 5 per cent. by 2022.

### **Delivering on targets: cost reduction**

Noninterest expenses were 25.1 billion euros in 2019, up 7 per cent. Adjusted costs<sup>4</sup> were 21.5 billion euros, down 6 per cent. and in line with target, excluding transformation charges and expenses of 102 million euros incurred in the fourth quarter of 2019 associated with the Prime Finance platform being transferred to BNP Paribas and which are consistent with those eligible for reimbursement under the terms of the transfer agreement. Reimbursement is effective from December 1<sup>st</sup>, 2019, and as a result approximately one third of the aforementioned fourth-quarter cost has been recorded as reimbursable in revenues for the month of December. In the fourth quarter, noninterest expenses were 6.4 billion euros, while adjusted costs were 5.1 billion euros, down from 5.4 billion euros in the prior year quarter, excluding transformation charges. This represents the eighth consecutive year-on-year reduction in these costs excluding bank levies.

Cost reductions were achieved across all major categories except IT expenses, which remained essentially stable during 2019, reflecting Deutsche Bank's commitment to continue spending on technology and controls in line with its transformation strategy.

Compensation and benefits expenses were down in both the full year and fourth quarter, partly reflecting workforce reductions of over 4,100 full-time equivalents during 2019. Headcount at year-end was 87,597 full-time equivalents, in line with the bank's previously announced target of below 90,000.

Professional service fees were also reduced in both the fourth quarter and full year, reflecting disciplined management of non-compensation costs.

### **Transformation effects reflect rapid execution of strategy**

Deutsche Bank continued to recognise transformation effects as planned. In 2019, the bank incurred 70 per cent. of the total anticipated costs to achieve transformation between launch in July 2019 and 2022. These anticipated costs have risen by approximately 400 million euros versus prior expectations, mainly with respect to the impairment and amortisation of software which has no impact on capital.

Transformation-related effects included transformation charges of approximately 1.1 billion euros, primarily impairments and amortisation of software intangibles and real-estate charges, as well as impairments on goodwill and intangible assets of around 1.0 billion euros, transformation-related restructuring and severance charges of approximately 700 million euros, and deferred tax asset valuation adjustments of 2.8 billion euros.

<sup>1</sup> *Transformation-related effects* are financial impacts resulting from the new strategy announced on 7 July 2019. These include transformation charges, goodwill impairments in the second quarter 2019, as well as restructuring and severance expenses from the third quarter 2019 onwards. In addition to the aforementioned pre-tax items, transformation-related effects on a post-tax basis include pro-forma tax effects on the aforementioned items and deferred tax asset valuation adjustments in connection with the transformation of the Group.

<sup>2</sup> *Transformation charges* are costs, included in adjusted costs, which are directly related to Deutsche Bank's transformation as a result of the new strategy announced on 7 July 2019. Such charges include the transformation-related impairment of software and real estate,

legal fees related to asset disposals as well as the quarterly amortisation on software related to the Equities Sales and Trading business and onerous contract provisions.

<sup>3</sup> **Specific revenue items** generally fall outside the usual nature or scope of the business and are likely to distort an accurate assessment of the divisional operating performance.

<sup>4</sup> **Adjusted costs** are calculated by deducting (i) impairment of goodwill and other intangible assets, (ii) litigation charges, net and (iii) restructuring and severance from noninterest expenses under IFRS.

## Group results at a glance

in (unless stated otherwise)	€	m.	Q4 2019	Q4 2018	Absolute Change	Change in %	FY 2019	FY 2018	Absolute Change	Change in %
<b>Net revenues:</b>										
Of which:										
Corporate Bank (CB)			1,291	1,353	(62)	(5)	5,264	5,263	1	0
Investment Bank (IB)			1,520	1,344	176	13	6,961	7,467	(506)	(7)
Private Bank (PB)			1,986	2,077	(91)	(4)	8,245	8,641	(396)	(5)
Asset Management (AM)			671	514	157	31	2,332	2,187	146	7
Corporate & Other (C&O)			59	(8)	68	N/M	155	(120)	274	N/M
Capital Release Unit (CRU)			(179)	294	(473)	N/M	208	1,878	(1,670)	(89)
<b>Total net revenues</b>			<b>5,349</b>	<b>5,575</b>	<b>(226)</b>	<b>(4)</b>	<b>23,165</b>	<b>25,316</b>	<b>(2,151)</b>	<b>(8)</b>
<b>Provision for credit losses</b>			<b>247</b>	<b>252</b>	<b>(5)</b>	<b>(2)</b>	<b>723</b>	<b>525</b>	<b>199</b>	<b>38</b>
<b>Noninterest expenses:</b>										
Compensation and benefits			2,691	2,903	(212)	(7)	11,142	11,814	(672)	(6)
General and administrative expenses			3,317	2,637	680	26	12,253	11,286	966	9
Impairment of goodwill and other intangible assets			(0)	0	(0)	N/M	1,037	0	1,037	N/M
Restructuring activities			387	102	285	N/M	644	360	283	79
<b>Total noninterest expenses</b>			<b>6,395</b>	<b>5,642</b>	<b>753</b>	<b>13</b>	<b>25,076</b>	<b>23,461</b>	<b>1,615</b>	<b>7</b>
<b>Profit (loss) before tax</b>			<b>(1,293)</b>	<b>(319)</b>	<b>(974)</b>	<b>N/M</b>	<b>(2,634)</b>	<b>1,330</b>	<b>(3,965)</b>	<b>N/M</b>
Income tax expense (benefit)			191	90	101	113	2,630	989	1,641	166
<b>Profit (loss)</b>			<b>(1,483)</b>	<b>(409)</b>	<b>(1,075)</b>	<b>N/M</b>	<b>(5,265)</b>	<b>341</b>	<b>(5,606)</b>	<b>N/M</b>
Profit (loss) attributable to noncontrolling interests			35	17	18	110	125	75	50	68
Profit (loss) attributable to Deutsche Bank shareholders and additional equity components			(1,518)	(425)	(1,093)	N/M	(5,390)	267	(5,657)	N/M
Profit (loss) attributable to additional equity components			83	82	1	2	328	319	9	3
Profit (loss) attributable to Deutsche Bank shareholders			(1,602)	(507)	(1,094)	N/M	(5,718)	(52)	(5,666)	N/M
<b>Common Equity Tier 1 ratio</b>			<b>13.6 %</b>	<b>13.6 %</b>	<b>0.1 ppt</b>	<b>N/M</b>	<b>13.6 %</b>	<b>13.6 %</b>	<b>0.1 ppt</b>	<b>N/M</b>
<b>Leverage ratio (fully loaded)</b>			<b>4.2 %</b>	<b>4.1 %</b>	<b>0.1 ppt</b>	<b>N/M</b>	<b>4.2 %</b>	<b>4.1 %</b>	<b>0.1 ppt</b>	<b>N/M</b>
<b>Leverage ratio (phase-in)</b>			<b>4.3 %</b>	<b>4.3 %</b>	<b>(0.0) ppt</b>	<b>N/M</b>	<b>4.3 %</b>	<b>4.3 %</b>	<b>(0.0) ppt</b>	<b>N/M</b>
Loans (gross of allowance for loan losses, in € bn) <sup>1</sup>			434	405	30	7	434	405	30	7
Deposits (in € bn) <sup>1</sup>			572	564	8	1	572	564	8	1
Employees (full-time equivalent) <sup>1</sup>			87,597	91,737	(4,140)	(5)	87,597	91,737	(4,140)	(5)

N/M – Not meaningful

<sup>1</sup> As of quarter-end.

## Business segment performance

### Corporate Bank

**Fourth-quarter net revenues** were 1.3 billion euros, down 5 per cent., both on a reported basis and adjusted for specific revenue items.

**Global Transaction Banking** revenues were 942 million euros, down 6 per cent., mainly driven by lower levels of smaller episodic items in the current quarter including lower credit recoveries and the non-recurrence of a gain on an investment. Cash Management revenues were impacted by lower interest rates, partly offset by a shift in deposit mix and deposit tiering and pricing measures introduced partway through the quarter. Trade Finance revenues declined slightly due to a slowdown in structured products and lower insurance recoveries while Securities Services revenues were impacted by the bank's exit from Equities trading activities.

**Commercial Banking** revenues were 350 million euros, down 2 per cent. year-on-year, as the impact from negative interest rates was partly offset by loan growth.

Full-year net revenues were 5.3 billion euros, essentially flat year-on-year. Growth in Cash Management, Trade Finance and Trust & Agency Services was offset by lower Securities Services revenues, mainly driven by the non-recurrence of a prior year gain on sale and the impact of the exit from Equities trading activities. Commercial Banking revenues were up 4 per cent., driven by both loan growth and higher fee income.

**Noninterest expenses** were 1.3 billion euros in the fourth quarter, up 38 per cent., including 154 million euros of transformation charges and 123 million euros in costs for severance and restructuring. Adjusted costs excluding transformation charges rose 12 per cent., driven by higher spending on technology and internal controls and higher internal service cost allocations. Full-year noninterest expenses were 4.8 billion euros, up 26 per cent., driven by transformation charges of 160 million euros, costs for severance and restructuring of 150 million euros and goodwill impairments of 492 million euros.

**Provision for credit losses** for the full year 2019 increased to 286 million euros, or 24 basis points of loans, driven by a small number of specific names.

**Profit before tax:** the Corporate Bank reported a loss before tax of 107 million euros in the quarter. Adjusted for transformation charges and restructuring and severance, profit before tax was 170 million euros. Full-year profit before tax was 137 million euros. Adjusted for the aforementioned items, goodwill impairments and specific revenue items, pre-tax profit was 939 million euros, versus 1.3 billion euros in 2018.

### Corporate Bank results at a glance

in € (unless stated otherwise)	m.	Q4 2019	Q4 2018	Absolute Change	Change in %	FY 2019	FY 2018	Absolute Change	Change in %
<b>Net revenues:</b>									
Global Transaction Banking		942	998	(56)	(6)	3,842	3,901	(59)	(2)
Commercial Banking		350	356	(6)	(2)	1,422	1,362	60	4
<b>Total net revenues</b>		<b>1,291</b>	1,353	(62)	(5)	<b>5,264</b>	5,263	1	0
Provision for credit losses		104	87	17	20	286	145	141	97
<b>Noninterest expenses:</b>									
Compensation and benefits		269	261	9	3	1,044	1,035	9	1
General and administrative expenses		906	668	238	36	3,169	2,780	389	14
Impairment of goodwill and other intangible assets		(0)	0	(0)	N/M	492	0	492	N/M
Restructuring activities		119	11	107	N/M	137	31	106	N/M
<b>Total noninterest expenses</b>		<b>1,294</b>	940	354	38	<b>4,842</b>	3,846	996	26
Noncontrolling interests		0	0	0	N/M	0	0	0	N/M
<b>Profit (loss) before tax</b>		<b>(107)</b>	327	(433)	N/M	<b>137</b>	1,273	(1,136)	(89)
<b>Total assets (in € bn)<sup>1</sup></b>									
		228	215	13	6	228	215	13	6
<b>Loans (gross of allowance for loan losses, in € bn)<sup>1</sup></b>									
		118	113	5	5	118	113	5	5
<b>Employees (front-office full-time equivalent)<sup>1</sup></b>									
		7,428	7,353	75	1	7,428	7,353	75	1

N/M – Not meaningful

<sup>1</sup> As of quarter-end.

### Investment Bank

**Fourth-quarter net revenues** were 1.5 billion euros, up 13 per cent. Excluding specific revenue items, revenues were up 22 per cent.

**Fixed Income & Currency (FIC) Sales & Trading** revenues were 1.2 billion euros, up 31 per cent., and up 34 per cent. excluding specific revenue items. Credit Trading saw strong growth driven by flow and distressed businesses, while Foreign Exchange revenues were essentially flat.

Rates and Emerging Markets Debt delivered strong year-on-year growth; a near-doubling of revenues in Rates, both quarter-on-quarter and year-on-year, reflected an improved trading environment and higher client flows. **Origination & Advisory** revenues were 340 million euros, down 12 per cent. Growth of 27 per cent. in Debt Origination revenues was more than offset by significantly lower Advisory revenues after a strong third quarter.

Full-year net revenues were 7.0 billion euros, down 7 per cent. year-on-year and down 3 per cent. adjusted for specific revenue items. FIC Sales & Trading was essentially flat, as was Debt Origination, while revenues were lower in both Advisory and Equity Origination.

**Noninterest expenses** rose by 5 per cent. to 1.6 billion euros in the quarter. Adjusted costs, excluding transformation charges of 137 million euros, were down 7 per cent. versus the prior year quarter and 6 per cent. in the full year. This reduction was driven by a reduction in front-office workforce and related compensation expenses, lower service cost allocations and disciplined management of non-compensation costs. Full-year noninterest expenses were down 2 per cent. to 6.4 billion euros, despite transformation charges of 214 million euros.

**Provision for credit losses** was 20 basis points in the fourth quarter, and for the full year remained low at 14 basis points of loans.

**Profit before tax:** the Investment Bank reported a loss before tax of 71 million euros in the quarter. Adjusted for transformation charges, restructuring and severance as well as specific revenue items, profit before tax in the fourth quarter was 136 million euros. Full-year profit before tax was 433 million euros, while adjusted for aforementioned items, full-year profit before tax was 863 million euros.

### Investment Bank results at a glance

in € m. (unless stated otherwise)	Q4 2019	Q4 2018	Absolute Change	Change in %	FY 2019	FY 2018	Absolute Change	Change in %
<b>Net revenues:</b>								
Fixed Income, Currency (FIC) Sales & Trading	1,188	909	280	31	5,534	5,646	(111)	(2)
Equity Origination	37	39	(2)	(6)	123	184	(61)	(33)
Debt Origination	260	205	55	27	1,117	1,145	(27)	(2)
Advisory	44	144	(100)	(70)	366	456	(90)	(20)
Origination & Advisory	340	388	(48)	(12)	1,606	1,784	(178)	(10)
Other	(8)	48	(56)	N/M	(179)	37	(217)	N/M
<b>Total net revenues</b>	<b>1,520</b>	1,344	176	13	<b>6,961</b>	7,467	(506)	(7)
Provision for credit losses	38	45	(7)	(15)	109	70	38	54
<b>Noninterest expenses:</b>								
Compensation and benefits	621	614	8	1	2,468	2,666	(199)	(7)
General and administrative expenses	867	847	20	2	3,763	3,650	113	3
Impairment of goodwill and other intangible assets	0	0	0	N/M	0	0	0	N/M
Restructuring activities	65	24	41	169	169	200	(31)	(15)
<b>Total noninterest expenses</b>	<b>1,553</b>	1,484	69	5	<b>6,401</b>	6,517	(116)	(2)
Noncontrolling interests	0	0	(0)	(40)	20	24	(4)	(18)
<b>Profit (loss) before tax</b>	<b>(71)</b>	(185)	114	(62)	<b>433</b>	856	(423)	(49)
<b>Total assets (in € bn)<sup>1</sup></b>	<b>503</b>	458	45	10	<b>503</b>	458	45	10
Loans (gross of allowance for loan losses, in € bn) <sup>1</sup>	75	65	10	16	75	65	10	16
Employees (front-office full-time equivalent) <sup>1</sup>	10,095	9,960	135	1	10,095	9,960	135	1

N/M – Not meaningful

<sup>1</sup> As of quarter-end.

### Private Bank

**Fourth-quarter net revenues** were 2.0 billion euros, down 4 per cent., or down 2 per cent. if adjusted for specific revenue items.

Revenues in the **Private Bank Germany** declined 7 per cent., reflecting interest rate-driven compression of deposit margins, funding cost allocations and lower gains from asset sales. This was partly offset by the 7<sup>th</sup> consecutive quarter of loan growth, with 2 billion euros in net new client loans, mainly mortgages. **Private and Commercial Business International** revenues were up 3 per cent. as strong growth in loan products and investment products, combined with repricing measures, offset margin compression. **Wealth Management** revenues were down 3 per cent., due to a 14 million-euro decline in revenues relating to Sal. Oppenheim legacy workout activity and the non-recurrence of a 40 million-euro gain on a property sale in Sal. Oppenheim in the prior year quarter. Adjusting for these items, revenues were up 11 per cent., reflecting improved market conditions and targeted hiring.

Full-year net revenues were 8.2 billion euros, down 5 per cent. Excluding specific revenue items, revenues were down 2 per cent., as loan growth and an increase in fee income, together with repricing measures, materially offset interest rate headwinds.

**Provision for credit losses** remained stable at 15 basis points of loans in 2019.

**Fourth-quarter noninterest expenses** were 2.2 billion euros, up 10 per cent. Adjusted costs excluding transformation charges were 1.8 billion euros, down 5 per cent., reflecting benefits from reorganisation measures and strict cost discipline. Full-year noninterest expenses were 8.2 billion euros, up 8 per cent., reflecting the second-quarter goodwill impairment of 545 million euros, severance and restructuring costs of 158 million euros and transformation charges of 191 million euros. However, adjusted costs excluding transformation charges were down 4 per cent., primarily reflecting approximately 200 million euros of merger-related cost synergies in the Private Bank Germany.

**Profit before tax:** the Private Bank reported a loss of 283 million euros in the fourth quarter. Adjusted for transformation charges, restructuring and severance and specific revenue items, profit before tax in the fourth quarter was 45 million euros. In the full year, the business reported a loss before tax of 265 million euros. Adjusted for aforementioned items and goodwill impairments, full-year profit before tax was 524 million euros.

## Private Bank results at a glance

in € m. (unless stated otherwise)	Q4 2019	Q4 2018	Absolute Change	Change in %	FY 2019	FY 2018	Absolute Change	Change in %
<b>Net revenues:</b>								
Private Bank Germany	1,209	1,295	(86)	(7)	5,116	5,453	(337)	(6)
Private and Commercial Business International <sup>1</sup>	358	349	9	3	1,442	1,441	1	0
Wealth Management	419	433	(15)	(3)	1,687	1,748	(61)	(3)
<b>Total net revenues</b>	<b>1,986</b>	<b>2,077</b>	<b>(91)</b>	<b>(4)</b>	<b>8,245</b>	<b>8,641</b>	<b>(396)</b>	<b>(5)</b>
Of which:								
Net interest income	1,260	1,334	(74)	(6)	5,133	5,217	(84)	(2)
Commissions and fee income	748	628	120	19	2,925	2,826	99	4
Remaining income	(21)	115	(137)	N/M	187	598	(411)	(69)
Provision for credit losses	119	114	5	5	342	347	(5)	(1)
<b>Noninterest expenses:</b>								
Compensation and benefits	867	931	(64)	(7)	3,519	3,613	(93)	(3)
General and administrative expenses	1,118	971	148	15	3,978	3,932	46	1
Impairment of goodwill and other intangible assets	(0)	0	(0)	N/M	545	0	545	N/M
Restructuring activities	165	52	113	N/M	126	49	77	155
<b>Total noninterest expenses</b>	<b>2,150</b>	<b>1,954</b>	<b>197</b>	<b>10</b>	<b>8,168</b>	<b>7,593</b>	<b>575</b>	<b>8</b>
Noncontrolling interests	(0)	(1)	(0)	(43)	(0)	(0)	(0)	N/M
<b>Profit (loss) before tax</b>	<b>(283)</b>	<b>11</b>	<b>(293)</b>	<b>N/M</b>	<b>(265)</b>	<b>701</b>	<b>(966)</b>	<b>N/M</b>
<b>Total assets (in € bn)<sup>2</sup></b>	<b>283</b>	<b>289</b>	<b>(6)</b>	<b>(2)</b>	<b>283</b>	<b>289</b>	<b>(6)</b>	<b>(2)</b>
Loans (gross of allowance for loan losses, in € bn) <sup>2</sup>	230	221	9	4	230	221	9	4
Assets under Management (in € bn) <sup>2</sup>	487	451	36	8	487	451	36	8
Employees (front-office full-time equivalent) <sup>2</sup>	37,266	38,415	(1,149)	(3)	37,266	38,415	(1,149)	(3)

N/M – Not meaningful

<sup>1</sup> Covers operations in Belgium, India, Italy and Spain.

<sup>2</sup> As of quarter-end.

## Asset Management

**Fourth-quarter net revenues** were 671 million euros, up 31 per cent., while full-year net revenues were 2.3 billion euros, up 7 per cent., driven by a significant rise in performance fees in the key areas of Multi-Asset and Alternatives. Management fees were slightly higher in the quarter and essentially flat for the full year, as four consecutive quarters of net asset inflows helped offset the impact of margin compression.

**Noninterest expenses** were 438 million euros in the fourth quarter, up 3 per cent. Adjusted costs, excluding transformation charges of 21 million euros, were up 9 per cent. to 419 million euros, reflecting higher compensation and benefits and the non-recurrence of a positive adjustment in service provider allocations for the year 2018. Full-year costs were essentially flat as higher compensation expenses were offset by savings in professional service fees and marketing expenses.

**Profit before tax** was 177 million euros in the fourth quarter and tripled year-on-year. Adjusted for transformation charges as well as restructuring and severance expenses, profit before tax in the fourth quarter was 202 million euros. Full-year profit before tax was 468 million euros, up 27 per cent., or 539 million euros if adjusted for the aforementioned effects.

**Fourth-quarter net inflows** were 12 billion euros, the fourth consecutive quarter of net inflows. For the year 2019, net inflows were 25 billion euros, compared to net outflows of 23 billion euros in 2018, with positive flows across the key product areas of Multi-Asset, Alternatives and Passive. Asset Management achieved a positive net flow rate of 4 per cent., in line with its 3-5 per cent. target.

**Assets under management** grew by 103 billion euros, or 16 per cent., to 768 billion euros during 2019, driven both by market performance and net inflows. Flagship products delivered substantial

outperformance, while the number of 4- and 5-star Morningstar rated funds increased further in 2019.

### Asset Management results at a glance

in (unless stated otherwise)	€	m.	Q4 2019	Q4 2018	Absolute Change	Change in %	FY 2019	FY 2018	Absolute Change	Change in %
<b>Net revenues:</b>										
Management Fees			552	521	32	6	2,141	2,115	26	1
Performance and transaction fees			104	23	80	N/M	201	91	111	122
Other			15	(30)	45	N/M	(10)	(19)	9	(48)
<b>Total net revenues</b>			<b>671</b>	514	157	31	<b>2,332</b>	2,187	146	7
<b>Provision for credit losses</b>			<b>1</b>	0	1	N/M	<b>1</b>	(1)	2	N/M
<b>Total noninterest expenses:</b>										
Compensation and benefits			210	210	1	0	832	787	45	6
General and administrative expenses			230	211	19	9	851	929	(78)	(8)
Impairment of goodwill and other intangible assets			0	0	0	N/M	0	0	0	N/M
Restructuring activities			(2)	7	(9)	N/M	29	19	10	51
<b>Total noninterest expenses</b>			<b>438</b>	427	11	3	<b>1,711</b>	1,735	(23)	(1)
<b>Noncontrolling interests</b>			<b>55</b>	27	28	103	<b>152</b>	85	68	80
<b>Profit (loss) before tax</b>			<b>177</b>	59	118	199	<b>468</b>	368	99	27
<b>Total assets (in € bn)<sup>1</sup></b>										
			<b>10</b>	10	(0)	(1)	<b>10</b>	10	(0)	(1)
<b>Assets under Management (in € bn)<sup>1</sup></b>										
			<b>768</b>	664	103	16	<b>768</b>	664	103	16
Employees (front-office equivalent) <sup>1</sup>		full-time	3,924	4,013	(89)	(2)	3,924	4,013	(89)	(2)

N/M – Not meaningful

<sup>1</sup> As of quarter-end.

### Corporate & Other

Corporate & Other reported a fourth-quarter pre-tax loss of 154 million euros, compared to a loss before tax of 109 million euros in the fourth quarter of 2018, and a full-year loss before tax of 229 million euros versus a loss before tax of 433 million euros in 2018. The negative quarterly development was largely driven by higher funding and liquidity charges reflecting certain funding costs held centrally, reflecting the bank's funds transfer pricing framework. A higher positive contribution from valuation and timing differences offset higher litigation expenses.

The reduction in full-year loss before tax was mainly driven by higher income from valuation and timing differences, partly offset by higher litigation expense and higher funding and liquidity charges.

### Corporate & Other results at a glance

in (unless stated otherwise)	€	m.	Q4 2019	Q4 2018	Absolute Change	Change in %	FY 2019	FY 2018	Absolute Change	Change in %
<b>Net revenues</b>			<b>59</b>	(8)	68	N/M	<b>155</b>	(120)	274	N/M
<b>Provision for credit losses</b>			<b>(1)</b>	(2)	1	(38)	<b>0</b>	1	(0)	(84)
<b>Noninterest expenses:</b>										
Compensation and benefits			663	758	(95)	(12)	2,836	3,079	(242)	(8)
General and administrative expenses			(395)	(629)	234	(37)	(2,320)	(2,656)	336	(13)
Impairment of goodwill and other intangible assets			0	0	0	N/M	0	0	0	N/M
Restructuring activities			0	(1)	1	N/M	40	(1)	41	N/M
<b>Total noninterest expenses</b>			<b>269</b>	129	140	108	<b>556</b>	421	135	32
<b>Noncontrolling interests</b>			<b>(54)</b>	(27)	(28)	104	<b>(173)</b>	(109)	(64)	58
<b>Profit (loss) before tax</b>			<b>(154)</b>	(109)	(45)	41	<b>(229)</b>	(433)	204	(47)
Employees (full-time equivalent) <sup>1</sup>			<b>27,679</b>	29,463	(1,784)	(6)	<b>27,679</b>	29,463	(1,784)	(6)

N/M – Not meaningful

<sup>1</sup> As of quarter-end.

## Capital Release Unit

**Leverage exposure** was 127 billion euros at quarter-end, 13 billion euros ahead of the 2019 target, primarily due to reductions across Equities portfolios. This represents a full-year reduction of 55 per cent. versus 281 billion euros at the end of 2018.

**Risk weighted assets (RWAs)** were 46 billion euros, 6 billion euros below the year-end target of 52 billion euros, and compared to 56 billion euros at the end of the previous quarter and down by 36 per cent. versus 72 billion euros at the end of 2018.

**Net revenues** were negative 179 million euros in the fourth quarter, broadly in line with expectations, driven by negative mark-to-market impacts, hedging and de-risking costs. Full year revenues were 208 million euros, down 89 per cent., reflecting the non-recurrence of revenues associated with discontinued business activities and the aforementioned effects.

**Noninterest expenses** were 691 million euros in the quarter, down 10 per cent. versus the third quarter of 2019. Adjusted costs excluding transformation charges decreased by 11 per cent. to 497 million euros, principally reflecting reductions in headcount from the initial impact of business exits. Full-year noninterest expenses were 3.4 billion euros, essentially flat versus 2018.

**Loss before income taxes** was 856 million euros in the quarter, and 3.2 billion euros in the full year after transformation charges of 510 million euros and severance and restructuring costs of 157 million euros. Both fourth-quarter and full-year results were ahead of management expectations.

### Capital Release Unit at a glance

in € (unless stated otherwise)	m.	Q4 2019	Q4 2018	Absolute Change	Change in %	FY 2019	FY 2018	Absolute Change	Change in %
Net revenues		(179)	294	(473)	N/M	208	1,878	(1,670)	(89)
Provision for credit losses		(14)	9	(22)	N/M	(14)	(36)	22	(61)
<b>Noninterest expenses:</b>									
Compensation and benefits		60	131	(71)	(55)	443	635	(192)	(30)
General and administrative expenses		592	569	22	4	2,811	2,652	159	6
Impairment of goodwill and other intangible assets		0	0	0	N/M	0	0	0	N/M
Restructuring activities		40	7	32	N/M	143	62	81	132
Total noninterest expenses		691	708	(17)	(2)	3,397	3,349	49	1
Noncontrolling interests		(0)	0	(0)	N/M	1	1	1	136
Profit (loss) before tax		(856)	(422)	(434)	103	(3,177)	(1,435)	(1,742)	121
Total assets (in € bn) <sup>1</sup>		259	370	(111)	(30)	259	370	(111)	(30)
Employees (front office full-time equivalent) <sup>1</sup>		1,205	2,534	(1,329)	(52)	1,205	2,534	(1,329)	(52)

N/M – Not meaningful

<sup>1</sup> As of quarter-end.

On 30 January 2020, Deutsche Bank confirmed that the annual report 2019 will be published on 20 March 2020.

### Consolidated Loss Estimate of Deutsche Bank Aktiengesellschaft (the “Company”) as of and for the year ended December 31, 2019

The consolidated loss before income taxes estimate of Deutsche Bank Aktiengesellschaft as of and for the year ended on December 31, 2019 (“Loss Estimate”) amounts to EUR (2.6) billion.

## Explanatory Notes

The consolidated Loss Estimate is based on the following factors and assumptions:

- Based on Management's knowledge as of today the consolidated Loss Estimate of the Company has been properly compiled in accordance with IDW AcS HFA 2.003 (Compilation of profit estimates according to the special requirements of the Prospectus Regulation and profit estimates on the basis of preliminary results) on the basis of the established financial reporting process of the Company using the accounting policies of the Company as outlined in the Notes "Significant Accounting Policies and Critical Accounting Estimates" and "Recently Adopted and New Accounting Pronouncements" in the Consolidated Financial Statements 2018 as well as in the Note "Impact of Changes in Accounting Principles" in the Interim Consolidated Financial Statements as of June 30, 2019.
- As the consolidated Loss Estimate is prepared on the basis of assumptions about past events and actions, it naturally entails substantial uncertainties. Because of these uncertainties it is possible that the actual consolidated loss of the Company for the period from January 1, 2019 to December 31, 2019 may differ materially from the estimated consolidated loss.
- As the consolidated Loss Estimate is prepared on the basis of unaudited financial information the results of the audit prepared by an independent auditor may impact the basis for the Loss Estimate. Furthermore, the consolidated financial information of the Company is subject to the approval of the Supervisory Board which has not been carried out yet. Therefore, it is possible that the actual consolidated loss of the Company for the period from January 1, 2019 to December 31, 2019 may differ materially from the estimated consolidated loss.
- On January 1, 2019, the Group adopted IFRS 16, "Leases", which introduces a single lessee accounting model. The transition resulted in a reduction of total equity of € 137 million, net of tax. In addition, provisions previously recognized for onerous operating leases as well as accrued operating liabilities were derecognized upon transition, and the value of the right-of-use assets was reduced by that same amount. The impact upon adoption resulted in an € 3.2 billion and € 3.6 billion increase in the balance sheet related to the recognition of right of use assets and corresponding liabilities, respectively. This led to an overall reduction in retained earnings of € 136 million, net of tax.
- On October 1, 2019, the Group adopted the amendments to IFRS 9, "Financial Instruments", IAS 39, "Financial Instruments: Recognition and Measurement" and IFRS 7, "Financial Instruments: Disclosures" that the IASB issued in Phase 1 of their project in 2019 regarding the potential effects on financial reporting of the reform of the Interbank Offered Rates (IBOR). The amendments provide relief for specific hedge accounting requirements to address uncertainties in the period arising from the phase out of IBOR-benchmarks. Furthermore, specific disclosure requirements for the affected hedging relationships are being introduced. The amendments did not have a material impact on the Group's consolidated financial statements 2019.

**Auditor's Report on the consolidated Loss Estimate of Deutsche Bank Aktiengesellschaft, Frankfurt am Main ("Company") for the Fiscal Year 2019**

To Deutsche Bank Aktiengesellschaft, Frankfurt am Main

We have examined whether the consolidated Loss Estimate, defined as the income/loss before income taxes ("IBIT"), prepared by Deutsche Bank Aktiengesellschaft ("Company"), for the period from January 1, 2019 to December 31, 2019 has been properly compiled on the basis stated in the explanatory notes to the consolidated Loss Estimate and whether this basis is consistent with the accounting policies of the Company. The consolidated Loss Estimate comprises the consolidated Loss Estimate for the period from January 1, 2019 to December 31, 2019 and explanatory notes to the consolidated Loss Estimate.

The preparation of the consolidated Loss Estimate including the factors and assumptions presented in the explanatory notes to the consolidated Loss Estimate is the responsibility of the Company's management.

Our responsibility is to express an opinion based on our examination on whether the consolidated Loss Estimate has been properly compiled on the basis stated in the explanatory notes to the consolidated Loss Estimate and whether this basis is consistent with the accounting policies of the Company. Our engagement does not include an examination of the assumptions identified by the Company and underlying the consolidated Loss Estimate.

We conducted our examination in accordance with IDW Prüfungshinweis: Prüfung von Gewinnprognosen und -schätzungen i.S.v. IDW RH HFA 2.003 (IDW PH 9.960.3) [IDW Auditing Practice Statement: The Audit of IBIT Forecasts and Estimates in accordance with IDW AcS HFA 2.003 (IDW AuS 9.960.3)] issued by the Institut der Wirtschaftsprüfer in Deutschland e.V. [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the examination such that material errors in the compilation of the consolidated Loss Estimate on the basis stated in the explanatory notes to the consolidated Loss Estimate and in the compilation of this basis in accordance with the accounting policies of the Company are detected with reasonable assurance.

As the consolidated Loss Estimate is prepared on the basis of assumptions about past events and actions, it naturally entails substantial uncertainties. Because of these uncertainties it is possible that the actual consolidated loss of the Company for the period from January 1, 2019 to December 31, 2019 may differ materially from the estimated consolidated loss.

We believe that our examination provides a reasonable basis for our opinion.

In our opinion, based on the findings of our examination, the consolidated Loss Estimate has been properly compiled on the basis stated in the explanatory notes to the consolidated Loss Estimate. This basis is consistent with the accounting policies of the Company.

Frankfurt/Main, February 3, 2020

KPMG AG  
Wirtschaftsprüfungsgesellschaft

Pukropski  
Wirtschaftsprüfer  
[German Public Accountant]

Böth  
Wirtschaftsprüfer  
[German Public Accountant]"