Annual Report 2019

CREATING SUSTAINABLE VALUE

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LUFTHANSA GROUP

The Lufthansa Group

The Lufthansa Group is the leading European airline group. It is composed of the segments Network Airlines, Eurowings and Aviation Services.

T001 KEY FIGURES LUFTHANSA GROUP[1)]

		2019	2018	Change in %
Revenue and result				
Total revenue	€m	36,424	35,542	2
of which traffic revenue	€m	28,136	27,801	1
Operating expenses	€m	37,124	35,164	6
Adjusted EBITDA	€m	4,718	5,016	-6
Adjusted EBIT	€m	2,026	2,836	-29
EBIT	€m	1,857	2,974	-38
Net profit/loss	€m	1,213	2,163	-44
Key balance sheet and cash flow statement figures				
Total assets	€m	42,659	38,213	12
Equity ratio	%	24.0	25.1	-1.1 pts
Net indebtedness	€m	6,662	3,489	91
Pension provisions	€m	6,659	5,865	14
Cash flow from operating activities	€m	4,030	4,109	-2
Capital expenditure (gross)[2)]	€m	3,559	3,757	-5
Adjusted free cash flow	€m	203	288	-30
Key profitability and value creation figures				
Adjusted EBITDA margin	%	13.0	14.1	-1.1 pts
Adjusted EBIT margin	%	5.6	8.0	-2.4 pts
EBIT margin	%	5.1	8.4	-3.3 pts
ROCE	%	6.1	11.1	-5.0 pts
Adjusted ROCE	%	6.6	10.6	-4.0 pts
Lufthansa share				
Share price at year-end	€	16.41	19.70	-17
Earnings per share	€	2.55	4.58	-44
Proposed dividend per share	€	–	0.80	-100
Traffic figures[3)]				
Flights	number	1,177,315	1,163,565	1
Passengers	thousands	145,190	141,935	2
Available seat-kilometres	millions	359,567	349,391	3
Revenue seat-kilometres	millions	296,511	284,639	4
Passenger load factor	%	82.5	81.5	1.0 pts
Available cargo tonne-kilometres	millions	17,378	16,349	6
Revenue cargo tonne-kilometres	millions	10,664	10,896	-2
Cargo load factor	%	61.4	66.6	-5.2 pts
Employees				
Employees as of 31 Dec	number	138,353	135,534	2
Average number of employees	number	137,784	134,330	3

1) The figures shown here and elsewhere in the report include effects from the first-time application of new accounting standards and other accounting changes. Detailed explanations and a detailed overview are provided in the chapter ↗ **Earnings, assets and financial position, p. 33ff.**, of this Annual Report. Previous year's figures have been adjusted accordingly. For ease of comparison with the forecast figures, the previous definitions have been kept in the reporting year for the year-on-year calculation of performance indicators (yields, RASK, CASK).

2) Without acquisition of equity investments.

3) Previous year's figures have been adjusted.

Date of publication: 19 March 2020.

2019 figures

36,424
Revenue in EUR m

2,026
Adjusted EBIT in EUR m

5.6
Adjusted EBIT margin in %

3,559
Capital expenditure in EUR m

203
Adjusted free cash flow in EUR m

6.6
Adjusted ROCE in %

Business segments

NETWORK AIRLINES

The Network Airlines segment comprises Lufthansa German Airlines, SWISS and Austrian Airlines. With their multi-hub strategy, the Network Airlines offer their passengers a premium, high-quality product and service, and a comprehensive route network combined with the highest level of travel flexibility.

T002 **NETWORK AIRLINES**

		2019	Change in %
Revenue	€m	23,106	2
of which traffic revenue	€m	21,375	3
Adjusted EBIT	€m	1,805	- 26
Adjusted EBIT margin	%	7.8	- 3.0 pts
Adjusted ROCE	%	12.2	- 7.2 pts
Segment capital expenditure	€m	2,605	1
Employees as of 31 Dec	number	52,741	2

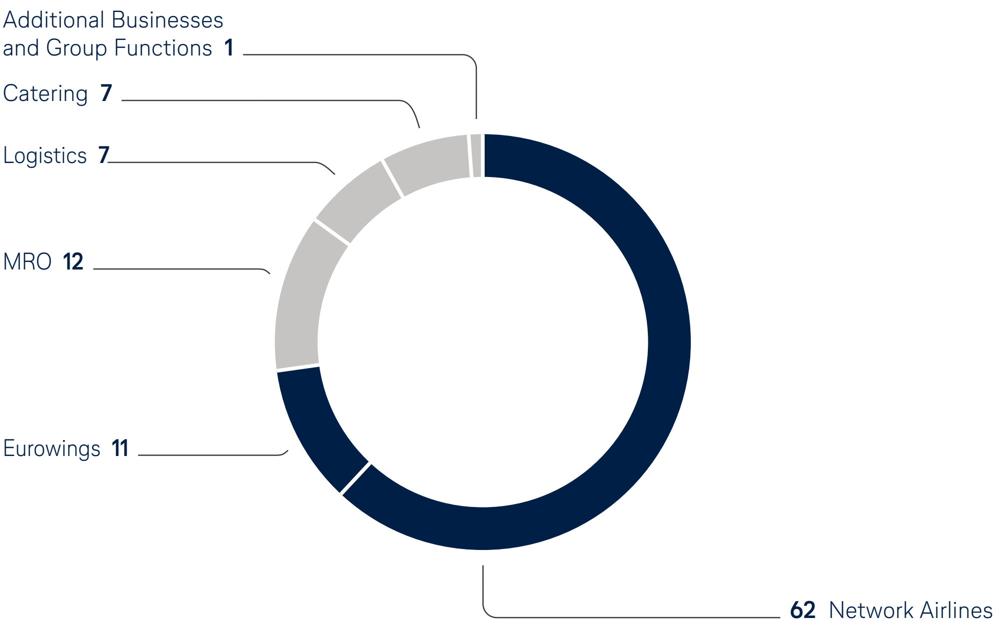
EUROWINGS

The Eurowings segment comprises the flight operations of Eurowings and Brussels Airlines. The equity investment in SunExpress is also part of this segment. Eurowings provides an innovative and competitive offering for price-sensitive and service-oriented customers in the growing European direct traffic segment.

T003 **EUROWINGS**

		2019	Change in %
Revenue	€m	4,123	1
of which traffic revenue	€m	3,987	0
Adjusted EBIT	€m	- 166	28
Adjusted EBIT margin	%	- 4.0	1.6 pts
Adjusted ROCE	%	- 4.8	3.4 pts
Segment capital expenditure	€m	260	- 50
Employees as of 31 Dec	number	8,809	- 5

C01 **Business segments' share of Group external revenue** in %



LOGISTICS

In addition to Lufthansa Cargo AG, the Lufthansa Group's logistics specialists, the Logistics segment includes the airfreight container management specialist Jettainer group, the time:matters subsidiary, which specialises in particularly urgent consignments, and the equity investment in the cargo airline AeroLogic.

T004 LOGISTICS

		2019	Change in %
Revenue	€m	2,478	-9
of which traffic revenue	€m	2,318	-9
Adjusted EBIT	€m	1	-100
Adjusted EBIT margin	%	0	-9.9 pts
Adjusted ROCE	%	0	-14.6 pts
Segment capital expenditure	€m	286	-24
Employees as of 31 Dec	number	4,539	1

MRO

Lufthansa Technik is the world's leading independent provider of maintenance, repair and overhaul services (MRO) for civilian commercial aircraft. Lufthansa Technik AG serves more than 850 customers worldwide, including OEMs, aircraft leasing companies and operators of VIP jets, as well as airlines.

T005 MRO

		2019	Change in %
Revenue	€m	6,921	13
of which external revenue	€m	4,378	11
Adjusted EBIT	€m	493	11
Adjusted EBIT margin	%	7.1	-0.2 pts
Adjusted ROCE	%	6.8	-0.6 pts
Segment capital expenditure	€m	313	28
Employees as of 31 Dec	number	26,650	8

CATERING

The LSG group offers a comprehensive range of products, concepts and services related to in-flight service. As the strongest revenue driver in the LSG group, LSG Sky Chefs offers classical catering for airlines and rail operators, as well as lounge management. It is present at 205 airports in 59 countries for more than 300 airlines and a growing number of European rail operators.

T006 CATERING

		2019	Change in %
Revenue	€m	3,360	4
of which external revenue	€m	2,623	5
Adjusted EBIT	€m	128	11
Adjusted EBIT margin	%	3.8	0.2 pts
Adjusted ROCE	%	6.4	-0.5 pts
Segment capital expenditure	€m	127	61
Employees as of 31 Dec	number	35,679	0

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Financial calendar 2020 and Disclaimer

The Executive Board
Deutsche Lufthansa AG

From left:

Detlef Kayser, Member of the Executive Board, Airline Resources & Operations Standards. Born in 1965, Aerospace engineer, Executive Board member since 2019, with the Lufthansa Group since 2016.

Thorsten Dirks, Member of the Executive Board, IT, Digital & Innovation. Born in 1963, chartered engineer, member of the Executive Board since 2017, at the Lufthansa Group since 2017.

Christina Foerster, Member of the Executive Board, Customer & Corporate Responsibility. Born in 1971, B. Sc. Hotel Administration, MBA, member of the Executive Board since 2020, at the Lufthansa Group since 2002.

Carsten Spohr, Chairman of the Executive Board and CEO. Born in 1966, industrial engineer, Chairman of the Executive Board and CEO since 1 May 2014, Executive Board member since 2011, with the Lufthansa Group since 1994.

Ulrik Svensson, Member of the Executive Board, Chief Financial Officer. Born in 1961, B.Sc. in Economics, Executive Board member since 2017, with the Lufthansa Group since 2017.

Michael Niggemann, Member of the Executive Board, Corporate Human Resources and Legal Affairs. Born in 1974, lawyer, Executive Board member since 2020, with the Lufthansa Group since 2007.

Harry Hohmeister, Member of the Executive Board, Commercial Passenger Airlines. Born in 1964, diploma in commercial air transport, Executive Board member since 2013, with the Lufthansa Group since 1985.

Ladies and gentlemen,

2019 was another demanding year for the global airline industry. Slower economic growth worldwide, trade disputes, uncertainty surrounding Brexit and overcapacities – especially in the German market – and the resulting price erosion also affected the performance of the Lufthansa Group.

Despite these difficult conditions, we can point to some successes: we have reduced our unit costs for the fourth year in succession. Lufthansa German Airlines and SWISS performed well on long-haul routes. This is also reflected in our passenger numbers, which reached new records. The comprehensive turnaround plan for Eurowings is already having an effect, and we are pleased to have been able to make further improvements to our market position in Germany, despite competition from low-cost carriers. Lufthansa Technik again made a significant contribution to group earnings in 2019. And, not least, the LSG group improved its earnings, in spite of the uncertainty related to the sale of its European business. Altogether we met the targets for 2019 which were revised at the end of the first half-year – Adjusted EBIT came to EUR 2,026m and the Adjusted EBIT margin to 5.6%.

We are not satisfied with that, but the success of the measures initiated in 2019 confirms our intention to work even harder on the further development of the Group. We have set ourselves the goal of safeguarding and strengthening our long-term market position as the leading European airline group through profitable growth. CREATING SUSTAINABLE VALUE – for our shareholders, customers, employees, and for society and the environment – is our aspiration and thus also the title of this year's annual report.

In this context, we accelerated the strategic transition of the Lufthansa Group from an aviation group to an airline group in 2019. By selling the European business of the LSG group, we are separating ourselves from an operating segment that only has minor synergies with the airlines. We are maintaining close links to the LSG group, however, by signing a long-term catering contract and thus ensuring that the in-flight catering experience is still of the highest quality under the new owner, gategroup.

With a focus on our airlines, we continued to modernise the fleet in the reporting year and introduced innovative products and services. This strengthens our premium positioning and enables us to offer our customers a high-quality travel experience. The repeated confirmation of our Five-Star rating from Skytrax underlines the success of our quality offensive.

The restructuring of the Executive Board in terms of responsibilities and individuals also reflects our concentration on the core business segment. In the new Commercial Passenger Airlines function, Harry Hohmeister is now responsible for the commercial activities of all the passenger airlines in the Lufthansa Group. Thorsten Dirks is now responsible for the new IT, Digital & Innovation function. We are all looking forward to working with Christina Foerster and Michael Niggemann, who have moved up to the Executive Board. Michael Niggemann is now in charge of Corporate Human Resources and Legal Affairs, as the successor to Bettina Volkens. The appointment of Christina Foerster to the new Customer & Corporate Responsibility function strengthens our focus on the customer and establishes social and environmental responsibility at the highest level of the Company.

Although only some 3% of global anthropogenic CO_2 emissions are the result of air traffic, we feel a growing responsibility to minimise the environmental impact of flying. To this end we have developed a comprehensive strategy consisting of measures with both an immediate and a long-term effect. They range from the continuation of our fleet renewal and different remuneration options through to support for the production of alternative fuels. Sustainable economic success is a prerequisite for all these investments, also for our social commitments. We therefore have to ensure that all the operating segments earn their cost of capital. With this aim in mind, we launched wide-ranging programmes in 2019 to safeguard earnings and cut costs at Austrian Airlines, Brussels Airlines and Lufthansa Cargo.

The beginning of 2020 has been difficult – the spread of the coronavirus and the resulting drop in demand for flights are putting immense pressure on us. We are addressing this challenge by adjusting our flight capacity flexibly to lower demand and cutting costs in all areas. In view of this exceptional situation and to further reinforce the balance sheet, we have decided to make a proposal at the Annual General Meeting not to pay a dividend for the financial year 2019. But we do not intend to lose sight of the Group's long-term strategy. We will continue to work to add value for you, our shareholders, by maintaining a balance between the interests of all stakeholders – shareholders, customers, employees, society and the environment. We on the Executive Board will dedicate ourselves wholeheartedly to this task.

We would be pleased if you would continue to accompany us on this journey.

Frankfurt, March 2020

Carsten Spohr
Chairman of the Executive Board and CEO of Deutsche Lufthansa AG

To our shareholders
Report of the Supervisory Board

Karl-Ludwig Kley,
Chairman of the Supervisory Board

Ladies and gentlemen,

In the financial year 2019, the Supervisory Board again carried out the duties conferred on it by statute, the Company's Articles of Association and its internal regulations. We supervised the work of the Executive Board members and advised them.

The Executive Board regularly provided us with full, timely information on the competitive environment, the course of business, planned Company policy and all significant strategic and operating decisions. The Executive Board also informed us regularly of changes in the shareholder structure, the performance of the Lufthansa share, transactions with derivative financial instruments and allocations to and returns from the Lufthansa pension fund. As Chairman of the Supervisory Board, I read the minutes of the Executive Board meetings and discussed the current course of business with the Chairman of the Executive Board and CEO on an ongoing basis.

Key topics discussed by the Supervisory Board

In 2019 the Supervisory Board held a total of four meetings. Our meetings focused on the economic development of Deutsche Lufthansa AG and its associated companies. Larger items of projected capital expenditure and equity investments as well as planned Group financing activities were discussed by the Supervisory Board.

At its meeting in March 2019, the Supervisory Board approved the purchase of up to 40 wide-body aircraft of various models by companies in the Lufthansa Group.

The meeting in September was dedicated to considerations on the Group's ongoing strategic development, which were discussed in detail with the Executive Board.

At its meeting in December 2019, the Supervisory Board also approved the sale of LSG group's European business to gategroup. A long-term contract for catering at the hubs in Frankfurt and Munich was signed at the same time as the sale. This is a further step towards placing the strategic focus on the airline business.

Adjustment of Executive Board remuneration
In December the Supervisory Board adopted changes to the remuneration structure for Executive Board members in place since 2019, in order to incorporate statutory reforms, the latest version of the German Corporate Governance Code (GCGC) and requests from investors. One of the decisions taken was to replace the long-term variable remuneration with a performance share plan and to include a compliance and performance clawback rule in service contracts with Executive Board members. In the spirit of value-based management, the financial indicators for the one-year variable remuneration were also changed to the Adjusted ROCE and Adjusted EBIT margin. This aligns remuneration with the Group's key performance indicators and particularly emphasises the use of capital. The holding periods for shares introduced in 2019 were also changed to introduce a fixed ramp-up period of four years, with the holding period extended to four years after a member's departure from the Executive Board.
The proportion of shares to be held may decrease pro rata after the end of the service period. At the same time, the planned investment obligation from the variable remuneration was abolished. The new system will be put to the vote at the 2020 Annual General Meeting. **https://investor-relations.lufthansagroup.com/en/corporate-governance/compensation.html.**

New Executive Board structure
Also, at the meeting in December, the Supervisory Board decided on a new Executive Board structure and approved the corresponding redistribution of responsibilities within the Executive Board. By creating the two new functions Customer & Corporate Responsibility and IT, Digital & Innovation, these important topics for the Lufthansa Group going forward are established as separate responsibilities within the Executive Board. Responsibility for Eurowings was simultaneously dissolved. In future it will be coordinated with the Group's other passenger airlines. The function Chief Commercial Officer Network Airlines was therefore renamed Commercial Passenger Airlines. This provides organisational support for the existing and increasing commercial cooperation between Network Airlines and Eurowings. Altogether the new structure aligns the Executive Board more clearly in functional terms with the airline value chain and thus makes it consistent with the current corporate strategy. The new Customer & Corporate Responsibility function ensures a permanent focus on customer needs in the spirit of the high quality standards of the Lufthansa Group's airlines, and establishes the Lufthansa Group's social and environmental responsibility directly at Executive Board level.

Changes in Executive Board membership
In December 2019, the Supervisory Board appointed Christina Foerster as Member of the Executive Board and Board member responsible for the newly established function Customer & Corporate Responsibility for three years from 1 January 2020 to 31 December 2022.

Furthermore, at its meeting in December 2019, the Supervisory Board appointed Michael Niggemann as Member of the Executive Board for Corporate Human Resources and Legal Affairs for three years from 1 January 2020 to 31 December 2022. Michael Niggemann succeeds Bettina Volkens, who left the Company by mutual agreement as of 31 December 2019. In her six years on the Executive Board, Bettina Volkens initiated an important process of profound cultural change, which has made a significant contribution to the success of the Lufthansa Group. The Supervisory Board thanks Bettina Volkens for what she has achieved and praises the significant commitment she has shown.

Following the dissolution of the Eurowings Executive Board function, Thorsten Dirks, whose appointment as member of the Executive Board had been extended by the Supervisory Board in May 2019 with effect from 1 May 2020 for three years until 30 April 2023, took over the new function of IT, Digital & Innovation with effect from 1 January 2020.

At its meeting in March 2019, the Supervisory Board had already renewed the appointment of Ulrik Svensson as Chief Financial Officer of Deutsche Lufthansa AG for the period from 1 January 2020 to 31 December 2022.

Supervisory Board elections

Monika Ribar, whose term of office ended at the close of the Annual General Meeting on 7 May 2019, was elected to the Supervisory Board for a further five years as a shareholder representative.

Corporate governance

The Supervisory Board has confirmed the basic target of 30% for the proportion of women on the Executive Board and has set 31 December 2021 as a deadline for meeting this target. Until 31 December 2019, women accounted for 17% of the Executive Board; as of 1 January 2020 they account for 14%. **www.lufthansagroup.com/corporate_governance_declaration.**

The statutory quota requiring Supervisory Boards to consist of 30% women is met by the Supervisory Board as a whole as well as by both the shareholder and employee representative groups.

We reviewed the efficiency of our working practices using a detailed questionnaire. One of the key results was to make further improvements to the structure of meetings. By making the Supervisory Board meetings longer, holding them at different Lufthansa locations, and organising information and training events on specific subjects the day before, we were able to improve the quality of debates in particular and the work of the Supervisory Board in general.

The Supervisory Board also, with the Executive Board, issued an updated declaration of compliance with the GCGC. We also updated the requirements profile for the Supervisory Board. New and revised rules adopted by the Government Commission GCGC on the independence of Supervisory Board members and limits on the number of board seats were included and/or adapted. **www.lufthansagroup.com/corporate_governance_declaration.** No conflicts of interest were disclosed in the financial year 2019.

Work of the committees

The Steering Committee met four times in 2019. It prepared the Supervisory Board meetings, occupied itself with succession planning and the remuneration system for the Executive Board and made recommendations to the full Supervisory Board on all personnel decisions concerning the Executive Board. The Nomination Committee also met four times in 2019. The Audit Committee met five times in 2019, with four of the meetings in the presence of the auditors. The Audit Committee discussed the financial statements for 2018 and the interim reports for 2019 with the CFO before their publication. The committee also dealt with the supervision of accounting processes and the effectiveness of the internal control system, risk management and internal auditing systems. Furthermore, the members received regular reports on the compliance management system. They also discussed in detail the Group operational planning for 2020 to 2023, the medium-term financial planning and the combined, non-financial reporting, which was reviewed by Pricewaterhouse-Coopers GmbH Wirtschaftsprüfungsgesellschaft, Dusseldorf. ↗ **Combined non-financial declaration, p. 79ff.** The Arbitration Committee was not convened in the reporting period. Information on the committees' work was provided at the beginning of the following Supervisory Board meeting.

Attendance at meetings

Overall, the Supervisory Board members had an attendance rate of 99% for all meetings of the committees and the Supervisory Board. An overview of individual attendance rate can be found at **https://investor-relations.lufthansagroup.com/en/corporate-governance/supervisory-board.html.**

In addition, the Supervisory Board members met for regular professional training events organised by the Company ahead of the meetings.

Audit and adoption of the annual financial statements as of 31 December 2019, approval of the consolidated financial statements, proposal for the appropriation of profit

The Supervisory Board appointed PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Dusseldorf, who were elected as auditors for the parent company and the Group at the Annual General Meeting 2019, to audit the financial statements and the consolidated financial statements, the combined management report and the system for the early identification of risks. The Audit Committee acknowledged the declaration of independence provided by PricewaterhouseCoopers and discussed the main topics of the audit. No potential grounds for disqualifying the auditors or doubting their impartiality came to light during the course of the audit.

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), taking account of interpretations by the IFRS Interpretations Committee as applicable in the European Union (EU). The auditors audited the annual financial statements and consolidated financial statements of Deutsche Lufthansa AG and the combined management report as of 31 December 2019 in accordance with the legal requirements, and had no reservations to make. They further confirmed that the system for the early identification of risks established by the Executive Board is suitable for the early identification of developments that could endanger the Company's continued existence. During their audit, the auditors did not come across any facts that would run contrary to the declaration of compliance.

On 13 March 2020, the Audit Committee discussed the audit reports in detail with the CFO in the presence of the two auditors who had signed the auditors' report. At the Supervisory Board accounts meeting on 18 March 2020, the auditors reported on their audit findings and answered questions. We examined the financial statements and the consolidated financial statements of Deutsche Lufthansa AG, as well as the combined management report and the combined non-financial declaration, and had no objections to make. The financial statements and the consolidated financial statements were approved. The 2019 annual financial statements of Deutsche Lufthansa AG as prepared by the Executive Board have thereby been adopted. We agree with the Executive Board's proposal for profit distribution.

The Supervisory Board thanks the Executive Board and all the employees for their work and for the personal commitment they have demonstrated.

Frankfurt, 18 March 2020

For the Supervisory Board
Karl-Ludwig Kley, Chairman

Lufthansa share

Lufthansa share affected by difficult market environment. | Coronavirus crisis prompts proposal to Annual General Meeting to suspend the dividend.

Lufthansa closes difficult year on the stock market with an upturn at year-end

The performance of the Lufthansa share in 2019 was marked by the economic downturn in its home markets prices and tough competition on European short-haul routes, especially in Germany and Austria. The share price fell by a total of 26% in the first nine months of the year. In the fourth quarter it recovered significantly, rising by 13%, lifted primarily by the prospect of greater capacity discipline in the industry and a calmer oil market.

The share reached its high price for the year on 26 February 2019 at EUR 23.51, followed by the low for the year on 15 August 2019 at EUR 12.85. As of year-end, the Lufthansa share traded at EUR 16.41. This represented a loss of 17% in financial year 2019. Over the same period the DAX index performed positively, rising by 26%. The poorer performance compared with key competitors, which saw price increases of between 5% and 39%, is due to structural differences in the business models, especially the share of business travellers, which is much higher at the Network Airlines of the Lufthansa Group than at their competitors. In addition, the Lufthansa Group is more dependent on the German and Austrian markets, where the economic downturn was particularly steep and competition was toughest.

Executive Board and Supervisory Board propose suspending the dividend

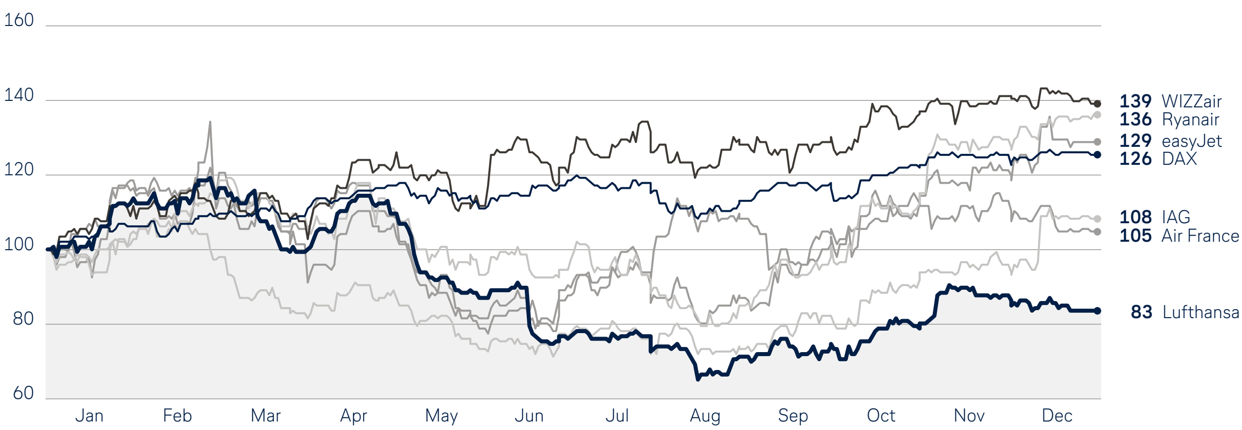
In view of the impact of the coronavirus crisis on the course of business and to further strengthen the balance sheet, the Executive Board and Supervisory Board will table a proposal at the Annual General Meeting not to pay a dividend for financial year 2019. ↗ Dividend, p. 38.

C02 **PERFORMANCE OF THE LUFTHANSA SHARE**

indexed as of 31 Dec 2018, compared with the DAX and competitors, in %

LUFTHANSA'S SHARE PRICE AS OF 31 DEC 2019

16.41 €



T007 THE LUFTHANSA SHARE: KEY FIGURES

		2019	2018	2017	2016	2015
Year-end share price	€	16.41	19.70	30.72	12.27	14.57
Highest share price	€	23.51	30.90	31.12	15.29	15.35
Lowest share price	€	12.85	17.31	11.32	9.30	10.48
Number of shares	millions	478.2	475.2	471.3	468.8	464.5
Market capitalisation (at year-end)	€bn	7.8	9.4	14.5	5.8	6.7
Earnings per share	€	2.55	4.58	4.98	3.81	3.67
Dividend per share	€	–	0.80	0.80	0.50	0.50
Dividend yield (gross)	%	–	4.1	2.6	4.1	3.4
Dividend payout	€m	–	380	377	234	232
Total shareholder return	%	-12.6	-33.3	154.4	-12.3	5.3

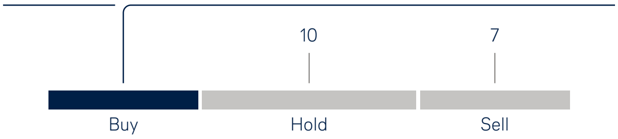
Analyst recommendations are balanced

At year-end, of the 24 equity analysts tracking the Company, seven recommended buying the share, ten holding it and seven selling it. The average target price was EUR 17.25.

C03 ANALYSTS' RECOMMENDATIONS[1]

As of 31 Dec 2019

BUY
7



[1] Average target price: EUR 17.25, average of 24 analysts. Range: EUR 12.70 to EUR 21.00.

Slight changes in foreign ownership and shareholder structure

In order to protect international air traffic rights and its operating licence, the German Aviation Compliance Documentation Act (Luftverkehrsnachweissicherungsgesetz – LuftNaSiG) requires Lufthansa to provide evidence that a majority of its shares are held by German shareholders. For this reason, all Lufthansa shares are registered shares with transfer restrictions.

At the end of 2019, the shareholders' register showed that German investors held 67.3% of the shares (previous year: 72.1%). The second largest group, with 10.4%, was shareholders from Luxembourg. Investors from USA accounted for 8.1%, followed by Ireland and the United Kingdom, each with 3.6%. This ensures compliance with the provisions of the German Aviation Compliance Documentation Act (LuftNaSiG).

The free float for Lufthansa shares is 100%, as per the definition of the Deutsche Börse. As of the reporting date, 58% of the shares were held by institutional investors (previous year: 53%) and 42% were held by private individuals (previous year: 47%).

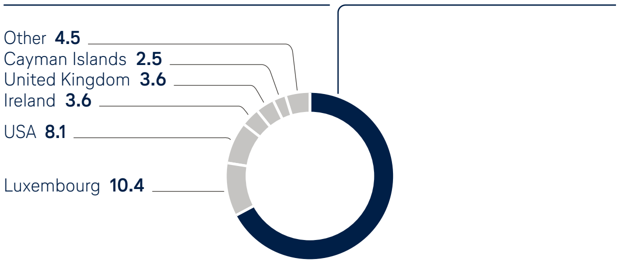
Lansdowne Partners International Ltd. and BlackRock, Inc. were the largest shareholders in the Lufthansa Group at year-end, with 4.9% and 3.1% respectively.

All the transactions requiring disclosure and published during the financial year 2019, as well as the quarterly updates on the shareholder structure, are shown on our website **www.lufthansagroup.com/investor-relations.**

C04 SHAREHOLDER STRUCTURE BY NATIONALITY

As of 31 Dec 2019 in %

GERMANY
67.3



Free float: 100%

Lufthansa is included in the DAX and other important indices

As a member of the DAX, the Lufthansa Group is one of the 30 largest publicly listed companies in Germany. At year-end, the share had an index weighting of 0.75%. With a market capitalisation of EUR 7.8bn, the Lufthansa Group came in at number 34 (previous year: 28) in the ranking of DAX companies by market capitalisation. In terms of stock market turnover, the Lufthansa share was at number 21 (previous year: 21). The average daily trading volume of the share in 2019 was 4,304,869 shares (previous year: 3,989,209 shares).

The Lufthansa share is included in many classic international share indices. It is also part of the MSCI Global Sustainability and FTSE4Good sustainability indices.

In addition to its stock market listings in Germany, investors who are only allowed to invest in securities denominated in US dollars can also gain exposure to the Lufthansa Group via the Sponsored American Depository Receipt Program (ADR). Lufthansa ADRs are also registered on the standardised trading and information platform OTCQX.

T008 THE LUFTHANSA SHARE: DATA

ISIN International Security Identification Number	DE0008232125
Security identification number	823212
German stock exchange code	LHA
Stock market listing	Frankfurt
Prime sector	Transport & Logistics
Industry	Airlines
Indices (Selection)	DAX, DivDAX Price Index, EURO STOXX, Nasdaq Europe, STOXX Global, FTSE4Good, MSCI Global Sustainability Index

Lufthansa Group pursues intensive dialogue with investors

As in prior years, the Lufthansa Group again provided all its shareholders with timely, comprehensive and objective information in 2019. In addition to the quarterly meetings, the Executive Board and Investor Relations team held many roadshows and investor conferences to inform institutional investors about current developments at the Group in 2019. In June, the management provided a full update on the company strategy as part of a capital markets day at the Group headquarters in Frankfurt. The Group welcomed more than 1,000 shareholders to its Annual General Meeting in May. Our investor relations representatives were also regularly available to answer questions at forums organised especially for private investors. The service for private shareholders also include the online annual report and the shareholder information letter, which was published four times in 2019.

In addition to the annual and interim reports, the capital markets were provided with monthly information on the latest traffic figures for the airborne companies. All the publications, financial reports, presentations and the latest news are also available at **www.lufthansagroup.com/investor-relations.** The site also contains the financial calendar and the dates of all the conferences and shareholder events that the Lufthansa Group will be attending.

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To the extent that the combined management report refers to sources other than the combined management report or the consolidated financial statements (e.g. internet sites), the contents of these sources are not part of the combined management report and are solely for informational purposes.
The references made in the combined management report are not necessarily an integral part of the combined management report.

Principles of the Group
Business activities and Group structure

Lufthansa Group is a leading European airline group. | Company portfolio consists of Network Airlines, Eurowings and Aviation Services. | Executive Board restructured.

Lufthansa Group is a leading European airline group
The Lufthansa Group is an aviation company with operations worldwide. It plays a leading role in its European home market. With 138,353 employees, the Lufthansa Group generated revenue of EUR 36,424m in the financial year 2019.

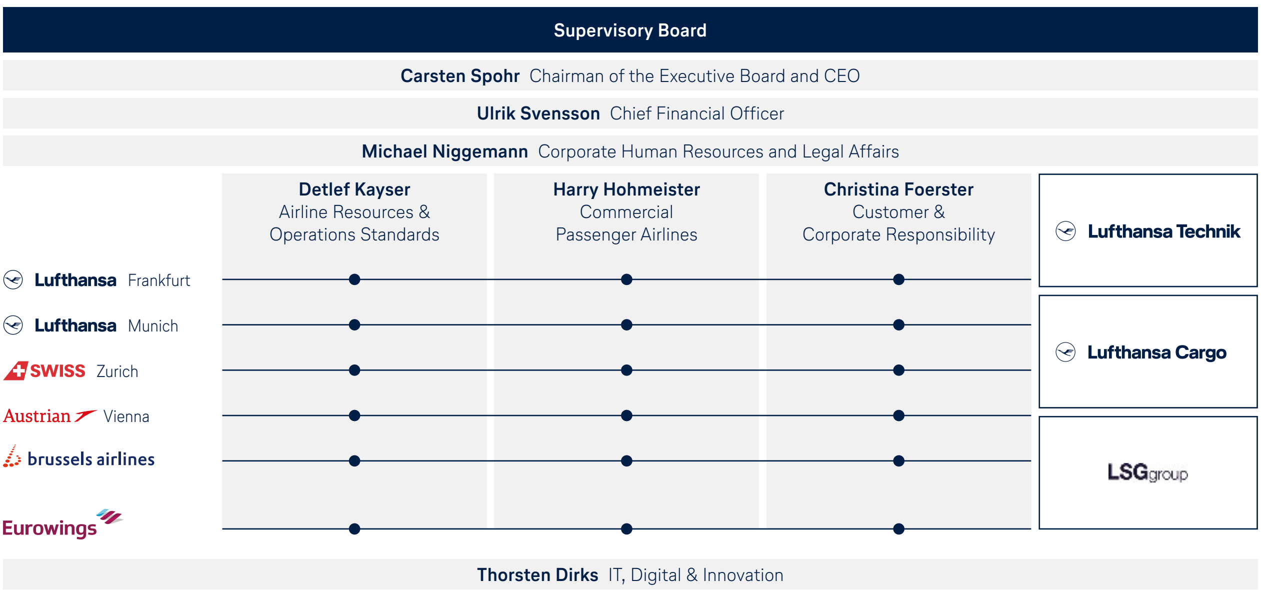
The Lufthansa Group is composed of the segments Network Airlines, Eurowings and Aviation Services. All business segments are among the leading providers in their respective industries. ↗ **Business segments, p. 45ff.**

Network Airlines comprises Lufthansa German Airlines, SWISS and Austrian Airlines. The integration of Brussels Airlines with Eurowings was stopped in the course of the reporting year. Brussels Airlines will instead move closer to Network Airlines and report as part of this operating segment from 2020. In addition, commercial responsibility for the Eurowings long-haul business was transferred to Lufthansa German Airlines. This enables Eurowings to focus in future on short-haul routes in direct traffic.

Aviation Services particularly includes the Logistics, MRO and Catering segments. As part of the focus on the airline business, a contract with gategroup was signed in late 2019 for the sale of the LSG group's European business. The Lufthansa Group also comprises the Additional Businesses and Group Functions, which consist of AirPlus, Lufthansa Aviation Training, the IT company Lufthansa Systems and others.

The business segments and the airlines are each under their own management. Overall coordination is by means of the Executive Board of the Lufthansa Group and the Group Executive Committee, which consists of the members of the Executive Board of the Lufthansa Group and the CEOs of the main companies.

C05 LUFTHANSA GROUP STRUCTURE



Executive Board restructured
The Executive Board of Deutsche Lufthansa AG was restructured in terms of responsibilities and individuals as of 1 January 2020. Its new formation reflects the strategic transition of the Lufthansa Group from an aviation group to an airline group. This should serve to sharpen customer focus, strengthen digitalisation endeavours and establish social and environmental responsibility at Executive Board level.

Carsten Spohr continues to chair the Executive Board.

Thorsten Dirks, whose contract was renewed ahead of schedule in 2019 until 30 April 2023, is responsible for the new IT, Digital and Innovation function going into 2020. He was responsible for Eurowings until the end of 2019.

Christina Foerster, formerly CEO of Brussels Airlines, was appointed to the Executive Board for three years by the Supervisory Board and has been responsible for the new Customer & Corporate Responsibility function since the start of 2020.

As the new Executive Board member for Commercial Passenger Airlines, Harry Hohmeister is responsible as of the beginning of 2020 for coordinating network planning and revenue management and for distribution and sales for all the passenger airlines in the Lufthansa Group. Until the end of 2019, Harry Hohmeister was Chief Commercial Officer Network Airlines and responsible for the commercial management of the Network Airlines.

Detlef Kayser remains responsible for Airline Resources & Operations Standards.

Michael Niggemann, formerly CFO of SWISS, was also newly appointed to the Executive Board for three years by the Supervisory Board and has been responsible for the Corporate Human Resources and Legal Affairs function since the start of 2020. The position was previously held by Bettina Volkens, who left the Company by mutual agreement as of 31 December 2019.

Ulrik Svensson, whose contract was renewed ahead of schedule until 31 December 2022 by the Supervisory Board in the reporting year, continues as Chief Financial Officer.

Goals and strategies

Market position as a leading European airline group to be strengthened by means of profitable growth. | Airlines form the core of the Lufthansa Group. | Focus is on developing premium positioning, cost reductions and profitability increases. | Consolidation, flexibility and digitalisation offer great opportunities. | Strategy aims for sustainable increases in Company value.

GROUP STRATEGY

Position as leading European airline group to be strengthened
As a leading European airline group, the aim of the Lufthansa Group is to strengthen its market position by means of profitable growth and so remain the first choice for shareholders, customers and employees in the future. In this context, the strategy aims to systematically develop the Group, which consists of Network Airlines, Eurowings and Aviation Services.

The airlines form the core of the Lufthansa Group. The differentiated portfolio of Network Airlines and Eurowings, which offers point-to-point connections, makes it possible to fully serve all relevant market segments and geographic markets with an attractive offering both for premium customers and for more price-sensitive travellers. Compared with Aviation Services, the airlines are planning to grow faster than average in the future.

Consolidation, flexibility and digitalisation continue to be regarded as the key value drivers in the aviation market. They form core elements of the Group strategy and are advanced both across segments and within the individual segments. The ongoing optimisation of cost structures and maintenance of operating quality remain the basis for the Lufthansa Group's long-term success. In addition, responsible business is an integral part of the corporate strategy, which is why the Lufthansa Group is developing its corporate responsibility activities.

Profitable expansion of market leadership in home markets
In the fast-growing airline industry, the airlines in the Lufthansa Group operate in Europe's most attractive markets. The Lufthansa Group is the market leader in its home markets of Germany, Austria and Switzerland, and it is one of the leading carriers in Belgium. It also has attractive market positions at its hubs in Frankfurt, Munich, Vienna and Zurich. Limited capacities at these airports and bottlenecks in airport infrastructure and air traffic control mean that market growth will be slower than in recent years, which should support efforts to increase profitability, especially at the leading carriers. Growth of around 2% a year is targeted for the Network Airlines.

Core business to be strengthened
The sale of the catering business signifies the transition from an aviation group to an airline group. It contributes to a sharper focus on the core airline business and is also intended to open up growth opportunities for the LSG group.

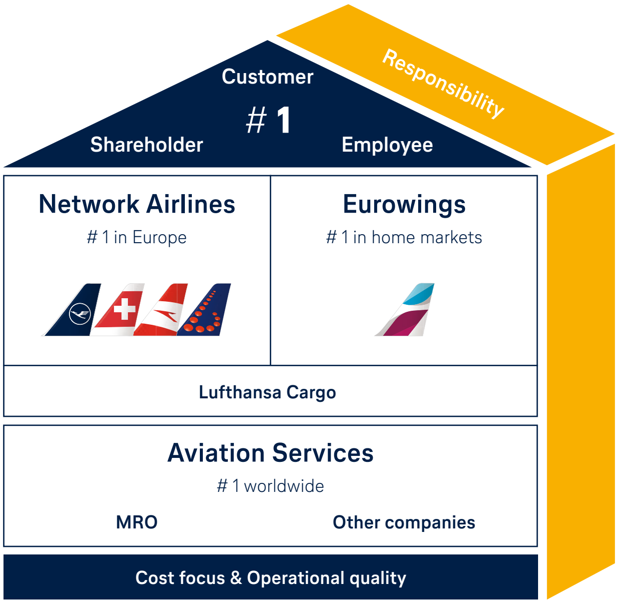
In addition, shifting line maintenance at the hubs in Frankfurt and Munich from Lufthansa Technik to Lufthansa German Airlines as of 1 January 2020 will further strengthen the aeronautical core of the Lufthansa Group.

Structuring the Group along the airline value chain helps to maximise synergies between segments and makes it possible to scale business from external markets at the same time. The aim is to consistently exploit potential synergies around the core of the Lufthansa Group. Key drivers here are joint production in the cargo business for example, by which Lufthansa Cargo transports almost half its freight in the belly capacities of the Lufthansa Group's passenger aircraft, or revenue synergies between the airlines and Miles & More in the loyalty business.

Consolidation continues
The European airline industry remains highly fragmented. The five biggest airline groups – Lufthansa Group, Air France-KLM, International Airlines Group (IAG), Ryanair and easyJet – have a cumulative market share of just 51%. In the USA, by comparison, the five leading providers account for a share of 86%. Considering this, the Lufthansa Group assumes that the consolidation of the European market will continue. This should also enable improvements in the industry's earnings.

The Lufthansa Group regularly reviews organic and inorganic options for market consolidation in all segments. At the same time, the Lufthansa Group maintains discipline in its M&A strategy.

C06 OBJECTIVE: NUMBER 1 FOR CUSTOMERS, SHAREHOLDERS AND EMPLOYEES



Flexibility enables rapid reactions in a dynamic environment
The airline industry remains defined by dynamic market and competitive conditions, including increasing exogenous uncertainties and shifts in the value chain. These include new data-driven decision-making tools that have an increasing influence on airlines' distribution, increased activity from aircraft and engine manufacturers in the maintenance business, and a political and macro-economic environment that is marked by increasing uncertainty. This dynamism makes versatility and flexible cost structures increasingly important success factors. As a shaper and innovation driver of the airline industry, the Lufthansa Group therefore persists in aligning its services, business models and organisational structures with a complex, networked and dynamic market environment. For example, the cost efficiency and adaptability of the Lufthansa Group are safeguarded by means of flexible organisational structures and competition between providers of infrastructure and other suppliers. The flexibility of the fleet is also increased by reducing the number of sub-fleets and standardising them. Adopting new aircraft technologies also contributes to reducing costs.

The Lufthansa Group strives for greater effectiveness and efficiency in its administrative areas, strengthens the establishment of lean methods as an intuitive element of everyday work, and promotes intra-Group project management.

These measures contribute to continuous improvements in process efficiency and quality and to reducing complexity. Furthermore, developing the performance and cost culture and establishing agile organisational structures for projects and decision-making also make the Group fast, flexible and attractive as an employer.

Digitalisation to be driven forward

Focused digitalisation measures help the Lufthansa Group to keep building on its position as one of the most innovative airline groups. The emphasis is on boosting efficiency and revenue in the core business and on establishing innovative new business models. The focus in the core business segment ranges from optimising the use of assets and improving the marketing of available seats through to extending digital customer services along the travel chain. One example is biometric boarding, a service currently being tested in Miami and Los Angeles, which makes the customer's travel experience more convenient and processes more efficient.

Successful examples for the development of innovative digital business models are the carbon offset platform Compensaid and the Rydes app for intermodal loyalty among young customer groups. In addition, the Lufthansa Group invests specifically in complementary digital business models, like the Canadian start-up Hopper.

Developing and identifying such new business models is the job of the multiple award-winning Lufthansa Innovation Hub. To do justice to the enormous relevance of the Asian market for travel and mobility start-ups, the Lufthansa Innovation Hub opened a second site in Singapore in 2019.

Given the great importance of IT, digitalisation and innovation, responsibility for these topics was pooled in the new Executive Board function IT, Digital & Innovation, led as of 1 January 2020 by Thorsten Dirks.

Network Airlines focus on quality strategy and improve cost-effectiveness

The Network Airlines in the Lufthansa Group offer a locally differentiated premium product to pursue a consistent quality strategy and make optimal use of the attractive customer potential in its home markets. The Five Star rating awarded to Lufthansa German Airlines by the renowned agency Skytrax, which for the first time has awarded an airline outside of Asia, is a tangible result of this quality strategy.

In the future, the focus will remain on further improving the customer's travel experience, optimising the route network and the fleet, and pursuing cost reduction initiatives. As a result, the consistent use of the potential to digitalise throughout the travel chain as well as individualised products contribute to aligning the portfolio even more closely with customer needs and opening up new sources of revenue.

In order to exploit opportunities in the growing long-distance leisure travel market, the range of long-haul connections from the hubs in Frankfurt and Munich aimed at private travellers is being increased. Some of them are carried out under the Eurowings brand, whereby on the one hand passengers benefit from the broad feeder network and high-quality ground processes of Lufthansa German Airlines, and on the other hand its global distribution strength is put to use. There will also be continuous improvements to aircraft interiors and service at all points of customer contact. Brussels Airlines is also to be positioned closer to the Network Airlines in order to make optimal use of potential synergies. To keep offering leading product quality, the Lufthansa Group invests continuously in its fleet. The Network Airlines are growing organically, largely by replacing older aircraft with recent models that boast higher seating capacities and greater fuel efficiency without significantly increasing the total number of aircraft.

The Network Airlines strive to offer an attractive, high-quality product over the long term on the basis of a stable multi-hub system. To do so, the Lufthansa Group implements measures to enhance quality in the areas under its control. Reallocating capacities within the multi-hub system, for example, is one way of supporting more even capacity use of airport infrastructure. In addition, the Lufthansa Group works with its system partners to create the conditions for high operational stability and sustainable growth in line with demand. We work with our partners to extend the position of our Network Airlines as one of the leading airline groups in both European and global hub traffic. Today, the Network Airlines already have commercial joint ventures in key long-haul markets.

Strategic initiatives by the Network Airlines are intended to achieve sustainable increases in unit revenues. Individualised services, dynamic pricing and more direct sales should have an increasingly positive impact on unit revenues, adding up to around 3% by 2022.

A consistent focus on costs remains the basis for sustained financial success. Cost-cutting continues to this end, especially in areas that have no effect on customers' perceptions of quality. They include streamlining the organisational structures of the Network Airlines and systematically harmonising their commercial management and system landscape, cutting supplier costs and those for infrastructure providers, and modernising wage agreements. Further drivers for cutting unit costs are efficiency gains in crew areas and improvements to the operating performance. Overall, the unit costs at the Network Airlines (without fuel) are planned to go down continuously by 1% to 2% per year.

Furthermore, Austrian Airlines and Brussels Airlines have adopted concrete turnaround programmes to cut costs and increase profitability. With its PE20 process efficiency programme, Austrian Airlines is aiming to increase productivity by means of significant reductions in operating and staff costs. This is intended to deliver annual cost savings of EUR 90m from 2021. Brussels Airlines plans to increase its Adjusted EBIT margin to 8% by 2022. Its focus is on simplifying and standardising operating structures and processes. This should significantly reduce costs, restructure the route network, standardise the fleet and improve reliability and punctuality. Brussels Airlines will benefit from close cooperation with the Network Airlines.

Eurowings to focus on the turnaround by 2021

With Eurowings, the Lufthansa Group has an innovative and competitive offering in direct traffic, which addresses both price-sensitive and service-oriented customers with low-cost basic fares and additional service options that can be booked flexibly.

Following its rapid growth in 2018, Eurowings focused particularly on implementing turnaround measures in 2019. At the forefront of these measures are the simplification of the group's business model and the reduction of operational complexity. As part of its new strategy, Eurowings will in future concentrate exclusively on short-haul routes, whereas responsibility for the commercial management of long-haul routes will be transferred to Lufthansa German Airlines from 2020. Brussels Airlines will be managed separately in future and moved closer to the Network Airlines. Improvements to the cost structure of Eurowings are to be driven in particular by a reduction to just one flight operation in Germany, increases in aircraft and crew productivity by adapting the network and reducing the misallocation of crew, modernising and harmonising the fleet by retiring old, high-maintenance aircraft, and reducing costs in administrative areas in line with the new exclusive focus on European short-haul routes. By simplifying its business model and cutting costs sustainably, Eurowings will lay the foundations for future growth. Break-even is planned for 2021 and unit costs are to be reduced by 15% by 2022. In the long term, the Adjusted EBIT margin should come to 7%.

To achieve lasting success in this highly competitive market, Eurowings continues to develop its point-to-point business model and digital competences. Technological developments enable greater personalisation of product and service offerings to increase ticket and other revenue. Eurowings Digital was established in summer 2018 as a multi-channel distribution platform and is responsible for connecting new portfolio partners, such as FREE NOW (formerly: myTaxi) and Flixbus, and for selling additional services along the entire travel chain. Eurowings aspires to increase other revenue by around 9% per passenger and year, for example by introducing dynamic pricing for luggage and seating. The increase was at the desired level in 2019.

Eurowings is managed largely independent of the Network Airlines, in order to make optimal use of the structural cost advantages of the point-to-point model. At the same time it benefits from belonging to one of the world's largest airline groups and its wide range of aviation services; from economies of scale in fleet purchases, for instance, and the maintenance competence of Lufthansa Technik.

Aviation Services are seizing growth opportunities and being developed accordingly

With its Aviation Services, the Lufthansa Group has several companies that are global leaders in their respective sectors. In order to build on their successful positioning and deliver profitable growth, Aviation Services are permanently adapting their business models to changing value chains and competitive environments. Lufthansa Technik will expand its portfolio in the field of intelligent maintenance management by means of data-based products and services, for instance, and continue to invest in digital innovations to improve its product portfolio. Expansion will target attractive, synergetic segments that increase the appeal of the Lufthansa Group's digital environment. Miles & More increasingly focuses on greater benefits to customers and its synergy potential with the airlines, whereas AirPlus is growing in the lucrative market for payment and settlement solutions for business travel.

Aviation Services will be scrutinised continuously for their value contribution and developed with a clear focus. The Lufthansa Group regularly reviews the attractiveness of individual market segments, their current competitive position, the future revenue potential of the segments and the synergies realised by them, and, in particular, the value contribution for the airlines. At the level of the segments it may make sense to develop companies in the Aviation Services segment within or outside the Lufthansa Group using a differentiated approach or with partners, in order to ensure their long-term growth and sustainable profitability. One example is the sale of the LSG group's European business.

Lufthansa Group expands its corporate responsibility activities

Acting responsibly has a direct impact on commercial success and so is an integral part of the Group strategy. The Lufthansa Group therefore builds continuously on its environmental commitment, is dedicated to many social issues and treats its employees responsibly and fairly.

In terms of environmental protection, the Lufthansa Group invests continuously in the renewal of its fleet and in operating measures aimed at reducing the specific fuel consumption and the resulting CO_2 emissions per passenger-kilometre. In addition, the Lufthansa Group offsets the CO_2 emissions of all its employees' business flights worldwide and has set a target of becoming carbon neutral in its ground operations in Germany, Switzerland and Austria by 2030. The Lufthansa Group is also committed to noise abatement and reducing the amount of in-flight waste.

Above and beyond its actual business activities, the Lufthansa Group continues to assume responsibility in addressing today's social challenges. The central pillar of its global social engagement for disadvantaged people is the help alliance, which celebrated its 20th anniversary in 2019. The help alliance supports educational projects that are largely initiated by employees. Furthermore, the Lufthansa Group provides fast, professional emergency aid in humanitarian crises and natural disasters.

To reflect the growing importance of corporate responsibility for the Lufthansa Group, all activities in this area now report to the new Executive Board function Customer & Corporate Responsibility.

FINANCIAL STRATEGY AND VALUE-BASED MANAGEMENT

C07 FINANCIAL STRATEGY

Sustainable increase of Company value

	Improve profitability	Focus capital allocation	Maintain financial stability
Focus	– Sustainable value generation – Continuous unit cost reductions	– Profitable capital expenditure – Working capital management – Shareholder participation in the Company's success	– Maintain investment grade rating – Hedging of financial risks – Access to different forms of funding and maintaining appropriate liquidity
Target	– Adjusted ROCE – Adjusted EBIT margin	– Adjusted free cash flow – Dividend	– Adjusted net debt/Adjusted EBITDA

Financial strategy aims to increase Company value

The financial strategy of the Lufthansa Group seeks to increase its Company value in a sustainable manner. It will concentrate on three dimensions: improving profitability, focussing capital allocation and maintaining financial stability.

Improving profitability

Sustainable value generation in the Company

The Lufthansa Group applies a value-based system of management. At its centre is the profitability of the Company. This is measured by reference to Adjusted EBIT. In order to hardwire profitability into all decision-making processes, the management's variable remuneration is linked to the Company's economic performance as well as to non-financial factors such as specific CO_2 emissions. ↗ **Remuneration report, p. 115ff.** Adjusted EBIT came to EUR 2,026m in 2019 and was thus 29% below the previous year. Specific CO_2 emissions per passenger-kilometre were 92.2 grammes in 2019, on par with the previous year. Positive effects from greater fuel efficiency due to the fleet renewal and a higher passenger load factor were offset by a lower proportion of freight in the total payload.

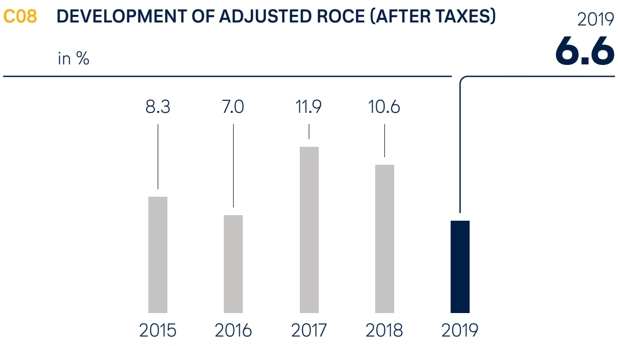
The adjusted return on capital employed (Adjusted ROCE) is measured for the Lufthansa Group and the individual companies. If Adjusted ROCE exceeds the weighted average cost of capital (WACC), the Company is creating value. In 2019, the Lufthansa Group had an Adjusted ROCE after tax of 6.6%. This was 4.0 percentage points down on the previous year and higher than the WACC, which was just 4.2% and unchanged from the previous year. The Company therefore added value again in 2019.

T009 CALCULATION OF ADJUSTED ROCE AND COST OF CAPITAL

in €m	2019	2018	Change in %
Revenue	36,424	35,542	2
Other operating income	2,574	2,349	10
Operating income	**38,998**	**37,891**	**3**
Operating expenses	37,309	35,091	6
Result from equity investments	168	174	-3
EBIT	**1,857**	**2,974**	**-38**
Adjusted EBIT	**2,026**	**2,836**	**-29**
Interest on liquidity	79	68	16
Taxes (assumption 25% of EBIT + Interest on liquidity)	-484	-761	36
Cost of capital[1]	-1,007	-860	-17
EACC	**445**	**1,422**	**-69**
ROCE[2] in %	**6.1**	**11.1**	**-5.0 pts**
Adjusted ROCE[3] in %	**6.6**	**10.6**	**-4.0 pts**
Balance sheet total	42,659	38,213	12
Non-interest bearing liabilities			
of which liabilities from unused flight documents	4,071	3,969	3
of which trade payables, other financial liabilities, other provisions	5,868	6,306	-7
of which advance payments, deferred income, other non-financial liabilities	3,089	2,830	9
of which others	4,575	4,099	12
Capital employed	25,056	21,009	19
Average capital employed[4]	**23,982**	**20,502**	**17**
WACC in %	4.2	4.2	–

[1] WACC x Average capital employed.
[2] (EBIT + Interest on liquidity – 25% taxes)/Average capital employed.
[3] (Adjusted EBIT + Interest on liquidity – 25% taxes)/Average capital employed.
[4] Average capital employed in 2019 including IFRS 16 right-of-use assets as of 1 January 2019.

C08 DEVELOPMENT OF ADJUSTED ROCE (AFTER TAXES)



Continuous cost management contributes to structural increase in profitability

Continuous reductions in unit costs, increasing process simplification and productivity improvements are intended to lift structural profitability. Unit costs at the passenger airlines, adjusted for fuel costs and exchange rates, are to be reduced by 1% to 2% per year. Cost-cutting measures are also implemented on a continuous basis in Aviation Services.

Focussing capital allocation

Balanced investment to modernise the fleet

A balanced level of investment is very important for the Lufthansa Group. Investments are directed to projects with the highest expected returns. Going forward, the Lufthansa Group will continue to invest steadily in the renewal of its fleet, in-flight and ground products and infrastructure. The aircraft ordered for the period until 2025 serve mainly to replace older, less efficient models. Growth opportunities arising in the short and medium term can nonetheless be exploited by activating reserve aircraft or procuring used aircraft. The allocation of new aircraft to the different airlines and bases is constantly optimised according to value-based criteria. This makes the investment profile more balanced and increases focus on the deployment of capital. It also increasingly creates greater room for manoeuvre regarding any further consolidation activity. Capital expenditure should be financed from the company's own cash flow. Adjusted free cash flow is planned to exceed EUR 1bn again in the medium term. ↗ C14 **Primary, secondary and financial investments, p. 38.**

Gross capital expenditure (without expenditure on equity investments) fell by 5% to EUR 3,559m in 2019 and was mainly on down payments and final payments for aircraft, aircraft components, and aircraft and engine overhauls.

Dividend policy adjusted and aims for continuous distributions

Shareholders should participate directly in the Company's success. The Executive Board of the Lufthansa Group decided in 2019 to in future distribute 20% to 40% of the Group's net profit, adjusted for non-recurring gains and losses. The previous dividend policy provided for a dividend of 10% to 25% of consolidated EBIT. With this adjustment to its dividend policy, the Group has committed to the aim of generating an attractive return for its shareholders. The new distribution range gives the Group greater flexibility to enable continuous dividend payments than the previous policy. The new dividend policy also allows for shareholders to participate in a particularly positive performance of the Company by means of a special dividend or share buy-back.

In view of the impact of the coronavirus crisis on the course of business and to further strengthen the balance sheet, the Executive Board and Supervisory Board will table a proposal at the Annual General Meeting on 5 May 2020 not to pay a dividend for financial year 2019. ↗ **Dividend, p. 38.**

Maintaining financial stability

Investment grade ratings secure financial room for manoeuvre

Investment grade ratings for the Company's debt ensure low funding costs and financial flexibility as a result. For this reason, Deutsche Lufthansa AG would like to safeguard its current investment grade rating for the long term. Standard & Poor's and Scope Ratings raised the Group's rating in 2019. Standard & Poor's now gives Deutsche Lufthansa AG a rating of BBB (stable outlook), while Moody's gives it a rating of Baa3 (stable outlook) and Scope Ratings gives it a rating of BBB (stable outlook).

T010 DEVELOPMENT OF RATINGS

Rating/outlook	**2019**	2018	2017	2016	2015
Standard & Poor's	BBB/ stable	BBB–/ positive	BBB–/ stable	BBB–/ negative	BBB–/ stable
Moody's	Baa3/ stable	Baa3/ stable	Baa3/ stable	Ba1/ stable	Ba1/ positive
Scope Ratings	BBB/ stable	BBB–/ positive	BBB–/ positive	BBB–/ stable	

T011 LUFTHANSA'S CREDIT RATINGS

Standard & Poor's (April 2019)[1] Long-term: BBB; Short-term: A–2; Outlook: Stable	**Moody's Investors Service** (August 2019)[1] Long-term: Baa3; Short-term: N/A; Outlook: Stable	**Scope Ratings** (September 2019)[1] Long-term: BBB; Short-term: S–2; Outlook: Stable
Strengths	**Strengths**	**Strengths**
+ One of the leading global network carriers with an excellent competitive position and one of the largest route network world-wide; strong market position at hubs in Frankfurt, Munich, Zurich and Vienna	+ One of the largest airlines in the world and a leading position in the European airline sector with a strong diversified route network	+ Global network coverage, diversified route network, member of the global airline alliance Star Alliance and a high share of business travellers with a strong market position at hubs in Frankfurt, Munich, Zurich and Vienna
+ Balanced exposure to high-yielding, premium and long-haul traffic across its route portfolio; leading domestic market position in Germany; regional brands are well established	+ Robust business profile with diversified business segments reduces its exposure to volatility in passenger and cargo business	+ Leading position in home market of Germany; competitive advantage in premium market for long-haul traffic
+ Besides the passenger airline business well diversified business profile with leading market positions in maintenance, repair and overhaul (MRO) services as well as airline catering adds stability to Lufthansa Group earnings	+ Diversity of business segments; maintenance, repair and overhaul (MRO) and airline catering business segments deliver stable profit contribution	+ Diversified operations (maintenance, repair and overhaul (MRO) and airline catering) with strong market positions mitigating cyclicality risks in passenger and cargo traffic
+ Strong liquidity position	+ Good liquidity position; conservative financial strategy	+ Solid liquidity position
Weaknesses	**Weaknesses**	**Weaknesses**
– Cost position as a competitive disadvantage	– Profitability of the Airline Group depends on external factors including fuel prices and economic development in Europe	– Cyclicality of the airline industry; Lufthansa Group's profitability below its peers
– High capital intense business model	– Restructuring and turnaround plan for Eurowings is likely to take time	– Cost advantages could erode by competitive pressure

[1] Latest report.

Adjusted net debt/Adjusted EBITDA serves as an indicator of the Company's ability to service its debts

The ratio of Adjusted net debt/Adjusted EBITDA is used to measure the Group's ability to service its debts. With Adjusted net debt, the indicator takes into account not only traditional net debt but also pension provisions and the financial obligations arising from Group leases (including for property and aircraft).

At the end of 2019, the ratio was 2.8. This was 1.0 point higher than the previous year, mainly due to the first-time application of IFRS 16 and an interest rate-related increase in pension obligations, but still within the target range for gearing of 3.5. ↗ **Net assets, p. 41f.**

T012 **ADJUSTED NET DEBT/ADJUSTED EBITDA**

	2019 in €m	2018 in €m	Change in %
Net indebtedness[1]	6,415	3,242	98
Pension provisions	6,659	5,865	14
Adjusted net debt	**13,074**	**9,107**	**44**
Adjusted EBIT	2,026	2,836	-29
Depreciation and amortisation	2,692	2,180	23
Adjusted EBITDA	**4,718**	**5,016**	**-6**
Adjusted net debt/ Adjusted EBITDA	**2.8**	**1.8**	**56**

[1] In order to calculate net indebtedness, here 50% of the hybrid bond issued in 2015 (EUR 247m) has been discounted. Calculation of net indebtedness ↗ **p. 42.**

Structured risk management minimises finance risks

Integrated risk management, particularly by hedging fuel, exchange rate and interest rate risks, minimises the short-term financial risks for the Lufthansa Group. The hedges smooth price fluctuations by means of rule-based processes. ↗ **Opportunities and risk report, p. 65ff.; Notes to the consolidated financial statements, Note 43, p. 200ff.**

Diverse forms of funding ensure liquidity

Optimising the funding mix reduces financing costs, maintains a balanced maturity profile and diversifies the Lufthansa Group's portfolio of creditors. The majority of the fleet should remain unencumbered and wholly owned by the Lufthansa Group in order to maintain its great financial and operational flexibility.

The main financing instruments are aircraft financing and unsecured financing arrangements such as borrower's note loans and publicly traded bonds. Furthermore, the Lufthansa Group has bilateral credit lines with a large number of banks, which serve as an additional liquidity reserve. As of 31 December 2019, these credit lines came to EUR 774m (previous year: EUR 849m) and had not been used. The Group aims to maintain liquidity of at least EUR 2.3bn at all times, in order to continually manage liquidity and refinancing risks for the Lufthansa Group, especially at times of volatile demand and financial markets.

A total of 19 Japanese operating lease (JOLCO) transactions were concluded in 2019. This enabled funds amounting to a total of EUR 1,159m to be raised on favourable terms. These JOLCO deals are repaid continuously over the approximately eleven-year term of the respective contracts.

In financial year 2019, the Lufthansa Group placed a borrower's note loan for over EUR 800m with investors. The borrower's note loan has different maturities, as well as fixed and floating-rate tranches. In addition, the Lufthansa Group issued several short-term borrower's note loans for some EUR 600m, which served to refinance floating-rate tranches that were repaid early.

The EMTN programme (Euro Medium Term Note Programme or Debt Issuance Programme) was renewed in July 2019. The programme enables the Group to issue bonds on the capital market at very short notice. It is listed on the Luxembourg stock exchange.

In September 2019, the Lufthansa Group used the favourable conditions on capital markets to issue a five-year bond for EUR 500m under its existing EMTN programme. The bond matures on 6 September 2024 and pays interest of 0.250% per annum. The issue was oversubscribed by more than six times. The terms of the bond underline the great confidence enjoyed by the Lufthansa Group, also as a borrower.

Several unsecured loans with a volume of EUR 100m and a maturity of seven years were arranged with a Japanese lender on attractive terms.

There were no significant off-balance sheet financing activities last year.

Fleet and route network

Ongoing modernisation of the fleet. | Fleet strategy aims to standardise and reduce number of aircraft models. | Fleet size can be adapted flexibly to fluctuations in demand. | Extensive route network optimised continuously.

FLEET

T013 GROUP FLEET – NUMBER OF COMMERCIAL AIRCRAFT AND FLEET ORDERS
Lufthansa German Airlines including regional airlines (LH), SWISS including Edelweiss (LX), Austrian Airlines (OS), Eurowings (EW) including Brussels Airlines and Germanwings and Lufthansa Cargo (LCAG) as of 31 Dec 2019

Manufacturer/type	LH	LX	OS	EW	LCAG	**Group fleet**	of which lease	Change compared with 31 Dec 2018
Airbus A220		29				29		+1
Airbus A319	30	3	7	73		113	37	–2
Airbus A320	95	29	25	76		225	35	+3
Airbus A321	68	9	6	5		88	2	+5
Airbus A330	15	16		22[1)]		53	11	–3
Airbus A340	34	9				43		–1
Airbus A350	15					15		+3
Airbus A380	14					14		
Boeing 747	32					32		
Boeing 767			6			6		
Boeing 777		12	6			18	2	+2
Boeing 777F					11[2)]	11	4	+4
Boeing MD-11F					8	8		–4
Bombardier CRJ	35					35		
Bombardier Q Series			15	15[3)]		30	15	–8
Embraer	26		17			43		
Total aircraft	**364**	**107**	**82**	**191**	**19**	**763**	**106**	**0**

1) Operated by Brussels Airlines and SunExpress.
2) Partly operated by AeroLogic, of which two aircraft attributed pro rata.
3) Operated by Luftfahrtgesellschaft Walter.

Continuous modernisation of the fleet

At the end of 2019, the Lufthansa Group fleet comprised 763 aircraft. There was no change in the number of aircraft compared with the previous year.

The fleet received 27 new aircraft (four Boeing 777Fs, two B777-300s, three Airbus A350-900s, five A321neos, five A320neos, seven A320ceos and one A220-100) and four used aircraft (two A330-300s and two A320ceos). At the same time, 19 aircraft were sold in 2019 and the leases for twelve aircraft terminated.

The average age of the aircraft in the fleet was 12.1 years (previous year: 11.9 years).

T014 FLEET ORDERS LUFTHANSA GROUP

	Fixed orders	Deliveries	Additional options
Long-haul fleet			
Airbus A350	30	2020 to 2027	10
Boeing 787	20	2022 to 2025	20
Boeing 777	20	2020 to 2025	24
Boeing 777F	2	2020	1
Short-haul fleet			
Airbus A220	1	2020	30
Airbus A320	82	2020 to 2025	17[1)]
Airbus A321	43	2020 to 2025	
Total aircraft	**198**	**2020 to 2027**	**102**

1) Airbus A320 family.

At year-end 2019, there were 198 aircraft on the Lufthansa Group's order list. Of these, six aircraft were delivered and two orders cancelled up to the beginning of March 2020. There are also options to buy a further 102 aircraft. In the financial year 2020, the Lufthansa Group is again expecting to take delivery of up to 32 aircraft.

Fleet strategy aims to standardise and reduce number of aircraft models
Aircraft from Airbus and Boeing make up the majority of the fleet. Aircraft from Bombardier and Embraer are also deployed on short-haul routes.

As part of the fleet strategy, the number of aircraft models in operation is being scaled back continuously across the Group in order to reduce complexity. The order placed in 2019 for 20 new A350-900s and 20 new B787-9s, as well as the decision to optimise the A380 sub-fleet by selling six aircraft, laid the foundation for a fundamental modernisation and optimisation of the long-haul fleet in terms of its flexibility. Seven aircraft models will leave the fleet by the middle of the next decade as a result, to be replaced by standardised next-generation aircraft. The order placed in 2019 for two more B777F freighters for 2020 means that the MD-11F will be the first aircraft type to be retired by the end of 2020. The large number of additional aircraft orders for long and short-haul routes means the restructuring to implement the fleet strategy will continue steadily in future.

Overall, around 86% of the total fleet is owned and about 14% is leased. More than 87% of the Lufthansa Group's owned aircraft are unencumbered. Ownership is generally cheaper than leasing and enables greater flexibility. In order to respond flexibly to fluctuations in demand and adjust capacity at short notice, depreciated aircraft owned by the Lufthansa Group can at short notice remain in service for longer or be retired before their planned phase-out. When new purchases are required, used aircraft are also considered if the opportunity arises.

ROUTE NETWORK

Route network is expanded and optimised
As part of their multi-hub strategy, the Network Airlines offer their customers a wide range of flights via their hubs in Frankfurt, Munich, Zurich and Vienna. It is complemented by the route networks of the alliance and joint venture partners, which offer extensive transfer connections. Eurowings provides a comprehensive range of direct connections, particularly from German-speaking countries.

In the 2019 summer flight timetable, the Lufthansa Group airlines operated a route network comprising 318 destinations in 102 countries.

Leisure travel to be expanded
A number of new destinations were again added to the route network in 2019. Particular emphasis was put on strengthening tourist travel, both on short- and long-haul routes. New tourist-oriented long-haul routes included, for example, flights from Frankfurt to Mauritius, Barbados, Las Vegas and Windhoek (Namibia), as well as from Munich to Bangkok. Further leisure travel destinations are to be added in 2020, where the emphasis will be on destinations in North America.

Employees

Employees are a key success factor. | With more than 138,000 employees around the world, the Lufthansa Group is a truly global Company. | Wage structures developed.

Employees are a key success factor

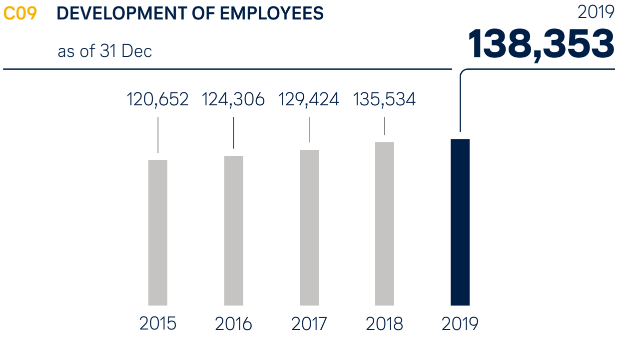
With their know-how and wide-ranging talents, employees and managers are a key variable for the commercial success of the Lufthansa Group. As a result, the Group aims to establish itself permanently as an attractive employer and assume its social responsibility. The Lufthansa Group therefore places great importance on offering its workforce an attractive working environment with transparent structures and processes in order to meet the requirements of digital change, and to strengthen the Company's ability to transform itself and become more innovative. Varied professional training courses, the best possible conditions for achieving a satisfying work-life balance, a holistic approach to equal opportunities and diversity in all dimensions, and intensive talent management are key action areas for realising the Lufthansa Group's aim of a fair partnership with its employees. ↗ **Combined non-financial declaration/Employee concerns, p. 93ff.**

More employees in the Lufthansa Group

At year-end 2019, the Lufthansa Group had 138,353 employees worldwide (previous year: 135,534). This meant that the number of employees grew by 2%. 73,552 employees worked in Germany (previous year: 72,716). This represents 53% of the total workforce (previous year: 54%).

As of the reporting date, the average age of the workforce was 41.6 years (previous year: 41.5). Average seniority was 12.1 years (previous year: 12.7). 29% of employees worked part-time in 2019 (previous year: 29%). Fluctuation came to 13% (previous year: 14%).

C09 DEVELOPMENT OF EMPLOYEES
as of 31 Dec



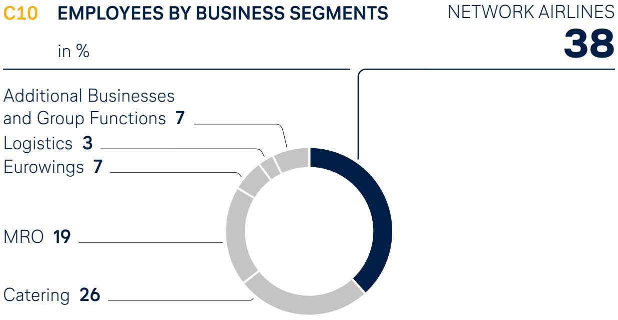
In the reporting year, the Lufthansa Group offered more than 45 different recruitment channels around the world for school and university students. As of year-end, 1,430 apprentices were employed in the Lufthansa Group's 28 occupations (previous year: around 1,100).

Wage structures developed

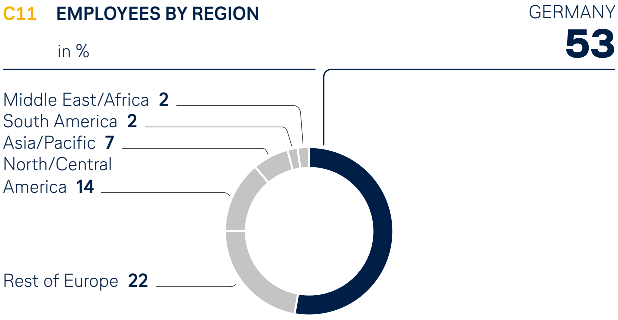
The Lufthansa Group aims to conclude long-term, economically viable agreements with its collective bargaining partners. These enable sustainable success, as well as predictability and security for both the Company and its employees.

The Lufthansa Group and the independent flight attendants' union UFO agreed on a multi-stage process to resolve the current collective bargaining dispute. The process provides for a separation of wage and non-wage topics in three stages: mediation, arbitration and an out-of-court settlement. In the mediation process, questions of cooperation will be discussed,

C10 EMPLOYEES BY BUSINESS SEGMENTS
in %



C11 EMPLOYEES BY REGION
in %



with a focus on future dealings with one another, and solutions found. At the same time the parties will begin a comprehensive arbitration process covering the wage claims made by UFO and other collective bargaining topics. In a separate, out-of-court settlement process, the specific legal affairs of both parties and individual officials will be presented to a labour law judge, ideally resulting in definitive solutions.

For cabin crew, an active labour union partnership with ver.di is also on the agenda. In 2019, the Lufthansa Group and ver.di signed various agreements needed for the wage settlement "Seasonality models for cabin staff".

In addition, Lufthansa CityLine, ver.di and UFO agreed on a comprehensive package for cabin crew in 2019. It included new rules for introducing a permanent profit-sharing payment and on company pensions, partial retirement and encouraging apprenticeships.

The collective bargaining agreements with other large groups of employees remain in effect after the end of financial year 2019: the agreements signed with the Vereinigung Cockpit pilots' union for Lufthansa German Airlines, Lufthansa Cargo and Germanwings run until at least June 2022.

Collective agreements were signed with ver.di for ground staff at Lufthansa German Airlines, Lufthansa Cargo, Lufthansa Technik and the LSG group in Germany. They expire at the end of September 2020.

Research and development

The Lufthansa Group and its companies work continuously – both individually and across segments – on innovative products, digitalisation initiatives, and research and development projects. Most of these activities are run separately in the individual segments, since they focus on different areas. The Network Airlines are focusing on further improvements to the customer's travel experience along the entire travel chain, such as the introduction of biometric boarding. Eurowings is driving the sale of additional services via the multi-channel distribution platform **Eurowings.com** by connecting new portfolio partners, such as FREE NOW (formerly myTaxi) and Flixbus. Lufthansa Cargo is focusing on the digitalisation of customer interfaces in order to network digitally with all the players in the transport chain, from booking to delivery. Lufthansa Technik is expanding its portfolio in the field of intelligent maintenance management with data-based products and services like the AVIATAR software platform.
↗ **Business segments, p. 45ff.**

Innovation and digitalisation are also being advanced centrally, however, via the Lufthansa Innovation Hub. It works on new digital business models, partnerships and strategic investments along the entire travel and mobility chain.

Legal and regulatory factors

The Lufthansa Group and its segments are subject to numerous complex legal and regulatory standards. The formal demands made of the Company are increasing all the time. This applies to legislation from various areas, such as that relating to financial law, data and consumer protection, as well as to general requirements for avoiding liability risks. Of particular relevance for the Lufthansa Group in this matter are operating restrictions such as the night-flight ban at various airports, consumer protection, EU emissions trading, national air traffic taxes and the costs of aviation security imposed on airlines, embargo conditions, the implementation of the Single European Sky as well as a lack of competition rules at international level, as laid down by the World Trade Organisation (WTO) in other industries.

Economic report
Macroeconomic situation

Global economic growth has slowed further. | German economy expanding slower than European economy overall. | Euro depreciates against all other key currencies. | Interest rates at historic lows. | Oil prices remain volatile.

Slower global economic growth in 2019

Global economic growth fell to 2.6% in 2019, primarily due to persistent trade disputes (previous year: 3.2%). This trend was also evident in North America, where the growth rate has declined to 2.3%, the slowest growth since 2016 (previous year: 2.9%). Despite setbacks, the Asia/Pacific region grew by 4.3% (previous year: 4.8%), again the fastest growth. Economic growth in China slowed to 6.1% (previous year: 6.7%). Economic growth in Europe came to 1.4% (previous year: 2.1%). The German economy expanded by 0.6% (previous year: 1.5%), which is less than for its European neighbours.

T015 GDP DEVELOPMENT

in %	2019[1]	2018	2017	2016	2015
World	2.6	3.2	3.5	2.8	3.0
Europe	1.4	2.1	2.9	2.0	2.4
Germany	0.6	1.5	2.8	2.1	1.5
North America	2.3	2.9	2.4	1.6	2.7
South America[2]	0.8	1.4	1.9	-0.1	0.3
Asia/Pacific	4.3	4.8	5.3	5.0	4.9
China	6.1	6.7	6.9	6.8	7.0
Middle East	0.4	1.2	1.0	4.6	2.6
Africa	3.0	3.1	3.5	1.8	3.1

Source: Global Insight World Overview as of 18 Feb 2020.
[1] Forecast.
[2] Not including Venezuela.

Euro depreciates against other main currencies

The euro declined against all other key currencies on average over the course of the year. The average exchange rate against the Japanese yen was 6% lower than the previous year. Against the US dollar, the euro lost 5% and against the Swiss franc 4%. It fell by 1% against both the pound sterling and the Chinese renminbi.

T016 CURRENCY DEVELOPMENT EUR 1 in foreign currency

	2019	2018	2017	2016	2015
USD	1.1193	1.1800	1.1194	1.1062	1.1093
JPY	122.01	130.33	125.46	120.05	134.25
CHF	1.1122	1.1548	1.1022	1.0899	1.0675
CNY	7.7325	7.8083	7.5955	7.3491	6.9697
GBP	0.8768	0.8848	0.8745	0.8168	0.7259

Source: Bloomberg, annual average daily price.

Short and long-term interest rates fall

Short-term interest rates for the euro area fell again to a historical low in 2019. The average six-month Euribor was −0.30% (previous year: −0.27%). Long-term rates fell significantly year-on-year, with the average ten-year euro swap rate contracting from 0.96% to 0.26%. The discount rate, which is particularly important for measuring pension obligations and which is derived from the average return on a basket of investment-grade corporate bonds, came to 1.4%, which is also significantly lower than the previous year's figure of 2.0%.

T017 INTEREST RATE DEVELOPMENT in %

Instrument	2019	2018	2017	2016	2015
6-month Euribor Average rate	-0.30	-0.27	-0.26	-0.17	0.05
6-month Euribor Year-end level	-0.32	-0.24	-0.27	-0.22	-0.04
10-year euro swap Average rate	0.26	0.96	0.81	0.53	0.88
10-year euro swap Year-end level	0.21	0.81	0.89	0.66	1.00

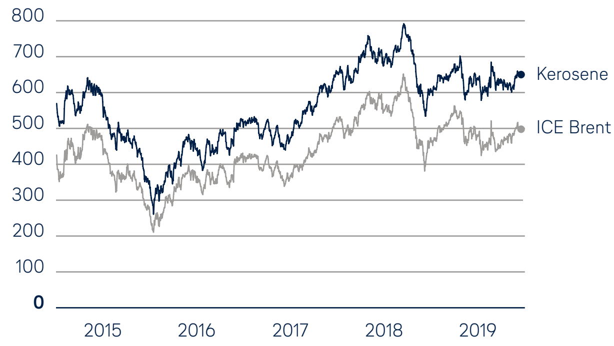
Source: Bloomberg.

Oil price down on previous year's average

The oil price was volatile again in 2019. With prices between USD 54.91/barrel and USD 74.57/barrel, the average for 2019 was USD 64.21/barrel, which is 10% lower than the previous year. As of year-end 2019, a barrel of Brent Crude cost USD 66.00 (year-end 2018: USD 53.80/barrel). The jet fuel crack, the price difference between crude oil and kerosene, moved between USD 10.97/barrel and USD 22.14/barrel in 2019. On average over the year, it traded at USD 15.82/barrel and thus 5% higher than in the previous year. The price at year-end was USD 16.49/barrel (year-end 2018: USD 13.93/barrel).

C12 PRICE DEVELOPMENT OF CRUDE OIL AND KEROSENE

in USD/t



Source: Lufthansa, based on market data.

Sector developments

Slower growth in global passenger traffic. | Sector earnings suffer from rising costs. | Airfreight market in decline. | MRO and airline catering markets benefit from growth in global air traffic.

The development of the airline industry affects the performance of all segments in the Lufthansa Group: directly, in the case of the airlines, and indirectly, via the impact on demand from key customer groups for Aviation Services. The Group constantly monitors sector developments so that it can respond quickly where necessary to any changes in the operating environment.

Global passenger traffic defined by slower growth and higher pricing pressure

The general economic slowdown also had a tangible impact on the demand for air travel. Growth in global revenue passenger-kilometres slowed to just 4% in 2019, according to calculations by the International Air Transport Association (IATA) (previous year: 7%). This puts growth for 2019 below the average growth rate for the past five years.

Regional differences persisted. Airlines from the Asia/Pacific and Africa regions saw the fastest growth in revenue passenger-kilometres at 5%. European airlines saw growth of 4%. According to the Federal Association of the German Aviation Industry (BDL), sales for airlines in Germany rose overall by 1%.

Yields in global passenger traffic fell by 3.0% according to IATA (previous year: decline by 2.1%).

In 2019, the European air travel market was heavily influenced by the macroeconomic downturn, overcapacities and tough competition. This weighed on prices in Europe over the course of the whole year. In operational terms, however, the year 2019 was much more stable, especially in the summer months, which in 2018 were plagued by many flight cancellations and delays as a result of infrastructure bottlenecks across the aviation sector.

T018 SALES PERFORMANCE IN THE AIRLINE INDUSTRY 2019

in % compared with previous year	Revenue passenger-kilometres	Cargo tonne-kilometres
Europe	4	-2
North America	4	-2
Central and South America	4	0
Asia/Pacific	5	-6
Middle East	2	-5
Africa	5	7
Industry	**4**	**-3**

Source: IATA Air Passenger/Air Freight Market Analysis (12/2019).

In the Americas traffic region, the higher degree of market consolidation and strict capacity discipline paid off, especially for the three major commercial joint ventures. Demand for long-haul routes became increasingly price-sensitive over the course of the year, however.

Developments were similar in the Asia/Pacific traffic region. Here the pricing pressure increased over the year against the backdrop of trade disputes and the ensuing economic slowdown.

Decline in earnings expected for the global airline industry

In line with slower growth in passenger traffic, the global airline industry also saw weaker earnings performance. IATA has reduced its forecast for net profit in 2019, predicting a fall to USD 26bn (previous year: USD 27bn). On a regional basis, the highest net profits of USD 17bn are expected in North America (previous year: USD 15bn). European airlines are forecast to generate a net profit of USD 6bn (previous year: USD 9bn).

T019 EARNINGS DEVELOPMENT IN THE AIRLINE INDUSTRY

in USD bn	**2019**	2018
Europe	6	9
North America	17	15
Central and South America	0	-1
Asia/Pacific	5	6
Middle East	-2	-2
Africa	0	0
Industry	**26**	**27**

Source: IATA Industry Statistics (12/2019).

Airfreight market in decline

The global market for airfreight performed much worse than expected, due to slower global economic growth and uncertainties about trade disputes and Brexit. According to IATA, global airfreight volumes in 2019 fell 3% (previous year: 4% growth). Cargo airlines from Asia/Pacific reported the fastest growth at 6%. European providers saw a decline of 2%.

Yields in global airfreight traffic fell by 5.0% according to IATA (previous year: increase of 12.3%).

MRO and airline catering markets benefit from growth in air traffic

Growth in global air traffic drives demand for maintenance, repair and overhaul services for aircraft (MRO). Compared with the previous year, the volume of the MRO market for commercial aircraft increased by 8% to around USD 96bn by the end of 2019. Growth in the Asia/Pacific region was particularly strong, up 11% to USD 31bn. The EMEA region (Europe/Middle East/Africa) also saw significant growth of roughly 8% with a market volume of USD 36.5bn. Market volume in the Americas region, however, rose only by an estimated 4% to USD 28.5bn.

Increasing passenger numbers and greater demand for convenience products characterised the market segments served by the LSG group, airlines, rail and retail. On short- and medium-haul flights in particular, in-flight sales concepts are increasingly displacing the traditional full catering. Food manufacturers are seeing ever greater demands to meet customers' high standards of individuality, variety, freshness and transparent supply chains, and have to update their product concepts and production methods continuously.

Course of business

Earnings performance of the Lufthansa Group burdened by difficult market environment and higher fuel costs. | Traffic again at record levels. | Earnings improve at Eurowings, MRO and Catering. | Strong balance sheet enables strategic development.

OVERVIEW OF THE COURSE OF BUSINESS

Difficult market environment and higher fuel expenses weigh on earnings
The Lufthansa Group achieved a solid result in 2019, despite difficult conditions.

European business was marked by price erosion due to over-capacities throughout the market and the general economic downturn in the Lufthansa Group's home markets. By contrast, Network Airlines' long-haul business still performed well, particularly on connections to North America.

Traffic rose again in the reporting year. The airlines in the Lufthansa Group carried over 145 million passengers, more than ever before. New highs were also achieved in terms of capacity, sales and passenger load factor.

Traffic revenue increased year-on-year by 1% to EUR 28,136m (previous year: EUR 27,801m). Positive volume and exchange rate effects made up for the fall in prices. Revenue of EUR 36,424m was 2% up on the previous year (previous year: EUR 35,542m).

Adjusted EBIT fell in 2019 by 29% to EUR 2,026m (previous year: EUR 2,836m). This was primarily the result of declining unit revenues, hedging-related higher fuel costs and MRO costs, for which lower unit costs could not fully compensate. The earnings performance stabilised in the second half of the year. Lower capacity growth, initial success in implementing the turnaround plan at Eurowings, unit cost reductions at the Network Airlines and improvements in operational performance all contributed. The Adjusted EBIT margin fell in 2019 by 2.4 percentage points to 5.6% (previous year: 8.0%).

Adjusted EBIT for 2019 in the segments Eurowings, MRO and Catering was up on the year. Adjusted EBIT for the Network Airlines and Logistics business segments declined, however. The latter was affected by lower demand in the airfreight market.

Cash flow from operating activities declined in 2019 by 2% to EUR 4,030m (previous year: EUR 4,109m). Despite lower capital expenditure, Adjusted free cash flow fell year-on-year by 30% to EUR 203m, due to lower earnings and higher tax payments (previous year: EUR 288m).

At year-end 2019, the Lufthansa Group again had a strong balance sheet. Its equity ratio fell by 1.1 percentage points to 24.0% (previous year: 25.1%). Gearing went up, due to the first-time application of IFRS 16 and higher pension liabilities, but at 2.8 was still well below the upper limit of the target corridor of 3.5 (previous year: 1.8). Its strong balance sheet enables the Lufthansa Group to keep investing in its strategic development and fleet modernisation.

SIGNIFICANT EVENTS

Lufthansa Group orders state-of-the-art aircraft for long-haul routes
The Lufthansa Group is consistently pursuing the modernisation of its long-haul fleet. At its meeting on 13 March 2019, the Supervisory Board of Deutsche Lufthansa AG approved the purchase of 40 state-of-the-art aircraft for the airlines in the Lufthansa Group. The 20 Boeing 787-9s and another 20 Airbus A350-900s will replace four-engined aircraft in the Lufthansa Group's wide-body fleets. The new aircraft are planned for delivery from late 2022 until 2027.

Six of the 14 A380s are also to be sold back to Airbus and will leave the fleet in 2022 and 2023. ↗ **Network Airlines business segment, p. 45ff.**

Contracts with Executive Board members Ulrik Svensson and Thorsten Dirks renewed early

At its meeting on 13 March 2019, the Supervisory Board of Deutsche Lufthansa AG decided ahead of schedule to renew the contract with Ulrik Svensson for three more years until 31 December 2022.

At its meeting on 6 May 2019, the Supervisory Board of Deutsche Lufthansa AG also decided ahead of schedule to renew the contract with Thorsten Dirks for three more years until 30 April 2023. ↗ **Business activities and Group structure, p. 15f.**

Investment grade ratings raised

Both the rating agency Standard & Poor's, on 15 April 2019, and Scope Ratings, on 4 June 2019, raised their rating for Deutsche Lufthansa AG within the investment grade range by one notch from BBB– to BBB, outlook stable. Both agencies justify their decision largely with further improvements in the financial profile. ↗ **Financial strategy and value-based management, p. 20ff.**

Dividend policy amended

The Executive Board of Deutsche Lufthansa AG decided on 24 June 2019 to revise the Group's dividend policy. In future, 20% to 40% of the Group's net profit are to be distributed, after adjustment for non-recurring gains and losses. The distribution range of the new dividend policy offers greater flexibility for enabling continuous dividend payments.
↗ **Financial strategy and value-based management, p. 20ff.**

Eurowings adjusts strategic direction

Eurowings presented its new strategy at the Capital Markets Day on 24 June 2019. It enables Eurowings to focus in future exclusively on short-haul routes in direct traffic. Responsibility for the commercial management of Eurowings long-haul flights was reassigned to Lufthansa German Airlines at the beginning of 2020 as part of the strategic restructuring. Brussels Airlines will also be managed separately and moved closer to the Network Airlines. ↗ **Eurowings business segment, p. 52ff.**

LSG group's European business sold to gategroup

The Lufthansa Group and gategroup signed a sales agreement for the LSG group's European business on 6/7 December 2019. Part of the agreement is a long-term contract for catering at the hubs in Frankfurt and Munich. The disposal is still subject to approval by the competition authorities.
↗ **Catering business segment, p. 61ff.**

Executive Board restructured

The Supervisory Board of Deutsche Lufthansa AG decided on 3 December 2019 to restructure the Executive Board in terms of responsibilities and individuals as of 1 January 2020.
↗ **Business activities and Group structure, p. 15f.**

EVENTS AFTER THE REPORTING PERIOD

Spread of the coronavirus significantly affects financial performance of the Lufthansa Group

The ongoing spread of the coronavirus has led to a significant fall in demand for air travel. Some countries, including the USA, imposed a travel ban for passengers from the European Union. This led to a decline in bookings at the Group airlines and to flight cancellations. In response, the Group has decided to cut its flight capacity significantly and to implement a wide range of cost-cutting measures affecting staff costs, operating costs and project budgets. Steps to raise liquidity will also improve the Group's capital structure.

The Lufthansa Group is assuming that Adjusted EBIT will fall significantly in 2020 compared with the previous year as a result of the coronavirus crisis. The precise extent of the fall depends above all on the further spread of the virus, the necessary capacity adjustments, the scope and impact of the cost-cutting measures and the development of fuel costs. ↗ **Forecast, p. 106ff.**

Agreement with UFO on resolution process for collective bargaining dispute

The Lufthansa Group and the independent flight attendants' union UFO agreed on 31 January 2020 on a multi-stage process to resolve the collective bargaining dispute. The process provides for a separation of wage and non-wage topics in three stages: mediation, arbitration and an out-of-court settlement. In the mediation process, questions of cooperation will be discussed, with a focus on future dealings with one another, and solutions found. At the same time the parties will begin a comprehensive arbitration process covering the wage claims made by UFO and other collective bargaining topics. In a separate, out-of-court settlement process, the specific legal affairs of both parties and individual officials will be presented to a labour law judge, ideally resulting in definitive solutions.

Earnings, assets and financial position

Revenue up by 2%. | Higher fuel and MRO costs burden earnings. | Adjusted EBIT of EUR 2,026m. | Capital expenditure of EUR 3,559m serves largely to modernise the fleet. | Equity ratio of 24.0% underlines balance sheet strength.

MATERIAL CHANGES TO THE FINANCIAL REPORTING

The net assets, financial and earnings position is affected by newly applicable accounting standards, particularly IFRS 16, Leases. This means that payment obligations from contracts previously classified as operating leases are discounted using the incremental borrowing rate and recognised as lease liabilities. Right-of-use assets are recognised for the same amount. IFRS 16 was applied for the first time as of 1 January 2019 using the modified retrospective approach. The comparative figures for the financial year 2018 were therefore not adjusted.

In addition, a clarification on accounting under IFRS 15 meant that the presentation in the income statement of payments to passengers for cancelled or delayed flights had to be changed.

T020 IMPACT OF THE EFFECTS FROM RECLASSIFICATION OF COMPENSATION PAYMENTS FOR FLIGHT CANCELLATIONS AND DELAYS ON THE CONCERNED ITEMS

		incl. effect[1] (reported figures)			without effect		
		2019	2018	Change in %	**2019**	2018	Change in %
Network Airlines							
Traffic revenue	€m	21,375	20,707	3	21,521	20,877	3
Total revenue	€m	23,106	22,549	2	23,252	22,719	2
Cost of materials and services	€m	12,799	11,714	9	12,945	11,884	9
Operating expenses	€m	22,132	20,854	6	22,278	21,024	6
Adjusted EBIT margin	%	7.8	10.8	–3.0 pts	7.8	10.7	–2.9 pts

[1] 2019: EUR 146m, 2018: EUR 170m.

		incl. effect[1] (reported figures)			without effect		
		2019	2018	Change in %	**2019**	2018	Change in %
Eurowings							
Traffic revenue	€m	3,987	3,986	0	4,080	4,118	–1
Total revenue	€m	4,123	4,098	1	4,216	4,230	0
Cost of materials and services	€m	3,005	3,042	–1	3,098	3,174	–2
Operating expenses	€m	4,655	4,643	0	4,748	4,775	–1
Adjusted EBIT margin	%	–4.0	–5.6	1.6 pts	–3.9	–5.5	1.6 pts

[1] 2019: EUR 93m, 2018: EUR 132m.

		incl. effect[1] (reported figures)			without effect		
		2019	2018	Change in %	**2019**	2018	Change in %
Lufthansa Group							
Traffic revenue	€m	28,136	27,801	1	28,375	28,103	1
Total revenue	€m	36,424	35,542	2	36,663	35,844	2
Cost of materials and services	€m	19,827	18,367	8	20,066	18,669	7
Operating expenses	€m	37,124	35,164	6	37,363	35,466	5
Adjusted EBIT margin	%	5.6	8.0	–2.4 pts	5.5	7.9	–2.4 pts

[1] 2019: EUR 239m, 2018: EUR 302m.

Such payments are no longer shown as compensation for damages within the cost of materials and services, but rather offset directly against income within the revenue item. The change was made retrospectively and the previous year's figures adjusted accordingly. Table ↗ T020, p. 33, shows the effects in the items concerned. For ease of comparison with the forecast figures, the previous definitions have been kept for the year-on-year calculation of performance indicators (yields, RASK, CASK).

More information can be found in the ↗ **Notes to the consolidated financial statements, p. 144ff.**

EARNINGS POSITION

Revenue and income

T021 REVENUE AND INCOME

	2019 in €m	2018 in €m	Change in %
Traffic revenue	28,136	27,801	1
Other revenue	8,288	7,741	7
Total revenue	**36,424**	**35,542**	**2**
Changes in inventories and work performed by the entity and capitalised	685	531	29
Other operating income [1]	1,830	1,753	4
Total operating income	**38,939**	**37,826**	**3**

[1] Without fixed asset write-ups and book gains.

Traffic revenue up 1% on the previous year

Traffic revenue went up by 1% to EUR 28,136m in 2019 (previous year: EUR 27,801m). Higher sales in the passenger business and positive exchange rate effects offset the negative price trend.

Traffic revenue at Network Airlines increased by 3% to EUR 21,375m (previous year: EUR 20,707m). Traffic revenue at Eurowings came to EUR 3,987m, on par with last year (previous year: EUR 3,986m). The total number of passengers carried increased by 2% to 145.2 million (previous year: 141.9 million) whereby the passenger load factor improved year-on-year by 1.0 percentage point to 82.5% (previous year: 81.5%).

Traffic revenue in the Logistics segment fell year-on-year by 9% to EUR 2,318m (previous year: EUR 2,550m). Yields declined significantly in a difficult market environment. Transport performance was the same as the previous year.

Further information on the regional breakdown of traffic revenue for the Network Airlines, Eurowings and Logistics segments can be found in the chapters ↗ **Business segments, p. 45ff.**

Other revenue up by 7%

Other revenue rose year-on-year by 7% to EUR 8,288m (previous year: EUR 7,741m). The increase was largely caused by the 11% increase in external revenue in the MRO business segment to EUR 4,378m. The catering segment generated other external revenue amounting to EUR 2,623m (+5%) and Additional Businesses (including AirPlus and Lufthansa Aviation Training) generated EUR 554m (+4%). The airlines contributed EUR 733m (–6%) to other revenue, particularly with income from customer loyalty programmes, handling services and in-flight sales.

Revenue up year-on-year by 2%, operating income up by 3%

Revenue, which consists of traffic revenue plus other revenue, went up by 2% to EUR 36,424m (previous year: EUR 35,542m).

Further information on regional distribution of revenue can be found in the ↗ **Notes to the segment reporting, p. 193ff.**

Changes in inventory and other capitalised internal expenses went up by 29% to EUR 685m, particularly due to the larger volume of major maintenance events for engines (previous year: EUR 531m).

Other operating income rose by 4% to EUR 1,830m as a result of non-periodic income, such as the release of provisions and credit notes for prior years (previous year: EUR 1,753m).

Total operating income increased by 3% to EUR 38,939m in 2019 (previous year: EUR 37,826m).

Expenses

Operating expenses rose year-on-year by 6% to EUR 37,124m (previous year: EUR 35,164m).

Cost of materials and services up by 8%, primarily due to higher fuel costs

The cost of materials and services grew by 8% to EUR 19,827m in 2019 (previous year: EUR 18,367m).

Fuel costs were the main driver of the increase, rising year-on-year by 10% to EUR 6,715m (previous year: EUR 6,087m). The average price for kerosene, including fuel hedging, was USD 687.72/tonne in 2019. Fuel prices were therefore up by 4% after hedging. A rise in the US dollar against the euro added a further 6%. Efficiency gains in the fleet meant that consumption only rose by 1%. Fuel costs included a negative result of price hedging of EUR 39m (previous year: a positive earnings result of EUR 689m).

T022 EXPENSES

	2019 in €m	2018 in €m	Change in %	Share of operating expenses in %
Cost of materials and services	19,827	18,367	8	53
of which fuel	6,715	6,087	10	18
of which fees and charges	4,523	4,457	1	12
of which external services MRO	1,911	1,848	3	5
of which charter expenses [1]	814	718	13	2
Staff costs [2]	9,111	8,924	2	25
Depreciation [3]	2,692	2,180	23	7
Other operating expenses [4]	5,494	5,693	-3	15
of which indirect staff costs and external staff	1,201	1,226	-2	3
of which rental and maintenance expenses	742	923	-20	2
Total operating expenses	**37,124**	**35,164**	**6**	**100**

[1] In 2018 inluding operating lease expenses according to IAS 17.
[2] Without past service costs/settlement.
[3] Without impairment losses.
[4] Without book losses and write-downs on assets held for sale.

Expenses for other raw materials, consumables and supplies increased year-on-year by 14% to EUR 4,101m (previous year: EUR 3,596m), particularly due to growth in the MRO business segment and higher costs of emission rights.

There was an increase in fees and charges of 1% to EUR 4,523m (previous year: EUR 4,457m), which is less than the relevant change in flight volumes, due to prices.

Charter expenses of EUR 814m were 13% higher year-on-year in 2019, mainly due to greater use of reserve engines and chartered aircraft to improve operational stability (previous year: EUR 718m). The first-time application of IFRS 16 and the resulting absence of leasing expenses meant that charter expenses fell by EUR 165m in the reporting period.

Expenses for external MRO services were up by 3% to EUR 1,911m due to internal capacity bottlenecks, particularly in engine maintenance (previous year: EUR 1,848m).

Expenses in connection with irregularities in flight operations that relate to compensation payments to customers for flight cancellations and delays are now shown on a net amount within traffic revenue. Other compensation payments, such as for damage to luggage or other in-kind benefits, remain in the cost of materials and services. These came to EUR 199m in the financial year (previous year: EUR 216m). Altogether, including the compensation payments offset against revenue, expenses for irregularities in flight operations fell by 15% to EUR 438m (previous year: EUR 518m). Improved operational stability was the main reason, especially at Lufthansa German Airlines and Eurowings.

Increase in staff costs below increase in employee numbers

Staff costs rose year-on-year by 2% to EUR 9,111m (previous year: EUR 8,924m). The change is primarily due to the larger workforce, which increased by 3% on average over the year.

Increase in depreciation and amortisation, mainly due to first-time application of IFRS 16

Depreciation and amortisation rose by 23% to EUR 2,692m (previous year: EUR 2,180m). Of the total, 18 percentage points, or EUR 401m, are due to amortisation of right-of-use assets in line with IFRS 16. Depreciation of aircraft, reserve engines and engine overhauls (without right-of-use assets) went up by 5% to EUR 1,931m (previous year: EUR 1,833m).

Other operating expenses down 3% on previous year

Other operating expenses fell by 3% to EUR 5,494m (previous year: EUR 5,693m), largely due to the effects of IFRS 16 accounting and lower expenses from exchange rate effects. Capitalising other right-of-use assets (particularly buildings) reduced rental expenses by EUR 267m. Adjusted for this effect, other operating expenses increased by 1%.

Earnings performance

Adjusted EBIT of EUR 2,026m

Adjusted EBIT fell by 29% in 2019 to EUR 2,026m (previous year: EUR 2,836m). IFRS 16 had a positive effect of EUR 31m on Adjusted EBIT.

The Adjusted EBIT margin fell by 2.4 percentage points to 5.6% (previous year: 8.0%).

Adjusted EBIT in the Network Airlines business segment fell by 26% to EUR 1,805m (previous year: EUR 2,429m). Eurowings reported an improvement of 28% in Adjusted EBIT to EUR –166m (previous year: EUR –231m). Adjusted EBIT for the Logistics segment decreased to EUR 1m (previous year: EUR 268m). Adjusted EBIT in the MRO business segment rose by 11% to EUR 493m (previous year: EUR 446m). Adjusted EBIT in the Catering segment rose by 11% to EUR 128m (previous year: EUR 115m). Earnings effects from reclassifying the European catering activities as "assets held for sale" were recognised at the Group level. They essentially consist of a valuation allowance of EUR 50m in view of the forecast sale price. The other Group companies, which under IFRS 8 do not require separate reporting, and the Group functions reduced the Group's operating Adjusted EBIT by a total of EUR –227m (previous year: EUR –209m).

Only slight differences between EBIT and Adjusted EBIT

For ease of comparison, EBIT as the main performance indicator is adjusted for clearly defined, unforeseeable earnings components. These components consist solely of write-downs and write-backs, earnings from the disposal of non-current assets and effects of changes in pension plans.

Adjusted EBIT for the financial year was EUR 169m higher than EBIT (previous year: EUR 138m lower). The adjustments mainly relate to losses and write-downs on older aircraft held for sale and scrapping, impairment losses on long-term financial assets and non-current receivables related to the insolvency of the Thomas Cook Group, and valuation allowances on assets of the LSG Europe disposal group.

The result from operating activities declined year-on-year by 40% to EUR 1,689m (previous year: EUR 2,800m).

T023 RECONCILIATION OF RESULTS

	2019		2018	
in €m	Income statement	Reconciliation Adjusted EBIT	Income statement	Reconciliation Adjusted EBIT
Total revenue	**36,424**	**–**	**35,542**	**–**
Changes in inventories and work performed by the entity and capitalised	685	–	531	–
Other operating income	1,889	–	1,818	–
of which book gains et al.	–	-20	–	-51
of which write-ups on capital assets	–	-38	–	-15
Total operating income	**38,998**	**-58**	**37,891**	**-66**
Cost of materials and services	-19,827	–	-18,367	–
Staff costs	-9,121	–	-8,811	–
of which past service costs/settlement	–	10	–	-113
Depreciation	-2,776	–	-2,205	–
of which impairment losses	–	84	–	24
Other operating expenses	-5,585	–	-5,708	–
of which impairment losses on assets held for sale	–	51	–	–
of which expenses incurred from book losses	–	39	–	17
Total operating expenses	**-37,309**	**184**	**-35,091**	**-72**
Profit/loss from operating activities	**1,689**	**–**	**2,800**	**–**
Result from equity investments	168	–	174	–
Impairment loss on investments accounted for using the equity method	–	43	–	–
EBIT	**1,857**	**–**	**2,974**	**–**
Total amount of reconciliation Adjusted EBIT	–	169	–	-138
Adjusted EBIT	**–**	**2,026**	**–**	**2,836**
Amortisation	–	2,692	–	2,180
Adjusted EBITDA	**–**	**4,718**	**–**	**5,016**

Financial result up to EUR 171m

The financial result climbed by EUR 187m to EUR 171m (previous year: EUR – 16m).

This includes a result from equity investments of EUR 168m, roughly on par with the previous year (previous year: EUR 174m).

Net interest fell by EUR 171m to EUR – 315m (previous year: EUR – 144m), particularly due to a negative one-off effect of EUR 150m in connection with interest on back taxes payable to tax authorities in Germany as explained below.

The result from other financial items was up by EUR 364m to EUR 318m (previous year: EUR – 46m), primarily in connection with a one-off effect from the reversal of exchange rate hedges after hedged aircraft orders were converted into options (EUR + 402m). It was partially offset by measurement losses on derivative financial instruments and financial liabilities.

Income tax expenses increased by 5% to EUR 615m (previous year: EUR 588m). A tax expense of EUR 194m related to a tax matter in Germany from the period 2001 to 2005. Earlier rulings by the regional court and the German Federal Finance Court had upheld the company's legal position. The Federal Tax Court has changed the case law applicable in prior years, however, and reversed the ruling of the lower court in favour of Deutsche Lufthansa AG.

The tax ratio came to 33% in 2019 (previous year: 21%).

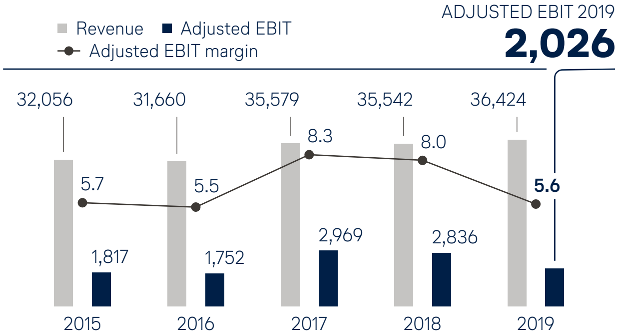
T024 PROFIT BREAKDOWN OF THE LUFTHANSA GROUP

	2019 in €m	2018 in €m	Change in %
Operating income	38,998	37,891	3
Operating expenses	– 37,309	– 35,091	6
Profit from operating activities	**1,689**	**2,800**	**– 40**
Financial result	171	– 16	
Profit/loss before income taxes	**1,860**	**2,784**	**– 33**
Income taxes	– 615	– 588	5
Profit/loss from continuing operations	**1,245**	**2,196**	**– 43**
Profit/loss attributable to minority interests	– 32	– 33	3
Net profit/loss attributable to shareholders of Deutsche Lufthansa AG	**1,213**	**2,163**	**– 44**

Less earnings attributable to minority interests of EUR 32m (previous year: EUR 33m), the net profit for the period attributable to the shareholders of Deutsche Lufthansa AG was EUR 1,213m, which constitutes a decline of 44% (previous year: EUR 2,163m).

Earnings per share were 44% down on the previous year at EUR 2.55 (previous year: EUR 4.58). ↗ Notes to the consolidated financial statements, Note 15, p. 163.

C13 DEVELOPMENT OF REVENUE, ADJUSTED EBIT in €m **AND ADJUSTED EBIT MARGIN** in %



Long-term earnings affected by changes in the economic environment

The Lufthansa Group's business model is exposed to economic cycles and other external factors. Their influence varies from one segment to another. At the airlines in particular, the Company has continually improved its cost position in recent years and taken steps to respond more flexibly to changes in the economic environment. In this respect, the Company has improved its ability to generate profit, even in a difficult environment, and to benefit disproportionately from economic upswings.

The operating result in 2019 was therefore higher than in 2015 and 2016. However, the reporting year did not come up to the strong earnings of 2017 and 2018, which were high compared with prior years. This was largely due to the difficult market environment in Europe, which was characterised in 2019 by price erosion as a result of market overcapacities and the overall economic downturn, as well as year-on-year increases in fuel and MRO costs. Cost cutting was only partially able to compensate for these factors.

Dividend

Dividend policy aims for continuous distributions
Shareholders should participate directly in the Company's success. So in future, according to the adjusted dividend policy, 20% to 40% of Group profits are to be distributed, after adjustment for non-recurring gains and losses. In addition to the regular dividend payment, the dividend policy also allows for shareholders to participate in a particularly positive performance of the Company by means of a special dividend or share buy-back. ↗ **Financial strategy and value-based management, p. 20ff.**

T025 DEVELOPMENT OF EARNINGS AND DIVIDENDS

		2019	2018	2017	2016	2015
Net profit/loss (Group)	€m	1,213	2,163	2,340	1,776	1,698
Dividend per share	€	–	0.80	0.80	0.50	0.50
Dividend ratio (percentage of net profit)	%	–	18	16	13	14

Executive Board and Supervisory Board propose suspending the dividend
For the financial year 2019, there was a net profit at Deutsche Lufthansa AG of EUR 595m. Following the transfer of EUR 297m to retained earnings, distributable profit comes to EUR 298m.

In view of the impact of the coronavirus crisis on the course of business and to further strengthen the balance sheet, the Executive Board and Supervisory Board will propose to the Annual General Meeting on 5 May 2020 to transfer all the distributable profit of EUR 298m shown in the financial statements to retained earnings and consequently not to pay a dividend for the financial year 2019. This does not affect the Lufthansa Group's basic policy of distributing 20% to 40% of its net profit.

FINANCIAL POSITION

Capital expenditure

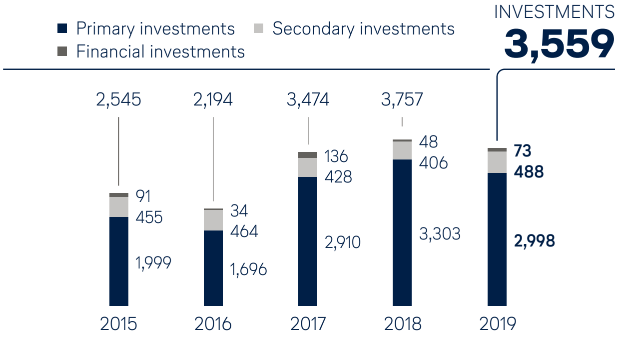
Capital expenditure down 5% on previous year
Gross capital expenditure (without expenditure on equity investments) fell by 5% to EUR 3,559m in 2019 (previous year: EUR 3,757m).

Primary investment in down payments and final payments for aircraft, aircraft components, and aircraft and engine overhauls went down by 9% to EUR 2,998m (previous year: EUR 3,303m). This accounts for 84% of total capital expenditure.

Capital expenditure for other items of property, plant and equipment and for intangible assets, known collectively as secondary investment, increased by 20% to EUR 488m (previous year: EUR 406m). Of the total, EUR 332m (previous year: EUR 297m) was on property, plant and equipment, such as technical equipment and machinery, and on operating and office equipment. EUR 156m was invested in intangible assets, such as licences and software (previous year: EUR 109m).

Financial investments (not including equity investments) of EUR 73m (previous year: EUR 48m) mainly related to cash outflows for loans and investments in fixed-term deposits.

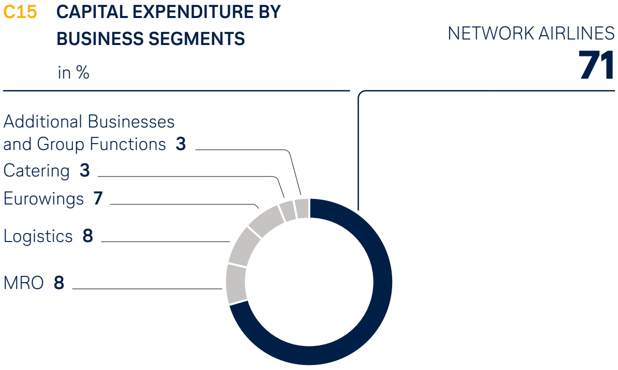
C14 PRIMARY, SECONDARY AND FINANCIAL INVESTMENTS in €m[1]



[1] Excluding acquisition of shares.

Network Airlines accounted for the bulk of capital expenditure with EUR 2,605m (+1% year-on-year). Capital expenditure at Eurowings came to EUR 260m (–50%). ↗ **Fleet, p. 24f.**

C15 CAPITAL EXPENDITURE BY BUSINESS SEGMENTS
in %



Capital expenditure of EUR 286m (–24%) in the Logistics segment consisted mainly of down payments and final payments for cargo aircraft. Capital expenditure of EUR 313m (+28%) in the MRO business segment was mainly for the purchase of reserve engines and to finance joint ventures.

Capital expenditure of EUR 127m (+61%) in the Catering segment consisted mainly of replacement investments in catering facilities and the financing of investee companies.

Cash flow

Cash flow from operating activities down year-on-year by 2%

The Group's cash flow from operating activities was 2% below the figure for the previous year at EUR 4,030m (previous year: EUR 4,109m). The change is particularly due to the decline of 33% in profit before income taxes to EUR 1,860m (previous year: EUR 2,784m) and an increase in tax payments of 51% to EUR 1,009m (previous year: EUR 670m) in connection with higher earnings in recent years and back payments following audits. The introduction of IFRS 16 boosted the figure by EUR 432m due to the absence of lease payments that were previously included in cash flow from operating activities. Cash flow from financing activities was reduced accordingly by interest and capital repayments.

Adjusted free cash flow down 30% on the previous year

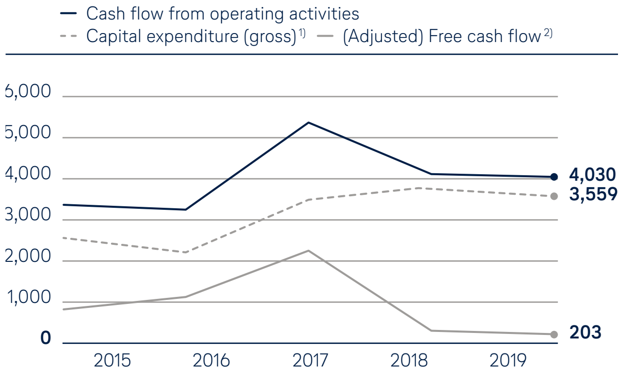
Gross capital expenditure (without acquisitions of equity interests) for the Lufthansa Group came to EUR 3,559m. This included the primary, secondary and financial investment listed above. Payments of EUR 231m were also made for repairable spare parts for aircraft (previous year: EUR 388m) and of EUR 107m (previous year: EUR 60m) for acquisitions of equity interests.

Asset disposals gave rise to income of EUR 136m (previous year: EUR 152m). Interest and dividend income went up by 61% to EUR 313m (previous year: EUR 194m). This brought total net cash used for investing activities to EUR 3,448m, which was 11% down on the year (previous year: EUR 3,859m).

After deducting this net cash used for investing activities, free cash flow for the financial year 2019 was positive at EUR 582m (previous year: EUR 250m).

Adjusted free cash flow (free cash flow adjusted for the IFRS 16 effect) fell by 30% to EUR 203m despite lower net investment, because of higher tax payments and lower operating cash flows (previous year: EUR 288m). Lease payments are shown as payments of capital and interest within cash flow from financing activities, in accordance with IFRS 16. Adjusted free cash flow includes cash outflows for leases (repayment portion) as shown in cash flow for financing activities.

C16 CASH FLOW AND CAPITAL EXPENDITURE in €m



[1] Capital expenditure shown without pro rata profit/loss from the equity valuation.
[2] Since 2018: Adjusted free cash flow.

Financing activities result in net cash outflow

The purchase and disposal of securities including allocations to the pension fund resulted in cash outflows of EUR 419m (previous year: inflow of EUR 590m).

The balance of financing activities resulted in net cash outflow of EUR 161m (decrease of 74%, previous year: outflow of EUR 626m). This included outflows to repay IFRS 16 lease liabilities and corresponding interest payments of EUR 432m.

New borrowing of EUR 3,843m, partly for one euro bond, ten borrower's note loans and 19 aircraft financing deals, was offset by cash outflows of EUR 3,413m in connection with scheduled and early debt repayments. Other cash outflows of EUR 592m were for interest payments and the payment of dividends to the shareholders of Deutsche Lufthansa AG and minority shareholders.

Liquidity up 7% on the previous year's level

Cash and cash equivalents came to EUR 1,431m, on par with the previous year (previous year: EUR 1,434m). Current securities rose by 14% to EUR 1,970m (previous year: EUR 1,735m). Overall liquidity increased by 7% to EUR 3,385m (previous year: EUR 3,169m).

T026 ABBREVIATED CASH FLOW STATEMENT OF THE LUFTHANSA GROUP

	2019 in €m	2018 in €m	Change in %
Profit/loss before income taxes	1,860	2,784	–33
Depreciation and amortisation/reversals	2,837	2,201	29
Net proceeds on disposal of non-current assets	20	–34	
Net interest/result from equity investments	147	–30	
Income tax payments	–1,009	–670	51
Significant non-cash expenses/income	–134	–276	–51
Change in trade working capital	490	410	20
Change in other assets and liabilities	–181	–276	–34
Cash flow from operating activities	**4,030**	**4,109**	**–2**
Investments and additions to repairable spare parts	–3,897	–4,205	–7
Purchase/disposal of shares/non-current assets	136	152	–11
Dividends and interest received	313	194	61
Net cash from/used in investing activities	**–3,448**	**–3,859**	**–11**
Free cash flow	**582**	**250**	**133**
Purchase/disposal of securities/fund investments	**–419**	**590**	
Capital increase	–	–	–
Transactions with minority interests	1	1	0
Non-current borrowing and repayment of non-current borrowing	430	–209	
Dividends paid	–414	–349	19
Interest paid	–178	–69	158
Net cash from/used in financing activities	**–161**	**–626**	**–74**
Changes due to currency translation differences	–5	2	
Cash and cash equivalents 1 Jan	**1,434**	**1,218**	**18**
Cash and cash equivalents 31 Dec	**1,431**	**1,434**	**0**
Less cash and cash equivalents from companies held for sale as of 31 Dec.	16	–	
Cash and cash equivalents from companies not cassified as held for sale as of 31 Dec.	**1,415**	**1,434**	**–1**

NET ASSETS

The Group's total assets rose by 12% as of 31 December 2019 to EUR 42,659m, mainly due to IFRS 16 (previous year: EUR 38,213m).

Non-current assets were up by 14% at EUR 31,374m (previous year: EUR 27,559m). This accounts for 74% of total assets (previous year: 72%). Current assets rose by 6% to EUR 11,285m (previous year: EUR 10,654m). Their share of total assets fell from 28% in the previous year to 26% in 2019.

Shareholders' equity went up by 7% to EUR 10,256m (previous year: EUR 9,573m). Altogether, non-current funding accounted for 63% of total assets (previous year: 58%). Non-current financing covered 85% of non-current assets (previous year: 80%). Current funding fell to 37% of total assets (previous year: 42%).

Assets

Non-current assets up due to IFRS 16 effect and aircraft investments
Current assets grew by 14% in 2019 to EUR 31,374m (previous year: EUR 27,559m). This was particularly due to the IFRS 16 effect of EUR 2,364m. In addition, investments in aircraft and reserve engines (without right-of-use assets) and advance payments on them led to a net increase of 7% in these assets to EUR 17,878m (previous year: EUR 16,776m). Deferred tax assets went up by 6% to EUR 2,268m (previous year: EUR 2,131m), particularly due to interest rate-related measurement gains/losses on pension obligations.

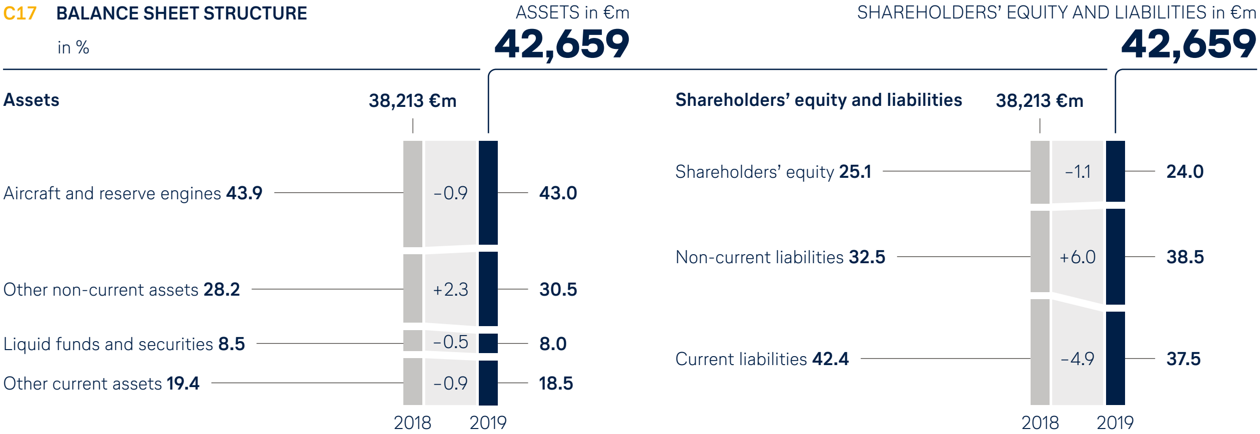
Current assets up 6% year-on-year
Current assets rose year-on-year by 6% to EUR 11,285m (previous year: EUR 10,654m), mainly due to the increase of EUR 369m in assets held for sale (previous year: EUR 9m), of which EUR 358m relate to the disposal group for the European catering companies. In addition, securities of EUR 1,970m were held as a strategic liquidity reserve (+14%, previous year: EUR 1,735m). By contrast, receivables sank by 3% to EUR 5,417m (previous year: EUR 5,576m), mainly due to the decline in the freight business and the reclassification of receivables in the disposal group.

Shareholders' equity and liabilities

Equity up by 7%, equity ratio down by 1.1 percentage points
Shareholders' equity (including minority interests) went up year-on-year by 7% to EUR 10,256m (previous year: EUR 9,573m). The reasons included the positive after-tax result and the increase of EUR 396m in the market value of derivatives. They were offset by measurement losses recognised directly in equity and deferred taxes of EUR 763m, as well as dividend payments to Company shareholders of EUR 380m.

The equity ratio fell year-on-year by 1.1 percentage points to 24.0% (previous year: 25.1%). This more than made up for the negative effect of IFRS 16 accounting changes, which accounted for 1.5 percentage points.

C17 BALANCE SHEET STRUCTURE
in %



T027 DEVELOPMENT OF EARNINGS, EQUITY, EQUITY RATIO AND RETURN ON EQUITY

		2019	2018	2017	2016	2015
Result [1]	€m	1,245	2,196	2,374	1,803	1,722
Equity [1]	€m	10,256	9,573	9,110	7,149	5,845
Equity ratio [1]	%	24.0	25.1	25.5	20.6	18.0
Return on equity [1]	%	12.1	22.9	26.1	25.2	29.5

[1] Including minority interests.

IFRS effect and higher pension obligations cause increase in non-current liabilities

Non-current liabilities and provisions rose in 2019 by 32% to EUR 16,417m (previous year: EUR 12,425m). Non-current borrowing in particular went up, increasing by 68% to EUR 8,396m (previous year: EUR 5,008m). The effect of the first-time application of IFRS 16 comes to EUR 1,958m, of which EUR 1,599m relates to non-current assets. Lease liabilities increased by a further EUR 428m in 2019, resulting in a figure of EUR 2,386m (of which EUR 1,983m relates to non-current assets) at year-end. Pension liabilities also rose by 14% to EUR 6,659m (previous year: EUR 5,865m), largely due to the lower interest rate of 1.4% used to discount pension obligations (previous year: 2.0%); only partly offset by the positive performance of plan assets.

Current liabilities and provisions down year-on-year by 1%

Current liabilities and provisions fell in 2019 by 1% to EUR 15,986m (previous year: EUR 16,215m). This was principally due to the 6% fall in trade payables and other financial liabilities, driven by lower deferrals for performance-related remuneration and the reclassification of debt of the European catering companies disposal group. Effective income tax obligations also fell by 49% due to payments made for prior-year periods and negative market values of derivatives by 65% due to higher crude oil prices.

Liabilities of EUR 540m in connection with assets held for sale relate to the disposal group for the European catering companies and also include pension obligations of EUR 289m.

Net debt up by 91% on the previous year

Net indebtedness of EUR 6,662m was 91% up on the previous year (previous year: EUR 3,489m). This is the balance of gross financial debt and available financial assets. The total of net indebtedness and pension obligations was EUR 13,321m as of the reporting date, which is a year-on-year increase of 42% (previous year: EUR 9,354m).

In addition to the impact of lower earnings, 26 percentage points of the increase or EUR 2,386m stemmed from the IFRS 16 accounting change. Higher pension liabilities accounted for a further 8 percentage points.

Adjusted net debt/Adjusted EBITDA went up 1.0 point on the year to 2.8 due to lower earnings and discount rate-related higher pension provisions and the IFRS 16 effect (together 0.6 points).

T028 CALCULATION OF NET INDEBTEDNESS

	2019 in €m	2018 in €m	Change in %
Liabilities to banks	2,110	1,957	8
Bonds	1,094	1,007	9
Lease liabilities (IFRS 16) [1]	2,386	–	
Other non-current borrowing	4,440	3,721	19
	10,030	**6,685**	**50**
Other bank borrowing	17	39	-56
Group indebtedness	**10,047**	**6,724**	**49**
Cash and cash equivalents	1,415	1,500	-6
Securities	1,970	1,735	14
Net indebtedness	**6,662**	**3,489**	**91**
Pension provisions	6,659	5,865	14
Net indebtedness and pensions	**13,321**	**9,354**	**42**

[1] Without former financial lease liabilities in accordance with IAS 17.

Target achievement and overall statement by the Executive Board on the economic position

Lufthansa Group achieves the forecast for the full year as adjusted in June 2019. | Earnings performance at Eurowings and the Logistics segment below original forecast. | Market environment in Europe, higher fuel costs and decline in airfreight market impact earnings. | MRO and Catering segments performed as forecast.

TARGET ACHIEVEMENT

C18 TARGET ACHIEVEMENT 2019

	Passenger Airlines			
	Network Airlines		Eurowings	
	Forecast for 2019 [1]	Result 2019	Forecast for 2019 [1]	Result 2019
Capacity growth (ASK)	c. + 4%	4%	c. + 2%	– 1%
Unit revenues	stable to down low single-digit	– 3.1%	stable to up low single-digit	– 0.4%
Unit cost	– 0.5% to – 1.5%	– 1.0%	– 7% to – 9%	– 3.7%
Fuel	+ EUR 550m	+ EUR 595m	+ EUR 100m	+ EUR 81m
Adjusted EBIT margin	**7.5% to 9.5%**	**7.8%**	**around 0%**	**– 4.0%**

	Non-PAX							
	Logistics		MRO		Catering		Other	
	Forecast [1] for 2019	Result 2019	Forecast [1] for 2019	Result 2019	Forecast [1] for 2019	Result 2019	Forecast [1] for 2019	Result 2019
Revenue growth	up high single-digit	– 9%	up mid single-digit	13%	stable	4%		
Adjusted EBIT margin	7% to 9%	0.0%	7% to 8%	7.1%	2% to 4%	3.8%		
Adjusted EBIT							– EUR 150m	– EUR 227m

	Lufthansa Group	
	Forecast for 2019 [1]	Result 2019
Revenue growth	up mid-single digit	2%
Adjusted EBIT margin	6.5% to 8.0%	5.6%

[1] As stated in the 2018 Annual Report.

Revised forecast for financial year achieved

In June 2019, the Lufthansa Group revised its full-year forecast for the Adjusted EBIT margin from “6.5% to 8.0%” to “5.5% to 6.5%”. The main reasons were the high pricing pressure in Europe due to overcapacities and the downturn in the global airfreight market. The revised forecast represented Adjusted EBIT of between EUR 2.0bn and EUR 2.4bn. This forecast was achieved with an Adjusted EBIT margin of EUR 5.6% and Adjusted EBIT of EUR 2,026m.

Original forecast for 2019 only achieved in some business segments

The outlook for the financial performance in 2019 originally published in the Annual Report 2018 could only be achieved in individual segments. Earnings in the segments Network Airlines, MRO and Catering were in line with the original forecast.

The original forecast for the Eurowings segment was not reached, however. This was due to the difficult European market environment, which was characterised by intense competition and overcapacities. The ensuing price erosion could only partly be offset by improvements in operational stability and the first effects of turnaround measures.

In the Logistics segment the original forecast was also missed in financial year 2019. The reason here was the decline of the global airfreight market, which suffered particularly from trade disputes and the uncertainty surrounding Brexit.

Gross capital expenditure and gearing were as forecast. Adjusted ROCE was behind original expectations due to the weaker earnings performance.

T029 TARGET ACHIEVEMENT AND DEVELOPMENT OF SIGNIFICANT KPIS

		Result 2018	**Forecast for 2019[1]**	**Result 2019**
Capital expenditure (gross)	€m	3,757	around 3,600	3,559
Adjusted ROCE	%	10.6	slightly below previous year	6.6
Adjusted net debt/ Adjusted EBITDA		1.8	significantly below 3.5	2.8

[1] As stated in the Annual Report 2018.

OVERALL STATEMENT BY THE EXECUTIVE BOARD ON ECONOMIC POSITION

2019 was a demanding year for the Lufthansa Group. It was defined by slower global economic growth, trade disputes, Brexit uncertainty and overcapacities in home markets, which resulted in lower prices. Despite these difficult conditions, the Lufthansa Group generated Adjusted EBIT of more than EUR 2bn in the reporting year.

Unit costs were reduced again for the fourth year in succession. Further profitable growth was achieved in the long-haul business and the Group further strengthened its position in its home markets. New records for passenger numbers, available seat-kilometres and revenue passenger-kilometres, and the passenger load factor were all set in the financial year. Lufthansa Technik and the LSG group improved their earnings.

The strategic redefinition of the Lufthansa Group from an aviation group to an airline group was continued with the sale of the LSG group’s European business.

The premium positioning of Network Airlines was reinforced by fleet renewal and the introduction of innovative products and services. This quality offensive was again rewarded with prestigious accolades and the repeated confirmation of the Five-Star rating from Skytrax.

The strategic realignment of Eurowings with a focus on short-haul connections in direct traffic was rewarded with some initial successes. An extensive package of measures is intended to bring it back to profitability by the year 2021. Programmes to deliver sustainable earnings improvements were also initiated at Austrian Airlines, Brussels Airlines and Lufthansa Cargo.

The Lufthansa Group also developed a comprehensive strategy, comprising both short- and long-term measures, to minimise the environmental impact of flying and above all to reduce CO_2 emissions.

The strong market position of the airlines and aviation services, the steps taken to reposition the Group and its strong balance sheet form a solid basis for sustainable, profitable growth.

Business segments
Network Airlines business segment

The Network Airlines segment comprises Lufthansa German Airlines, SWISS and Austrian Airlines. | Focus on premium positioning, fleet renewal and operational stability. | Further reductions in unit costs. | Earnings impaired by difficult market situation and higher fuel costs.

23.1
€bn **Revenue**

1,805
€m **Adjusted EBIT**

T030 **KEY FIGURES NETWORK AIRLINES**

		2019	2018	Change in %
Revenue	€m	23,106	22,549	2
of which traffic revenue	€m	21,375	20,707	3
Adjusted EBITDA	€m	3,483	3,926	-11
Adjusted EBIT	€m	1,805	2,429	-26
EBIT	€m	1,757	2,549	-31
Adjusted EBIT margin	%	7.8	10.8	-3.0 pts
Adjusted ROCE	%	12.2	19.4	-7.2 pts
EACC	€m	850	1,518	-44
Segment capital expenditure	€m	2,605	2,573	1
Employees as of 31 Dec	number	52,741	51,778	2
Average number of employees	number	52,378	51,327	2

Business activities

Network Airlines focus on the quality of the product and services

The Network Airlines segment comprises Lufthansa German Airlines, SWISS and Austrian Airlines.

The three airlines offer their customers a premium experience, with high-quality products and services. The multi-hub strategy offers passengers a comprehensive route network along with the greatest possible flexibility for their journey.

In the 2019 summer flight timetable, the route network comprised 273 destinations in 86 countries, served via the international hubs in Frankfurt, Munich, Zurich and Vienna.

Commercial joint ventures with leading international airlines also make connections more attractive for customers, partly by adding new destinations to the route network. Commercial joint ventures exist with United Airlines and Air Canada on routes between Europe and North America, and with All Nippon Airways (ANA), Singapore Airlines and Air China on routes between Europe and Japan as well as Singapore and China respectively. In addition, numerous code-share agreements exist.

Course of business and operating performance

Fleet renewal and harmonisation continues

The Network Airlines in the Lufthansa Group modernise their fleet continuously. Deploying modern aircraft models reduces costs, fuel consumption, and CO_2 and noise emissions. Furthermore, the standardisation of the fleet and the reduction in the number of aircraft types also reduces complexity, which then results in further cost savings.

Complexity is also reduced by harmonising the cabins. All the aircraft from the Airbus A320 family delivered to Network Airlines since 2019 have been completed with a standard cabin. This means the aircraft can be adapted quickly and at low cost if needed and transferred between the Network Airlines. Other synergies can also be realised in aircraft purchasing.

Further improvements in operational stability

The measures introduced in 2018 to improve operational stability as part of the Operational Excellence project were continued in 2019 and have been highly effective. Punctuality and reliability were improved significantly year-on-year, resulting in increased customer satisfaction.

Ongoing improvements to customer experience

The Network Airlines invest continuously to improve their products and services in order to offer customers a high-quality travel experience.

For example, a new, improved seat was introduced in 2019, which will offer Network Airlines passengers even greater comfort in future on short-haul routes. The innovative seat has a USB socket, a tablet holder and more space.

Under the strategic heading of "New Premium", the Network Airlines are concentrating on fulfilling customer needs even better along the entire travel chain. Digitalisation and sustainability aspects play an increasingly important role here.

The various quality improvement measures are appreciated by customers. This is again reflected in the various awards that the Network Airlines received in the reporting year.

Traffic figures set new records

The Network Airlines carried a total of 107 million passengers in 2019 (previous year: 104 million). This represents a year-on-year increase of 3% and sets another new record for passenger numbers. The number of flights went up by 2%. Capacity increased by 4% and sales were up by 5%. The passenger load factor rose by 1.0 percentage points to 82.5%. Yields fell by 2.0%. After adjustment for exchange rates, they were 3.9% lower than the previous year. Traffic revenue was up by 3% due to volumes and exchange rates.

T031 TRAFFIC FIGURES NETWORK AIRLINES

		2019	2018	Change in %
Flights [1]	number	859,888	840,945	2
Passengers [1]	thousands	106,978	103,639	3
Available seat-kilometres [1]	millions	295,687	284,642	4
Revenue seat-kilometres [1]	millions	243,982	232,030	5
Passenger load factor	%	82.5	81.5	1.0 pts

[1] Previous year's figures have been adjusted.

Capacity and sales increased in all traffic regions. The passenger load factor was unchanged in the Europe traffic region and increased in all other traffic regions. Yields fell in all the traffic regions. Traffic revenue increased in all traffic regions.

T032 TRENDS IN TRAFFIC REGIONS
Network Airlines

	Net traffic revenue external revenue		Number of passengers		Available seat-kilometres		Revenue seat-kilometres		Passenger load factor	
	2019 in €m	Change in %	**2019** in Tsd.	Change in %	**2019** in €m	Change in %	**2019** in €m	Change in %	**2019** in %	Change in pts
Europe	8,748	1	81,674	3	87,248	4	67,248	4	77.1	0.0
America	7,121	4	12,346	4	111,070	3	94,990	5	85.5	1.6
Asia/Pacific	4,030	4	7,325	4	69,796	3	59,505	5	85.3	1.0
Middle East/ Africa	1,622	9	5,633	9	27,573	8	22,239	10	80.7	1.6
Reconciliation item [1]	–146	–14	–	–	–	–	–	–	–	–
Total traffics	**21,375**	**3**	**106,978**	**3**	**295,687**	**4**	**243,982**	**5**	**82.5**	**1.0**

[1] This includes compensation payments of EUR 146m for flight cancellations and delays.

Revenue and earnings development

Revenue performed well

Revenue in the Network Airlines business segment rose by 2% to EUR 23,106m in 2019 due to greater traffic (previous year: EUR 22,549m). Operating income went up by 3% to EUR 23,891m (previous year: EUR 23,248m). Unit revenues at constant exchange rates (RASK) fell by 3.1%, mainly due to declines in European traffic that were caused by lower prices, which themselves resulted from overcapacities across the market and a general economic downturn in home markets. These could only partially be offset by improvements on long-haul routes.

T033 OPERATING FIGURES NETWORK AIRLINES[1]

	2019 in € cent	2018 in € cent	Change in %	Exchange-rate adjusted change in %
Yields	8.8	9.0	- 2.0	- 3.9
Unit revenue (RASK)	8.0	8.1	- 1.0	- 3.1
Unit cost (CASK) without fuel	5.6	5.6	0.5	- 1.0

[1] Without effects from reclassification of compensation payments for flight delays.

Expenses up year-on-year

Operating expenses went up by 6% to EUR 22,132m in 2019 (previous year: EUR 20,854m), particularly due to higher MRO and fuel costs. Constant currency unit costs (CASK) excluding fuel fell by 1.0%, largely thanks to productivity improvements and lower expenses for irregularities in flight operations.

The cost of materials and services was 9% up on the year at EUR 12,799m (previous year: EUR 11,714m). Fuel costs climbed by 13% to EUR 5,326m (previous year: EUR 4,731m). Expenses for emissions certificates came to EUR 57m, a year-on-year increase of 73% (previous year: EUR 33m). Expenses for MRO services increased by 13% to EUR 1,912m (previous year: EUR 1,691m).

Staff costs rose year-on-year by 1% to EUR 4,210m (previous year: EUR 4,159m), whereas the workforce grew by 2%.

Depreciation and amortisation rose by 12% to EUR 1,678m in total (previous year: EUR 1,497m). Other operating expenses went down by 1% to EUR 3,445m (previous year: EUR 3,484m).

T034 OPERATING EXPENSES NETWORK AIRLINES

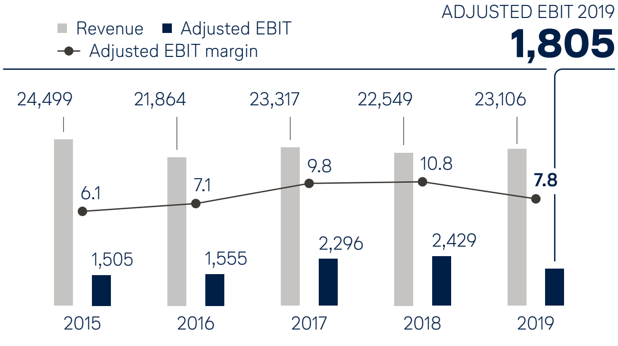
	2019 in €m	2018 in €m	Change in %
Cost of materials and services	12,799	11,714	9
of which fuel	5,326	4,731	13
of which fees	3,282	3,224	2
of which charter[1]	246	181	36
of which MRO services	1,912	1,691	13
Staff costs[2]	4,210	4,159	1
Depreciation and amortisation[3]	1,678	1,497	12
Other operating expenses[4]	3,445	3,484	- 1
Total operating expenses	**22,132**	**20,854**	**6**

[1] In 2018 including operating lease expenses according to IAS 17.
[2] Without past service costs/settlement.
[3] Without impairment losses.
[4] Without book losses.

Adjusted EBIT down 26% on the previous year

The Network Airlines generated Adjusted EBIT of EUR 1,805m in 2019. This was 26% down on the year (previous year: EUR 2,429m). The Adjusted EBIT margin fell by 3.0 percentage points to 7.8% (previous year: 10.8%). EBIT fell year-on-year by 31% to EUR 1,757m (previous year: EUR 2,549m). The difference to Adjusted EBIT in the reporting year stemmed mainly from book losses on scrapped aircraft and impairment losses on IT projects and financial claims related to the insolvency of the Thomas Cook group.

C19 NETWORK AIRLINES: DEVELOPMENT OF REVENUE, ADJUSTED EBIT in €m AND ADJUSTED EBIT MARGIN[1] in %



[1] Values for 2015 in accordance with the former segment Passenger Airline Group.

Segment capital expenditure up year-on-year

Segment capital expenditure rose year-on-year by 1% to EUR 2,605m (previous year: EUR 2,573m), mainly due to the modernisation of the long-haul fleets.

LUFTHANSA GERMAN AIRLINES

T035 KEY FIGURES LUFTHANSA GERMAN AIRLINES[1]

		2019	2018	Change in %
Revenue	€m	16,119	15,803	2
Adjusted EBITDA	€m	2,336	2,750	-15
Adjusted EBIT	€m	1,225	1,753	-30
EBIT	€m	1,167	1,773	-34
Adjusted EBIT margin	%	7.6	11.1	-3.5 pts
Employees as of 31 Dec	number	35,221	34,754	1
Average number of employees	number	34,996	34,599	1
Flights[2]	number	561,510	554,615	1
Passengers[2]	thousands	71,307	69,886	2
Available seat-kilometres[2]	millions	204,202	196,789	4
Revenue seat-kilometres	millions	168,085	160,074	5
Passenger load factor[2]	%	82.3	81.3	1.0 pts

[1] Including regional partners.
[2] Previous year's figures have been adjusted.

Lufthansa German Airlines is the largest airline in Germany. It has hubs at the two biggest German airports in Frankfurt and Munich. The Lufthansa CityLine and Air Dolomiti regional airlines are also part of Lufthansa German Airlines. Overall, Lufthansa German Airlines operates a fleet of 364 aircraft and serves a route network comprising 214 destinations in 75 countries.

Continuous modernisation of the fleet

In 2019, Lufthansa German Airlines consistently pursued the programme of fleet renewal it began in 2013. A total of 20 new aircraft went into service. These are among the most modern, quietest and most fuel-efficient aircraft in the world.

Three new A350-900s were stationed in Munich. This state-of-the-art wide-bodied aircraft flies with an average fuel consumption of 2.6 litres per 100 passenger-kilometres.

A further 17 aircraft from the A320 family also went into service for short-haul routes, including five A320neos and seven A320ceos. The first A321neo also went into service at Lufthansa German Airlines in 2019. This next-generation successor to the A321 uses up to 20% less fuel, is much quieter, and emits less CO_2 than its predecessor. Five aircraft of this type were stationed in Frankfurt at year-end 2019.

Route network to be optimised and long-haul tourist destinations added

Lufthansa German Airlines integrated many new destinations into its route network in 2019. Activities in the strategically important leisure travel market were increased on short- and medium-haul as well as long-haul routes. The long-haul flight timetable, for example, now includes flights from Frankfurt to the holiday islands of Mauritius and Barbados, as well as to Las Vegas and Windhoek. These flights are carried out by the Eurowings long-haul fleet, commercial responsibility for which was transferred to the Network Airlines organisation as of 1 January 2020. The range of long-haul tourist destinations from Frankfurt, Munich and Dusseldorf will be expanded in the 2020 summer flight timetable. In 2019, the intermodal offering for domestic German traffic in cooperation with Deutsche Bahn was extended, to give passengers an environmentally friendly connection to Frankfurt Airport.

Focus on customer service and digitalisation

Lufthansa German Airlines strives for quality leadership in its markets. To achieve this, it continually identifies and implements measures to refine customer services along the entire travel chain. In one pilot project, for example, it showed that boarding times can be reduced significantly with the help of biometric methods. Increasing digitalisation means that products can be offered efficiently and cheaply and booked by customers using the Lufthansa app.

Following the introduction of new customer segments as part of the "New Premium" concept, passengers can now be offered customised products. On selected long-haul flights, for instance, Lufthansa German Airlines now offers fares that only include hand baggage. Special luggage, seat reservations and many more additional services can be booked separately.

Measures to improve earnings and increase efficiency are having an effect

Lufthansa German Airlines is continuing to implement measures to improve earnings and increase efficiency sustainably. In the reporting year these once again reduced unit costs. Key areas include the ongoing fleet modernisation and the associated reduction in fuel consumption, optimisation of the route network and adjustments to in-flight service processes. The programme to improve operating performance was also embedded in the organisational structure in order to achieve further improvements in punctuality and reliability. This is intended to increase customer satisfaction and reduce costs caused by irregularities in flight operations.

Quality offensive is rewarded with prestigious awards

The diverse activities to increase customer satisfaction were acknowledged by valued industry accolades. Lufthansa German Airlines was voted "Best Airline in Europe" and "Best Western European Airline" in 2019 for the third time in a row by the renowned market research institute Skytrax, based on a survey of some 20 million passengers from more than 160 countries. Furthermore, Lufthansa German Airlines is still the only airline outside Asia to hold the sought-after Five-Star rating from Skytrax. Furthermore, Lufthansa German Airlines was voted "ATW Airline of the Year" by the trade journal Air Transport World and "Best Airline for Business Travelers in German and European Traffic" at the Business Traveller Awards.

Further increases in passenger numbers and load factor

Lufthansa German Airlines increased the number of passengers by 2% to 71 million in 2019 (previous year: 70 million). Capacity was increased by 4% and sales were up year-on-year by 5%. The passenger load factor rose by 1.0 percentage point to 82.3% (previous year: 81.3%). Yields fell by 4.4% after adjusting for exchange rates, mainly due to intense competition and overcapacities on European short-haul routes. Adding more destinations in the long-haul tourist segment had a negative structural impact on this trend. Traffic revenue at Lufthansa German Airlines rose by 3% in 2019 to EUR 14,875m, mainly due to volumes (previous year: EUR 14,496m).

Revenue and earnings up

Revenue rose year-on-year by 2% to EUR 16,119m (previous year: EUR 15,803m). Operating income also went up by 2% to EUR 16,635m (previous year: EUR 16,300m).

Operating expenses in 2019 were 6% up on the year at EUR 15,455m (previous year: EUR 14,581m). An increase of 13% in fuel costs and of 11% in MRO expenses were largely responsible for the change.

In the reporting year, Adjusted EBIT was 30% down on the year at EUR 1,225m (previous year: EUR 1,753m). The Adjusted EBIT margin fell by 3.5 percentage points to 7.6% (previous year: 11.1%).

SWISS

T036 KEY FIGURES SWISS[1]

		2019	2018	Change in %
Revenue	€m	5,144	4,870	6
Adjusted EBITDA	€m	959	926	4
Adjusted EBIT	€m	558	593	– 6
EBIT	€m	572	686	– 17
Adjusted EBIT margin	%	10.8	12.2	– 1.4 pts
Employees as of 31 Dec	number	10,531	9,941	6
Average number of employees	number	10,361	9,629	8
Flights[2]	number	167,119	159,533	5
Passengers[2]	thousands	21,591	20,432	6
Available seat-kilometres[2]	millions	63,325	60,519	5
Revenue seat-kilometres[2]	millions	53,120	50,283	6
Passenger load factor[2]	%	83.9	83.1	0.8 pts

[1] Including Edelweiss Air.
[2] Previous year's figures have been adjusted.

SWISS is the biggest airline in Switzerland. Together with its sister company Edelweiss Air, it serves a global route network of 162 destinations in 58 countries with a fleet of 107 aircraft from airports in Zurich and Geneva. The separately managed Swiss WorldCargo division uses the belly capacities of SWISS aircraft to offer comprehensive airport-to-airport services for high-value goods and sensitive freight to 130 destinations in more than 80 countries.

Premium positioning further strengthed

SWISS continued to invest systematically in a high-quality travel experience for its customers in 2019, and in doing so further strengthed its premium positioning. Four of its total of five A340s were modernised and equipped with new seats in all three travel classes, a new in-flight entertainment system, including internet access, and a new lighting concept. The fifth aircraft was upgraded in January 2020. Since then SWISS has offered its passengers a uniform premium travel experience on all its long-haul routes.

SWISS also improved its ground offering, opening a modernised check-in area in Terminal 1 at Zurich Airport. Better zoning, a modernised layout of desks for groups, families and premium passengers, and waiting areas facilitate orientation and ensure greater comfort for departing passengers in all travel classes. The SWISS Alpine Lounge, a novel lounge with alpine flair and a modern catering concept, was also opened in the same terminal.

Awards in recognition of first-class quality

SWISS received prestigious awards in 2019. At the Skytrax World Airline Awards 2019, the SWISS First Class Lounge in Terminal E at Zurich Airport was voted “The World’s Best First Class Lounge”. SWISS also won the title of “Europe’s Leading Airline – Economy Class” for the second year running at the World Travel Awards.

Cost efficiency to be improved

SWISS will keep working intensively to improve its cost efficiency in 2020. The airline is investing in the further optimisation of its operational stability, which will reduce the costs of providing assistance and compensation for flight irregularities.

Significant efficiency gains should also come from the further modernisation of the fleet. SWISS brought the first A320neo aircraft into its fleet at the start of 2020. Aircraft of this type are particularly fuel-efficient and are intended to replace older models. SWISS is also expanding its range of customised products and services, investing more in digital projects, opening up new sources of revenue and pursuing cost-cutting activities in collaboration with the other airlines in the Lufthansa Group.

Passenger numbers once again at record level

SWISS set another new record for passenger numbers in 2019. The number of passengers carried increased by 6% year-on-year to 21.6 million (previous year: 20.4 million). The number of flights went up by 5%. Capacity also rose by 5% and sales were up by 6%. The passenger load factor rose by 0.8 percentage points to 83.9% (previous year: 83.1%). Yields rose by 0.8% after adjusting for exchange rates. Traffic revenue increased by 7% to EUR 4,559m, mainly due to volumes and exchange rates (previous year: EUR 4,255m).

Adjusted EBIT down on the previous year

Revenue at SWISS went up in 2019 by 6% to EUR 5,144m, principally because of higher traffic and exchange rates (previous year: EUR 4,870m). Operating income also rose by 6% to EUR 5,356m (previous year: EUR 5,060m) despite a fall of 9% in cargo income.

Operating expenses of EUR 4,798m were 7% up on the year (previous year: EUR 4,467m). Exchange rate movements and the 13% increase in both fuel costs and MRO expenses were the main reasons.

Adjusted EBIT fell accordingly by 6% to EUR 558m (previous year: EUR 593m). This meant that the Adjusted EBIT margin came to 10.8%, a year-on-year decrease of 1.4 percentage points (previous year: 12.2%).

AUSTRIAN AIRLINES

T037 **KEY FIGURES AUSTRIAN AIRLINES**

		2019	2018	Change in %
Revenue	€m	2,108	2,149	–2
Adjusted EBITDA	€m	188	252	–25
Adjusted EBIT	€m	19	83	–77
EBIT	€m	15	90	–83
Adjusted EBIT margin	%	0.9	3.9	–3.0 pts
Employees as of 31 Dec	number	6,989	7,083	–1
Average number of employees	number	7,022	7,099	–1
Flights[1]	number	139,230	135,293	3
Passengers[1]	thousands	14,651	13,934	5
Available seat-kilometres	millions	28,510	27,703	3
Revenue seat-kilometres[1]	millions	23,050	21,965	5
Passenger load factor	%	80.8	79.3	1.5 pts

[1] Previous year’s figures have been adjusted.

Austrian Airlines is Austria’s largest airline. It operates a global route network to 114 destinations in 47 countries with its own fleet of 82 aircraft.

Strategic realignment as part of the programme #DriveTo25

Austrian Airlines successfully launched the #DriveTo25 strategy programme in early 2019. It focuses on process improvements, digitalisation and concentration on the core business. Increasing competition in Vienna also calls for strategic policy decisions concerning the fleet and route network. As part of the strategy programme, the 18 Dash 8-400 turboprop aircraft are due to be retired by 2021 and replaced by six A320s and four A320s on wet lease from Eurowings. This will enable Austrian Airlines to reduce complexity in its fleet and increase productivity. Four A320s were integrated into the fleet in 2019 in exchange for four Dash 8-400s.

One key element of #DriveTo25 is the PE20 process efficiency programme that was adopted in early 2020. The programme aims to increase productivity by significantly reducing staff costs and other operating costs. It is based on a process analysis carried out beforehand, which led to a reorganisation of workflows and organisational structures. From the end of 2021, it is intended to deliver annual cost savings of EUR 90m. This will also entail 700 to 800 redundancies.

Decentralised traffic between Austria and Germany to be reorganised
Austrian Airlines and Eurowings are reorganising their operations in Austria and increasing their cooperation. Their common aim is to strengthen the hub in Vienna and expand decentralised traffic. Austrian Airlines will take over full commercial responsibility for the Vienna hub in order to optimise transfer traffic. Four Eurowings aircraft are already in service at Austrian Airlines on a wet lease as of 2020. In addition, the existing decentralised crew bases are to be moved to Vienna.

Further expansion of the route network and concentration of connections to North America
Austrian Airlines further expanded its route network in 2019. Since the 2019 summer timetable, Austrian Airlines has increased the number of flights between Austria and Germany, and it also offers numerous European holiday destinations. On long-haul routes, the focus was on the new connection between Vienna and Montreal as part of the joint venture with Air Canada. Air Canada took over the Toronto–Vienna route in exchange.

Catering in Premium Economy Class wins renowned awards
Austrian Airlines and its catering partner DO & CO won the "Best Premium Economy Class Onboard Catering" award at the Skytrax World Airline Awards 2019.

Passenger numbers and load factor reach new records
With an increase of 5% to 14.7 million, Austrian Airlines carried more passengers than in the previous year and thus more than ever before in its 61-year history. Capacity was increased by 3% and sales were up by 5%. The passenger load factor was 1.5 percentage points higher year-on-year, at 80.8% (previous year: 79.3%), also setting a new record. Yields were 6.7% down on the year after adjustment for exchange rates, especially due to declines on short-haul routes. Traffic revenue fell by 1% to EUR 1,941m for pricing reasons (previous year: EUR 1,956m).

Adjusted EBIT lower than previous year
Revenue at Austrian Airlines was 2% down on the year in 2019 at EUR 2,108m (previous year: EUR 2,149m). This is primarily due to greater competition from low-cost carriers at the Vienna hub. Capacities to North America and to European destinations are being increased in response.

Operating expenses went up by 1% to EUR 2,164m (previous year: EUR 2,144m). Positive effects of the fleet renewal and cost savings in other areas were partly able to make up for the 12% increase in fuel costs and the 38% increase in MRO expenses.

Adjusted EBIT was 77% down on the previous year at EUR 19m (previous year: EUR 83m). The Adjusted EBIT margin fell by 3.0 percentage points to 0.9% (previous year: 3.9%).

Eurowings business segment

Eurowings focuses on the growing market for European direct traffic. | Commercial responsibility for Eurowings long-haul routes and Brussels Airlines transferred to the Network Airlines. | Strategic restructuring aims at return to profitability in 2021. | Expansion of digital services continues. | Earnings up on the previous year.

4.1
€bn **Revenue**

–166
€m **Adjusted EBIT**

T038 **KEY FIGURES EUROWINGS**

		2019	2018	Change in %
Revenue	€m	4,123	4,098	1
of which traffic revenue	€m	3,987	3,986	0
Adjusted EBITDA	€m	299	141	112
Adjusted EBIT	€m	-166	-231	28
EBIT	€m	-174	-231	25
Adjusted EBIT margin	%	-4.0	-5.6	1.6 pts
Adjusted ROCE	%	-4.8	-8.2	3.4 pts
EACC	€m	-239	-262	9
Segment capital expenditure	€m	260	515	-50
Employees as of 31 Dec	number	8,809	9,255	-5
Average number of employees	number	9,087	9,296	-2

Business activities

Eurowings focuses on the market for European direct traffic
The Eurowings segment in 2019 comprised the airlines Eurowings, Eurowings Europe, Germanwings and Brussels Airlines. The equity investment in SunExpress is also part of this segment. The route network of the Eurowings segment was served from a total of 14 bases in the summer flight timetable 2019, comprising 192 destinations in 60 countries.

With Eurowings, the Lufthansa Group has an innovative offering for price-sensitive and service-oriented customers in the growing European direct traffic segment. In addition to a growing share of business travellers, Eurowings is a key partner of tour operators given the number of tourist destinations in its portfolio.

Course of business and operating performance

Eurowings adjusts strategic direction
Eurowings is carrying out a strategic restructuring. An extensive package of measures is intended to bring it back to profitability by the year 2021. The Adjusted EBIT margin should reach 7% in the medium and long term.

At the heart of the new strategy is a clear focus on short-haul routes in direct traffic. Commercial responsibility for the Eurowings long-haul business has therefore been moved to Lufthansa German Airlines. In addition, the integration of Brussels Airlines with Eurowings was stopped in the course of 2019. Brussels Airlines will instead move closer to Network Airlines and report as part of this operating segment from 2020. The aim of refocusing the Eurowings network is to grow in core markets via higher productivity and to defend positions in strategically important markets.

In addition, the fleet is to be harmonised and rejuvenated. Cutting flight operations down to one in Germany should also reduce complexity and increase productivity.

The first measures were successfully implemented in 2019. Savings were achieved by renegotiating contracts, modernising the fleet, improving the operating performance, optimising the route network and increasing the productivity of aircraft and crew.

High-level operational performance
The package of measures developed in 2018 and implemented in 2019 has delivered greater stability and reliability in flight operations. The operational performance improved significantly in 2019. Eurowings was among the most punctual and reliable airlines in Europe in the reporting year. This was also reflected in customer satisfaction, which has continued to improve.

Digital services are being expanded
Eurowings is driving the expansion of its digital solutions and services. The aim is to supply customers with relevant services and information along the entire travel chain. At the same time, the website **www.eurowings.com** is to be developed into a leading digital travel companion. Direct sales channels are to be expanded and other income increased significantly by personalising offers and integrating new partners. The Eurowings customer app was voted the most customer-friendly airline app by Focus Money.

Brussels Airlines focuses on improving profitability
Brussels Airlines adopted a turnaround plan in 2019 to significantly improve its profitability. The airline's Adjusted EBIT margin is to be lifted to 8% in the long term. The focus of the plan is the simplification and standardisation of operating structures and processes. This should significantly reduce costs, restructure the route network, standardise the fleet and improve reliability and punctuality. Brussels Airlines will benefit from close cooperation with the Network Airlines.

Eurowings and Brussels Airlines under new management
The Executive Board of Deutsche Lufthansa AG has appointed new CEOs to Eurowings and Brussels Airlines. Jens Bischof became CEO of Eurowings as of 1 March 2020. Dieter Vranckx has been the new CEO of Brussels Airlines since 1 January 2020.

Traffic roughly on par with previous year
The flight operations of the Eurowings business segment carried more than 38 million passengers in 2019. This meant that passenger numbers were at the same level as the previous year, with the number of flights down by 2%. Capacity was reduced by 1% and sales were on par with the previous year. Intense competition and overcapacities on European short-haul routes, particularly in the first half of 2019, put prices under severe pressure. Extensive capacity cuts were made in response, particularly in the final quarter of 2019. The passenger load factor improved by 0.9 percentage points to 82.2% (previous year: 81.3%). Yields increased by 0.1% compared with the previous year, but fell by 0.4% after adjusting for exchange rates. Traffic revenue was also the same as in the previous year. Without the effect of reclassifying compensation payments for flight delays, traffic revenue was down by 1%.

T039 TRAFFIC FIGURES EUROWINGS

		2019	2018	Change in %
Flights	number	317,427	322,620	-2
Passengers[1]	thousands	38,212	38,297	0
Available seat-kilometres	millions	63,880	64,748	-1
Revenue seat-kilometres	millions	52,529	52,609	0
Passenger load factor	%	82.2	81.3	0.9 pts

[1] Previous year's figures have been adjusted.

From a regional perspective, capacity was reduced for both short- and long-haul routes. Sales rose on short-haul routes and fell on long-haul routes. The load factor increased on both short- and long-haul routes. Yields and traffic revenue fell on short-haul routes and increased on long-haul routes.

Revenue and earnings development

Revenue down due to intense competition and overcapacities on European short-haul routes
Revenue at the Eurowings segment rose year-on-year by 1% to EUR 4,123m (previous year: EUR 4,098m). Without the effect of reclassifying compensation payments for flight delays, revenue was on par with the previous year. Losses due to severe pricing pressure in Europe as a result of overcapacities, especially in the first half of 2019, were only partly offset by improvements in long-haul business. Constant currency unit revenues (RASK) went down year-on-year by 0.4%.

T040 TRENDS IN TRAFFIC REGIONS
Eurowings

	Net traffic revenue external revenue		Number of passengers		Available seat-kilometres		Revenue seat-kilometres		Passenger load factor	
	2019 in €m	Change in %	2019 in thousands	Change in %	2019 in millions	Change in %	2019 in millions	Change in %	2019 in %	Change in pts
Short-haul	3,064	-2	34,953	0	42,088	-1	34,484	1	81.9	1.1
Long-haul	1,050	7	3,259	1	21,792	-3	18,045	-2	82.8	0.8
Reconciliation item[1]	-127	-4	–	–	–	–	–	–	–	–
Total	**3,987**	**0**	**38,212**	**0**	**63,880**	**-1**	**52,529**	**0**	**82.2**	**0.9**

[1] This includes compensation payments of EUR 93m for flight cancellations and delays.

T041 OPERATING FIGURES EUROWINGS[1]

	2019 in € cent	2018 in € cent	Change in %	Exchange-rate adjusted change in %
Yields	7.8	7.8	0.1	-0.4
Unit revenue (RASK)	6.9	6.8	1.7	-0.4
Unit cost (CASK) without fuel	5.5	5.7	-2.2	-3.7

[1] Without effects from reclassification of compensation payments for flight delays.

Turnaround measures reduce expenses

Operating expenses of EUR 4,655m were stable year-on-year (previous year: EUR 4,643m). Without the effect of reclassifying compensation payments for flight delays, operating expenses were down by 1% compared with the previous year. Lower costs for flight irregularities as well as structural productivity and cost improvements were offset by higher fuel costs. Constant currency unit costs (CASK) excluding fuel were 3.7% lower than in the previous year and were negatively influenced by above-average capacity reduction on long-haul routes.

The cost of materials declined year-on-year by 1% to EUR 3,005m (previous year: EUR 3,042m). Without the effect of reclassifying compensation payments for flight delays, the cost of materials and services was down by 2%. Within the cost of materials and services, fuel costs were up by 8% due to pricing at EUR 1,054m (previous year: EUR 973m). Expenses for emissions certificates also increased by 66% due to pricing to EUR 53m (previous year: EUR 32m).

Charter expenses were down by 16% to EUR 270m, mainly due to the first-time application of IFRS 16 (previous year: EUR 323m).

Improvements in operational stability led to lower costs for flight irregularities.

T042 OPERATING EXPENSES EUROWINGS

	2019 in €m	2018 in €m	Change in %
Cost of materials and services	3,005	3,042	-1
of which fuel	1,054	973	8
of which fees	961	957	0
of which charter expenses[1]	270	323	-16
of which MRO services	371	427	-13
Staff costs[2]	628	619	1
Depreciation and amortisation[3]	465	372	25
Other operating expenses[4]	557	610	-9
Total operating expenses	**4,655**	**4,643**	**0**

[1] In 2018 including operating lease expenses according to IAS 17.
[2] Without past service costs/settlement.
[3] Without impairment losses.
[4] Without book losses.

The introduction of a new catering concept also had a positive impact on costs. MRO expenses fell by 13% to EUR 371m following the retirement of older, higher-maintenance aircraft and the sale of Luftfahrtgesellschaft Walter (previous year: EUR 427m).

Staff costs increased by 1% to EUR 628m due to the expansion of the Brussels Airlines long-haul business (previous year: EUR 619m). Increased crew productivity at Eurowings partially compensated for this effect.

Depreciation and amortisation rose by 25% year-on-year to EUR 465m (previous year: EUR 372m). This was largely due to IFRS 16 effects in connection with leased aircraft.

Other operating expenses fell in 2019 by 9% to EUR 557m (previous year: EUR 610m) due to the reduction in marketing expenses as part of the turnaround programme and lower travel costs for airborne staff thanks to more needs-based human resources planning at the different bases.

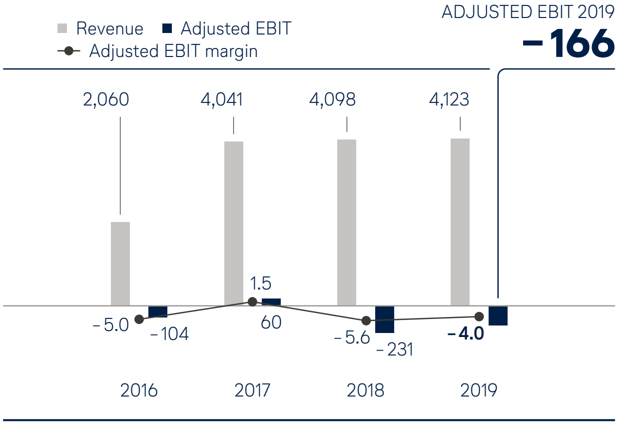
Adjusted EBIT up by 28% on the previous year

The earnings performance in 2019 was largely defined by the improvement in operational stability as well as productivity and cost improvements, due to the implementation of turnaround measures. The latter had an earnings impact of more than EUR 150m in 2019. Adjusted EBIT improved by 28% in the financial year as a result, to EUR -166m (previous year: EUR -231m). The Adjusted EBIT margin improved by 1.6 percentage points to -4.0% (previous year: -5.6%).

Segment capital expenditure down

Segment capital expenditure fell year-on-year by 50% to EUR 260m (previous year: EUR 515m). Capital expenditure was mainly for engine overhauls and six new aircraft, as well as the upgrade of cabin interiors in the Brussels Airlines long-haul fleet.

C20 EUROWINGS: DEVELOPMENT OF REVENUE, ADJUSTED EBIT in €m AND ADJUSTED EBIT MARGIN in %



Logistics business segment

Lufthansa Cargo is one of Europe's leading freight airlines. | Service improvements and global partnerships strengthen market position. | Customers benefit from increasing digitalisation. | Difficult market environment burdens revenue and earnings.

2.5
€bn **Revenue**

1
€m **Adjusted EBIT**

T043 **KEY FIGURES LOGISTICS**

		2019	2018	Change in %
Revenue	€m	2,478	2,713	-9
of which traffic revenue	€m	2,318	2,550	-9
Adjusted EBITDA	€m	161	372	-57
Adjusted EBIT	€m	1	268	-100
EBIT	€m	-33	263	
Adjusted EBIT margin	%	0.0	9.9	-9.9 pts
Adjusted ROCE	%	0.0	14.6	-14.6 pts
EACC	€m	-102	139	
Segment capital expenditure	€m	286	374	-24
Employees as of 31 Dec	number	4,539	4,505	1
Average number of employees	number	4,543	4,422	3

Business activities

Lufthansa Cargo is one of Europe's leading freight airlines
In addition to Lufthansa Cargo AG, the Lufthansa Group's logistics specialists, the Logistics segment includes the airfreight container management specialist Jettainer group, the time:matters subsidiary, which specialises in particularly urgent consignments, and the equity investments in the cargo airline AeroLogic and in the newly established Heyworld subsidiary, which offers tailored solutions for the e-commerce industry from a single source. Lufthansa Cargo also has equity investments in various handling companies and smaller companies involved in aspects of digitalising the sector.

The focus of Lufthansa Cargo's operations lies in the airport-to-airport airfreight business. Its product portfolio encompasses standard and express freight as well as highly specialised products. These include the transport of living animals, valuable cargo, post and dangerous goods, as well as meeting growing market demand for the carriage of temperature-sensitive goods. The company has specialised infrastructure at Frankfurt Airport to handle these sensitive goods, including the Animal Lounge and the Lufthansa Cargo Cool Center.

The Lufthansa Cargo freighter fleet consisted of seven Boeing 777F and eight Boeing MD-11F aircraft as of the end of 2019. Around half its freight volumes are also carried in the belly capacities of passenger aircraft operated by Lufthansa German Airlines, Brussels Airlines, Austrian Airlines, Eurowings long-haul and SunExpress. Altogether, Lufthansa Cargo offers connections to more than 300 destinations in around 100 countries.

AeroLogic is a joint venture based in Leipzig and operates its 14 B777 freighters to 28 destinations around the world on behalf of its two shareholders, Lufthansa Cargo and DHL Express. Lufthansa Cargo is responsible for marketing the capacities of four of these freighters.

Lufthansa Cargo also has successful international partnerships with All Nippon Airways, Cathay Pacific and United Airlines. The partnership was extended to routes between Europe and Hong Kong in 2019.

Course of business and operating performance

Course of business marked by difficult market situation
The airfreight industry is traditionally very volatile and saw declines across the market in 2019. The political situation, especially the trade disputes and uncertainties related to the Brexit, had a significant impact on demand in the sector. Despite reacting early to the challenging market situation and rapidly reducing its MD-11F fleet, Lufthansa Cargo was still unable to match its earnings in the previous two years.

Leading position to be extended, structural costs to be reduced

Additional digital services and global partnerships should help Lufthansa Cargo to build on its leading position in the airfreight industry. Lufthansa Cargo also aims to further simplify and automate airfreight processes and to sustainably reduce unit costs.

The ProFlex programme was launched in December 2019 to deliver further cost reductions. The programme aims to develop and implement measures to reduce costs sustainably (operating and staff costs across the company) by EUR 50m per year.

Fleet is being modernised and standardised

In the reporting year, two more B777F aircraft joined the Lufthansa Cargo fleet and four MD-11F freighters were retired from service. The fleet modernisation is scheduled for completion by the end of 2020. From 2021 Lufthansa Cargo will then operate a uniform fleet of nine highly efficient B777F cargo aircraft.

Lufthansa Cargo also brought another two leased B777F freighters into service at AeroLogic.

Digitalisation brings many advantages for customers

In addition to renewing and strengthening the core business, gaining new customers and expanding partnerships, digitalisation is an important pillar of the strategic Cargo Evolution programme. In addition to automating standard processes and updating the IT infrastructure environment, this also includes networking customers and partners. Lufthansa Cargo is thus able to respond faster to customer requests. One example is the implementation of digital interfaces, enabling the real-time exchange of data. This speeds up information flows and makes them much simpler for everyone. The result is not only a new quality of work but also a much improved customer experience.

Over 80% of all bills of lading are now produced electronically. Digitalisation means customers benefit from greater transparency, higher speeds, better quality and more flexibility as well as greater efficiency.

The e-commerce segment continues to grow and is changing customer demands, to which Lufthansa Cargo is responding with new, specially tailored offerings. Heyworld, the company that was established in 2019, is dedicated to fulfilling the requirements of the e-commerce sector.

Further modernisation of ground infrastructure

The freight centre in Frankfurt is being continually modernised. The overhaul of the warehouse pallet stacker was completed in 2019. As well as replacing old instruments and wiring, the work focused on bringing the IT systems up to the latest standards. This overhaul is the first stage of a concept for the modular modernisation of the logistic centre.

Cargo load factor down as capacity rises

Capacity at Lufthansa Cargo increased by 7% in 2019. Belly capacities grew faster than freighter capacities, partly due to the takeover of the belly capacities at Brussels Airlines from 1 September 2018. This meant the capacity was included for the full year for the first time in 2019. Whereas sales on belly services rose slightly, the higher freighter capacity could not be sold in full. Sales therefore remained the same as the previous year. The cargo load factor fell accordingly by 4.6 percentage points to 61.3% (previous year: 65.9%). Yields fell by 8.8%. After adjustment for exchange rates, they were 10.5% lower than the previous year. Traffic revenue fell by 9% to EUR 2,318m for pricing reasons (previous year: EUR 2,550m).

T044 TRAFFIC FIGURES AND OPERATING FIGURES LOGISTICS

		2019	2018	Change in %
Available cargo tonne-kilometres	millions	14,507	13,555	7
Revenue cargo tonne-kilometres	millions	8,899	8,934	0
Cargo load factor	%	61.3	65.9	–4.6 pts
Yields[1]	€ cent	26.0	28.5	–8.8[1]

[1] Exchange rate-adjusted change: –10.5%.

Asia-Pacific and the Americas remain Lufthansa Cargo's main traffic regions. The two regions account for nearly 90% of capacity and sales. Capacity was expanded in all traffic regions, with sales rising in the Europe and Middle East/Africa traffic regions. The cargo load factor only improved in the Middle East/Africa traffic region, primarily thanks to good use of the belly capacities of Brussels Airlines. Yields fell in all the traffic regions. Traffic revenue declined in all traffic regions with the exception of Middle East/Africa.

T045 TRENDS IN TRAFFIC REGIONS
Lufthansa Cargo

	Net traffic revenue external revenue		Available cargo-tonne-kilometres		Revenue cargo-tonne-kilometres		Cargo load factor	
	2019 in €m	Change in %	**2019** in Mio.	Change in %	**2019** in Mio.	Change in %	**2019** in %	Change in pts
Europe	189	-5	809	13	325	3	40.2	-3.9
America	964	-10	6,760	8	3,924	0	58.0	-4.4
Asia/Pacific	949	-14	5,635	2	3,942	-5	69.9	-5.6
Middle East/Africa	216	22	1,303	22	708	31	54.4	3.7
Total	**2,318**	**-9**	**14,507**	**7**	**8,899**	**0**	**61.3**	**-4.6**

Revenue and earnings development

Revenue down year-on-year

Revenue at Lufthansa Cargo fell by 9% to EUR 2,478m in 2019 (previous year: EUR 2,713m). The decline was mainly due to the difficult conditions in the airfreight industry, as described, and the steep fall in yields as a result. Other operating income went up due to exchange rates. Operating income fell by 7% to EUR 2,581m (previous year: EUR 2,770m).

Expenses up on last year

Operating expenses went up by 3% to EUR 2,621m (previous year: EUR 2,538m).

The cost of materials rose year-on-year by 1% to EUR 1,778m (previous year: EUR 1,753m). Fuel costs fell by 11% due to pricing and volumes, partly because of the fleet modernisation. Charter expenses were up due to additional AeroLogic aircraft and higher belly expenses paid to Group companies, including the takeover of the belly capacities of Brussels Airlines.

T046 OPERATING EXPENSES LOGISTICS

	2019 in €m	2018 in €m	Change in %
Cost of materials and services	1,778	1,753	1
of which fuel	337	379	-11
of which fees	297	292	2
of which charter expenses	897	839	7
of which MRO services	119	120	-1
Staff costs [1]	406	420	-3
Depreciation and amortisation [2]	160	104	54
Other operating expenses [3]	277	261	6
Total operating expenses	**2,621**	**2,538**	**3**

[1] Without past service costs/settlement.
[2] Without impairment losses.
[3] Without book losses.

Staff costs at Lufthansa Cargo fell by 3% to EUR 406m in 2019 (previous year: EUR 420m).

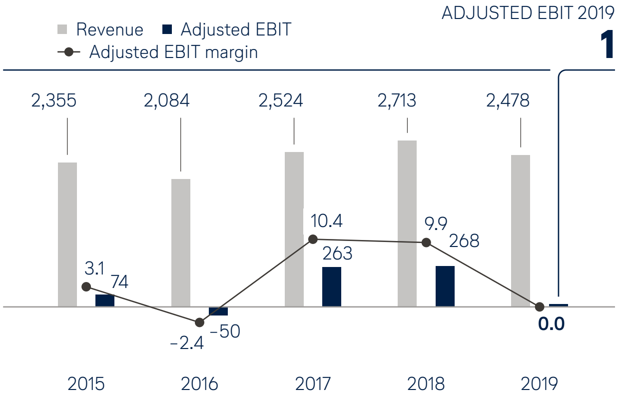
Depreciation and amortisation went up by 54% to EUR 160m year-on-year (previous year: EUR 104m), mainly due to the effects of IFRS 16.

Other operating expenses rose by 6%, principally due to exchange rate effects.

Adjusted EBIT down by EUR 267m

Adjusted EBIT fell as a result by EUR 267m to EUR 1m (previous year: EUR 268m).

C21 LOGISTICS: DEVELOPMENT OF REVENUE, ADJUSTED EBIT in €m **AND ADJUSTED EBIT MARGIN** in %



Segment capital expenditure down on the year

Investment declined in the reporting period by 24% to EUR 286m, mainly due to lower advance payments for aircraft (previous year: EUR 374m).

MRO business segment

Lufthansa Technik is a leading global provider of maintenance, repair and overhaul services for civil commercial aircraft. | Focus on innovation and digital products. | International growth pursued. | Earnings up on previous year.

6.9
€bn **Revenue**

493
€m **Adjusted EBIT**

T047 **KEY FIGURES MRO**

		2019	2018	Change in %
Revenue	€m	6,921	6,105	13
of which with companies of the Lufthansa Group	€m	2,543	2,178	17
Adjusted EBITDA	€m	700	572	22
Adjusted EBIT	€m	493	446	11
EBIT	€m	502	445	13
Adjusted EBIT margin	%	7.1	7.3	-0.2 pts
Adjusted ROCE	%	6.8	7.4	-0.6 pts
EACC	€m	148	144	3
Segment capital expenditure	€m	313	244	28
Employees as of 31 Dec	number	26,650	24,594	8
Average number of employees	number	25,872	23,833	9
Fully consolidated companies	number	25	22	14

Business activities

Lufthansa Technik is the world's leading MRO provider
Lufthansa Technik is the world's leading independent provider of maintenance, repair and overhaul services (MRO) for civilian commercial aircraft. The Lufthansa Technik Group comprises 38 plants offering technical aviation services worldwide. The company also holds direct and indirect stakes in 68 companies. Lufthansa Technik AG serves more than 850 customers worldwide, including OEMs, aircraft leasing companies and operators of VIP jets, as well as airlines. About one-third of its business is with Group companies and two-thirds of its business is with external customers.

Lufthansa Technik's range of services comprises eight divisions: aircraft maintenance, aircraft overhaul, engine maintenance, component maintenance, aircraft systems, development and manufacture of cabin products, development of digital products, and initial equipment and servicing of VIP aircraft. The portfolio covers a variety of differently structured products and product combinations, from the repair of individual components to consultancy services and the fully integrated supply of entire fleets.

Course of business and operating performance

Focus remains on innovation and digital products
Lufthansa Technik continued to develop its proprietary product AVIATAR in 2019, an independent and integrated software platform. AVIATAR supports customers in real-time with the management of complex fleet operations and helps to diagnose errors in individual components, so supporting the digital transformation of air traffic. More than 30 different modules are offered for the different requirements of the aviation sector.

The company also focuses on additive manufacturing, the internet of things and automation. In its RoCCET project (robot-controlled cockpit electronics testing) it developed the world's first robot to carry out fully automated tests of cockpit controls.

Lufthansa Technik drives its international growth
XEOS, a joint venture with GE Aviation for the maintenance, repair and overhaul of GEnx-2B and GE9X engines, was opened in Poland in 2019. EME Aero, a joint venture with MTU Aero Engines, also started operations in 2019. The site in Jasionka, Poland, is one of the largest and newest MRO service centres for the PW1000G GTF family of engines. Also in the engine segment, the establishment of Lufthansa Technik Miskolc (Hungary) began with the purchase of a plot of land. Engine components are to be repaired and overhauled there from 2022.

AERQ, a joint venture with LG Electronics, was set up in April 2019 with the aim of developing new products to digitalise aircraft cabins and to enter the market as a manufacturer of innovative aircraft components.

Important contracts to be renewed and signed
The number of aircraft serviced under exclusive contracts came to 5,018 in 2019. In the financial year 2019, the company won 25 new customers and signed 625 contracts with a volume of EUR 4.1bn for 2019 and the following years. These included a comprehensive ten-year component supply contract for the A320 fleet at Asiana Airlines.

Global capacities to be expanded in line with demand
Lufthansa Technik's worldwide capacities and product portfolio are to be continuously expanded to meet increasing demand for MRO services. Lufthansa Technik Middle East has doubled its hangar area from 2,500 square metres to 5,000 square metres to be able to meet the demand for repairs to components made of composite materials for various aircraft types.

Lufthansa Technik Malta was licensed to overhaul the A350-1000 in 2019. Lufthansa Bombardier Aviation Services received an EASA licence for the maintenance of the Bombardier Global 7500 business jet at Berlin Schönefeld.

In Germany, Lufthansa Technik also kept up with growth in the industry by recruiting 246 apprentices and students on combined degrees (an increase of 55% compared with 2018).

Lufthansa Technik takes over management of Lufthansa Industry Solutions
Since the start of the reporting year, Lufthansa Industry Solutions has been a part of Lufthansa Technik in order to support it in its digital transformation. The company was previously part of Additional Businesses and Group Functions. With its customer base of more than 200 companies from many different sectors within and outside the Lufthansa Group, it is one of the 25 biggest IT service providers by revenue in Germany. Lufthansa Industry Solutions profits significantly from the positive performance of the IT market and rising demand in the field of artificial intelligence/data analytics.

Focus remains on continuous increases in cost efficiency
To safeguard the success and continued viability of Lufthansa Technik, ongoing projects are implemented in all operating segments and at the central level to improve the costs and efficiency of the Group and to increase its long-term earnings. Steps are taken on an ongoing basis in component maintenance, for example, with one aim being to shorten throughput and logistics times and to keep costs down at the same time.

Revenue and earnings development

Revenue up in the financial year
Lufthansa Technik increased its revenue, in part due to exchange rates, by 13% to EUR 6,921m in 2019 (previous year: EUR 6,105m). Significant growth in America and an increasingly strong performance in Europe, Lufthansa Technik's main market, also contributed to this.

External income was increased by higher volumes of component and engine maintenance. Intra-Group revenue went up largely due to a higher share of engine business with Lufthansa German Airlines. Other operating income fell by 4% to EUR 260m because of exchange rate effects (previous year: EUR 270m). Total income for the MRO segment rose by 13% to EUR 7,181m (previous year: EUR 6,375m).

Expenses up on last year
Operating expenses went up, in part due to exchange rates, by 14% to EUR 6,748m in 2019 (previous year: EUR 5,936m). Continuous cost-cutting measures had a positive impact on total expenses.

T048 OPERATING EXPENSES MRO

	2019 in €m	2018 in €m	Change in %
Cost of materials and services	3,927	3,376	16
of which raw materials, consumables and supplies	2,487	2,093	19
of which external services	1,440	1,283	12
Staff costs [1]	1,671	1,552	8
Depreciation and amortisation [2]	207	126	64
Other operating expenses [3]	943	882	7
Total operating expenses	**6,748**	**5,936**	**14**

[1] Without past service costs/settlement.
[2] Without impairment losses.
[3] Without book losses.

The cost of materials and services increased by 16% to EUR 3,927m as a result of more engine and component business, as well as higher purchased services (previous year: EUR 3,376m).

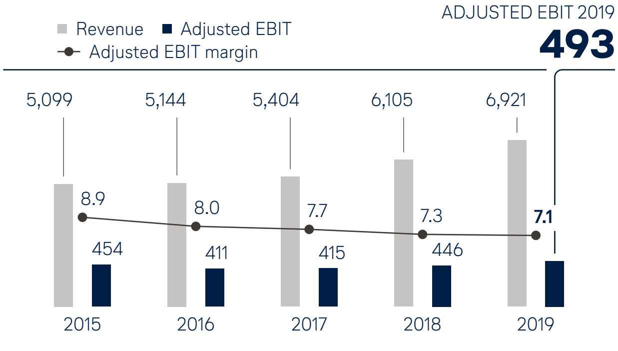
Staff costs of EUR 1,671m were 8% up on the previous year (previous year: EUR 1,552m). This is due to growth in the size of the workforce.

Depreciation and amortisation rose by 64% to EUR 207m in total (previous year: EUR 126m). The increase results from the recognition of right-of-use assets from leases (IFRS 16). Other operating expenses went up by 7% to EUR 943m (previous year: EUR 882m).

Adjusted EBIT improves by 11%

Lufthansa Technik's Adjusted EBIT rose year-on-year by 11% to EUR 493m (previous year: EUR 446m). Earnings increases in the engine business and a higher result from equity investments were partially offset by declines in aircraft overhaul and component maintenance. The Adjusted EBIT margin fell by 0.2 percentage points to 7.1% (previous year: 7.3%).

C22 MRO: DEVELOPMENT OF REVENUE, ADJUSTED EBIT in €m **AND ADJUSTED EBIT MARGIN** in %



Segment capital expenditure up on the year

Capital expenditure of EUR 313m was 28% up on the previous year (previous year: EUR 244m). Important investments were made in engine maintenance due to the purchase of reserve engines, the joint ventures with General Electric (XEOS) and MTU (EME) to provide engine services, and the development of innovative and digital products.

Catering business segment

The LSG group offers a broad portfolio related to in-flight service. | European business to be sold to gategroup. | Network management provides extra flexibility. | Digitalisation and cost-cutting continues. | Awards and innovations confirm quality leadership. | Earnings performed well.

3.4
€bn **Revenue**

128
€m **Adjusted EBIT**

T049 **KEY FIGURES CATERING**

		2019	2018	Change in %
Revenue	€m	3,360	3,217	4
of which with companies of the Lufthansa Group	€m	737	718	3
Adjusted EBITDA	€m	247	181	36
Adjusted EBIT	€m	128	115	11
EBIT	€m	98	110	-11
Adjusted EBIT margin	%	3.8	3.6	0.2 pts
Adjusted ROCE	%	6.4	6.9	-0.5 pts
EACC	€m	10	30	-67
Segment capital expenditure	€m	127	79	61
Employees as of 31 Dec	number	35,679	35,512	0
Average number of employees	number	35,954	35,548	1
Fully consolidated companies	number	119	126	-6

Business activities

Strong brand portfolio offers extensive range of products and services

The LSG group offers a comprehensive range of products, concepts and services related to in-flight service. It has four strong independent expert brands.

As the strongest revenue driver in the LSG group, LSG Sky Chefs offers classical catering for airlines and rail operators, as well as lounge management. It is present at 205 airports in 59 countries for more than 300 airlines and a growing number of European rail operators. Retail inMotion reported significant growth rates thanks to its proprietary technology and innovative concepts for in-flight sales, and it has become a leading provider in this segment. SPIRIANT is an expert in the development, purchasing and supply of in-flight service equipment, whereas Evertaste makes convenience food for global retailers and the travel industry. The LSG group also offers security services at airports in North America via its SCIS subsidiary. In Germany, the LSG group operates the Ringeltaube retail markets at airports.

Course of business and operating performance

LSG group's European business to be sold to gategroup

The Lufthansa Group and gategroup signed a sales agreement for the LSG group's European business on 6/7 December 2019. In addition to the European catering facilities, the contract covers the lounge business and the European activities of the convenience food specialist Evertaste, the SPIRIANT equipment business and the Ringeltaube retail outlets.

Also part of the sales agreement is a long-term catering contract with Lufthansa German Airlines for the hubs in Frankfurt and Munich. At the two plants in Frankfurt and Munich, which provide the in-flight service there for Lufthansa German Airlines flights, the Lufthansa Group will retain a minority interest in a new joint venture that is being established. This will ensure a seamless handover of the catering business and a successful start to the partnership.

Around 8,800 employees work at the divisions that have been sold. They generated revenue of some EUR 1.1bn in 2019, around one third of the LSG group's total revenue. The transaction has no material impact on Adjusted EBIT or net profit/loss for the period in 2019 or 2020 at the Lufthansa Group.

The sale is still subject to the approval of the competition authorities.

Network management increases flexibility

Remodelling the production environment for traditional catering in Europe into a network structure with six different production models gives the region more flexibility in terms of changing customer demands.

Implementing the European network strategy and working with local partners at sites where LSG Sky Chefs has no physical presence will in the long term enable the catering company to serve a larger number of airports without building its own local infrastructure. This makes the company more flexible and agile, which are important success factors in the ever-changing air travel market.

Digitalisation continues to be driven forward

The LSG group is driving digitalisation in many areas. In this spirit, the purchase of the mCabin app expanded the functionality of the digital in-flight sales platform from Retail inMotion. The Irish company will integrate the existing mCabin software modules, which optimise crew processes, into its own digital retail platform in order to strengthen and expand its skill sets.

The introduction of paperless production processes at LSG Sky Chefs sites in Europe, North America and Asia is also progressing, as are pilot studies of driverless forklifts and cooperative robots. Increasing digitalisation is being used to seize opportunities for cutting costs and enhancing customer utility.

Portfolio extensions and contract renewals strengthen market-leading position

Wide-ranging catering contracts between LSG Sky Chefs and Delta Air Lines, United and airBaltic were renewed in 2019. Retail inMotion strengthened its leading position by winning the contract to manage the global travel retail programme for the Cathay Pacific Group. The equipment expert SPIRIANT and the LSG Sky Chefs lounge business renewed their existing contracts with Lufthansa German Airlines for another five years. In the lounge business, a new contract was also signed with Japan Airlines to manage the Sakura and First Class Lounges at Frankfurt Airport.

LSG Sky Chefs also opened three new catering facilities in Phoenix, USA; Nairobi, Kenya; and Novosibirsk, Russia.

Awards confirm quality leadership

The most recent expert brand in the LSG group, Evertaste, was voted "Brand Innovation of the Year" by the German Design Council. In collaboration with SWISS, Retail inMotion won the renowned in-flight hospitality award "Catering Innovation of the Year" for its SWISS Saveurs programme. In addition, the in-flight sales experts picked up the "In-Flight Retailer of the Year Award" at the Frontier Awards 2019.

The LSG Sky Chefs catering plants in Brussels, Belgium, and Buenos Aires, Argentina, were again among the winners of the renowned QSAI Awards, which stand for the highest quality. Both plants won gold in their respective categories.

Revenue and earnings development

Revenue up on previous year

Revenue for the Catering segment rose by 4% to EUR 3,360m (previous year: EUR 3,217m). The loss of some customer contracts was offset by the positive effects of new business, price increases, especially in North America, as well as higher volumes and favourable exchange rate movements. Solid revenue growth with the Group company Lufthansa German Airlines also contributed additional revenue. Total revenue increased by 5% to EUR 3,455m (previous year: EUR 3,294m).

Expenses increase

Operating expenses went up by 5% to EUR 3,355m, particularly due to negative exchange rate movements, higher staff costs in North America, inflationary price increases in the cost of materials and services, and higher write-downs on receivables (previous year: EUR 3,208m).

T050 OPERATING EXPENSES CATERING

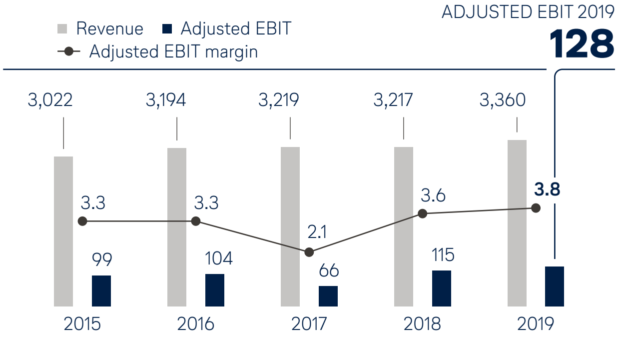
	2019 in €m	2018 in €m	Change in %
Cost of materials and services	1,441	1,385	4
Staff costs [1]	1,290	1,218	6
Depreciation and amortisation [2]	119	66	80
Other operating expenses [3]	505	539	-6
Total operating expenses	**3,355**	**3,208**	**5**

[1] Without past service costs/settlement.
[2] Without impairment losses.
[3] Without book losses.

Adjusted EBIT rises by 11%
Adjusted EBIT for the Catering segment went up by 11% to EUR 128m (previous year: EUR 115m). The Adjusted EBIT margin improved by 0.2 percentage points to 3.8% (previous year: 3.6%).

Segment capital expenditure increases
Segment capital expenditure was 61% up on the year at EUR 127m (previous year: EUR 79m). The main reason for the climb was a capital increase at a joint venture (+ EUR 29m). Other investments went mainly into the modernisation of production facilities.

C23 **CATERING: DEVELOPMENT OF REVENUE, ADJUSTED EBIT** in €m **AND ADJUSTED EBIT MARGIN** in %



Additional Businesses and Group Functions

AirPlus increases sales of virtual cards. | Lufthansa Aviation Training keeps training capacities high for trainee pilots. | Lufthansa Systems expands its business. | Earnings of Group Functions improve.

T051 **KEY FIGURES ADDITIONAL BUSINESSES AND GROUP FUNCTIONS**

		2019	2018	Change in %
Total operating income	€m	2,732	2,662	3
Adjusted EBITDA	€m	– 120	– 157	24
Adjusted EBIT	€m	– 227	– 209	– 9
EBIT	€m	– 221	– 182	– 21
Segment capital expenditure	€m	107	56	91
Employees as of 31 Dec	number	9,935	9,890	0
Average number of employees	number	9,950	9,904	0

Additional Businesses and Group Functions include the Group's service and financial companies, above all AirPlus, Lufthansa Aviation Training and the IT company Lufthansa Systems, as well as the Group functions for the Lufthansa Group.

AirPlus offers management solutions for business travel
Lufthansa AirPlus Servicekarten GmbH (AirPlus) is a leading international provider for the everyday management of business travel. The company celebrated its 30th anniversary in 2019. Today the company is an international provider in the global market for payment and settlement services in its core business of business travel. Under the AirPlus International brand, it offers market-specific solutions in over 60 countries worldwide. The company served more than 48,000 corporate customers in total in 2019.

Its AirPlus Virtual Cards saw growing demand in the reporting year. These virtual credit cards are used increasingly to pay for both flight tickets and hotel bookings. AirPlus reported an increase of 24% in the volume of central billing for the spending category "Hotel" in 2019.

Adjusted EBIT for AirPlus rose in the reporting year by EUR 15m to EUR 2m (previous year: EUR – 13m). This includes expenses for modernising the IT and process environments that were offset by higher volume-driven income.

Lufthansa Aviation Training offers comprehensive vocational and professional training for cockpit and cabin crew
Lufthansa Aviation Training GmbH (LAT) is one of the leading flight training companies, providing vocational and professional training for cockpit and cabin crew at twelve training centres. It can look back on more than 60 years of experience in the business. LAT's customer portfolio includes the companies in the Lufthansa Group as well as more than 200 nationally and internationally known airlines.

LAT has pooled all its internal flight schools in Germany, Switzerland and the US under the European Flight Academy (EFA) brand. The company is based in Munich and trains the next generation of airborne staff for the different Lufthansa Group airlines.

In 2019, it again focused on increasing the recruitment of trainee pilots and was able to keep intake levels high by means of various packages of activities and by continuing the marketing and communications campaigns. Over the course of the year, around 440 students began their two-year pilot training at the EFA. In the previous year, there were around 450 students.

The top priority for LAT is reliably ensuring flight operations within the Lufthansa Group with highly qualified cockpit and cabin crew. In order to keep up this performance in future, extensive investments were made in training facilities and new equipment in 2019, especially flight simulators. At the same time, the company invested in innovative products and in digitalisation to ensure it can continue to play a pioneering role as an aviation training provider in these areas in the future.

Adjusted EBIT for LAT fell by 85% year-on-year to EUR 4m (previous year: EUR 27m).

Lufthansa Systems continues to expand its business
Lufthansa Systems looks back on 25 years of experience in the airline industry. The company's ability to innovate is based on its profound IT expertise, making it a trailblazer for digital transformation at its more than 350 airline customers. Lufthansa Systems has become a vital strategic unit within the Lufthansa Group, and so helps to harmonise the IT. With its Aviation Campus, Lufthansa Systems has created an environment that promotes the exchange of ideas and use of synergies. It aims to support interdisciplinary knowledge transfer and thus provide the best solution for its customers.

Including all of their equity investments, the IT company generated Adjusted EBIT of EUR 4m in the reporting period, which was EUR 8m lower than in the previous year (previous year: EUR 12m).

Earnings of Group Functions improve
The results for the Additional Businesses and Group Functions business segment are largely determined by the Group functions, whose earnings reflect the currency hedging and financing activities carried out by Deutsche Lufthansa AG on behalf of the companies in the Group. The result is therefore heavily exposed to exchange rate movements.

Total operating income for the Group Functions increased by 13% to EUR 1,571m (previous year: EUR 1,392m). Operating expenses went up by 9% to EUR 1,824m (previous year: EUR 1,678m). Adjusted EBIT improved by 12% to EUR –253m (previous year: EUR –286m). The improvement was mainly due to higher exchange rate gains.

Result for Additional Businesses and Group Functions below previous year
Total operating income for Additional Businesses and Group Functions rose by 3% to EUR 2,732m (previous year: EUR 2,662m). Operating expenses rose by 2% to EUR 2,971m (previous year: EUR 2,914m). Adjusted EBIT fell by 9% to EUR –227m (previous year: EUR –209m).

Opportunities and risk report

The management of opportunities and risks is integrated into all business processes. | Opportunities and risks are identified early and are managed and monitored proactively. | Group risk management also includes CSR-relevant issues and their risks for external stakeholders. | Opportunities are exploited selectively.

OPPORTUNITIES AND RISK MANAGEMENT

Opportunity management process

For the highly dynamic global airline industry, opportunities can arise both externally – from new customer wishes, market structures, ongoing consolidation or changes in the regulatory environment, for instance – and internally – from new products, innovations, quality improvements and competitive differentiation.

Employees and managers in the Lufthansa Group identify opportunities in the course of day-to-day processes and market observation. Opportunity management is also an integral part of the annual strategy and planning process. Scenario analyses and accurate return calculations are used to precisely examine opportunities and the associated risks. Opportunities that, in an overall assessment, are considered advantageous for the development of the Lufthansa Group are pursued and implemented by means of defined steps. They are managed by established planning and forecasting processes as well as by projects.

Objectives and strategy of the risk management system

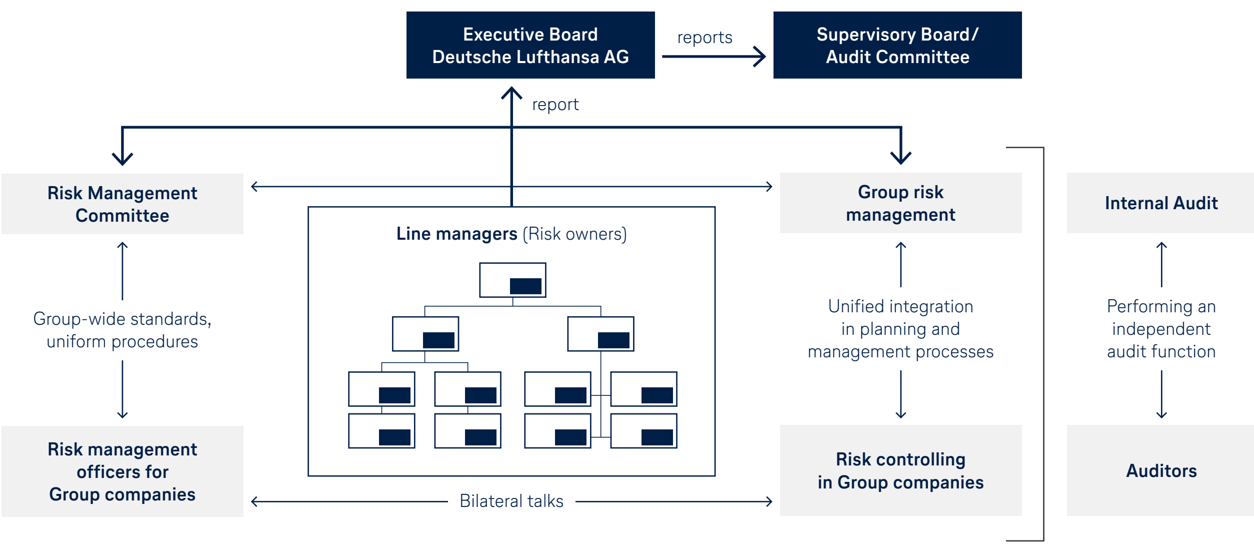
Risk management at the Lufthansa Group aims to fully identify material risks, to present and compare them transparently and to assess and manage them. Risk owners are obliged to monitor and manage risks proactively and to include relevant information in the planning, steering and control processes. The Group guidelines on risk management adopted by the Executive Board define all the binding methodological and organisational standards for dealing with opportunities and risks.

Structure of the risk management system

The scope of consideration covered by the Lufthansa Group's risk management system comprises all of the airlines in the Lufthansa Group, the Logistics, MRO and Catering segments, as well as Lufthansa Aviation Training, AirPlus, Miles & More, Lufthansa Global Business Services, the IT companies and the Delvag group.

The chart ↗ **C24 Risk management in the Lufthansa Group** shows the different functions involved.

C24 RISK MANAGEMENT IN THE LUFTHANSA GROUP



The Supervisory Board's Audit Committee monitors the existence and the effectiveness of the Lufthansa Group's risk management.

The Risk Management Committee ensures, on behalf of the Executive Board, that business risks are always identified at an early stage, evaluated and managed across all functions and processes. It is also responsible for improving the effectiveness and efficiency of risk management. Appointments to and the responsibilities of the committee are defined in internal regulations.

The Corporate Controlling department has functional responsibility for ensuring that the risk management system is standardised across the Group. It reports directly to the CFO. Group risk management is responsible for implementing uniform standards and methods, for coordinating and continuously refining the risk management process and for all risk management reporting in the Lufthansa Group.

The managing directors or management boards of all the companies covered by the risk management system also appoint risk managers. They are responsible for implementing the Group guidelines within their own companies and are in close, regular dialogue with the Lufthansa Group's risk management function. In addition, they ensure that risk-relevant information is agreed with the planning and forecasting processes in their company (risk controlling).

Managers with budgetary and/or disciplinary responsibility are designated as risk owners. Their role is to implement risk management for their area. The identification, evaluation, monitoring and management of risks are therefore fundamental aspects of every management role. The "principles of risk management" stipulate that the occurrence of predictable risks that have not been reported in the past is considered to be a serious management error.

The Internal Audit department carries out internal, independent system audits focusing on the effectiveness, appropriateness and cost-effectiveness of the risk management system practised in the Lufthansa Group.

During its annual audit of the financial statements, the auditor examines the system for the early identification of risks in place at Deutsche Lufthansa AG with regard to statutory requirements. In 2019, the review came to the conclusion that all statutory requirements were met in full.

Stages of the risk management process

The closed and continuous risk management process, which is supported by IT, begins with the identification of current and future, existing and potential opportunities and risks from all material internal and external areas. The Lufthansa Group defines opportunities and risks as the possible positive or negative deviations from a forecast figure or a defined objective. The risks identified are checked for plausibility by the companies' risk coordinators and gathered together in the Group's risk portfolio. The risk portfolio documents the systematic entirety of all individual risks and constitutes the quality-assured result of the identification phase. As the risk landscape is dynamic and subject to change, the identification of risks is a continuous task for the risk owners.

Risk owners are obliged at least once a quarter to verify that the risks for which they are responsible are complete and up to date. They also evaluate the extent to which circumstances involving risk have already been included in the forecast results and to what extent there are additional opportunities or risks of achieving a better or worse result than the one forecast. They actively manage opportunities and risks by means of risk mitigation instruments and measures.

On this basis, the Executive Board is informed about the current risk situation of the Lufthansa Group and of the operating segments every quarter. The Executive Board reports annually to the Audit Committee on the performance of the risk management system, the current risk situation of the Lufthansa Group and on significant individual risks and their management. In the event of significant changes to previously or recently identified top risks, mandatory ad hoc reporting processes have been defined in addition to these standard reports.

Evaluation methodology in the risk management process

Once the risks have been identified, all the individual risks are measured according to uniform measurement principles. Risks are generally evaluated on a net basis, i.e. taking implemented and effective management and monitoring instruments into account. A methodological distinction is made between qualitative and quantitative risks. Regardless of the risk type, objective criteria or figures derived from past experience are used for the evaluation wherever possible. Risk measurement thus forms the basis for consolidating similar individual risks into an aggregate risk. Suitable instruments for risk management are defined with the aim of proactively limiting the risk position. Continuous risk monitoring identifies changes in individual risks and any required adjustments to risk management at an early stage. Steps necessary to manage and monitor risks are initiated as required.

Steps, in this sense, mean clearly defined activities with a fixed duration, responsibility and time frame, which serve to develop control instruments. The progress made is also monitored continuously.

Qualitative risks are mostly long-term developments with potentially adverse consequences for the Lufthansa Group. As concrete information is often not available, these risks cannot or cannot yet be quantified. In the context of qualitative risks, risk management amounts to a strategic approach to uncertainty. Qualitative risks are often identified in the form of "weak signals". In order to evaluate such risks as systematically as possible in spite of this, estimates are made about their significance and their magnitude. Significance describes the potential impact of the individual risk – for example, on the Group's reputation, business model or earnings. The estimate of magnitude assesses how pronounced or intense the (weak) signals are that indicate a potential risk to the Lufthansa Group or a specific company. ↗ **C25 Lufthansa risk evaluation for qualitative and quantitative risks** shows the different categories used.

Quantitative risks are those whose potential effect on earnings can be estimated. A distinction is made between different probabilities of occurrence. The extent of loss is given as the potential monetary impact on the planned Adjusted EBIT. Depending on the type of risk, this may relate either to relatively infrequent event risks, such as an airspace closure, or to risks from deviations from planned business developments, due to fuel price volatility, for instance. Quantitative risks therefore form the basis for the overarching verification of potential deviations from plans and forecasts. The thresholds for classifying the monetary Adjusted EBIT effect are defined centrally for the Lufthansa Group and for the Group companies according to standardised criteria.

The individual qualitative and quantitative risks are divided into classes A, B, C, D and other risks to assess their materiality. In accordance with DRS 20, all quantitative A and B risks as well as all qualitative A and B risks that are at least of a "substantial" significance and a "high" magnitude count as material risks for the Lufthansa Group. ↗ **C25 Lufthansa risk evaluation for qualitative and quantitative risks.**

Risks for the Lufthansa Group that meet this materiality criterion are presented in a table in the order of their significance for the Lufthansa Group in the section ↗ **Opportunities and risks at an individual level, p. 68ff.**, and are described in detail below. In some cases, equivalent risks are shown here in a more aggregated form than that used for internal management purposes. Unless stated otherwise, all the segments in the Lufthansa Group are exposed to a greater or lesser degree to the risks described.

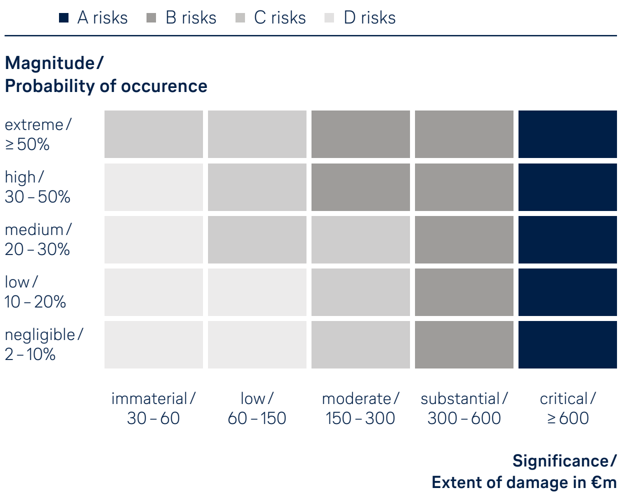
Inclusion of CSR Directive Implementation Act in risk management

In accordance with the CSR Directive Implementation Act (CSR-RUG), the Lufthansa Group's risk management also covers aspects relevant to CSR (environmental, employee and social concerns, as well as human rights, anti-corruption measures, bribery and the supply chain) and their risks for external stakeholders. Risks are reported in the combined non-financial declaration in line with CSR-RUG if they would have a severely adverse impact on the Company and their occurrence is highly likely. The Act was revised in 2019. As in the previous year, none of the CSR risks were so material that they were described at an individual level.

Internal Control System for monitoring the risk management process

The risk management process in the Lufthansa Group is monitored by an internal control system (ICS). This entails systematically reviewing the effectiveness of control measures for substantial risks as part of the Lufthansa Group's ICS. The relevant risks are selected annually. The review includes an assessment of the structure and the functionality of the Lufthansa Group's ICS. Reporting on the results of the review forms part of the report to the supervisory boards of the individual companies on the effectiveness of the ICS, and to the Audit Committee of the Deutsche Lufthansa AG Supervisory Board on an overall basis.

C25 LUFTHANSA RISK EVALUATION FOR QUALITATIVE AND QUANTITATIVE RISKS



OPPORTUNITIES AND RISKS AT AN INDIVIDUAL LEVEL

The table below shows the top risks for the Lufthansa Group. It encompasses all quantitative A and B risks, as well as qualitative risks with a rating of at least “substantial” and “high” in the order of their significance. Detailed explanations can be found in the following sections.

Macroeconomic opportunities and risks

Uncertain economic environment

The Lufthansa Group’s forecast for 2020 is based on the expectation that future macroeconomic conditions and sector developments will correspond to the description given in the ↗ **Forecast, p. 106ff.** If the global economy performs better than forecast, this is expected to have a positive effect on the Lufthansa Group’s business. Future revenue and earnings for the Lufthansa Group may, in this case, exceed the current forecast. As a global company, the Lufthansa Group can also benefit from positive developments outside its own core market. The same applies conversely if the performance of the global economy and of individual markets that are relevant for the Lufthansa Group is worse than forecast.

Risks with potential effects on global economic growth, and thereby for the Lufthansa Group’s sales, primarily arise from increasing uncertainty about political developments, such as more protectionist economic policies or an increasing risk of armed conflict in some areas of the world.

Uncertainties remain about the medium-term effects of Brexit. In recent months, the Lufthansa Group has looked in greater detail at a “no-deal” exit of the United Kingdom from the European Union and has taken steps to prepare for it. However, it cannot be ruled out that macroeconomic or regulatory changes could impact the medium-term financial performance of the Lufthansa Group.

Crises, wars, political unrest or natural disasters

The still critical security situation, particularly in the Middle East and North Africa but also in Europe and Germany, as well as the latent risk of terrorist attacks on air traffic and aviation infrastructure could have concrete effects on business operations and on the safety of the Lufthansa Group’s flight operations, customers and employees. Potential financial losses could result from primary effects, such as not being able to fly to individual destinations, but also from significant secondary effects, including a fall in passenger numbers, higher insurance premiums, higher fuel costs due to airspace closures or more stringent statutory security requirements.

T052 TOP RISKS LUFTHANSA GROUP

	Significance	Magnitude	Trend	Description
Quantitative risks				
Fuel price movements	critical	extreme	→	↗ p. 72
Earnings risks	critical	extreme	↑	↗ p. 70
Cyber- and IT risks	critical	high	↓	↗ p. 75
Breaches of compliance requirements	critical	medium	↓	↗ p. 75
Exchange rate losses on pension fund investments	critical	negligible	→	↗ p. 73
Non-achievement of the continuous improvement assumption	substantial	extreme	→	↗ p. 73
Exchange rate movements	substantial	extreme	→	↗ p. 72
Crises, wars, political unrest or natural disasters	substantial	high	→	↗ p. 68f.
Loss of the investment grade rating	substantial	negligible	→	↗ p. 73
Qualitative risks				
Pandemic diseases	critical	extreme	↑	↗ p. 69
Flight operations risks	critical	negligible	→	↗ p. 74
Human resources	substantial	high	→	↗ p. 74
Increased noise legislation	substantial	high	→	↗ p. 71
Regulatory risks resulting from climate change	substantial	high	↑	↗ p. 71
Digital transformation – market entry of new competitors (LHT) [1]	critical	high	→	↗ p. 70
Contaminated foods (LSG group) [1]	critical	low	→	↗ p. 75

[1] Risk evaluation on segment level.

Because of its strong symbolic effect, civil aviation is still a potential target of terrorist attacks. Flights over areas of conflict continue to require comprehensive risk assessment and management, because there is a risk to civil aviation from complex anti-aircraft systems, especially in the hands of non-state forces, and increased military activity makes it more difficult to use and coordinate airspace. The demands made of the security functions of international companies are rising continuously in view of the political environment and the continuous development of new technology. In this context, particular mention should be given to the greater availability and use of unmanned aircraft (drones) and the various challenges they present. Increasing security regulations due to a higher amount of threats, as well as a tightening of entry requirements for passengers around the world, could lead to further restrictions in international air traffic and thereby to adverse effects for the air transport industry.

In order to analyse, track and manage these risks, the Lufthansa Group carries out comprehensive monitoring of the global security situation and current events (including natural disasters) that may affect the Lufthansa Group. The Lufthansa Group prepares comprehensive security analyses on an ongoing basis in order to assess developments in advance and so to draw up preventive scenarios in the event of any disruptions. It can draw on an extensive network of national and international security services and specialised security advisers to do so. The necessary security measures depend on the probability and consequences of the event.

To evaluate security-relevant events in the context of the regional environment, the Lufthansa Group uses a quality management system, which helps with the continuous evaluation of local security procedures, both in existing operations and with new destinations. In order to ensure compliance with national, European and international aviation security legislation and the Lufthansa Group's own security standards, these sites are inspected regularly in the course of risk audits for aviation security and country risks. If necessary, deficits are compensated for by additional measures that may affect all relevant functional areas. In addition, perceptions of Germany, and of Switzerland, Austria, Belgium or the European Union in certain regions of the world and the profile of the Lufthan sa Group compared with other, particularly exposed Western airlines are taken into account when choosing infrastructure and processes abroad.

Pandemic diseases

Risks exist around the world from the transmission of pathogens from animals to humans, from humans to humans and by other means. Epidemics, pandemics or other causes such as bioterrorism could cause high rates of disease in various countries, regions or continents, which could lead to a drastic fall in passenger numbers in the short, medium or long term due to a fear of contagion. Furthermore, it is possible that staff are not willing to fly to the countries concerned for fear of infection and that local employees want to leave these countries. A high prevalence of sickness among employees may endanger operations. Official travel restrictions to prevent the transmission of pathogens may also result in operational constraints.

The Lufthansa Group permanently reviews information from the World Health Organisation (WHO), the US and European Centres of Disease Control, the Robert Koch Institute in Germany and other institutions in order to identify risks of an epidemic or pandemic as early as possible. Employees receive detailed information, risk groups are given personal protective equipment and preventive vaccination campaigns against influenza run throughout the Lufthansa Group every year.

The Lufthansa Group has factored the economic impact of the coronavirus into its financial forecast. However, the further spread of the virus and consumers' reactions to it, particularly in terms of their demand for air travel, cannot be definitively predicted. There is therefore a risk that the economic impact of the virus transmission is worse than forecast.

Sector-specific opportunities and risks

Market growth and competition

The airline industry overall remains on a long-term growth path with above-average growth rates, especially in growth regions such as Asia/Pacific.

The Lufthansa Group is broadly positioned, which enables it to benefit from global growth across all of its business segments. At the same time, the ongoing consolidation of the industry plays an important role. The Lufthansa Group can make itself more relevant to customers in a fragmented market environment and seize growth opportunities by means of strategic acquisitions and partnerships. The current fleet orders and delivery slots for aircraft with new technology allow the airlines in the Lufthansa Group to participate actively in this global growth and respond flexibly to changes in the market and in competition by adjusting capacity.

Market consolidation
For some years, an increased trend towards consolidation in the fragmented European airline sector has been apparent. Examples include the acquisition of Air Europa by International Airlines Group and of Laudamotion by Ryanair, or the insolvencies of Germania, Wow, Thomas Cook, Aigle Azur and Adria Airways. The Lufthansa Group scans the market continuously and evaluates potential M&A transactions and partnerships that could increase its company value. At the same time, the Lufthansa Group emphasises a careful analysis and assessment of the risks of such transactions, including complexity and integration risks.

Converging business models and new customer requirements
In the European market, the convergence of the business models of low-cost carriers and full-service airlines continues. This is resulting in increasing cost pressure in the full-service airline segment, which is being addressed by the use of new technologies and efficient use of resources. In a price-sensitive market, the Lufthansa Group is therefore also concentrating on high-quality products and discerning customers in its home markets, where purchasing power is high, as well as on cutting unit costs at Eurowings.

The Lufthansa Group's premium positioning also involves the endeavour to satisfy customers' wishes for an individualised travel experience. The Lufthansa Group invests continuously in employees and systems in this area. So, under the strategic "New Premium" slogan, the Network Airlines aspire to provide every customer with the right product at the right time. Eurowings Digital GmbH drives the development of innovative products and services for travellers, especially in the form of software solutions and mobile applications in the low-cost segment.

Aviation Services
With its service companies, the Lufthansa Group has a broad base from which it participates in the global growth of the airline industry. Lufthansa Cargo is pursuing growth opportunities by developing innovative products, digitalisation and airfreight joint ventures. Lufthansa Technik is concentrating on extending its service portfolio, with a focus on digitalisation, development opportunities in the growth markets of Asia and America and expanding partnerships with OEMs (Original Equipment Manufacturers).

Earnings risks
Price volatility, overcapacities, cyclical fluctuations, current developments in the markets and competition, geopolitical changes and unpredictable events with a global impact all create earnings risks for the entire Lufthansa Group. Earnings performance is monitored continuously. Sales, product, capacity and cost-cutting measures are taken as needed. Unit costs are improved systematically and sustainably by continuous efficiency gains and as the result of segment-specific restructuring projects.

Risks of irregularities in flight operations
If aircraft cannot take off or land on time due to the weather or infrastructure bottlenecks, for example, this may result in higher costs for irregularities in the form of direct and indirect compensation payments, quite apart from the impact on customer satisfaction. Following the severe problems in 2018 in terms of operational stability, with changes to flight timetables, flight cancellations and delays which had an adverse impact on the result, a large number of steps were taken throughout the Group to improve operational stability. ↗ **Combined non-financial declaration, p. 79ff.** A risk remains in 2020, however, since external circumstances, especially regarding the ongoing capacity bottlenecks in air traffic control, will remain challenging.

Developments and competition in the supply market
Digital platforms are becoming increasingly important for the planning, management and awarding of physical maintenance, repair and overhaul (MRO) fulfilment and jeopardise the direct contractual and customer relations between the MRO provider and the airline. As part of this digital transformation, new competitors are trying to enter the market with data-based services and digital capabilities. Access to and control over this data play an overarching role for gaining control over costs and competence in the MRO award process.

Furthermore, there is still a trend towards a smaller and smaller number of manufacturers of original parts for each aircraft and engine type. The market position of OEMs results in barriers to entry for independent providers of aircraft MRO services, especially for new aircraft models, and makes it more difficult to gain access to licences and intellectual property. Expanding and maintaining their market position in this environment is a key challenge for MRO providers.

Lufthansa Technik counters these risks through strategic partnerships, joint ventures and the establishment of the AVIATAR digital platform.

Opportunities and risks from the regulatory environment

Political decisions at national and European level continue to have a strong influence on the international aviation sector. This is particularly the case when countries or supranational organisations unilaterally intervene in the competition within a submarket, for example, by way of regional or national taxes, emissions trading, fees and charges, restrictions or subsidies. The Lufthansa Group campaigns actively to influence these developments in the appropriate boards and forums and in cooperation with other companies and industry associations.

Greater regulatory efforts in connection with the climate debate

The current public debate about the role of aviation in climate change increases the risk that CO_2 emissions will be subject to more rigorous pricing in future. Air traffic within the EU is already part of the EU Emissions Trading Scheme, but there is a risk of rising costs and/or additional requirements. So when the climate package was agreed in Germany, a decision was taken to increase the national air traffic tax significantly. Other risks concern the still unclear allocation of flights between EU countries in the EU Emissions Trading Scheme or the global CORSIA system. This gives rise to additional risks in the form of higher costs or a possible negative impact on demand, which could affect international competitiveness. In addition to wide-ranging measures to limit CO_2 emissions, such as the continuous renewal of its fleet and the expansion of voluntary carbon offset options, the Lufthansa Group participates in the public debate – sometimes together with other European airlines – and endeavours to prevent any regulations that could distort competition. ↗ **Combined non-financial declaration, p. 79ff.**

Increased noise legislation

Stricter noise standards may apply to airlines or airports. They may cause, for example, higher costs for retrofitting aircraft, bans on specific aircraft models, higher charges or higher monitoring expenses. The still outstanding revision of the directive on environmental noise at European level is relevant here. The limits set in the Aircraft Noise Abatement Act were reviewed at the federal level as scheduled in 2017. Any changes to the Act are expected to be made in the current legislative period. Although the latest results of noise research do not show any significant changes in health risks, the way in which noise is perceived as a nuisance by those affected has changed radically, even when noise levels at airports are stable. Further lobbying in this area is therefore expected to result in more restrictive noise legislation.

In November 2017, the Lufthansa Group, Fraport, Condor, the Board of Airline Representatives in Germany (BARIG) and the government of Hesse came to a voluntary agreement on noise limits at Frankfurt Airport. This framework still allows for growth and does not provide for any interference with operating licences as long as the limits are respected. Introducing a voluntary noise limit in Frankfurt could have an effect on other sites in Germany.

The Lufthansa Group develops coordinated strategies by means of targeted communications in collaboration with trade associations and other industry stakeholders. It is involved in research projects looking at active noise abatement measures ↗ **Combined non-financial declaration, p. 79ff.**, and closely monitors research into the effects of noise.

Financial opportunities and risks

Financial market developments represent opportunities and risks for the Lufthansa Group. Positive changes in fuel prices, exchange rates and interest rates can result in lower costs and/or higher income compared with the assumptions used for planning and forecasting. There were no significant changes to this estimate compared with the previous year.

System of financial risk management for fuel prices, exchange rates and interest rates

Financial and commodities risks are managed systematically on the basis of internal policies. The derivative financial instruments used serve solely to hedge underlying transactions. Here, the Lufthansa Group works with partners that have at least an investment grade rating equal to Standard & Poor's BBB rating or a similar long-term rating. All hedged items and hedging transactions are tracked in treasury systems so that they can be valued and monitored at any time. The functions of trading, settlement and controlling of financial risk are strictly separated at an organisational level.

The executive departments and Financial Risk Controlling ensure compliance with these guidelines. Furthermore, the current hedging policies are also discussed regularly in management board meetings across the business areas. The Supervisory Board is regularly informed of the amounts of risk. ↗ **Notes to the consolidated financial statements, Note 43, p. 200ff.**

Fuel price movements

In 2019, the oil price was on average 10% lower than in the previous year. There has been no year-on-year change in the risk of price fluctuations.

The Lufthansa Group uses rules-based fuel hedging with a time horizon of up to 24 months. This is aimed at reducing fluctuations in fuel prices. Limited protection against higher prices is accepted in exchange for maximising the benefits derived from any fall in prices.

In the reporting year, the Lufthansa Group consumed around 10.9 million tonnes of kerosene. At around EUR 6,715m, fuel expenses constituted a major item of expense for the Lufthansa Group in 2019. Severe fluctuations in fuel prices can have a significant effect on the operating result. A change in the fuel price of + 10% (– 10%) at year-end 2020 would increase (reduce) fuel costs for the Lufthansa Group by EUR 397m (EUR – 484m) after hedging.

The hedging level and hedging horizon depend on the risk profile, which is derived from the business model of the Group company concerned. The hedging policy and structure shown in chart ↗ C27 are applied to Lufthansa German Airlines, SWISS and the scheduled operations of Austrian Airlines. Transactions for some other Group companies are hedged to a lesser extent, and are therefore more exposed to the risk of a price increase. Conversely, they also profit more if prices go down. Charter business is hedged in full using forward transactions as soon as the contract has been signed. This largely eliminates the risk of fuel price increases. On the other hand, this also eliminates the chance of benefiting from a fall in prices.

The Lufthansa Group uses standard financial market instruments in fuel hedging. Hedges are mainly in crude oil for reasons of market liquidity. The hedging transactions are based on fixed rules and map the average of crude oil prices over time. Depending on the company in the Group, the amounts hedged each month result in a hedging level of up to 85%.

As of 18 February 2020, there were crude oil and kerosene hedges for circa 78% of the forecast Group fuel requirement for 2020, in the form of futures and options. For 2021, around 32% of the forecast fuel requirement was hedged at that time. As fuel is priced in US dollars, fluctuations in the euro/US dollar exchange rate can also have a positive or a negative effect on reported fuel prices. US dollar exposure from planned fuel requirements is included in currency hedging.

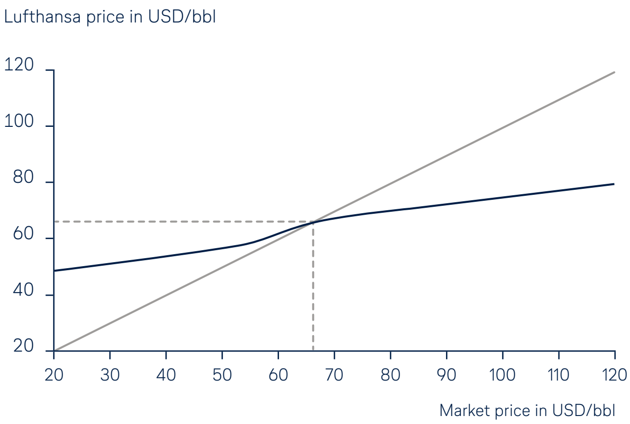
In the context of fuel supplies, there are opportunities in the development of new production techniques, both for crude oil and for alternative energy sources. This could have a direct or indirect effect on the Lufthansa Group's kerosene expenses, by reducing both prices and volatility.

Exchange rate movements

Foreign exchange risks for the Lufthansa Group arise in particular from international ticket sales and the purchasing of fuel, aircraft and spare parts. All subsidiaries report their planned currency exposure over a time frame of at least 24 months. At Group level, a net position is aggregated for each currency to take advantage of "natural hedging". 23 of the 67 foreign currencies in total are hedged because their exposure is particularly relevant to the Lufthansa Group. ↗ **Notes to the consolidated financial statements, Note 43, p. 200ff.**

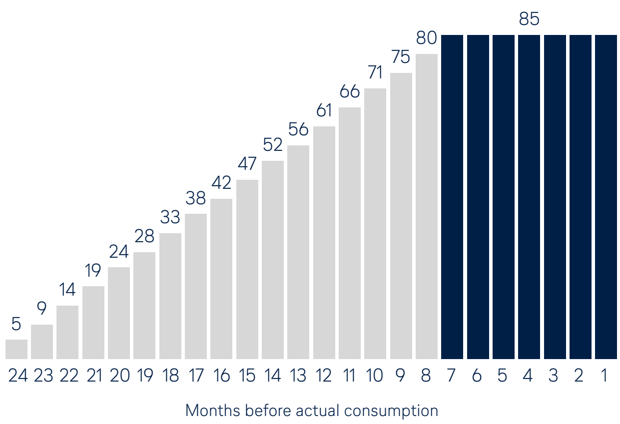
C26 HEDGED OIL PRICE LUFTHANSA GROUP 2020

in USD/bbl (as of 18 Feb 2020) — Market price — Lufthansa price



C27 HEDGING STRATEGY LUFTHANSA GROUP

Hedging level in % ■ Hedge is built up over 18 months ■ Hedge is held for 6 months



Loss of the investment grade rating

Deutsche Lufthansa AG has an investment grade rating from Standard & Poor's (BBB) and Moody's (Baa3), both with a stable outlook. Deutsche Lufthansa AG also has a third investment grade rating of BBB with a stable outlook from the agency Scope Ratings. A downgrade in the credit rating to non-investment grade could lead to a significant deterioration in funding terms and financial risk management and restrict access to new funding and hedging instruments.

The magnitude of this risk is considered to be very low since the financial indicators relevant to the rating have stabilised in the investment grade range for all three rating agencies. Measures have been assumed that will further strengthen the financial profile and reduce the Group's debt.

Capital investments and liquidity risks

Capital investments at the Lufthansa Group are managed from the point of view of operating and strategic liquidity. Investments are also made by the Lufthansa Pension Trust and other pension funds in the Lufthansa Group. The risks mainly consist of potential price changes for shares, fixed-income securities and interest rates, as well as credit risks.

Capital investments to ensure the Lufthansa Group's operating liquidity are generally made in accordance with the Group's financial guidelines. The investment period is limited to a maximum of 24 months, whereby at least EUR 300m should be in investments that can be liquidated on a daily basis. For its operating liquidity, the Lufthansa Group mainly uses money market funds that can be liquidated daily, overnight deposits, fixed-term deposits and short-term securities, especially commercial papers, from creditworthy issuers.

The investment structure of the strategic minimum liquidity was developed using a stochastic allocation study. During its development, the Lufthansa Group's high liquidity requirements and conservative investment principles were taken into account. These investments are largely made in money markets and fixed-income securities. This also includes a mixture of European shares. Active risk management limits the price risk. Asset management and management of hedges is undertaken by external service providers, taking into consideration the need for instant liquidability, i.e. within a maximum of four weeks.

Exchange rate losses on pension fund investments

Pension fund investments are subject to price fluctuations on international capital markets. However, the broad diversification across many asset classes (including global equities and fixed-income securities) does reduce the overall investment risk to capital investments. An investment manager also monitors and manages risk using a stop-loss system. Significant market volatility is expected to continue in view of persistent uncertainties such as the US trade war with China and Brexit. Thanks also to the existing hedging mechanisms, the risk of significant losses is still considered to be low. ↗ **Financial strategy and value-based management, p. 20ff.** Further information on opportunities from changes to retirement benefits ↗ **Human resources, p. 74.**

Counterparty risks

The transactions completed in the course of financial management give rise to default risks. The counterparty default risk is continuously assessed using a system of counterparty limits.

In times of broad economic swings, the default risk for trade receivables also increases. Here, too, their performance is tracked constantly at the level of the Group and the individual segments. Preventive measures are also taken. ↗ **Notes to the consolidated financial statements, Note 37, p. 189ff.**

Company-specific opportunities and risks

Non-achievement of the continuous improvement assumption

As part of its continuous improvement process, the Lufthansa Group strives for annual efficiency gains, the reduction or prevention of increases (e.g. by inflation) in unit costs, and earnings improvements. This being the case, improvement targets are agreed as part of the annual planning process for the individual areas of the Group. To achieve these targets, the aim is partly to realise potential that has already been identified, and furthermore, to identify additional potential over the course of the year. This can give rise to a risk in two respects. One is that in the course of implementation it becomes apparent that the expected effects are smaller than initially assumed; the other is the possibility that not enough additional potential can be identified in the year, thus making it impossible to achieve the agreed targets in full. In order to take early countermeasures, the volume of identified measures is compared against the targets on a monthly basis.

Human resources

INTERNAL AND EXTERNAL LABOUR DISPUTES

The risk of strikes by cockpit staff has been resolved by means of long-term tariff agreements between Deutsche Lufthansa AG, Lufthansa Cargo, Germanwings and the Vereinigung Cockpit pilots' union, which remain in force until mid 2022. Long-term tariff agreements for ground staff were also signed in January 2018 by Deutsche Lufthansa AG, Lufthansa Technik AG, Lufthansa Cargo AG and LSG for the period until the end of September 2020. Strikes by ground staff are therefore possible starting in the fourth quarter of 2020 at the earliest. Deutsche Lufthansa AG and the trade union UFO signed various process agreements relating to the work of cabin crew, which are intended to enable the existing conflicts to be structured and solved amicably.

EMPLOYEE COMMITMENT

Implementing structural changes may reduce the commitment of employees and their loyalty to the Lufthansa Group. Change management initiatives are therefore increasingly being implemented and communications activities initiated to improve employees' commitment. The Lufthansa Group also continues to strive to offer attractive employment terms. This includes continuing to develop the pay structure, fringe benefits and non-monetary remuneration components, as well as attractive personal development and qualification opportunities tailored to the different employee groups.

STAFF STRUCTURE

Differences between strategic HR requirements, the existing competences of employees and how they are distributed across the companies in the Lufthansa Group constitute a structural HR risk. The Lufthansa Group addresses this risk by means of strategic human resources planning, drawing up a skills model and offering training courses for all the employees in the Group.

Overall, human resources risks remain largely unchanged compared with last year.

Flight operations risks

The airlines in the Lufthansa Group are exposed to potential flight and technical operating risks. One of these is the risk of not being able to carry out regular flight operations for technical or external reasons.

Another flight and technical risk is the risk of an accident, with the possibility of damage to people and property; it is divided into environmental factors (for example, weather or bird strike), technical factors (for example, engine failure), organisational factors (such as contradictory instructions) and the human factor.

The companies in the Lufthansa Group search for these dangers systematically and in a forward-looking manner in order to manage the resulting risk by means of suitable countermeasures and to increase the level of flight safety further. This takes place in the course of the safety management system, which is focused on proactively addressing any threats to the organisation, identifying risks, defining mitigation measures and thus minimising risks. For example, every single flight made by an airline in the Lufthansa Group is routinely analysed using the parameters recorded in the flight recorder (black box) in order to identify any peculiarities at an early stage and to act on them, such as in the context of training courses, for example. Other sources of information, e.g. accidents and hazardous situations around the world that come to light, are also analysed and the results are integrated into prevention measures, such as training courses, where relevant. The safety management systems are continuously improved and refined.

The networking of the airlines in the Lufthansa Group in terms of flight safety made further progress. A Group Safety Management Manual has now been established that aims to define process standards applicable throughout the Lufthansa Group. In this context, Group Safety References have been added to Group Safety Management as standards for the companies in the Lufthansa Group.

The sustained implementation of uniform flight safety standards across the entire Lufthansa Group is also supported by further progress on harmonising the IT environment in the course of safety management. Ongoing dialogue between the airlines in the Lufthansa Group provides an opportunity to consolidate information gained in an operational setting and factor it into the development of the corresponding standards. A standardised platform for the analysis of flight data relevant to flight safety is currently being implemented.

Operating risks in Catering

In the Catering segment, it is vital that food is produced to the highest quality and in accordance with all hygiene and food safety standards. Standardised quality management systems are used to identify potential quality defects at an early stage. Furthermore, the LSG group invests continuously in its production facilities and equipment as well as in modern technology. The modernisation process is supported by intensive training courses as well as learning and problem-solving workshops in the individual companies.

Cyber- and IT risks

Cyber-risks are all risks to which computer and information networks, ground and flight infrastructure as well as all IT-enabled commercial and production processes are exposed to sabotage, espionage or other criminal acts. If established security measures fail, the Lufthansa Group may suffer reputational damage and be obliged to make payment on the basis of contractual and statutory claims by customers, contract partners and public authorities. A loss of income is also conceivable if operating systems should fail.

The business processes in the Lufthansa Group are supported by IT components in virtually all areas. The use of IT inevitably entails risks for the stability of business processes and for the availability, confidentiality and integrity of information and data, and such risks ultimately cannot be fully eliminated.

The dimensions of cyberattacks are increasing drastically worldwide in terms of their quantity and professionalism. This is borne out by the Group's own experience of security incidents and by information from other companies and public agencies. At the same time, the digitalisation of business processes in the Lufthansa Group is increasing, meaning that the potential effects of cyberattacks may continue to escalate. As a result, cyber-risks will become a greater and greater potential risk for the Lufthansa Group in the foreseeable future.

The Lufthansa Group monitors the global IT security situation on an ongoing basis. Based on this monitoring, the Executive Board has in recent years adopted measures to strengthen the IT security of the Lufthansa Group, which have been implemented in numerous projects. Technological tools have been introduced to prevent cyberattacks, processes have been adapted to changing risk scenarios, organisational changes have been made and awareness campaigns have been carried out. Since the end of 2018, a three-year programme has been underway to increase the cyber-resilience of the Lufthansa Group. As part of the cyber-security programme adopted by the Executive Board, measures in various core areas are being implemented across the Group and numerous projects carried out. This also includes preparing the airlines in the Lufthansa Group for the next generation of e-enabled aircraft. The measures focus on risk-oriented implementation in IT systems and processes, taking the partners and providers of the Lufthansa Group into account. Initial results from the programme are already showing a positive contribution to reducing risks.

IT risk and IT security processes are organised across segments. The status of IT risks and IT security is compiled annually, consolidated at Group level and discussed by the Risk Management Committee for the Lufthansa Group. The risk and security management systems and selected other measures are also reviewed regularly by the Internal Audit department.

The Lufthansa Group sources most of its IT infrastructure from external service providers. The operational and commercial risks that by nature accompany this kind of outsourcing are assessed and managed on a continuous basis.

Risks of breaching data protection regulations

Protecting the privacy of its customers, employees, shareholders and suppliers has always been an important and self-evident concern for the Lufthansa Group. Data protection became significantly more important on 25 May 2018 when the General Data Protection Regulation (GDPR) took effect, establishing extensive documentation and reporting obligations. A large number of customers exercised their rights, especially to access and erasure of data. All the Group companies subject to the GDPR have adapted to the new requirements and implemented the corresponding governance structures and processes as defined in the Group's data protection policy. Data protection was strengthened in organisational terms in order to identify and manage potential risks from the stricter requirements.

Compliance risks

Compliance refers to the observance of legally binding requirements, and is intended to ensure that the Company, its executive bodies and its employees act in accordance with the law. The effectiveness of the compliance programme is therefore vital to the Lufthansa Group. ↗ **Corporate Governance report, p. 113ff.**

The Lufthansa Group is active in many countries and is therefore subject to various legal norms and jurisdictions with different, and sometimes hard to interpret, legal frameworks, including for criminal law on corruption. In addition, all activities not only have to be judged against local criminal law, the laws applicable in the sales area and the local cultural customs and social conventions, but also against extraterritorial regulations like the US Foreign Corrupt Practices Act (FCPA) or the UK Bribery Act. Any infringements are investigated rigorously; they may result in criminal prosecution for the individuals involved and could expose the Company to hefty fines. There would also be reputational damage that is difficult to measure and the Company would be put at a distinct disadvantage when competing for public tenders. The Lufthansa Group has put processes in place that are intended to identify specific compliance risks and, in particular, to prevent corruption.

The Lufthansa Group is also exposed to risks arising from competition and antitrust law. They stem, in particular, from the fact that the Lufthansa Group also operates in highly oligopolistic markets, has a strong position in some markets, cooperates with competitors in alliances, the legal parameters may change and that in some of its segments the suppliers, competitors and clients are the same legal person. The Lufthansa Group's Competition Compliance function addresses the risks of collusive behaviour and provides employees with extensive training.

The Lufthansa Group, in particular Deutsche Lufthansa AG as a publicly listed company, is also exposed to risks from capital market compliance. Since July 2016, the EU Market Abuse Regulation (MAR) and many other national and European regulations have codified bans on insider trading and market manipulation, the obligation to make ad hoc announcements as well as other obligations relating to capital markets. These regulations are directly applicable in Germany. In some cases, it is still difficult to predict and to put into practice the interpretation of these new European rules, particularly concerning ad hoc announcements and administrative practices. The Lufthansa Group takes many organisational precautions to comply with the provisions of the MAR. The Group uses special software to compile insider lists, for instance, and to publish any ad hoc announcements, and it has the corresponding policies, information letters and process descriptions at hand. In addition, the Group Compliance Office conducts training courses as needed for individuals specifically affected by the laws applicable to insider trading and market abuse. Matters relating to the law on ad hoc announcements are also always discussed with external experts.

Despite the existence of a compliance management system and its risk-mitigating activities, individual breaches, the related investigations by public authorities and penalties cannot be ruled out completely, particularly in the fields of integrity, competition and capital market compliance.

Litigation, administrative proceedings and arbitration

The Lufthansa Group is exposed to risks from legal, administrative and arbitration proceedings in which it is currently involved or which may take place in the future. Due to the possible restricting effect, the risks have not been quantified in accordance with DRS 20 No. 154. It cannot be ruled out that the outcome of these proceedings may cause significant damage to the business of the Lufthansa Group or to its net assets, financial and earnings position. Appropriate provisions have been made for any financial losses that may be incurred as a result of legal disputes. More information on provisions for litigation risks and contingent liabilities can be found in the Notes to the consolidated financial statements ↗ **Note 34, p. 185ff., and Note 44, p. 214ff.**

Furthermore, the Lufthansa Group has taken out liability insurance for an amount that the management considers appropriate and reasonable for the industry in order to defend itself against unjustified private third-party claims and to settle such claims it considers justified. Even in such cases, however, this insurance cover does not protect the Lufthansa Group against possible damage to its reputation. Such legal disputes and proceedings may also give rise to expenses in excess of the insured amount, expenses not covered by the insurance or those which exceed any provisions previously recognised. Finally – and depending on the type and extent of future losses – it cannot be guaranteed that the Lufthansa Group will continue to obtain adequate insurance cover on commercially acceptable terms in the future.

There are insurance contracts in place for Germanwings and Deutsche Lufthansa AG as well as for other Lufthansa Group companies, covering various liability claims in connection with the Germanwings accident on 24 March 2015. The same applies to the lawsuits filed against Germanwings, Deutsche Lufthansa AG and other Group companies. The Lufthansa flying school in Arizona (formerly Airline Training Center Arizona, Inc. (ATCA), now Lufthansa Aviation Training USA, Inc. (LAT US)), has also been sued for material and non-material damages. The lawsuit was originally filed in the USA, where it was dismissed, and is now being pursued in Germany. In the lawsuit, the claimants are arguing, among other things, that the flying school doubted the co-pilot's mental stability but still trained him nonetheless. The litigation has been extended to Deutsche Lufthansa AG and alleges organisational deficits and individual errors in the medical treatment of the co-pilot. Altogether, the lawsuits are considered to have little chance of success. Companies in the Lufthansa Group may still be faced with costs, however, since in France at least, public prosecution and judicial investigations into the case are still under way. ↗ **Notes to the consolidated financial statements, Note 44, Legal risks, p. 214f.** Legal costs are incurred here. Costs have already been incurred and others may follow for investigations and voluntary payments to the victims' families.

The Lufthansa Group is subject to tax legislation in many countries. Changes in tax laws and case law, as well as different interpretations as part of tax audits/external wage tax audits can result in risks and opportunities affecting tax expenses, income, claims and liabilities. The Corporate Taxation department identifies, evaluates and monitors tax risks and opportunities systematically and at the earliest stage possible, and initiates steps to mitigate the risks as necessary.

OVERALL STATEMENT ON OPPORTUNITIES AND RISKS

In a dynamic environment, the Lufthansa Group relies on adjusting its capacities and resources flexibly to changing market conditions. To compete successfully over the long term, the Lufthansa Group focuses on promising product strategies, a solid financial position and a competitive cost structure, and also participates in the consolidation of the industry.

Continuous efficiency improvements are established as a permanent task in the Company. In order to seize opportunities for making lasting, structural improvements to efficiency, productivity and competitiveness, a process-oriented organisation has been implemented in the Network Airlines, in the administrative areas and in other operating segments. The development of the Lufthansa Group is driven by focused consolidation, increased flexibility and digitalisation.

The implementation risks for projects aimed at increasing efficiency and factors countervailing this, among them higher costs for fuel or fees and charges and declining yields particularly at the airlines, are mitigated by means of systematic risk management.

The spread of the coronavirus and its impact on global air traffic have altered the overall risk situation for the Lufthansa Group compared with the previous year. The liquidity risk has risen due to the fall in bookings and flight cancellations. The Group is responding by reducing expenses to the minimum required for operations and by raising new funds. However, the course of the crisis is unpredictable, so that it is currently impossible to come to a definitive risk assessment.

Generally speaking, the Executive Board remains convinced that the opportunities and risk management system is effective. It continues to strive for a balance between opportunities and risks. The Executive Board does not currently consider that the continued existence of the Company is at risk.

DESCRIPTION OF THE ACCOUNTING-RELATED INTERNAL CONTROL SYSTEM AND RISK MANAGEMENT SYSTEM IN ACCORDANCE WITH SECTION 289 PARAGRAPH 4 AND SECTION 315 PARAGRAPH 4 HGB

The Lufthansa Group's Internal Control System (ICS) covers all the principles, procedures and steps intended to ensure effective, economical and accurate accounting and compliance with the relevant legal regulations. It is based on the COSO framework (Committee of the Sponsoring Organizations of the Treadway Commission).

Overall responsibility for the Internal Control System required to manage risk lies with the Executive Board of Deutsche Lufthansa AG, which defines the scope and the format of the systems in place based on the specific requirements of the Lufthansa Group.

The Corporate Audit department of Deutsche Lufthansa AG as well as the decentralised internal audit departments at Delvag and AirPlus are embedded in the internal monitoring system for the Lufthansa Group and act independently of business processes. In addition, the effectiveness of those areas of the Internal Control System relevant to financial reporting are reviewed by the auditors as part of a risk-oriented approach to their audit. The Audit Committee of the Deutsche Lufthansa AG Supervisory Board monitors the effectiveness of the Internal Control System and risk management system on the basis of Section 107 Paragraph 3 German Stock Corporation Act (AktG).

The objective of the Internal Control System for accounting processes is, by making checks, to provide a reasonable degree of certainty that the financial statements and the consolidated financial statements of Deutsche Lufthansa AG comply with the rules, despite the risks identified.

The following preventative and investigative checks are embedded in the accounting process:

- IT-supported and manual cross-checks,
- functional separation,
- dual signatures and
- monitoring checks.

Operational accounting processes are carried out locally at the Group companies and increasingly also using the Group's own and external Shared Service centres. Expert opinions for determining the amount of pension provisions are prepared by external consultants.

Corporate Accounting is functionally responsible for preparing the consolidated financial statements and draws up binding regulations for the Group companies that pertain to form, content and deadlines. The Lufthansa Group's accounting guidelines are updated regularly and define uniform accounting standards for the domestic and foreign companies included in the Lufthansa consolidated financial statements in accordance with International Financial Reporting Standards (IFRS). For Deutsche Lufthansa AG and other German companies in the Group, a guideline defines rules for drawing up individual financial statements in line with the German Commercial Code (HGB). This ensures that standardised Group accounting practices are applied to the recognition, measurement and presentation of balance sheet items, with as little room for discretion as possible. The formal requirements relate to the mandatory use of a standardised and complete set of reporting forms and a uniform account framework for the Group. Individual financial statements that contain errors are selected and restated as necessary at company or Group level on the basis of control mechanisms already defined in the SAP SEM-BCS consolidation software and/or by systematic plausibility checks. The consolidation system dictates the different deadlines for various elements of the reporting package and verifies centrally that they are adhered to during the preparation process.

The IT systems used for accounting are protected against unauthorised access by special security precautions.

By means of the organisational, control and monitoring structures defined for the Lufthansa Group, the Internal Control System and risk management system as it relates to accounting ensures that all matters affecting the Company are captured, processed and evaluated, and are presented adequately in the Group's financial reporting. In particular, the use of individual discretion, faulty checks, criminal acts by those involved and other circumstances may compromise the effectiveness and reliability of the Internal Control System and risk management system in place. This means that even the Group-wide application of these systems cannot guarantee with complete certainty that facts are presented correctly, fully and promptly in the consolidated financial statements. These statements only relate to Deutsche Lufthansa AG and the major subsidiaries included in the consolidated financial statements of Deutsche Lufthansa AG.

Combined non-financial declaration

Lufthansa Group intends to fulfil its role as a leading player in the aviation industry, also in terms of sustainability. | Corporate responsibility is an integral part of the corporate culture. | The combined non-financial declaration focuses on the aspects of environmental concerns, customer concerns, employee concerns, anti-corruption and bribery, human rights, social concerns, responsible production and sustainability in the supply chain as an interdisciplinary topic. | Report is based on the GRI Standards 2016.

About this combined non-financial declaration

In accordance with CSR Directive Implementation Act (CSR-Richtlinie-Umsetzungsgesetz – CSR-RUG) which came into force on 19 April 2017, Deutsche Lufthansa AG is again publishing a combined non-financial declaration for the financial year 2019 in accordance with Sections 315b and 315c German Commercial Code (HGB) in conjunction with Sections 289b to 289e HGB. Deutsche Lufthansa AG publishes a non-financial declaration at Company level and a non-financial Group declaration together as a combined non-financial declaration. It combines aspects and issues on the following key issues: environmental concerns, customer concerns, employee concerns, anti-corruption and bribery, human rights, social concerns and responsible production and sustainability in the supply chain as an interdisciplinary topic. In addition, measures and initiatives taken by the Lufthansa Group that demonstrate the Company's wide-ranging commitment to corporate responsibility are described in the combined management report. References to these passages are made in this declaration.

In its Group risk management system, the Lufthansa Group also takes into consideration impacts on non-financial aspects and issues. ↗ **Opportunities and risk report, p. 65ff.**

Taking into account the measures and concepts described and using the net method, there are currently no indications of risks that would have a severe negative impact on these aspects and that are highly likely to occur. This applies to the Lufthansa Group and also to its supply chain.

Unless otherwise stated, the disclosures made here relate to the group of consolidated companies referred to in the consolidated financial statements. Unless stated otherwise, the disclosures reflect the perspective of both the Group and Deutsche Lufthansa AG. This combined non-financial declaration was subject to a voluntary limited assurance engagement in accordance with ISAE 3000 (revised). ↗ **Independent Practitioner's Report on a Limited Assurance Engagement on Non-Financial Reporting, p. 244f.**

References to disclosures outside the combined management report are additional information and do not form part of the combined non-financial declaration.

Disclosures on the business model

The Lufthansa Group is a global aviation group with a total of 580 subsidiaries and equity investments. The business model of the Lufthansa Group is described in detail in the combined management report. ↗ **Principles of the Group, p. 15ff.**

Sustainability is firmly established within the Company

Responsible conduct in compliance with legislation is a key element of the Lufthansa Group's corporate culture and is embedded in the Group strategy. Since 2002, the Company has applied the principles of the UN Global Compact for sustainable and responsible corporate governance. In addition, it supports the Sustainable Development Goals (SDGs) of the Agenda 2030, as adopted by the UN member states in 2015.

This combined non-financial declaration is based on the Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards 2016). This information relates to the disclosures displayed in the overview on ↗ **p. 104.** Extensive reporting on non-financial subjects can also be found in the **Annual sustainability report "Balance"**, which includes a GRI table of contents. **www.lufthansagroup.com/en/responsibility.html.**

In order to contribute towards achieving the SDGs, the Company is concentrating on the seven SDGs where it can reduce its negative impact and increase its positive effect due to its business model: SDG 4: Quality Education, SDG 5: Gender Equality, SDG 8: Decent Work and Economic Growth, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action and SDG 17: Partnerships for the Goals. An overview of the goals and information on action taken by the Lufthansa Group to support these goals can be found in the table ↗ T054 **Sustainable Development Goals, p. 105.** The Code of Conduct, which has been binding for all bodies, managers and employees of the Lufthansa Group since 2017, has been supplemented by a Supplier Code of Conduct in the past financial year that is based on the original Code of Conduct. In this Supplier Code of Conduct, the Lufthansa Group lays out its position that it also expects business partners and suppliers to adhere to the principles as a fundamental aspect of the business relationship. **https://investor-relations.lufthansagroup.com/en/corporate-governance/compliance/code-of-conduct.html.** The standards at its core are not only the basis for responsible conduct and fair competition, but also seek to identify and avoid legal and reputational risks.

The Lufthansa Group's commitment to climate protection is demonstrated by its climate score of "B" from the international non-profit rating organisation CDP (previous year: "B") and so is in the management band of the global ranking.

Since 2015, the Group has also been part of the MSCI Global Sustainability Index prepared by MSCI, a US index provider. It tracks companies that are particularly committed to sustainability.

The highest monitoring body in the area of sustainable management is the Supervisory Board. In the reporting year, the Group Executive Committee (GEC), chaired by the Chairman of the Executive Board and CEO, determined the focus and further development of sustainability-related activities within the Lufthansa Group. The GEC is a senior management level entity and consists of the Executive Board of Deutsche Lufthansa AG, the CEOs of the segment parent companies, the senior executives of the Network Airlines and the heads of the Group's Strategy, Controlling and Communications departments. Individual managers are responsible for implementing concrete activities and projects. The GEC repeatedly addressed sustainability issues in the reporting year.

The Executive Board has been expanded by the position Customer & Corporate Responsibility since 1 January 2020. This will establish responsibility for environment, climate and society directly at the Executive Board level.

Materiality analysis forms basis for determining material aspects

Continuous dialogue with stakeholders delivers an important contribution to refining the sustainability strategy of the Lufthansa Group. The results of the wide-ranging stakeholder survey conducted in October 2018 were reviewed in November 2018 in accordance with Section 289c (3) HGB by the management and largely confirmed for the reporting year. The result of this materiality analysis again forms the basis for selecting the aspects and issues described in this combined non-financial declaration.

C28 ASPECTS, ISSUES AND PERFORMANCE INDICATORS

Environmental concerns	Customer concerns	Employee concerns	Fighting corruption and bribery	Respect for human rights	Social concerns [1]
Climate protection CO_2 emissions	**Operational stability** Departure punctuality	**Attractiveness as an employer** Engagement Index	Integral part of the Lufthansa Group Compliance Management System	Important part of the corporate culture – embedded in the Code of Conduct	**Corporate citizenship** help alliance gGmbH
Waste avoidance	**Product and services** Net Promoter Score	**Transformation capacity**			
Active noise abatement Percentage of aircraft that meet the 10dB criterion of ICAO Chapter 4		**Health and safety at work** Health Index			
Responsible production and sustainability in the supply chain: interdisciplinary topic, qualitative representation with its own chapter in the non-financial declaration					

[1] Immaterial as defined in Section 289c Paragraph 3 German Commercial Code (HGB), voluntary presentation at specific request of addressees.

According to the analysis, environmental concerns, customer concerns and employee concerns are particularly important for the business of the Lufthansa Group. Furthermore, the materiality analysis shows that the fight against corruption and bribery, respect for human rights and responsible production including a sustainable supply chain are of great relevance to the Lufthansa Group. Compared to the previous year's report, the topics of waste prevention and responsible production have both been included for the first time as interdisciplinary topics.

Value-based management is also an integral element of sustainable corporate governance for the Lufthansa Group. The concept and the associated performance indicators are described in detail in the chapter ↗ **Financial strategy and value-based management, p. 20ff.**

Environmental concerns

Concepts

Climate protection and active noise abatement are cornerstones of the environmental strategy; waste prevention is another key area of action

Global aviation is a growth industry and for the foreseeable future, it will continue to require the use of fossil fuels and alternative liquid fuels with a corresponding energy density. The material environmental impacts of flight operations are therefore primarily climate effects due to the CO_2 emissions produced by burning kerosene and the noise caused by aircraft taking off and landing. In addition, waste is produced during every flight which must be prevented, reduced or recycled wherever possible.

For many years, the Lufthansa Group has taken steps to minimise the environmental impact of its business operations. This is consistent with its economic interests, since resource consumption and noise-related fees all represent costs for the Company.

The Lufthansa Group therefore has a strategic environmental programme that is applied in all areas of the Group – from operations and technical maintenance to purchasing, facility management and administration.

Its main fields of action are the reduction of emissions, active noise abatement, energy and resource management, investment in research and the successive establishment of environmental management systems.

The Lufthansa Technik group, which currently has 38 offices worldwide, decided to manage its sustainability activities within a uniform environmental management system back in 1999. The ISO 14001 certification is continually expanded to all new locations.

Current examples of this are the engine overhaul plants in Wrocław (XEOS) and Jasionka (EME Aero). Preparations began in 2020 for certification of XEOS and EME Aero. Lufthansa Technik is pursuing its strategy of developing sustainable maintenance processes in order to supply customers with efficient and sustainable products and repair processes. The aim is to reduce kerosene consumption during flights and thus deliver cost and carbon savings for airline customers. Examples of this include the development of innovative cleaning processes (Cyclean) and the application of coatings to make aircraft more aerodynamic (known as shark skin) ↗ **Climate protection, Technological progress, p. 83.** With the help of the Lufthansa Technik group's ambitious environmental goals, which were adopted by the Executive Board at the end of 2018, the locations will undergo further optimisation. For instance, the carbon footprint of the global production network is set to be reduced by another 25% by 2025 and the share of renewable energy sources increased to 50%. Resources will also be used more efficiently and the recycling ratio increased to 75%.

At the beginning of 2000, Lufthansa CityLine was the first Lufthansa Group company and the first airline in the world with an independently certified environmental management system. The Munich-based airline received the certification based on the demanding EMAS EU environmental standards for the twentieth consecutive time in the reporting year. The environmental management system of Lufthansa German Airlines in Munich is now also EMAS validated and ISO 14001 certified. The Lufthansa German Airlines location in Frankfurt began preparations for EMAS validation in 2020. Aspects of Lufthansa Group's flight operations relevant to the environment are already coordinated Group-wide by the Flight Operations department.

Lufthansa Cargo has also been certified according to the environmental management standard ISO 14001 since 2008 at its location in Frankfurt and worldwide since the end of 2015. The subsidiaries Jettainer and time:matters are now also included in the environmental management system. This demonstrates that the Lufthansa Group companies voluntarily undertake to work systematically to improve their own environmental performance and to document it credibly to external stakeholders.

Environmental activities are coordinated and managed
The Corporate Responsibility department, which reports to the Chairman of the Executive Board and CEO, was responsible for defining, coordinating and determining overarching objectives and measures for the Lufthansa Group regarding the environment in the reporting year. In addition, all larger subsidiaries have their own environmental departments, an environmental officer or a coordinator. The environmental officers and coordinators meet once a year for the Group Environmental Forum. This platform offers the environmental experts in the Lufthansa Group an opportunity to identify potential synergies and to discuss and evaluate new ideas, activities and projects concerned with environmental protection. New and planned legislation and its effects on the Lufthansa Group are also discussed.

The Lufthansa Group has been operating a central environmental database for several years in order to, among other things, collect and process information relevant to the environment, such as CO_2 emissions, and to be able employ this information in business decisions as relevant aspects.

CLIMATE PROTECTION

Targets

Lufthansa Group supports climate protection goals of the aviation sector
According to the International Energy Agency (IEA), air traffic currently accounts for around 2.95% of CO_2 emissions caused by burning fossil fuels, making them one of the industry's principal effects on the environment. Given that demand for mobility is predicted to keep growing, air traffic and so emissions will continue to increase in the future. The aviation sector has responded to this and in 2009 agreed on the following global targets:

1. Fuel efficiency (i.e. fuel consumption per revenue tonne-kilometre) is to be improved by 1.5% per year until 2020.
2. Growth in air traffic should be CO_2 neutral from 2020 onwards.
3. By 2050, air traffic's net CO_2 emissions are to decline by 50% compared with 2005.

The Lufthansa Group was highly involved in setting these targets and shares these industry goals. The steps that the Lufthansa Group has taken in this context and directly implemented in 2019 are described below. The Lufthansa Group also took part in various working groups at the International Air Transport Association (IATA), such as the Sustainability and Environmental Advisory Council and the Industry Affairs Council, and is represented on the Board of Governors. Carsten Spohr, Chairman of the Executive Board and CEO of Deutsche Lufthansa AG, was appointed Chairman of the Board of Governors of IATA in June 2019.

Measures

Four-pillar strategy defines climate protection measures
The targets mentioned above are to be met by combining various activities of different players, such as manufacturers, airports, air traffic control, airlines and policymakers. These targets were formulated as the four-pillar climate protection strategy for the air transport industry at the IATA General Meeting back in 2007. This strategy is also the basis for the Lufthansa Group's activities to improve fuel efficiency and reduce CO_2 emissions.

C29 THE FOUR PILLARS FOR ENVIRONMENTAL PROTECTION

Technological progress	Improved infrastructure	Operational measures	Economic measures
Innovation in aircraft and engine technology Alternative fuels	Better use of airspace Needs-based airport infrastructure	Efficient aircraft sizes Optimum flight routes and speeds Optimised processes on the ground	Global market-based system of emissions reduction (CORSIA) Voluntary compensation option

1. TECHNOLOGICAL PROGRESS

The most important driver for reducing CO_2 emissions from flight operations is investing continuously in modern, particularly fuel-efficient aircraft and engine technologies. In 2019, the airlines in the Lufthansa Group took delivery of 27 new aircraft. This number included five Airbus A320neos, five A321neos, four Boeing 777s and three A350s that emit up to 25% less emissions than comparable aircraft types.

By the end of 2027, the Lufthansa Group should receive another 190 new aircraft, which are characterised primarily by their low fuel consumption and noise emissions.
↗ **Fleet, p. 24f.**

The Lufthansa Group has also been involved in researching and using alternative fuels in air transport for many years. In February 2019, the Lufthansa Group signed a letter of intent for the refinery Heide pledging to accept environmentally friendly synthetic kerosene. In August 2019, the Lufthansa Group signed a declaration together with the state of Brandenburg and a number of leading companies and research institutes to support the PtX initiative in Lausitz aimed at producing industrial-standard sustainable fuels from renewable energy sources. The Lufthansa Group is still involved with the cross-sector Powerfuel initiative coordinated by the German Energy Agency (dena). It aims to launch and build an international alliance to develop the future strategic importance of synthetic renewable energy sources, to jointly advance a global market for these energy sources and to accelerate their market development. The Lufthansa Innovation Hub launched the offsetting platform “Compensaid” in August 2019. This is the first platform that allows travellers to replace fossil fuels with sustainable aviation fuel (SAF).
↗ **Climate protection/Economic measures, p. 84f.**

Measures to technically modify the existing fleet are also constantly examined and implemented where appropriate. In November 2019, Lufthansa Technik, in cooperation with BASF Coatings GmbH, began practical tests of functional films designed to decrease aircraft air resistance. This riblet film (with microscopic ribbing – also called shark skin), is being tested by attaching it to the lower fuselage of a Boeing 747-400 from the Lufthansa fleet where the technology is now being verified during actual flight operations. Based on the standard deployment profile of this aircraft, the modification is expected to bring annual savings of more than 400 tonnes of fuel and therefore almost 1,300 tonnes of CO_2 emissions. If the flight tests confirm these figures, the riblet film will be applied to the entire Boeing 747-400 fleet as well as other aircraft types in 2020, and the film will be made available to other airlines by Lufthansa Technik.

2. IMPROVED INFRASTRUCTURE

A fundamental modernisation of the airspace structure and a standardisation of technologies, processes and standards is required in European airspace in order to make the most of the great potential to lower CO_2 emissions while simultaneously increasing reliability and punctuality for passengers. The German federal government has therefore announced it will use its EU Council Presidency in the second half of 2020 to bring about decisions regarding the necessary measures in the EU Council and Parliament.

As part of the first National Aviation Conference in Leipzig in August 2019, the federal government, trade unions and aviation industry confirmed in a joint declaration their intention to review the European regulation framework for the “Single European Sky” (SES).

A declaration signed by 21 European aviation sector organisations under the EU Commission in September 2019 to complete the joint Single European Sky initiative strengthened the above undertaking. In this declaration, European airline and airport associations, a consortium of European air traffic control organisations (CANSO) and the IATA spoke out for fast implementation of a modernised, seamless European airspace. The aim is to reduce fuel consumption and thereby sustainably lower CO_2 emissions, and to achieve significant improvements in aviation punctuality and reliability for passengers.

The Lufthansa Group was actively involved through the Airlines for Europe (A4E) association and Lufthansa representatives, and the Group expressly supports the efforts of the EU to create a reliable and efficient EU airspace.

An important milestone in the standardisation and modernisation of the EU airspace infrastructure is the European SESAR programme (Single European Sky ATM Research).

SESAR is to develop, test and implement Europe-wide new technologies, procedures and standards that contribute to harmonising and optimising European air traffic management. The Lufthansa Group has supported SESAR for many years with the clear expectation that measurable operational improvements in air traffic management are implemented. The implementation of these technologies in daily operations is jointly coordinated by the members of the industry consortia SESAR Deployment Manager (SDM). The Lufthansa Group is a member of these consortia and provides local experts.

Across Europe, the SDM currently coordinates 349 projects. The various airlines in the Lufthansa Group and Lufthansa Systems are also actively involved as IT providers for SESAR research and demonstration projects.

3. OPERATIONAL MEASURES

The Lufthansa Group's operational measures to protect the climate include the deployment of efficiently sized aircraft, improvements to load factors, testing and introduction of new flight procedures, as well as the determination of optimal flight routes and air speeds. In the SESAR demonstration "Augmented Approaches to Land-2" (AAL2) last year, navigation methods were optimised to achieve more efficient approaches with lower emissions. Then there are programmes to sustainably reduce weight and make greater use of flight operating data and software, as well as more efficient ground processes that contribute to reducing kerosene consumption.

A systemic approach is increasingly taken to realise further efficiency gains at the interfaces to system partners such as airports or air traffic control, which includes the system partners in the analysis and definition of activities.

In the SESAR large-scale demonstration "xStream" in 2019, the EMAS (Early Morning Arrival Stream) Frankfurt project from the previous year was continued. In cooperation with DFS Deutsche Flugsicherung GmbH, the concept "Target Times" for the arrival stream between 5:00 a.m. and 6:00 a.m. was developed and tested in a second two-week demonstration. The aim is to achieve an improvement in predictability and more efficient arrivals at Frankfurt Airport. In order to exploit the potential to improve operating efficiency, more in-depth analyses of the results, tactical approach procedures and process adjustments will have to be conducted together with DFS. This is scheduled to take place in 2020.

In financial year 2019, 21 fuel-saving projects were under way across the Group. These projects comprise activities relating to performance and procedures, weight reduction, flight route optimisation and technical developments. In addition to the reductions achieved in recent years, they made it possible to permanently avoid another 24.5 thousand tonnes of CO_2 emissions in the reporting year. The quantity of kerosene saved amounted to around 9.7 million litres – this is equivalent to approximately 91 return flights between Munich and New York with an Airbus A350-900 aircraft.

4. ECONOMIC MEASURES

The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which was concluded with the International Civil Aviation Organization (ICAO) in October 2016, seeks to offset growth-related CO_2 emissions in international air traffic using climate protection projects from 2021 onwards. The Lufthansa Group will therefore have to pay carbon offsetting costs for the average increase in CO_2 emissions from international flights recorded by CORSIA from 2021.

The EU Emissions Trading Scheme for air traffic has managed and limited CO_2 emissions by way of certificate trading since 2012. All flights carried out by the Lufthansa Group within Europe are subject to this scheme. They emitted around 8.7 million tonnes of CO_2 in 2019, of which 63% is balanced out by the purchase of certificates. For further information on the provisions recognised in connection with the obligation to submit CO_2 emissions certificates to the competent authorities, we refer to ↗ **Notes to the consolidated financial statements, Note 34, p. 185ff.**

In large parts of its operations, the Lufthansa Group already offers a lot of its customers the opportunity to offset their carbon emissions on a voluntary basis. In cooperation with myclimate, customers can calculate the emissions of their flight with the airlines in the Lufthansa Group and offset them by making a donation to two climate projects chosen by Lufthansa. The range of voluntary carbon offsetting options was improved and expanded further in the reporting year.

The visibility and user-friendliness of carbon offsetting options at the Network Airlines was improved and integrated into the booking process at Edelweiss Air, for instance. Eurowings also offers passengers the option of offsetting the carbon emissions for their flight. Since August 2019, Miles & More customers have had the option to make a contribution to global carbon offsetting by donating miles to myclimate. With Lufthansa Innovation Hub's launch of the new offsetting platform "Compensaid" (**www.compensaid.com**) in the same month, the Lufthansa Group has given all passengers the ability to offset their individual carbon emissions through the purchase of sustainable aviation fuel (SAF), in addition to traditional carbon offsetting by supporting climate protection projects.

The Lufthansa Group conducted a test with corporate customers in the reporting year in order to evaluate the popularity of carbon offsetting among corporate customers. Some of them were given the option of also choosing carbon offsetting in the included optional services. Until now only other services such as exemption from rebooking fees, lounge and Wi-Fi vouchers, and additional luggage were available. The offer proved very popular and has been expanded to a significantly larger participant group in 2020.

The Lufthansa Group itself has been offsetting the carbon emissions of all employees' business flights around the world since 2019. This is part of a package of sustainability measures determined by the Executive Board of Deutsche Lufthansa AG in March 2019, as is the timely shift to renewable electricity and ensuring carbon-neutral mobility on the ground by 2030 at all Lufthansa Group locations in Germany, Austria and Switzerland.

A total of over 181,000 tonnes of CO_2 were offset in 2019 through these measures – almost 151,000 tonnes of these directly by the Lufthansa Group.

Performance indicator

Absolute CO_2 emissions climb 1.5%; specific CO_2 emissions on a par with previous year
Absolute CO_2 emissions of Lufthansa Group aircraft in 2019 amounted to 33.1 million tonnes (previous year: 32.6 million tonnes).

CO_2 emissions were offset by positive effects arising from the implementation of operational measures to reduce fuel consumption, as well as further efficiency improvements from the use of new aircraft types and higher average load factors for the aircraft. ↗ **T001, front cover.** Specific CO_2 emissions per cargo tonne-kilometre remained on a par with the previous year at 870 grammes (previous year: 873 grammes). Specific CO_2 emissions per passenger-kilometre were also on a par with the previous year at 92.2 grammes (previous year: 92.0 grammes). ↗ **Financial strategy and value-based management, p. 20ff.**

WASTE PREVENTION

Lufthansa Group supports environmental sustainability goals in product and service design
Both in the opinion of the Lufthansa Group and customers, plastic waste is a topic that increasingly requires attention. In addition, with the EU Directive 2019/904 coming into force in June 2019, the legal framework for the utilisation of single-use plastic and plastic packaging has been rewritten.

In order to sustainably reduce plastic waste on board, the Network Airlines have initiated the Smart Plastic Reduction project. This follows the waste hierarchy outlined in Directive 2008/98/EC: "Reduce – Reuse – Recycle – Replace". Due to airline-specific conditions, the relevant regulations for handling international catering waste must still be adhered to.

In addition, the Network Airlines have established a product management programme that will run for two years to improve the sustainability of Onboard & Lounge products.

Targets

Lufthansa Group supports a variety of initiatives to comprehensively reduce waste
The Network Airlines aim to achieve early conformity with the requirements of the EU Directive 2019/904 regarding the future ban on single-use plastics. This means doing away with or replacing 144 million single-use items (single-use plastic stirrers and single-use plastic cutlery) annually from 2020.

The Network Airlines are also pursuing the goal set out in the "European strategy for plastics in the circular economy" of exclusively using recyclable plastic packaging on in-flight products or completely avoiding packaging made of petroleum-based single-use plastics by 2030. This involves the reduction of another 226 million single-use plastic items per year. One example of how they will achieve this is the introduction of recyclable drinking cups in 2020 that can be recycled in a closed-loop system.

Eurowings also aims to sustainably reduce the volume of waste on board and to focus more on recycling aspects in the use of materials.

Measures

The Lufthansa Group pools measures to reduce plastic waste in Smart Plastic Reduction project
The measures of the Smart Plastic Reduction project cover a current annual volume of around 370 million individual items. The plan is to reduce these items by 2021 by including various players in the supply chain and service providers such as manufacturers, catering partners, cabin crew and waste-disposal companies. For example, over 50% of the plastic items used now on long-haul flights are to be reduced or replaced by more sustainable alternatives.

The first step is a comprehensive overview and record of all plastic items used for in-flight products at the Network Airlines. With detailed documentation of consumption, the ongoing monitoring of the individual measures listed below can take place:

1. REDUCE
Potential negative impacts on customer satisfaction must be considered when reducing existing product and service items.

Packaging that can be used for in-flight product logistics, for example during transport to the aircraft, and that is not visible to the customer was examined. Potential for reducing outer packaging was identified in this area.

Plastic packaging for individual items will also not be used in future wherever not essential for hygienic reasons.

Based on customer feedback, snacks and drinks included in the Eurowings ticket price were replaced with other services such as priority boarding, which also helps prevent plastic waste.

2. REUSE
Reusable products, particularly in mobile on-board equipment (e.g. reusable crockery/cutlery), are a firmly established element of product concepts. The potential for switching from single-use to reusable products is examined and the load is adjusted if necessary when considering available storage space on board, weight, service times during the flight and the number of items required. Lufthansa German Airlines and SWISS are increasingly using reusable metal cutlery in Economy Class on long-haul routes, for which there will be no plastic packaging in future.

Together with the catering partners, the option of reloading unused items (such as sugar sachets, unopened snacks, unused items from the amenity kits) is being investigated. Processes for reloading these items, while adhering to all hygiene regulations, are being established and expanded.

3. RECYCLE
Processes for increasing the use of recyclable products are being developed and implemented in collaboration with suppliers, caterers, cleaning and disposal services.

Since the beginning of 2019, Austrian Airlines has been using recyclable plastic cups that are recycled in a patented process that turns them back into synthetic crude oil. New cups made from recycled PET (rPET) will be used on board Lufthansa German Airlines and SWISS from 2020. This will affect around 160 million cups per year.

C30 MEASURES TO REDUCE PLASTIC WASTE

The increased stability of the cups means they can be used multiple times during a flight, which lowers total consumption. Passengers are informed that they can reuse the cups during on-board announcements.

Once the cups have been used, they are recycled in a closed-loop system, which means the rPET material is used to produce new rPET cups.

Work is also underway to develop a “recycling trolley” together with cabin crews, which will enable recyclable materials to be separated from waste and liquids.

A reduction of different materials used for drink packaging is also being examined in order to increase properly sorted recycling.

4. REPLACE
Plastic items that are essential to the Network Airlines’ product and service concepts will be gradually replaced by ones made from renewable resources. Stirrers and single-use cutlery will in future be made of bamboo rather than plastic. Eurowings will also replace plastic cups on board with paper cups.

ACTIVE NOISE ABATEMENT

Targets

Aircraft noise to be reduced at source

The Lufthansa Group has numerous ongoing activities and measures intended to achieve a noticeable reduction in aircraft noise. The primary goal is to sustainably reduce noise at the source (measures 1 and 2) and to develop optimised flight procedures with system partners (measures 4 and 5).

Measures

Active noise abatement includes measures from five areas
Since 2001, the Lufthansa Group has played an active and continuous role in research projects (measure 3) and noise abatement activities organised by dialogue forums, such as the Noise Abatement Alliance in Frankfurt. Its members include the government of the state of Hesse, Fraport AG, Deutsche Lufthansa AG representing the Lufthansa Group, the Forum Airport and Region, German air traffic control and the airline association BARIG. Active noise abatement measures at the Lufthansa Group cover the following five areas:

1. INVESTMENTS IN MODERN AND THUS QUIETER AIRCRAFT
The best method of reducing aircraft noise at the source is the modernisation of the fleet. The Lufthansa Group modernises its fleet continuously. Alongside four used aircraft, 27 new aircraft went into service in 2019, including more Airbus A320neos, A321neos and A220s, which are powered by modern engines. The same applies to the Airbus A350-900, which is one of the most modern and environmentally friendly long-haul aircraft in the world and is much quieter than comparable aircraft types. A total of 31 older aircraft were removed from the Group fleet in exchange. ↗ **Fleet, p. 24f.**

2. RETROFITTING OF AIRCRAFT IN THE EXISTING FLEET
In addition to modernising the fleet, retrofitting existing aircraft also results in measurable noise reduction. At the beginning of 2014, Lufthansa German Airlines became the first airline worldwide to start operations with a new Airbus A320 equipped with noise-reducing vortex generators, thus setting an industry standard. Aircraft with vortex generators are up to four decibels quieter on approach and so the Company pays lower noise charges in Frankfurt than for comparable aircraft without these components. In the meantime, all aircraft in the A320 family at Lufthansa German Airlines and SWISS have now been retrofitted with vortex generators. At Austrian Airlines just five aircraft that were added last year need to be retrofitted, which is due to take place over the course of 2020. Retrofitting Eurowings A320 aircraft with vortex generators began in 2019 and is due to be completed in 2020. The modification will be carried out in the course of routine technical maintenance cycles.

3. PARTICIPATION IN NOISE RESEARCH
The Lufthansa Group has been involved in noise research for many years through projects such as EffFlug (increasing efficiency of flight operations), where the Group, together with experts from the German Aerospace Center, seeks out sources of noise that can be eliminated. In the past, measuring campaigns were performed just for this purpose. Now standard measurement data from the airports is used for the first time for examination for anomalies.

Since the autumn of 2019, the LNAS (Low Noise Augmentation System) developed by the German Aerospace Center has been tested by the Lufthansa Group in a broad study. The LNAS System uses aircraft data to determine recommendations for optimal configuration and speed. The aim is to examine whether approaches can be made more efficient and quieter within the given safety regulations. With the support of the Environmental and Neighbourhood House (UNH) in Kelsterbach as part of the Forum Airport and Region in Frankfurt (FFR), the Lufthansa Group has refitted 86 A320 aircraft and gained numerous pilots for voluntary testing.

C31 ACTIVE NOISE ABATEMENT

Investments in quieter aircraft	Noise-reducing technologies for the existing fleet	Participation in noise research	Optimisation of approach and departure procedures	Dialogue with residents near airports and other stakeholders
Introduction of the latest aircraft, such as the Airbus A320neo and A350-900 Retirement of older models	Retrofitting of noise-reducing vortex generators to the existing fleet	Continuous collaboration and exchange with partners from research and industry Development and analysis of new noise-reduction measures	Cooperation with system partners Development and testing of new methods Use of new navigation technology	Continuous exchange with residents, as in the Airport and Regional Forum (FFR) Active participation to aircraft noise commissions

This intensive research and development work forms the basis of successful active noise abatement and makes a major contribution to optimising the existing fleet.

4. DEVELOPMENT OF OPTIMISED FLIGHT PROCEDURES IN COOPERATION WITH SYSTEM PARTNERS

Optimising flight procedures and flight routes also helps to reduce noise. The Lufthansa Group is active in many ways in this area, with international partners such as EUROCONTROL. ↗ Environmental concerns/Climate protection, p. 82ff.

5. DIALOGUE WITH RESIDENTS

In addition to technical and operating procedures, the Lufthansa Group also takes part in various dialogue forums with residents, including Frankfurt and Vienna. The focus of these activities is on optimising flight procedures.

The Lufthansa Group also works in some of the aircraft noise commissions (Fluglärmkommissionen) required in Germany by the Air Traffic Act (Luftverkehrsgesetz).

Performance indicator

99.6% of the operational Group fleet meet standard for aircraft noise

Improvements in noise abatement from modernising the operational Group fleet can be seen in the number of aircraft that meet or exceed the ten decibel criterion set by the ICAO Chapter 4 standard. This standard defines noise limits and stipulates that all civil aircraft newly licensed after 2006 must cumulatively fulfil the older Chapter 3 noise limits by a margin of ten decibels or more. As of 26 October 2019 (end of the summer flight schedule) 99.6% of aircraft – virtually the Group's entire operating fleet – fulfilled this criterion.

Customer concerns

Concepts

High customer satisfaction is a key success factor for the Lufthansa Group

A clear focus on customers, innovative products and services and a focus on quality are essential for a service provider like the Lufthansa Group. Flight safety always has top priority. In order to meet this elementary requirement, all airlines in the Lufthansa Group have a comprehensive safety management system (SMS). Every two years, independent experts audit the safety standards applied Group-wide in an IATA Operational Safety Audit (IOSA).

All the airlines in the Lufthansa Group endeavour to offer their passengers an individualized level of service at all times and to make all facets of flying a lasting and positive experience. This includes completing flights punctually and safely, as well as first-class products and services on the ground and in the air. Capital expenditure on a modern Group fleet, greater comfort on board, numerous innovative products – including in terms of sustainability – and digital services ensure that flying becomes more and more attractive for the customers of the Lufthansa Group. Regular surveys of passengers help to find out as much as possible about their needs and to include them in the development of innovative new products.

Allocating the Lufthansa Group airlines to the Network Airlines and Eurowings segments also represents a customer-centric, differentiated and transparent product and service strategy.

The awards received in the past financial year are the result of this quality strategy. Lufthansa German Airlines was awarded “Best Airline in Europe” by the market research institute Skytrax for the third consecutive time and also named “Best Airline in Western Europe”. Lufthansa German Airlines came in second with its first class service, Austrian Airlines won in the category Best Premium Economy Class Onboard Catering and SWISS received the award “The World’s Best First Class Lounge”. The awards are not decided by jury but based on the results of the world’s largest customer survey in the aviation industry. The market research institute Skytrax surveyed around 20 million passengers from over 160 countries. The renowned trade journal Air Transport World also named Lufthansa Airline of the Year. In addition, we received several other well-known awards such as the Red Dot Award, the Pax International Readership Award, and several awards from Onboard Hospitality and TravelPlus.

OPERATIONAL STABILITY

In the past financial year, the passengers of the Lufthansa Group were subject to some changes to flight timetables, flight cancellations and delays. The reasons for this included personnel shortages in European air traffic control and challenges relating to infrastructure at many airports leading to flight delays and cancellations. Due to comprehensive measures taken and capital expenditure in the reporting year, the departure punctuality of the Lufthansa Group airlines improved significantly compared to the previous year. This puts Eurowings, for example, among the most punctual airlines in Europe in comparison to its competitors.

Targets

Ensuring operational stability is a prerequisite for high customer satisfaction
The top priority for all Lufthansa Group airlines is safe, punctual and dependable flight operations. Since this cannot be guaranteed by the airlines in the Lufthansa Group alone work is underway on solutions for further improvements in operational stability with industry representatives and system partners.

Measures

Executive Board function Airline Resources & Operations Standards established
The addition of a new Executive Board function for Airline Resources & Operations Standards in January 2019 means key functions are being pooled at Executive Board level, thus creating the conditions for increasing the operational stability and quality of the Lufthansa Group airlines.

Numerous measures to secure operational stability
The Lufthansa Group has initiated programmes and projects at various levels to analyse airline-specific and Group-wide topics and develop and implement measures accordingly.

For example, the Lufthansa Group has increased the number of reserve aircraft further against previous year, added extra buffer time to flight timetables and improved ground processes further to improve operational stability. Furthermore, 600 new employees were recruited. The programme “Operational Excellence 2019” was also conducted in the reporting year under the lead of the Executive Board member for Airline Resources & Operations Standards, with the ambition of structural improvements for the operational stability of all Lufthansa Group airlines.

In addition, the network airlines have set up individual projects to optimise their operations at the respective hubs. They are based on an analysis of big data, which enabled specific causes of delays and flight cancellations to be found by combing millions of data points from recent years. Specific projects were initiated in response, such as adjusting the crew rostering process at Lufthansa German Airlines.

The flight operations of the network airlines are steered from their respective traffic centres in Frankfurt, Munich, Zurich and Vienna. Regular reports about the current situation and any unusual events are prepared here and provided to the management. In the monthly Operations Board meetings, the CEOs of the airlines discuss the results and activities along with the responsible heads of flight operations, ground operations and technical fleet management. Work also began in 2019 to establish an interdisciplinary performance dialogue for all Lufthansa Group airlines’ operations in order to establish and improve standardised processes and decisions.

Eurowings is also steered in this way by the traffic centre and has implemented a wide-ranging package of measures to increase the reliability and punctuality of its flight operations. They include a greater number of reserve aircraft, additional buffer time when turning aircraft around by increasing ground times and the separate planning of flight turnarounds within Germany. This will shield them from turnarounds in other European countries that are more likely to experience delays. The successive roll-over of older aircraft, detailed technical analyses and a corresponding increase in maintenance activities also contribute to improving operational stability.

Wide-ranging initiatives were launched with system partners
The airlines in the Lufthansa Group work closely with system partners, such as airport operators and the German air traffic control, to find solutions for further reducing existing bottlenecks, particularly involving staff at the security gates, ground services and air traffic control centres. As a result of the Hamburg Aviation Summit in October 2018, which was attended by the Lufthansa Group, representatives of the German aviation industry and policymakers, a wide range of measures were adopted to improve the reliability and quality of air traffic in Germany. Many of these measures led to a significant improvement in the punctuality and reliability of flights. The industry initiative “Airlines 4 Europe” pursues similar goals, in which the Lufthansa Group and other well-known European airlines campaign for better infrastructure at airports and the European air traffic control (EUROCONTROL). Numerous steps have already been taken with the airports and the German air traffic control, such as optimising control logic for air traffic in Germany.

Performance indicator

Departure punctuality significantly improved for the Lufthansa Group airlines
The main performance indicator for judging operational stability is the airlines’ departure punctuality. Flights are defined as punctual if they are taxiing to the runway within a 15-minute time window after the planned departure time. This performance indicator is monitored continuously by the top management. In addition to daily reports from the hub control centres, operational performance is also discussed in the monthly Executive Board meetings.

Due to a variety of measures taken by the Group in 2019, the punctuality of the Lufthansa Group airlines has improved. On average over the year, the punctuality of the network airlines in the Lufthansa Group increased to 76% (previous year’s value, adjusted due to the Group-wide standardisation of punctuality measurement: 71%). However, the target for punctuality of 82% was not quite achieved because some measures to improve departure punctuality, such as the optimisation of the boarding process, were only introduced or became effective over the course of the reporting year.

PRODUCT AND SERVICES

Strict focus on the customer is vital for a service company like the Lufthansa Group. For this reason, all the products and services along the travel chain are continuously reviewed and new, innovative and sustainable in-flight and ground products and services are developed that put the customer at their core.

Digitalisation and sustainability aspects play an increasingly important role in better meeting differentiated customer needs. The travel experience for the customer should become even more convenient, especially through greater personalisation of the products and services along the entire travel chain.

The Lufthansa Group invests continuously in its employees and products in order to offer every customer the most suitable travel experience.

Targets

Raising customer satisfaction is an integral part of our strategy
Customer needs play a vital role for ensuring the long-term success of the Lufthansa Group. The Lufthansa Group therefore takes a systematic approach to a better understanding of customer needs. Their needs along the travel chain are identified by means of customer surveys. The results form the basis for strategic decisions.

Measures

New products and services continuously improve the travel experience
In the reporting year, the Lufthansa Group introduced new aircraft, products and services intended to further improve the travel experience. SWISS expanded its fleet to a total of twelve aircraft with another two Boeing 777-300ERs in the reporting year. By the end of the reporting year, another four Airbus A340-300 aircraft will be fitted with a new cabin product in all three travel classes. With the new B777-9X, Lufthansa German Airlines plans to introduce a completely new business class from 2021, featuring optimal sleeping comfort and more private space along with more individual seating options.

The Network Airlines are focusing on the strategic vision of "New Premium" to fulfil customer needs along the entire travel chain. In the reporting year, focus initiatives were continued for customer-centric process improvement in the event of flight irregularities and in baggage handling processes.

Eurowings is expanding its offers with new, modern and sustainable in-flight catering trends – in part together with innovative start-ups – and will offer faster broadband internet on more short- and medium-haul routes. From the beginning of the winter flight timetable, all Eurowings customers will also receive free access to the in-flight entertainment programme.

Employees at all levels made aware of customer satisfaction
Development and training courses for employees aiming on increasing customer satisfaction are continuously updated and expanded. The focus in the reporting year was on the "Future Travel Movie", a movie which introduced employees to the future of flying from the point of view of the customer. The "Management in Practice" programme that encourages managers to work for one day in operational, customer-facing areas of the Lufthansa Group once a year was also continued. In competition with other traditional full-service airlines, on the one hand, and low-cost airlines, on the other hand, the Network Airlines must develop an understanding of premium that meets customer requirements and that enables them to differentiate themselves further. Various customer profiles were drawn up with the help of personas that represent the majority of passengers to clarify the structure of their requirements. Work continued in the financial year on training employees at the Network Airlines on customer-centric methods as part of the "New Premium" initiatives. In training courses and on the job, they learnt, for example, the main concepts for analysing, designing and sustainably improving customer experiences using the innovative method of Design Thinking. Along with the personas, this experience can be used in the future to develop products and services adapted to individual customer needs.

Customers are involved early
Customers are included in the early concept stages of design and development of products and services, such as new meal offers. In addition, customer panels are used in Frankfurt, Munich, Zurich and Geneva to help the airlines in the Lufthansa Group receive fast customer feedback to specific questions, to be able to understand customers' expectations and needs faster and better and to meet the "New Premium" demands through active inclusion in product and service optimisations.

Through continual surveys on customer satisfaction, the airlines in the Lufthansa Group evaluate the acceptance of product enhancements as well as of new products and services.

Digitalisation and innovation support the development of new products and services
195 digitalisation and innovation initiatives were pursued by the Lufthansa Group in the reporting year in order to develop new products and services. In the next few years, the Lufthansa Group plans to make extensive investments in the development and enhancement of personalised and digital services at its airlines.

At the Lufthansa Innovation Hub, the Lufthansa Group drives the systematic use of the innovative online business model for the airlines in the Lufthansa Group and develops digital solutions along the travel chain for passengers and tour operators. The aim is to provide customers with intuitive services right where the customers want them.

This enabled numerous new services for customers to be implemented in the reporting year that digitally accompany the entire travel chain from check-in and digital luggage receipts to dynamic and situation-based information and service offers and biometric services. A text-based dialogue system (chatbot), another important digital service, was also implemented on Facebook Messenger in 2019. If customers wish to cancel a flight, they can rebook with just a few clicks, or if they have other questions, for example regarding luggage allowances or gate changes, the chatbot can be used. The chatbot was and still is being continually developed based on customer feedback, making it a digital travel companion for our customers.

In the reporting year, the Lufthansa Group established a close partnership with Google in order to better communicate with customers and meet their needs. Connecting the Lufthansa Group's services such as online check-in to existing Google interfaces is also part of the partnership.

All customer-facing digital activities at Eurowings are pooled under one roof at Eurowings Digital GmbH, which was established in 2018. This will advance the development of innovative products and services for travellers, particularly in the form of software solutions and mobile applications. The focus is on refining the digital customer interface **eurowings.com** and turning it into a growing travel platform that acts as a digital travel companion, going beyond the flight to offer personalised services such as tailor-made hotel bookings, car rentals and tickets to events.

There are many self-service offers for Eurowings customers in the Eurowings app in case of flight irregularities, that enable them to make rebookings or receive rail vouchers. The aim here, too, is to improve individual travel experiences through constantly developing digital customer interfaces. In the past year, the Eurowings app was named most customer-friendly airline app by Focus Money.

Technically equipping the Lufthansa Group fleet with broadband internet was also continued in the reporting year; a total of 241 short- and medium-haul aircraft are now fitted with broadband internet.

Data protection and data security play an increasingly important role

The secure handling of data in accordance with data protection legislation forms the basis for a trust-based relationship with our customers and is an increasingly important success factor for the Lufthansa Group. The new EU General Data Protection Regulation came into effect in the EU on 25 May 2018 (EU GDPR). The Lufthansa Group has adapted its existing data protection management system to this harmonised European data protection legislation and has completed projects to implement it in the Group companies concerned.

The Group has established an organisational structure for data protection that is dedicated to ensuring compliance with the rights of data subjects and the duties of controllers. This entailed creating easily reachable points of contact, both internally and externally, and establishing processes to fulfil information requests by data subjects within the required period, for example. Current information about the processing of personal data is also provided on the Group companies' websites.

The increasing digitalisation of business processes in the Lufthansa Group also makes it more necessary to avert cyber-risks. The Corporate Legal, Compliance & Data Protection and Information Management LH Group departments are responsible for implementing data protection and IT security at Group level. This includes the development of appropriate concepts and measures such as email encryption, a cyber-crime awareness campaign and protection from criminal activity over the internet. The risk and security management systems and other selected measures are regularly reviewed by the internal audit function to ensure their effectiveness. ↗ **Opportunities and risk report, p. 65ff.**

Increasing demand for sustainable products and services

The Lufthansa Group is responding in various ways to customers' wishes for sustainability aspects to play a greater role in products and services.

The main focus for the Network Airlines is to reduce single-use plastic and plastic packaging on board. ↗ **Waste prevention/ Measures, p. 86f.**

More and more passengers are taking advantage of the opportunity to use plastic cups more than once during flights. Many passengers want eJournals instead of printed newspapers and magazines, and this offering has been well received. Eurowings offers passengers on short- and medium-haul flights the option of reducing plastic waste and supporting the construction of wells when they buy still water. This is possible thanks to the introduction of the first fully recycled PET water bottles from the brand Share, which will allow Eurowings to avoid an estimated six tonnes of new plastic per year.

Eurowings will also gradually expand its meal offers to contain more sustainable products.

Pooled responsibility for customer concerns ensures fast and effective implementation

Responsibility for products and services for all the Network Airlines in the Lufthansa Group is pooled centrally and reports are addressed to the Executive Board member for Commercial Passenger Airlines. This ensures effective, efficient implementation by using synergies and continuously improving products and services for customers.

Responsibility for the in-flight and ground products for all the airlines in the Eurowings group lies with the Customer Experience & Product department, which reports to the Commercial Director.

As of 1 January 2020, the Executive Board was expanded to include the function Customer & Corporate Responsibility, which is responsible for product management, the future catering liaison and marketing including the Miles & More customer loyalty programme for all Lufthansa Group passenger airlines, among other things.

Performance indicator

Customer satisfaction is at a high level

The Network Airlines in the Lufthansa Group track customer satisfaction continually using Passenger Satisfaction Tracking (PST) surveys and in-depth surveys to obtain information about the travel experience of their passengers that is as granular as possible. Customer satisfaction figures are made available to the responsible department and management on a monthly basis and used to derive measures to improve customer satisfaction, among other things.

Since 2018, Lufthansa German Airlines, SWISS and Austrian Airlines have harmonised their methods and processes for measuring customer satisfaction. Customer satisfaction data is tracked separately for different service aspects along the entire travel chain.

The main performance indicator for measuring satisfaction at the Network Airlines is the Net Promoter Score[1] (NPS), for which responses from approximately 30,000 passengers are evaluated per month; the NPS is derived from willingness to recommend, which is asked in the PST survey.

In 2019, the NPS determined for the Network Airlines was 57, putting it above the target figure of 50, however, there were seasonal fluctuations over the course of the year, also due to changes in punctuality and passenger numbers. A comparable figure from the previous year is not available due to adjustments relating to the implementation of EU GDPR. The NPS is included in calculations for the Executive Board's variable remuneration. ↗ **Remuneration report, p. 115ff.**

Eurowings also records an NPS and reports it together with other customer satisfaction results to the management and departments every month. Eurowings' NPS is also highly dependent on operational performance. Numerous measures this year led to an improvement, while stabilisation of operations led to improved customer satisfaction and a significant increase in the NPS. In 2019, the NPS was 40, putting it above the target of 34 and significantly higher than in the previous year (NPS in 2018: 31).

Employee concerns

Concepts

Around 88% of all airline employees in the Lufthansa Group have direct contact with customers, which means they are particularly important to the Lufthansa Group's success.

Focus on attractiveness as an employer

The Lufthansa Group's success depends greatly on the ideas, skills, enthusiasm and commitment of its employees. It is therefore particularly important to reinforce the commitment of its employees, to have a modern human resources strategy and to take steps to make Lufthansa even more attractive as an employer. The Lufthansa Group therefore places great importance on offering its employees an attractive working environment with transparent structures and processes in order to be able to meet future requirements and to help the Company innovate and put new ideas into practice.

Ability to transform requires continuous training of staff competencies

Continuous change in market conditions makes it necessary for employees to keep the knowledge and skills that they have learnt in their vocational training and career up to date. The Lufthansa Group has offered a wide range of digital and non-digital training opportunities for many years.

Employee health is a priority

As an operating company, and in light of constant changes, the health of our employees is particularly important to the Lufthansa Group's success. The Occupational Safety and Medical Services & Health Management departments, which report directly to the Executive Board member for Corporate Human Resources and Legal Affairs, are responsible for the health of employees.

Reorganisation of the Lufthansa Group moves forward

The process-based reorganisation of the Lufthansa Group, which pools responsibilities and streamlines hierarchies, was completed in the 2019 reporting year. Development is ongoing in order to ensure optimisation and adjustment to challenges that the Group is facing.

ATTRACTIVENESS AS AN EMPLOYER

Targets

The Lufthansa Group positions itself as an attractive long-term employer

The employees in the Lufthansa Group make a decisive contribution to customer satisfaction and thus to the success of the Company. Since many business areas are very staff-intensive and since demand for qualified staff is increasing, especially in the newly created roles, the Lufthansa Group aims to establish itself permanently as an attractive employer. This is especially relevant in light of the demographic changes in central Europe, which are resulting in more retirees and a lower number of school leavers.

[1] The Net Promoter Score is a registered service mark of Bain & Company, Inc., Fred Reichheld and Satmetrix Systems, Inc.

Measures

The Lufthansa Group ensures its attractiveness as an employer with a variety of measures

A number of steps have been taken to further increase staff satisfaction and so to increase the Lufthansa Group's attractiveness as an employer. With a total of 179 nationalities in its global workforce, the Lufthansa Group has represented the core principle of diversity for a long time. This results in different expectations from employees that the Lufthansa Group meets with individual measures adapted to the employees' different situations. ↗ **Employees, p. 26f.**

Developing flexible working and employment conditions for employees and managers

The Lufthansa Group has supported employees for many years with flexible working time models. For example, there are remote working options for many groups of administrative employees, and managers are obliged to support employees in making use of these offers.

There are also part-time and shared leadership models for managers. This means that this group of employees has the opportunity to share a management position with another manager who also works part time.

In addition, managers and non-payscale employees can take sabbaticals.

Retaining and training talented individuals, promoting diversity

To ensure that all employees have the opportunity to shape their career within the Group in line with their individual talent and interests, there is a standard process for potential identification for most of the administrative staff. Regular, standardised processes for feedback and to discover potential have also been established for non-administrative positions.

In addition, newly developed programmes help to identify and highlight employees with special potential. The programme includes unconventional methods such as self-nomination and voting on an internal online platform.

Employees with special potential can be retained by the Lufthansa Group by allowing them to transfer to different positions, both at the same level or through promotion. Transfers are possible not just within one company but between different Lufthansa Group companies. The complete transparency on open positions ensured at the Lufthansa Group supports employees significantly in this regard.

It is vital for vertical development that there are enough management positions for talented individuals to work towards. One contribution towards achieving this is the rotation policy, which calls for management positions to be newly appointed after five years as a rule. Due to one-off structural measures in 2018 and 2019, the fluctuations rate was 9% in both years; the target average fluctuation rate for 2020 is 7%. The aim is to fill all lower management positions with talented individuals from within the Group. The Lufthansa Group achieved these targets in the 2019 reporting year.

In order to increase diversity within the Lufthansa Group further, we are focusing on promoting female junior employees with the goal of achieving a balance between men and women at executive management level. Initiatives were also launched to bring international talent currently working at the Lufthansa Group's locations outside of Europe to our European home markets (major Lufthansa Group head offices) to raise international diversity.

Visibility of employer branding raised through various channels

The Lufthansa Group employer branding was fundamentally overhauled back in 2018 with uniform communications on its own website and also through various social media channels. This has increased employer brand visibility significantly. In 2019 the focus was on penetrating the market further in various channels.

Internships also help to strengthen the employer brand and there are programmes in place to retain interns once they have completed their internship with the Lufthansa Group.

Personnel shortages prevented with active sourcing

In addition to focusing on employer branding, the Lufthansa Group practises an active sourcing approach for certain professional groups and addresses potential candidates directly, especially through career development networks, to avoid personnel shortages. An intra-Group active sourcing process supplemented this measure in 2019 in order to better identify suitable internal candidates for positions experiencing shortages.

Performance indicator

Engagement Index creates transparency regarding attractiveness as an employer
The Engagement Index also provides information about the Company's attractiveness as an employer. This has been tracked by the voluntary annual employee survey, "involve me!" since 2015, and enables a comparison with employers in many different sectors. It measures the extent to which employees identify with the Company, as well as their commitment and willingness to recommend the Company to others. With the exception of the LSG group and Brussels Airlines, all major Group companies were included in the reporting year. The results are measured on a scale from 1 (best) to 5 (worst).

An Engagement Index of 2.2 was recorded for the reporting period. As in the previous year, this means the target for 2020 was reached prematurely. The index is now once more on a par with similar companies in Germany. While the staff survey in the previous year only asked a reduced number of questions, a comprehensive staff survey was conducted again in 2019. This alternation between comprehensive and shorter surveys corresponds to past practice.

The results of the employee survey are submitted to the Supervisory Board and the Executive Board and have an impact on the Executive Board's variable remuneration. The results are also communicated at management level and within individual teams in order to identify and implement corresponding measures. Employees were able to view the results for their department online for the first time in the reporting year. This serves to increase transparency and promote feedback and dialogue.

Measures derived from the results of the "involve me!" survey are made available to managers to compare best practices.

A pilot project in the form of quarterly representative spot surveys was launched in 2019 in order to gain insight into Engagement Index developments during the year. The results will be used as a trend barometer to allow the Group to react quickly to changes in the Engagement Index.

Employer ranking reflects Lufthansa Group companies' attractiveness for potential applicants
The ranking of German employers is done through a representative survey of more than 200 companies carried out by the renowned market research institute YouGov. The Lufthansa Group aims to always be among the five most popular employers in Germany. In 2019, Deutsche Lufthansa came in third on average in the home markets (previous year: second place); Austrian Airlines and SWISS (data collected during the year) each came in second (previous year: data not collected).

TRANSFORMATION CAPABILITY

Targets

Continuous change requires the capacity for transformation from employees and the Company
A market that is volatile and undergoes permanent and ever faster changes requires continuous adjustments from companies. This in turn means that the employees must be given the corresponding competencies and must always be willing and able to transform themselves. Initiatives aimed at achieving this are managed by the relevant process owners and by process domain owners at the next level, and are closely coordinated with the Executive Board member for Human Resources and Legal Affairs and the HR Strategy department. A separate process domain owner is responsible for cultural aspects of the transformation and learning management for administrative staff. This domain owner reports directly to the Executive Board member for Corporate Human Resources and Legal Affairs and is in charge of a department of several process owners.

Measures

Professional training established as routine process
Well-qualified, committed employees are indispensable for the sustainable success of the Lufthansa Group. Because it is not possible to simply draw on knowledge acquired at one point in time to sustain an entire career, employees have to expand their knowledge and abilities continuously and keep them up to date at all times. Apart from regular training courses, especially in safety-related areas, a committee consisting of HR staff from the top management of large Group companies meets regularly to discuss in a structured process the effects of the current transformation on the competence profiles required of existing employee groups.

In this context, a process was established in 2019 that is intended to enable administrative staff in particular to analyse the future viability of their own competencies and compare them with current and future requirements of their role. All Lufthansa Group employees have access to more than 17,000 innovative learning offers from LinkedIn Learning via an in-house learning platform that supplements the existing training offers.

The Lufthansa Group CAMPUS is also open to all employees and offers various strategic measures for cultural and organisational development. Qualification courses for managers and top management support a modern corporate culture of collaboration and assist with team development and organisational change.

New “Service Management Professional” role established
For Lufthansa cabin crew, a new “Service Management Professional” role was introduced and recognised by the German Chamber of Commerce as advanced further training. Employees can gain this qualification in addition to the standard flight attendant training in order to qualify themselves for other service careers. Around 500 employees earned this qualification in 2019 and approximately another 1,000 are currently in training.

Developing working environments
Mobility and flexibility will be the main building blocks of future working environments. A cloud-based office software was successfully rolled out for 45,000 Lufthansa Group administrative staff in 2019. All Lufthansa Group areas can now collaborate transparently and efficiently through training courses customised for each department. This covers working securely over mobile end devices which have been largely replaced with newer models. Operational staff with access to workstations with computers are also benefiting from this new software.

All Lufthansa Group employees are offered modern information and collaboration formats that focus on efficient and networked work internationally and spanning all hierarchical levels and which empower individual end users.

Detailed survey provides comprehensive information about capacity for transformation
Since the 2019 reporting year, the Lufthansa Group’s general and digital transformation abilities can be determined by looking at several questions on the comprehensive employee survey “involve me!”, which is conducted every two years.

The results allow management to identify specific fields of action and initiate specific measures to secure the Lufthansa Group’s capacity for transformation and prepare staff for relevant changes.

The results show that the intrinsic motivation of Lufthansa Group employees to constantly learn is above the average level. This gives us a solid foundation for advancing our capacity for transformation.

The results are submitted to the Executive Board member responsible for Human Resources and Legal Affairs.

HEALTH AND SAFETY AT WORK

Occupational health and safety has been a core action area at the Lufthansa Group for several decades; it is managed jointly by the Occupational Safety and Medical Services & Health Management departments. These areas report directly and regularly on current developments to the Executive Board member responsible for the Corporate Human Resources and Legal Affairs function.

Targets

Employee health and preventing work accidents are a top priority
The core responsibility of Medical Services & Health Management is to maintain and improve the health and working capacity of the Lufthansa Group’s employees and so to safeguard its business activities and reliable flight operations. Occupational health and safety also has the goal of preventing accidents at work and, if they should still occur, of drawing the necessary conclusions from accidents to prevent them, as far as possible, from happening again.

Health management to be further developed across the Group
After three years, the programme Health Management@ LH Group was devolved to line management in 2019 in order to develop health management further throughout the Group. It aims to maintain the long-term health and productivity of both managers and employees as well as to encourage them to take responsibility for their own well-being.

Measures

Medical Services managed as holistic centres of excellence
The Medical Services at Lufthansa German Airlines, SWISS and Austrian Airlines are permanent holistic centres of excellence, offering the full range of services for aviation and occupational medicine, vaccinations and travel medicine, outpatient care, a comprehensive social and medical advisory service and other preventive and healthcare treatments. Along with occupational health and aviation medical qualifications, a lot of doctors also have specialist qualifications (ENT, ophthalmology, cardiology, neurology, psychiatry, etc.). Monthly case history discussions are held among the physicians in order to make the most of these specialist qualifications.

The range of medical offers is supplemented by the optimisation of socio-medical counselling for occupational reintegration management processes with employer and employee representation to contribute to the positive reintegration of employees with health-related restrictions.

Beyond individual treatments, the Medical Services provide advice to decision-makers, committees and employee representatives concerning all issues of occupational health and safety.

Psychological and psychosocial factors have an important influence on health, safety and productivity at work. Thus, for more than thirty years, the Lufthansa Group has offered confidential individual advice to employees, teams and organisational units, referring individuals to other services or for other treatment as well as providing various psychosocial advisory services.

Preventive measures taken to safeguard occupational health and safety
The occupational safety function has existed for many years; it consistently implements preventive measures to avoid accidents, health risks and occupational illnesses. By means of risk assessments and regular safety inspections, the Group's occupational safety experts review all professional activities in the Group companies in Germany.

A central steering body for all issues concerning health and safety in the Lufthansa Group is the Occupational Safety Committee (OSC), which meets regularly and monitors the implementation of all aspects of health and safety across the Group. The minimum standards that have since been adopted are now binding throughout the entire Lufthansa Group.

Awareness among managers of their responsibility for occupational safety was strengthened with specific guidelines that managers must deal with directly when they are appointed to their position. This is checked in an automatic process.

The Group health and safety function also initiated a company-wide international survey to gradually improve the transparency of occupational health and safety in the entire Lufthansa Group. This survey will be evaluated and action fields derived from the results in 2020. This will be fed back to the individual companies through their occupational safety coordinators.

Health management helps to deal with health challenges
The aim of the Lufthansa Group's health management is to bring about conditions conducive to health, to sustainably influence corporate culture and to support and encourage employees and managers to adopt healthy lifestyles.

Health officers in the individual Group companies identify needs specific to target groups and implement health promotion offers. A central digital platform with internal and external health offers has been available to employees and managers since January 2019. Group-wide interventions and the strategic development of health management are headed by Lufthansa Group Health Management.

Based on the "involve me!" employee survey, a portfolio of measures was also put together for managers in 2019 that allows them to choose training courses and other measures for themselves and their employees.

Performance indicator

Health Index, a key performance indicator for employee health, remains stable
In the reporting year the Health Index was again tracked through the "involve me!" employees survey. The figure remained on a par with the previous year at 2.3. The results are measured on a scale from 1 (best) to 5 (worst). With the exception of the LSG group and Brussels Airlines, all major Group companies were included in the reporting year.

The Health Index has enabled us to find a correlation between other topics also covered in the survey (related generally to work) and employee health. The Health Index and those identified topics are summarised in a health report and reported as "Factors for a healthy working culture". Lufthansa Group Health Management uses this to derive need-based interventions, thereby supporting managers and health officers of the individual companies to best care for their employees' health.

The health report (Health Index and other influencing factors) is communicated to the entire workforce. Managers and health officers receive separate health reporting for their areas of responsibility with advice on possible follow-up measures and tips.

We plan to modify the Health Index questions in the "involve me!" employee survey from 2020 in order to better differentiate between the topics of leadership and health.

Fighting corruption and bribery

Concepts

Fighting corruption and bribery is an integral part of the Compliance Management System

The Lufthansa Group endeavours to manage the Company effectively, as required by the principles of good corporate governance. In particular, the employees' integrity is a prerequisite for the Company's sustainable success.

Its global operations mean that the Lufthansa Group is obliged to comply with national anti-corruption legislation around the world, in some cases with extraterritorially applicable anti-corruption laws. Infringements may not only result in criminal and civil penalties for the individuals and Lufthansa Group companies involved, but may also result in significant reputational damage. Fighting corruption and preventing bribery is therefore material to the Lufthansa Group's business operations and an integral part of its value system, which is laid out in the Code of Conduct. **https://investor-relations.lufthansagroup.com/en/corporate-governance/compliance/code-of-conduct.html.**

The Group has introduced a central compliance management system in order to protect employees and companies of the Lufthansa Group against breaking the law and the consequences of breaking the law and to apply statutory regulations correctly. Pursuant to IDW PS 980 (audit standards for compliance management systems), it primarily focusses on the following areas: compliance culture, compliance targets, identification of compliance risks, compliance programme, compliance organisation, compliance communication and compliance monitoring. The compliance management system is continually developed and optimised, taking into consideration the specific risks relevant to the Lufthansa Group's business, and we are increasingly looking at application possibilities for system-based and digital support solutions. It is made up of the following elements: Competition, Capital Markets, Integrity (Anti-Corruption), and Embargo and Corporate Compliance. ↗ **Corporate Governance report, p. 113ff.**

The Group-wide implementation, development and communication of the Lufthansa Group Compliance Management System is the responsibility of the Corporate Compliance Office, which is part of the central Legal department. The head of the Legal department and Chief Compliance Officer reports directly to the Executive Board member for Corporate Human Resources and Legal Affairs and presents two Compliance Reports per year to the Executive Board and Supervisory Board. The Corporate Compliance Office is supported by a worldwide network of compliance managers at the Group companies. The Compliance Management System is monitored during audits that are regularly performed by the internal audit function to examine suitability and efficiency.

Targets

Compliance Management System aims to prevent unlawful conduct

The aim of the Compliance Management System is to ensure lawful conduct throughout the Group and so to avoid unlawful conduct that, in addition to reputational and financial risks, may also have personal consequences regarding criminal and labour law. ↗ **Opportunities and risk report, p. 65ff.**

Measures

Anti-corruption training raises awareness

All managers and employees from relevant areas or in relevant functions undergo mandatory IT-based anti-corruption training every two years to raise awareness of potential risks.

Ombudsman system enables confidential handling of suspicious incidents

The Lufthansa Group set up an ombudsman system in 2008 to enable information to be provided confidentially about suspected criminal offences, particularly potential breaches of anti-corruption legislation and regulations. An external, independent lawyer who is not an employee of the Lufthansa Group acts as the ombudsman. Whistle-blowers can provide information to the ombudsman by phone, in writing or in person. **https://investor-relations.lufthansagroup.com/en/corporate-governance/compliance/ombudssystem.html.**

Risk-based business partner due diligence aims to ensure integrity of suppliers and service providers

A risk-based business partner due diligence process is intended to ensure the integrity of suppliers and service providers. During this process, compliance screenings are conducted by the responsible employees in order to identify at an early stage any compliance risks that could arise from cooperation with external business partners. Depending on the result, various measures, including and up to not entering into a business relationship or terminating a business relationship, proposed jointly by the Corporate Compliance Office and Corporate Security may be necessary for dealings with the business partner.

All Group companies worldwide are assessed for corruption risks
All Group companies have been assessed for corruption and antitrust risks during a compliance risk assessment. The measures derived from the results of the risk assessment to prevent the risks identified from occurring were collected centrally and implemented in the individual Group companies.

Respect for human rights

Concepts

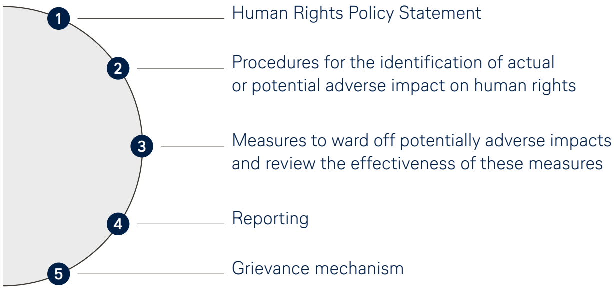
Respect for human rights is embodied in the Code of Conduct
As a company that acts with integrity and responsibility, respect for human rights is self-evident for the Lufthansa Group. As a participant of the UN Global Compact, the Lufthansa Group attaches great importance to conducting its business in line with internationally acknowledged principles and commitments and embedded respect for human rights as an integral element of its corporate culture. This is also reflected in working conditions, the freedom of association and assembly, rules to ensure gender equality and the inclusion of minorities as a matter of course.

The Code of Conduct stipulates that the Group always acts in compliance with human rights, the principles of the UN Global Compact and acknowledged international labour and social standards. **https://investor-relations.lufthansagroup.com/en/corporate-governance/compliance/code-of-conduct.html.**

In its fundamental values and guidelines, the Lufthansa Group expresses its commitment to the principles of the following internationally recognised standards:

- United Nations' Universal Declaration of Human Rights
- Fundamental principles and core work standards of the International Labor Organization (ILO)
- Ten principles of the UN Global Compact
- UN's guiding principles regarding business and human rights
- National Action Plan for Business and Human Rights (NAP)
- OECD Guidelines for Multinational Enterprises
- Sustainable Development Goals (SDGs)
- IATA Resolution against Trafficking in Persons

C32 CORE ELEMENTS OF THE GERMAN NATION ACTION PLAN FOR BUSINESS AND HUMAN RIGHTS



Targets

Respect for human rights is the overarching goal
The overarching goal is to avoid human rights breaches in the Company and the supply chain by means of organisational and process-based measures. The Code of Conduct is binding for all bodies, managers and employees of the Lufthansa Group. With regard to protecting human rights, the Lufthansa Group is guided by the recommendations of the National Action Plan for Business and Human Rights (NAP) adopted by the federal government in late 2016. With regard to corporate respect for human rights, the Federal Government expects all enterprises to comply with human rights due diligence and to respect human rights along their supply and value chains. The National Action Plan describes five core elements of due diligence in the field of human rights. These core elements comprise a policy statement, procedure for identifying actual or potential adverse impacts on human rights, measures and effectiveness audits, reporting and a grievance mechanism. All the measures listed below can be attributed to one of these core elements.

The Group's procurement policy and Supplier Code of Conduct ↗ **Responsible production and sustainability in the supply chain, p. 102f.**, state that the Lufthansa Group expects its suppliers to respect human rights. Supplier contracts should contain obligations and provisions for terminating the contract if they are breached.

Measures

Human rights working group acts as a point of contact and influencer

The human rights working group's regular meetings serve to communicate information and develop a uniform, Group-wide position and strategy. In the future, the development of a structured media monitoring process is planned. In addition, selected contacts advise, support and follow up on the topic at the main companies in the Lufthansa Group.

International reporting obligations are also dealt with by the working group. The Lufthansa Group will publish a mandatory declaration for the financial year 2019 as required by the UK Modern Slavery Act 2015 and Commonwealth Modern Slavery Act 2018 (Australia).

Management approach to human trafficking developed

As a signatory to the IATA Resolution against Trafficking in Persons, ensuring an environment that is free from modern slavery and human trafficking is a matter of course for the Lufthansa Group, however, the legal prosecution of human trafficking is the responsibility of governments and national law enforcement agencies. Nevertheless, the Lufthansa Group is aware of the importance of this topic and recognises that as an aviation company it can play a significant role in identifying potential criminal offences. It has therefore implemented a reporting process for flagging suspected cases of human trafficking.

In accordance with IATA recommendations, the Lufthansa Group has integrated the topic into regular pilot and flight attendant training. These employee groups are made particularly aware of potential signs of human rights violations.

Steering and developing the management approach is the responsibility of the Anti-Human Trafficking Task Force, established in 2018, and coordinated by the Corporate Strategy department in which all Group companies and relevant Group Functions are represented.

Targeted group-specific awareness campaigns for managers and employees

Based on an analysis carried out by Verisk Maplecroft, an advisory company, an overview was drawn up of all Group companies operating in countries, where the risk of human rights abuses is particularly high. The country overview is regularly updated. Managers and Human Resources departments at Group companies in these countries should be made aware of their duty of care to avoid human rights abuses. Since 2018, a specific annex has been successively added to the employment contracts with these managers.

In addition, awareness is heightened by means of focused intranet communications to all the employees in the Group. This includes a statement by the Executive Board member for Corporate Human Resources and Legal Affairs emphasising the responsibility of the Lufthansa Group as a global company to respect human rights. The National Action Plan and human trafficking content was added to this information in the reporting year. Further information on this topic is available to all employees.

Processes for reporting human rights violations implemented

The companies are obliged to identify human rights risks and the type and number of suspicious incidents. Individual complaints can also be made by third parties to the external ombudsman – confidentially if so desired. **https://investor-relations.lufthansagroup.com/en/corporate-governance/compliance/ombudssystem.html.**

Employees of the Lufthansa Group can also report to their manager, Human Resources management or the employee representative. A works agreement with regard to grievance procedures is already in place for all employees in Germany. It is already used for many different kinds of complaints and is also used for complaints regarding human rights violations.

"Zero tolerance" for cases of sexual harassment

Respect for one another is particularly important to the Lufthansa Group. This includes ensuring a working environment for all employees that is free of discrimination, harassment and unequal treatment. The Lufthansa Group expects that this principle is reflected globally in the conduct of all employees towards one another. The extensive communication campaign conducted in 2018 that made use of various internal and external communication channels to raise awareness was flanked by a mandatory web-based training course for managers on the German General Act on Equal Treatment that addresses sexual harassment in the workplace. The diverse range of support for employees were affected by sexual harassment has continued.

Social concerns

Concepts

Lufthansa Group expands its social commitment
As an international aviation company, social commitment is an important topic for the Lufthansa Group. Since 2016 the Company has been increasingly focusing on the Sustainably Development Goals (SDGs) 4 (Quality Education) and 8 (Decent Work and Economic Growth).

The focus of the activities is on social and humanitarian projects around the world, pooled and managed by the help alliance, the Lufthansa Group's aid organisation. The help alliance is a non-profit entity (gGmbH) held by the Lufthansa Group and based in Frankfurt/Main. **www.helpalliance.org**

Its importance is emphasised by the fact that the company reports to the Chairman of the Executive Board and CEO.

The Lufthansa Group significantly expanded its social commitment in Germany in 2019 with four new collaborative projects under the motto "Giving young people a good start in life". All new initiatives include a focus on education, work and income and are designed and managed by the help alliance. In Frankfurt, for instance, the help alliance is promoting a job-buddy programme that helps refugees to enter the working world. The expansion of its commitment to what is now a total of six social projects in Germany is part of a comprehensive package of measures in the areas of environment and society that the Lufthansa Group drew up in March 2019. Lufthansa Group employees can become involved with help alliance projects on a volunteer basis. In the future, the Lufthansa Group hopes to promote its workforce's involvement in charities through corporate volunteering opportunities in social projects during working hours.

The Lufthansa Group also established help alliance Americas as a subsidiary of its non-profit aid organisation in May 2019. Following in the footsteps of the parent company, help alliance Americas supports disadvantaged people in North and South America.

Targets

A contribution to sustainable social development
The aim of the Group's charitable activities and projects is to make a contribution to the sustainable development of society that reflects the importance and size of the Lufthansa Group and is transparent, credible and verifiable all at the same time.

Measures

help alliance focuses on social and humanitarian projects
The help alliance acts as a catalyst for greater social commitment, combining proven projects initiated by employees with the power and network of the Lufthansa Group.

Focusing on social and humanitarian projects in the fields of quality education (SDG 4) and decent work and economic growth (SDG 8) allows the available funds to be used more efficiently and purposefully. In 2019, the help alliance was responsible for 43 aid projects with a total project volume of EUR 2.8m. 81% of the donations were used for educational projects. Approximately 23,500 disadvantaged people around the world received help through these projects. Two of the focal points of this work were new collaborative projects in Germany and help alliance Americas. In Hollywood, Florida, the organisation's first project involved supporting the Broward Outreach Center. The center provides counselling offers and free meals for homeless people and allows them to experience a more independent lifestyle.

Permanent monitoring and regular evaluation of the projects using a fixed catalogue of criteria ensure that the sponsored projects and programmes improve the living conditions of disadvantaged people sustainably and effectively and that the funding is used efficiently.

In addition, the Group has for many years provided fast and professional emergency aid in the event of humanitarian crises and disasters by means of relief flights. Lufthansa Cargo cooperates with well-known aid organisations to provide quick, straightforward assistance in the logistics of initial relief.

Other donations used exclusively for aid projects
In 2019, the Lufthansa Group covered all of the costs of administration fundraising, communication and collaborative projects at help alliance gGmbH in Germany. This ensures that 100% of all other donations are used to fund aid projects. This also applies to voluntary donations made via salary deduction by employees of the Lufthansa Group.

Responsible production and sustainability in the supply chain

Concepts

Responsible production and sustainability in the supply chain firmly established in the Company
In the opinion of the Lufthansa Group, responsible production is a prerequisite for offering sustainable products. This means that, in addition to economic aspects, impacts on environment and society are increasingly taken into consideration during production processes and business activities.

For example, an increasing number of Lufthansa Group companies and locations now have EMAS- or ISO-certified environmental management systems in place with the aim of continually reducing the impact on the environment from production and products.

This includes the target of achieving carbon neutral production on the ground at locations in Germany, Switzerland and Austria by 2030 as well as, for instance, reducing single-use plastic items and expanding the range of sustainably produced food offered on board.

It is also a matter of course for Lufthansa Group companies that the working conditions for their employees at least meet the statutory requirements – in many cases these minimum requirements are actually exceeded by operating regulations.

Lufthansa Technik, for example, has an integrated management manual that outlines the operating requirements for flight safety, quality, environmental protection and occupational safety in production.

Taking sustainability aspects into account, including in the supply chain, is an important element of responsible production.

To meet the standards the Lufthansa Group sets for the sustainability of its own production and products, the Lufthansa Group also relies on close collaboration with suppliers who share and implement these standards wherever possible. This also forms part of the Lufthansa Group's Code of Conduct.
https://investor-relations.lufthansagroup.com/en/corporate-governance/compliance/code-of-conduct.html.

Since October 2017, the purchasing units in the Lufthansa Group have been organised within a single reporting line under the Chief Financial Officer. They inform the Executive Board about current developments on a regular basis. In some cases, the purchasing units are centralised, especially for airline-specific actions such as purchasing aircraft or kerosene, and in others, they are decentralised throughout the Group companies (for specific products). Reporting lines are based on responsibilities for different product groups and Group companies. Defining product groups optimises the purchasing function in the procurement markets. Reporting on the basis of Group companies ensures security of the supply.

Building and expanding a sustainable supply chain is of strategic importance to the Lufthansa Group
The process-based matrix organisation makes it easier to establish sustainability standards because standardised processes and IT systems are increasingly used. Defining responsibilities within the Group also ensures efficient collaboration. The goal is also to improve the enforcement of sustainability standards.

Targets

The Lufthansa Group expects suppliers to adhere to guidelines
The Lufthansa Group demands of its suppliers that they fully comply with current law, guidelines and regulations concerning fair competition, integrity and responsible practices.

Measures

The Group procurement policy includes the obligation to assume social and ecological responsibility
The obligation to assume social and ecological responsibility is a key element of the procurement policy. It is to be understood as an overriding specification for all procurement units at the Group companies. In addition, it serves as a handbook for buyers and all employees with contacts in the procurement markets. Among other considerations, it requires that these obligations be included in contracts with suppliers:

- to comply with the ten principles of the UN Global Compact,
- to comply with the four basic principles of the International Labour Organisation (ILO),
- to consent to announced and unannounced audits by companies of the Lufthansa Group,
- to accept the termination of the contract in the event that these contractual obligations are breached.

By imposing these obligations, the Lufthansa Group endeavours to ensure responsible practices by its direct suppliers and so to meet its own standards for corporate responsibility.

The Lufthansa Group's expectations on its suppliers in terms of social and ecological responsibility were summarised and published in the Supplier Code of Conduct in the reporting year. **www.lufthansagroup.com/en/suppliers.html.**

To identify the type and level of supplier risks, the procurement units responsible for product groups carried out a risk assessment for the suppliers. The outcome is included in the result of Group risk management.

In addition, risk analyses based on expenditure and country were also performed for all direct suppliers. Suppliers in extreme risk countries were identified based on Verisk Maplecroft in order to develop plans for measures that can be taken.

The Lufthansa Group's sustainability commitments are confirmed by EcoVadis

In order to demonstrate its sustainability and responsibility towards its customers, the Lufthansa Group participates in EcoVadis, a sustainability assessment platform for global supply chains. In the reporting year, EcoVadis once again confirmed the commitment of the Lufthansa Group with its "Silver Status".

Summary

The responsible and sustainable treatment of resources, the environment, customers, employees and suppliers is a prerequisite for the long-term financial stability and attractiveness of the Lufthansa Group for its customers, employees, investors and partners.

With the activities and concepts described above, the Lufthansa Group aims to strengthen the positive effects of its business activities and further reduce the negative impacts wherever possible in order to consolidate its position as a leading player in the airline industry, including in terms of corporate responsibility.

This combined non-financial declaration is based on the GRI Standards 2016. The information in this declaration relates to the following disclosures and management approaches.

T053 GRI CONTENT INDEX

	Disclosures refer to		Page
About this combined non-financial report	GRI 102-1	Name of the organisation	↗ p. 79
	GRI 102-50	Reporting period	↗ p. 79
	GRI 102-56	External assurance	↗ p. 75
	GRI 102-16	Values, guidelines, standards and behavioural norms	↗ p. 79f.
	GRI 102-46	Defining report content and topic boundaries	↗ p. 80
Environmental concerns			
Climate protection	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 81f.
	GRI 305-1	Direct GHG emissions Scope 1	↗ p. 85
	GRI 305-4	Intensity of the GHG emissions	↗ p. 85
	GRI 305-5	Reducing GHG emissions	↗ p. 85
Waste prevention	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 85
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Operational stability	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 88f.
	Performance indicator	Departure punctuality	↗ p. 90
Product and services	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 90f.
	GRI 416-1	Assessment of the health and safety impacts of product and service categories	↗ p. 92
	Performance indicator	Net Promoter Score	↗ p. 93
Employee concerns			
Attractiveness as an employer	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 93f.
	Performance indicator	Engagement Index	↗ p. 95
Transformation capability	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 95
Health and safety at work	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 96
	Performance indicator	Health Index	↗ p. 97
Fighting corruption and bribery	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 98
	GRI 205-1	Operations assessed for risks related to corruption	↗ p. 99
	GRI 205-2	Communication and training on anti-corruption policies and procedures	↗ p. 98
Respect for human rights	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 99f.
Social concerns	GRI 103-1, 103-2, 103-3	Management approach	↗ p. 101
Responsible production and sustainability in the supply chain	GRI 103-1, 103-2	Management approach	↗ p. 102

T054 SUSTAINABLE DEVELOPMENT GOALS (SDG)

SDG	Sub-target	Aspect/issue	Page	Activities of Lufthansa Group
4 Quality education	4.1 – 4.6	Social concerns	↗ p. 101	81% of donations to the help alliance used to support education
5 Gender equality	5.2	Respect for human rights	↗ p. 99f.	“Zero tolerance” for cases of sexual harassment
	5.5	Employee concerns/ Attractiveness as an employeer	↗ p. 93f.	Special focus on support for female junior employees
8 Decent work and economic growth	8.5	Respect for human rights	↗ p. 99f.	Respect for human rights is an integral part of the corporate culture
	8.6	Social concerns	↗ p. 101	All new initiatives focus on the topics of education, work and income
	8.7	Respect for human rights	↗ p. 99f.	Management approach to human trafficking developed
	8.8	Respect for human rights	↗ p. 99f.	Procedures for reporting human rights violations have been implemented
	8.8	Respect for human rights	↗ p. 99f.	Awareness programmes for target groups of managers and employees
	8.8	Responsible production and sustainability in the supply chain	↗ p. 102f.	The Group procurement policy includes the obligation to assume social and ecological responsibility
	8.8	Responsible production and sustainability in the supply chain	↗ p. 102f.	To identify supplier risks, the procurement units responsible for product groups carried out a risk assessment for the suppliers
	8.8	Employee concerns/ Health and safety at work	↗ p. 96f.	Preventive measures taken to safeguard occupational health and safety
9 Industry, innovation and infrastructure	9.1	Customer concerns/ Operational stability	↗ p. 89	Wide-ranging initiatives launched with system partners
	9.4	Customer concerns/ Product and services	↗ p. 90ff.	Lufthansa Group supports environmental sustainability goals in product and service design
	9.5	Environmental concerns/ Active noise abatement	↗ p. 87f.	Optimising flight procedures and flight routes helps to reduce noise
12 Responsible consumption and production	12.4	Environmental concerns/ Active noise abatement	↗ p. 87f.	The best method of reducing aircraft noise at the source is the modernisation of the fleet
	12.5	Environmental concerns/ Waste prevention	↗ p. 85f.	Lufthansa Group supports a variety of initiatives to comprehensively reduce waste
	12.6	Responsible production and sustainability in the supply chain	↗ p. 102f.	The Lufthansa Group's expectations of its suppliers in terms of social and ecological responsibility are summarised in the Supplier Code of Conduct
13 Climate action	13.1	Environmental concerns/ Climate protection	↗ p. 82ff.	Continuous investment in modern, fuel-efficient aircraft and engine technologies, as well as investment in research and use of alternative fuels for air transport
	13.2	Environmental concerns/ Climate protection	↗ p. 82ff.	To cut CO_2 emissions , what is required is a fundamental modernisation of the airspace structure
	13.1	Environmental concerns/ Climate protection	↗ p. 82ff.	Deployment of efficiently sized aircraft, better load factors, testing and introduction of new flight procedures, as well as the determination of optimal flight routes and flight speeds
	13.1 – 13.3	Environmental concerns/ Climate protection	↗ p. 82ff.	Climate action agreements (CORSIA – Carbon Offsetting and Reduction Scheme for International Aviation) / Opportunities for voluntary carbon offsets
	13.3	Introduction	↗ p. 79ff.	The Lufthansa Group's engagement is rated by the international non-profit rating organisation CDP
17 Partnerships for the goals	17.15	Social concerns	↗ p. 101	In addition, the Group has for many years provided fast and professional emergency aid in the event of humanitarian crises and disasters by means of relief flights
	17.16	Introduction	↗ p. 79ff.	Since 2002, the Company has applied the principles of the UN Global Compact for sustainable and responsible corporate governance

Forecast

Outbreak of coronavirus burdens global economic growth and performance of the Lufthansa Group. | IATA expects a significant fall in global passenger traffic. | Lufthansa Group expects a significant decline in Adjusted EBIT for 2020.

MACROECONOMIC OUTLOOK

Economic and sector-specific factors can have a significant influence on the operating and financial performance of the Lufthansa Group. The following forecast for the course of business is therefore based on assumptions about the development of the wider economy and the sector. These assumptions are described below. The Lufthansa Group continually monitors the development of this operating environment so that it can respond as quickly and comprehensively as possible to any changes.

T055 GPD DEVELOPMENT[1]
Forecast 2019 to 2023 compared with the previous year

in %	2019	2020	2021	2022	2023
World	2.6	2.5	2.8	2.7	2.7
Europe	1.4	1.1	1.2	1.4	1.5
Germany	0.6	0.4	1.0	1.2	1.4
North America	2.3	2.1	2.0	1.7	1.5
South America[2]	0.8	1.2	1.8	1.9	2.1
Asia/Pacific	4.3	3.9	4.6	4.4	4.4
China	6.1	5.4	6.0	5.5	5.4
Middle East	0.4	1.2	2.2	2.5	2.5
Africa	3.0	3.2	3.4	3.4	3.5

Source: Global Insight World Overview as of 18 Feb 2020.
[1] Forecast.
[2] Not including Venezuela.

Global economic growth hit by outbreak of the coronavirus

According to data from Global Insight on 18 February 2020, global economic growth of 2.5% is expected for the year 2020. This is slightly less than previous year (previous year: 2.6%). However, this outlook does not yet take the effects of the ongoing coronavirus crisis into account and is therefore subject to considerable risks. Estimates from the OECD say that the spread of the virus could cut global economic growth by half compared with 2019. Further risks stem above all from increasing protectionism worldwide and its impact on investment, as well as the uncertainty surrounding the future trade agreement between the United Kingdom and the EU.

As of 18 February 2020, the fastest global economic growth in 2020 is expected to be 3.9% in the Asia/Pacific region (previous year: 4.3%). Growth in China is expected to fall to 5.4% (previous year: 6.1%). Asia has been hit harder than other regions of the world by the coronavirus crisis, however, and the economic impact will therefore be particularly severe in this region. Estimates are therefore subject to great uncertainty. The North America region is projected to expand by 2.1% (previous year: 2.3%). Growth in the USA is marked by the declining influence of the tax cuts adopted in 2017.

Growth for Europe overall was forecast to be 1.1% as of 18 February 2020. This performance is lower than last year (previous year: 1.4%). Reasons for the slower growth include a downturn in industrial production, construction and retail sales. The German economy will again see much slower growth than neighbouring European countries, with a rise of 0.4% forecast (previous year: 0.6%).

Sideways movement expected for interest and exchange rates

Analysts on average are expecting the euro to recover slightly against other main currencies in 2020. The development of the trade dispute between the USA and China, as well as geopolitical tensions in the Middle East, could have a significant impact on exchange rates in 2020, however. Markets will also be focusing on the next steps taken by key central banks.

In 2019 the European Central Bank rapidly abandoned the normalisation of its interest rate policy and began taking expansionary measures again. No radical changes in monetary policy are expected in the euro zone for 2020, which means the current historically low interest rates are likely to continue.

Slight rise in oil prices expected

Overall, market participants are anticipating a slight increase in oil prices over the medium term. With prices of USD 51/barrel as of 4 March 2020, futures contracts for delivery in December 2020 were trading at USD 51.96/barrel, and for December 2021 at USD 52.96/barrel.

SECTOR OUTLOOK

Fall in passenger traffic expected for 2020 due to effects of the coronavirus

The International Air Transport Association (IATA) has revised its original forecast of 4% growth in passenger traffic in late February 2020 due to the outbreak of the coronavirus. It is now predicting that airlines worldwide will lose USD 63bn in revenue, which represents a drop of 11%.

In a worst-case scenario, assuming a more extensive spread of the coronavirus, IATA anticipates a fall of USD 113bn in revenue, which represents a decline of 19%. IATA expects passenger numbers for the Asia/Pacific region to decline by 23%, with a corresponding revenue contraction of USD 50bn. For the ten biggest Western European markets, including Germany, passenger numbers in this scenario are expected to fall by 24%, with a corresponding decline in revenue of USD 37bn.

Airfreight set to increase again in 2020

Following a fall of 3% in global airfreight traffic in 2019, IATA's original forecast – which did not factor in the spread of the coronavirus – assumed that revenue cargo tonne-kilometres would go up by 2% in 2020.

Yields in the cargo business are expected to decline by 3% in 2020 (previous year: decline of 5%).

Long-term growth expected for Aviation Services

Average annual growth of 7% is expected for the MRO market until 2029. This forecast does not include any effects of the coronavirus crisis, however. It is the Asia/Pacific region that should see the fastest long-term fleet growth, so this is also where demand for MRO services is expected to rise the most. Engine-related maintenance work will continue to represent the largest share, accounting for nearly 50% of the entire MRO market through to 2029.

Demand for in-flight catering fluctuates in line with global passenger numbers. Like the airline industry, the catering sector is undergoing further consolidation. Customers' increasing focus on sustainability creates the opportunity to offer innovative, sustainable products for in-flight service. Digital selection and ordering options therefore remain a key prerequisite for further growth.

CHANGES IN BUSINESS AND ORGANISATION

The Lufthansa Group regularly reviews its organisational structure and adapts it to any changes in the business environment. Opportunities to increase efficiency are seized in all of the Lufthansa Group's segments and are reflected in the planning.

The Executive Board of Deutsche Lufthansa AG was restructured in terms of responsibilities and individuals as of 1 January 2020. Its new formation reflects the strategic transition of the Lufthansa Group from an aviation group to an airline group. This should serve to sharpen customer focus, strengthen digitalisation endeavours and establish social and environmental responsibility at Executive Board level. ↗ **Business activities and Group structure, p. 15f.**

As part of the focus on the airline business, a contract with gategroup was signed in late 2019 for the sale of the LSG group's European business. Part of the agreement is a long-term contract for catering at the hubs in Frankfurt and Munich. The disposal is still subject to approval by the competition authorities. ↗ **Catering business segment, p. 61ff.**

In addition, shifting line maintenance at the hubs in Frankfurt and Munich from Lufthansa Technik to Lufthansa German Airlines as of 1 January 2020 will further strengthen the aeronautical core of the Lufthansa Group.

As part of its new strategy, Eurowings will in future concentrate exclusively on short-haul routes, whereas responsibility for the commercial management of long-haul routes will be transferred to Lufthansa German Airlines from 2020. Brussels Airlines will also be managed separately in future and moved closer to the Network Airlines. ↗ **Eurowings business segment, p. 52ff.**

OUTLOOK FOR THE LUFTHANSA GROUP

Spread of the coronavirus has significant effect on the Group's performance in 2020
The airline industry is affected more directly and severely by the global spread of the coronavirus than other sectors of the economy. Around the world, the coronavirus has resulted in travel restrictions at many companies, the cancellation of larger events and great uncertainty among consumers. Some countries, including the USA, have imposed a travel ban on passengers from Germany. The impact on demand for flights and the services of other Group companies is therefore significant. As a result, Group revenue is expected to be significantly lower in 2020 than the previous year.

The Lufthansa Group assumes that the effects of the crisis will influence the Group's performance in all segments and all regions in 2020. It is not currently possible to say how long these adverse effects will last, since they depend largely on the progression of the crisis and consumers' reactions to the spread of the virus.

Lufthansa Group responds to fall in demand with capacity cuts and additional cost savings
The Group is addressing this challenge by adapting flight capacities as flexibly as possible to falling demand and limiting its costs to the minimum necessary for operations.

Changes in demand on individual routes are analysed on a daily basis in order to identify negative developments as quickly as possible and implement countermeasures accordingly. This includes exchanging larger aircraft for smaller ones, reducing the frequency of flights or suspending the route concerned altogether. On 13 March 2020 the Group announced that it was reducing capacity by up to 70%. The Group therefore assumes that the airlines' available capacity (ASK) will be down on the year in 2020.

Furthermore, the Group has decided to stop new recruitment, to extend offers for part-time work and unpaid leave and to reduce project and operating budgets. Options for short-time work are currently under review in various areas.

Significant year-on-year fall in Adjusted EBIT expected
The impact of the spread of the virus on demand and the corresponding capacity cuts will have a significant effect on the Group's earnings performance. Adjusted EBIT is forecast to fall significantly year on year. Cost savings will only partly make up for the adverse effects. The precise extent of the fall depends above all on the further spread of the virus, the necessary capacity adjustments, the scope and impact of the cost-cutting measures, and the development of fuel costs. The Group intends to provide a more detailed financial outlook over the course of the year, as soon as it has greater visibility on the factors mentioned.

Forecast revenue and earnings performance in the segments matches the outlook for the Group as a whole
A significant year-on-year fall in revenue and earnings is expected for the individual segments – Network Airlines, Eurowings, Logistics, MRO, Catering and Additional Businesses and Group Functions – in line with the expectation for the Group as a whole.

Network Airlines and Eurowings will suffer from the drop in demand due to the spread of the coronavirus. Capacity adjustments and the reduction of variable costs that they imply, as well as tighter cost-cutting measures, will only partly make up for this effect.

Earnings in the Logistics segment will also suffer from flight cancellations by the passenger airlines, since freight can no longer be transported in the bellies of passenger aircraft. Moreover, slower global economic growth is also likely to have an effect on demand for airfreight.

Capacity utilisation in the MRO segment is expected to go down as a result of the economic pressure on many airline customers. Business in the Asian market, which is very important for Lufthansa Technik, will be particularly affected.

The Catering segment will be burdened by flight cancellations by its airline customers.

The Group is also expecting earnings to be significantly lower than last year for Additional Businesses and Group Functions, above all due to a significant fall at AirPlus. Here the decline in business travel expected as a result of the coronavirus will impact the volume of transactions carried out with credit cards issued by AirPlus.

Solid balance sheet provides strong foundation for overcoming the coronavirus crisis

The Lufthansa Group continues to trust in its solid balance sheet as it faces the coronavirus crisis. It enables the Group to keep making the necessary investments. However, capital expenditure will go down significantly year-on-year as planned investments are postponed. In terms of Adjusted free cash flow, the positive effects of lower capital expenditure and lower tax payments are expected to be more than offset by lower earnings. This means that Adjusted free cash flow will be lower than last year.

Net debt will go up as a result of the lower cash flow. The ratio of net indebtedness, including the effect of pension provisions, to Adjusted EBITDA is also forecast to rise accordingly. The Group plans to raise extensive new funding in order to safeguard its strong financial position. The Adjusted return on capital employed (Adjusted ROCE) will fall significantly in line with the expected lower earnings.

CO_2 emissions per passenger-kilometre should fall

The Lufthansa Group is again aiming to make progress in reducing its environmental impacts in 2020. The fleet modernisation and operating measures in particular will have a positive effect on specific CO_2 emissions per passenger-kilometre. However, the actual performance will depend largely on the load factors of the aircrafts. In 2020, the main determinant of these will be the course taken by the coronavirus crisis.

OVERALL STATEMENT BY THE EXECUTIVE BOARD ON THE EXPECTED DEVELOPMENT OF THE LUFTHANSA GROUP

The market environment for the Lufthansa Group in 2020 is challenging. Alongside ongoing global trade disputes and uncertainties related to Brexit, the performance of the Lufthansa Group is particularly affected by the coronavirus crisis. The drastic slump in demand for flights, which calls for wide-ranging reductions in capacity, is a significant burden for the Group. Despite extensive cost cutting, the Lufthansa Group's operating result in 2020 will be significantly lower than last year.

In the long-term, the Group remains well placed to build on its position as the leading European airline group. The Group's strong balance sheet enables it to keep modernising the fleet and to uphold its quality leadership by introducing innovative products and services. The strategic evolution of the Lufthansa Group from an aviation group to an airline group will continue to progress. Ongoing cost-cutting measures and the turnaround programmes at the Group airlines, which are not yet sufficiently profitable, will make it possible to return to higher earnings levels in the years ahead and to deliver long-term profitable growth.

Corporate Governance

Executive Board and Supervisory Board work together closely to sustainably increase Company value. | The recommendations of the German Corporate Governance Code were complied with, with two exceptions. | Comprehensive management system helps ensure compliance.

SUPERVISORY BOARD AND EXECUTIVE BOARD

Supervisory Board

Karl-Ludwig Kley
Chairman of the Supervisory Board
E.ON SE
Chairman

Christine Behle
Deputy Chairwoman
of the National Executive Board
of the trade union ver.di
Employee representative[1]
Deputy Chairwoman

Alexander Behrens
Flight attendant and member
of the trade union UFO e.V.
Employee representative[1]

Jörg Cebulla
Flight captain
Employee representative

Herbert Hainer
President
FC Bayern München e.V.

Christian Hirsch
Information management
consultant/Works Council
member on leave of absence –
ver.di section
Employee representative

Carsten Knobel
Chairman of the Executive Board
and CEO
Henkel AG & Co. KGaA

Holger Benjamin Koch
Senior Director Airport/
Industry Charges & Commercial
Provider Management
Employee representative

Martin Koehler
Former head of the
Aviation Competence Center at
The Boston Consulting Group

Martina Merz
Chairwoman of the Executive Board
thyssenkrupp AG

Michael Nilles
Chief Digital &
Information Officer (CDIO)
Henkel AG & Co. KGaA

Monika Ribar
President of Board of Directors
Schweizerische Bundesbahnen SBB AG,
Switzerland

Birgit Rohleder
Teamlead IT Application
Management Airport Services
Employee representative

Miriam Sapiro
Managing Director and
Vice Chairman (Public Affairs),
Sard Verbinnen & Co., USA

Ilja Schulz
Flight captain and member
of the Cockpit pilots' union
Employee representative[1]

Olivia Stelz
Purser
Employee representative

Stephan Sturm
Chairman of the Executive Board
Fresenius Management SE

Christina Weber
Commercial Employee
Employee representative

Klaus Winkler
Engine mechanic
Employee representative

Matthias Wissmann
Senior International
Counsel WilmerHale

Honory Chairman

Dipl.-Ing. Jürgen Weber
Former Chairman of the
Supervisory Board Deutsche
Deutsche Lufthansa AG

[1] Trade union representative in accordance with Section 7 Paragraph 2 Co-determination Act (MitbestG).

Executive Board
(Structure since 1 January 2020)

Carsten Spohr
Chairman of the Executive Board and CEO

Thorsten Dirks
Member of the Executive Board
IT, Digital & Innovation

Christina Foerster
Member of the Executive Board
Customer & Corporate Responsibility
(since 1 January 2020)

Harry Hohmeister
Member of the Executive Board
Commercial Passenger Airlines

Detlef Kayser
Member of the Executive Board
Airline Resources & Operations Standards

Michael Niggemann
Member of the Executive Board
Corporate Human Resources and Legal Affairs
(since 1 January 2020)

Ulrik Svensson
Member of the Executive Board
Finances

Bettina Volkens
Member of the Executive Board
Corporate Human Resources and Legal Affairs
(until 31 December 2019)

MANDATES

Other mandates of the Supervisory Board members of Deutsche Lufthansa AG
(As of 31 December 2019)

Karl-Ludwig Kley
a) BMW AG [3] (Deputy Chairman)
E.ON SE [3] (Chairman)

Christine Behle
a) BREMER LAGERHAUS-GESELLSCHAFT [3] – Aktiengesellschaft von 1877 – (Deputy Chairwoman)
Dortmunder Stadtwerke AG (DSW21)/Dortmunder Stadtwerke Holding GmbH

Jörg Cebulla
a) Sparda-Bank Hessen eG
b) Albatros Versicherungsdienste GmbH

Herbert Hainer
a) Allianz SE [3]
FC Bayern München AG (Chairman, since 9 December 2019)
b) Accenture plc., Ireland [3]

Carsten Knobel
b) Henkel Central Eastern Europe GmbH, Austria [2] (Chairman)
Henkel (China) Investment Co. Ltd., China [2]
Henkel & Cie. AG, Switzerland [2] (Deputy Chairman)
Henkel Ltd., Great Britain [2]
Henkel of America Inc., USA [2] (Chairman)

Martin Koehler
a) Delton Technology SE (Deputy Chairman)
b) American Funds Investment-Fonds, managed by the Capital Group, USA
FlixMobility GmbH

Martina Merz
a) thyssenkrupp AG [3] (Chairwoman, seat in abeyance, delegated to the Executive Board until 30 September 2020)
b) AB Volvo, Sweden [3]
Imerys SA, France (until 4 May 2020) [3]
SAF-HOLLAND SA, Luxembourg [3] (Chairwoman until 26 September 2019)

Michael Nilles
a) Lufthansa Technik AG
b) Medela Holding AG, Switzerland (Board of Directors)
Medela AG, Switzerland (Board of Directors)

Monika Ribar
b) Chain IQ Group AG, Switzerland
Schweizerische Bundesbahnen SBB AG, Switzerland (President of the Board of Directors)
Sika AG, Switzerland [3]

Miriam Sapiro
b) Project HOPE, USA

Stephan Sturm
a) Fresenius Kabi AG [1] (Chairman)
Fresenius Medical Care Management AG [1] (Chairman)
b) VAMED AG, Austria [2] (Deputy Chairman)

Christina Weber
a) LSG Lufthansa Service Holding AG

Matthias Wissmann
b) ODDO BHF SCA

Mandates of the Executive Board members of Deutsche Lufthansa AG
(As of 31 December 2019)

Carsten Spohr
a) Lufthansa Technik AG [1] (Chairman)
thyssenkrupp AG [3]
(until 26 September 2019)

Thorsten Dirks
a) Eurowings GmbH [1] (Chairman)
Germanwings GmbH [1] (Chairman)
b) Eurowings Europe GmbH
(Chairman)
Günes Ekspres Havacilik A.S.
(SunExpress), Turkey
(Deputy Chairman)
SN Airholding SA/NV, Belgium [2]
(Chairman)

Christina Foerster
a) Lufthansa CityLine GmbH [1]

Harry Hohmeister
a) Lufthansa Cargo AG [1] (Chairman)
b) Aircraft Maintenance and
Engineering Corporation
(AMECO), China
Austrian Airlines AG, Austria [2]
(Chairman)
Swiss International Air Lines AG,
Switzerland [2]

Detlef Kayser
a) Aerodata AG
LSG Lufthansa Service Holding AG [1]
(Chairman)
Lufthansa Technik AG [1]
b) Günes Ekspres Havacilik A.S.
(SunExpress), Turkey

Michael Niggemann
a) Lufthansa CityLine GmbH [1]
b) Austrian Airlines AG, Austria [2]
(Deputy Chairman)
Global Brand Management AG,
Switzerland [2] (Chairman)
(until end of 31 December 2019)
Swiss Aviation Software AG,
Switzerland [2]
(until end of 31 December 2019)

Ulrik Svensson
b) Lufthansa AirPlus Servicekarten
GmbH [1] (Chairman)
Swiss International Air Lines AG,
Switzerland [2]

Bettina Volkens
b) LSG Lufthansa Service Holding AG [1]
(until 5 June 2019)

C33 SUPERVISORY BOARD COMMITTEES

Steering Committee	Audit Committee	Nomination Committee	Arbitration Committee in accordance with Section 27 Paragraph 3 Co-determination Act (MitbestG)
Karl-Ludwig Kley, Chairman	**Stephan Sturm,** Chairman	**Karl-Ludwig Kley,** Chairman	**Karl-Ludwig Kley,** Chairman
Christine Behle, Deputy Chairwoman	**Alexander Behrens**	**Herbert Hainer**	**Christine Behle,** Deputy Chairwoman
Herbert Hainer	**Jörg Cebulla**	**Martin Koehler**	**Herbert Hainer**
Ilja Schulz	**Carsten Knobel**		**Ilja Schulz**
	Monika Ribar		
	Christina Weber		
Four meetings in 2019	Five meetings in 2019	Four meetings in 2019	No meetings in 2019

a) Membership of supervisory boards required by law.
b) Membership of comparable supervisory bodies at companies in Germany and abroad.
[1] Group mandate in accordance with Section 100 Paragraph 2 Sentence 2 AktG.
[2] Other group mandate.
[3] Publicly listed company.

CORPORATE GOVERNANCE REPORT

The Executive Board and Supervisory Board have a close and trusting working relationship

The common aim of the Executive Board and the Supervisory Board is to achieve lasting increases in the value of the Company. To this end, they cultivate a close and trusting working relationship in the interests of the Company.

The Supervisory Board has adopted internal regulations governing the work of the Executive Board and the Supervisory Board as well as the cooperation between them. The seven members of the Executive Board are jointly responsible for the management of the entire Company and inform each other of all significant activities and transactions. The Executive Board reports regularly to the Supervisory Board, which is made up of equal numbers of shareholder and employee representatives. The Executive Board informs the Supervisory Board on the course of the Group's business and that of its associated companies at least four times a year. Every year, the Supervisory Board discusses the Company strategy and approves the KPIs for the following year and the Group's medium-term financial planning. The Executive Board presents the Company's quarterly reports to the Supervisory Board. Furthermore, the Chairman of the Executive Board informs the Chairman of the Supervisory Board and the Supervisory Board of important matters.

The Executive Board makes decisions by a simple majority of votes cast. There are a number of transactions for which the Executive Board requires the approval of the Supervisory Board. These include (above a certain value threshold) borrowing, capital expenditure on aircraft and other non-current assets, long-term leasing of aircraft, establishing companies and the acquisition or disposal of shares.

In accordance with Section 8 Paragraph 1 of the Articles of Association and Sections 96 Paragraph 1, 101 Paragraph 1 German Stock Corporation Act (AktG) and Section 7 Paragraph 1 Sentence 1 No.3 Co-determination Act (MitbestG), the Supervisory Board has 20 members, of whom ten are elected by the shareholders and ten by the employees. Section 96 Paragraph 2 Sentence 1 AktG stipulates that at least 30% of the Supervisory Board members must be women and at least 30% men. The Supervisory Board currently has seven women and thirteen men, thus satisfying the minimum requirement. The composition of the Supervisory Board meets the targets set by the Supervisory Board itself, and taken as a whole, it corresponds to the revised requirements profile. As a whole, the Supervisory Board is knowledgeable about the aviation sector. As a whole, its members contribute a broad range of specialist knowledge to the Supervisory Board's work and possess international or specialist knowledge of one or more of the Company's key markets outside Germany. Furthermore, it is the assessment of the Supervisory Board that none of the shareholder representatives currently show any indication of relevant circumstances or relationships that could give rise to a significant and lasting conflict of interest. **www.lufthansagroup.com/en/corporate_governance_declaration.**

The Supervisory Board has formed a Steering Committee from among its members made up of equal numbers of shareholder and employee representatives, consisting of the Chairman of the Supervisory Board and his deputy, each exercising their equivalent function, as well as two other Supervisory Board members to be elected by the Supervisory Board. The Steering Committee prepares the Supervisory Board meetings and makes recommendations to the Supervisory Board on appointing Executive Board members, nominating the Chairman of the Executive Board, setting total remuneration for individual Executive Board members, including salary and all other benefits, on any capital reductions in accordance with Section 87 German Stock Corporation Act (AktG) and on determining objectives and deadlines for the ratio of female Executive Board members. Furthermore, the Steering Committee is responsible for all other human resources matters involving Executive Board members not reserved for the full Supervisory Board. It is also responsible for contracts with Supervisory Board members (including loans). In the event of an equal number of votes, the Chairman of the Supervisory Board has the deciding vote.

The Supervisory Board has elected an Audit Committee from among its members made up of equal numbers of shareholder and employee representatives, which has six members. The Supervisory Board elects the Committee Chair, who nominates a deputy to represent them in case of absence. The members of the Audit Committee should have specialist knowledge in the area of accounting, management and financial management. The task of the Audit Committee is in particular to monitor the accounting, the financial reporting process and non-financial reporting, risk management, the Internal Control System, the compliance management system and the audit. It also discusses the necessary independence of the external auditors, the appointment of external auditors, the focus of audits and the remuneration agreement. Furthermore, it makes a recommended resolution to the Supervisory Board on the auditors' proposal to be put forward for election at the Annual General Meeting and on approval of the annual and consolidated financial statements. The Audit Committee also discusses the quarterly interim reports with the Executive Board before they are published. The Audit Committee is authorised to lay down the internal organisation of its work in its own internal regulations, which it submits to the Supervisory Board for approval.

The Supervisory Board has elected a Nomination Committee from among its shareholder representatives, consisting of the Chairman of the Supervisory Board, who chairs the committee, and two other members. The Committee nominates suitable candidates for the Supervisory Board before Supervisory Board elections take place; the Supervisory Board can then propose these candidates at the Annual General Meeting. The selection process carried out by the Nomination Committee is based on the requirements profile for Supervisory Board members, as adopted by the Supervisory Board. **www.lufthansagroup.com/en/corporate_governance_declaration.**

The Arbitration Committee required under Section 27 Paragraph 3 of the Co-determination Act and formed in line with Section 9 Paragraph 3 of the Company's Articles of Association is only convened when the necessary two-thirds majority for appointing or revoking the appointment of a member of the Executive Board has not been reached. In accordance with Section 31 Paragraph 3 Sentence 1 of the Co-determination Act, the Committee then has one month to make a corresponding proposal to the Supervisory Board. This did not occur in the 2019 financial year.

Members of the Executive Board and Supervisory Board are personally liable to the Company for damages resulting from a culpable breach of their fiduciary responsibilities. Lufthansa has taken out a D&O (directors' and officers' liability insurance) policy for both Boards, with an excess in line with the requirements of the German Stock Corporation Act and the German Corporate Governance Code.

The names of Executive Board and Supervisory Board members and their responsibilities, as well as members and duties of committees set up by the Supervisory Board can be found on ↗ **p. 110ff.**

Compliance with the German Corporate Governance Code with two exceptions

As of 3 December 2019, the Executive Board and Supervisory Board issued the following declaration of compliance with the German Corporate Governance Code:

"In accordance with Section 161 AktG, the Executive Board and the Supervisory Board of Deutsche Lufthansa AG declare that since the last declaration of compliance, the recommendations of the German Corporate Governance Code as amended have, with the following exceptions, been complied with and, with the following exceptions, will continue to be complied with in the future.

In accordance with Clause 4.2.3 Paragraph 2 of the Code, the total remuneration of the Executive Board members and the variable bonus components are to be capped. The service contracts with Board members cap all the main elements of remuneration, including the fixed salary, the variable bonus and the retirement benefit commitment. Ancillary benefits at Deutsche Lufthansa AG are not subject to an overall cap, however. In particular, private flights in line with IATA regulations and with restricted booking status due to full-paying passengers should not be capped for members of the Executive Board of Deutsche Lufthansa AG. Since the booking status is restricted, the related ancillary benefit is small. The members of the Executive Board should be able to use the Company's main product and the opportunity to meet employees and passengers on board as widely as possible in line with international practice, including for private travel.

In addition, according to Section 5.4.5 Paragraph 1 Sentence 2 of the Code, an Executive Board member of a publicly listed company should not have more than three seats on supervisory boards or other boards of external publicly listed companies with similar responsibilities. Ms Merz currently has seats on a total of four boards of this kind. The nonconformity results from the fact that Ms Merz joined the Executive Board of thyssenkrupp AG at short notice as of 1 Oct 2019. Ms Merz has notified Deutsche Lufthansa AG that she will comply with Section 5.4.5 Paragraph 1 Sentence 2 of the Code as soon as possible."

Since 1 January 2020, the maximum remuneration for Executive Board members has also included the private flights, which take place in line with IATA rules and with restricted booking status compared with full-fare passengers. As of this date there is therefore no longer any exception.

Martina Merz will leave the Supervisory Board of Imerys S.A. with effect from the close of the Annual General Meeting of Imerys S.A. on 4 May 2020. As of this date, no member of the Supervisory Board of Deutsche Lufthansa AG on the executive board of a publicly listed company will have more than three seats on a supervisory or similar board of an external publicly listed company.

Shareholders and Annual General Meeting have wide-ranging rights

Lufthansa shares are registered shares with transfer restrictions. Every share has identical voting rights. The German Aviation Compliance Documentation Act (LuftNaSiG) has particular registration requirements. This relates in particular to the disclosure of nationality for people and of domicile for companies and for entities with disclosure obligations under the German Securities Trading Act (WpHG) of any majority stake or controlling interest held by a non-German owner.

All shareholders listed in the shareholders' register can exercise their voting rights at the Annual General Meeting. The electronic service for the registration process required under stock corporation law includes the option of appointing proxies, banks and shareholder associations to exercise these voting rights via the internet and by postal vote. Shareholders can also follow the speeches made at the Annual General Meeting by the Chairmen of the Supervisory and Executive Boards online.

Transparent accounting and financial communications conform with international standards
The Lufthansa Group prepares its consolidated financial statements and interim reports in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), taking into account interpretations by the IFRS Interpretations Committee as applicable in the European Union (EU).

The individual financial statements for Deutsche Lufthansa AG, which are required by law and are relevant for the dividend payment, are prepared according to the German Commercial Code (HGB). PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft in Dusseldorf has been appointed to audit the financial statements for 2019. Eckhard Sprinkmeier is the auditor responsible for the audit as of financial year 2018. The auditors' fees for the 2019 financial year are summarised in the Notes to the consolidated financial statements. ↗ **Note 46, p. 216.**

In view of the change of auditors required by law, the Audit Committee conducted a tendering process in line with the statutory requirements and formulated a recommendation for the full Supervisory Board after a careful review of the candidates. The Supervisory Board then decided to propose Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft to the Annual General Meeting 2020 to audit the separate and consolidated financial statements of Deutsche Lufthansa AG for 2020.

Trading in Lufthansa shares or in financial instruments based on them, in particular options or derivatives, by members of the Executive Board or Supervisory Board – known as directors' dealings – are announced immediately as soon as a threshold of EUR 20,000 is exceeded in the calendar year (until 31 December 2019: EUR 5,000). This also applies to people and companies closely related to the group mentioned above. **https://investor-relations.lufthansagroup.com/en/news/directors-dealings.html.**

As of 31 December 2019, the value of all shares, options or derivatives held by members of the Executive and Supervisory Boards did not exceed that of 1% of all shares issued by the Company. The Lufthansa Group informs shareholders, analysts and the general public in a timely and equitable manner. More information on these activities can be found in the chapter ↗ **Lufthansa share, p. 11ff.,** and on the website **www.lufthansagroup.com/investor-relations.**

Comprehensive global compliance management system helps ensure compliance
Compliance describes all measures taken to ensure the correct conduct of companies, their management and their employees with respect to statutory and the Company's own obligations and prohibitions. The Lufthansa Group Compliance Management System is intended to prevent employees and the Company from coming into conflict with the law and at the same time to help them to apply statutory regulations correctly. The Lufthansa Group Compliance Programme is made up of the following elements: Competition, Capital Markets, Integrity, Embargo and, since 1 January 2020, Export Compliance. An ombudsman system gives employees the opportunity to report any suspicion of criminal activity or breaches of the compliance regulations. The contact details of the ombudsman are available on the website **https://investor-relations.lufthansagroup.com/en/corporate-governance/compliance/ombudssystem.html.** The central Corporate Compliance Office, which reports to the Executive Board member responsible for Corporate Human Resources and Legal Affairs, the various central and local compliance committees in the Lufthansa Group and the compliance managers in Group companies are to ensure that the Compliance Management System is enforced throughout all companies in the Lufthansa Group. The effectiveness of the Compliance Management System is monitored continuously by means of regular independent reviews by the internal audit department. The Audit Committee of the Supervisory Board is notified semi-annually of incidents and progress concerning compliance. **http://investor-relations.lufthansagroup.com/en/corporate-governance/compliance.html.**

REMUNERATION REPORT

The remuneration report describes the principles of the remuneration systems for the members of the Executive Board and Supervisory Board of Deutsche Lufthansa AG and provides detailed, individualised information about the benefits granted and received by the Members of the Executive Board and Supervisory Board in the 2019 financial year. The report satisfies the requirements of applicable financial reporting standards (HGB, DRS, IFRS). Moreover, the requirements of the Act on Implementation of the Second Shareholder Rights Directive (ARUG II) have already been incorporated. The remuneration report forms part of the combined management report.

Remuneration of Executive Board members

Principles and responsibility for the remuneration system

The system for remunerating Executive Board members takes account of the company's size, complexity and economic situation, as well as its prospects. It is also aligned with the company strategy and is intended to create an incentive for successful and sustainable business practices. The responsibilities and performance of the Executive Board as a whole and of the individual members are considered simultaneously. For this reason the remuneration system is based on transparent, performance-related parameters, and on the company's success and sustainability. The proportion of long-term variable remuneration is higher than that of short-term variable remuneration.

The Supervisory Board as a whole is responsible for the structure of the remuneration system for Executive Board members and for defining the individual benefits. The Steering Committee assists the Supervisory Board, monitors the appropriateness of the remuneration system and prepares the Supervisory Board's resolutions. In the event of material changes to the remuneration system, but at least every four years, the remuneration system is presented at the Annual General Meeting for approval.

The Supervisory Board adopted changes to the system of remuneration for the members of the Executive Board of Deutsche Lufthansa AG, with effect from the 2019 financial year. The remuneration system, including retirement benefits, was completely restructured. It promotes profitable earnings growth and rewards the sustained positive development of the Company's value. In addition, the introduction of Share Ownership Guidelines aligned the interests of the Executive Board members even more closely with those of shareholders and further strengthened the shareholder culture. The Executive Board remuneration system applied to all Executive Board members active in 2019 and was approved at the Annual General Meeting on 7 May 2019 by a majority of 57.4%. Prompted by the result of the voting and in light of the criticism that was voiced, the Supervisory Board reviewed the remuneration system (↗ **Ongoing development of the remuneration system for the Executive Board members for financial years from 2020, p. 128f.**).

As a result, target values and the final target achievement level are already being published ex-post in this remuneration report for the 2019 financial year.

On the basis of the existing remuneration system, the Supervisory Board determines targets and minimum and maximum amounts for financial focus areas – and selected focus areas for non-financial targets – for variable remuneration for the coming financial year.

The Supervisory Board regularly reviews the system and the appropriateness of the individual remuneration components as well as the total remuneration. In doing so it considers the amount and structure of Executive Board remuneration at comparable companies and the relationship between the remuneration of Executive Board members and that of employees, also over time.

The review of the appropriateness and market standards of Executive Board remuneration is based on a comparison of target and maximum remuneration at the companies in the DAX index of publicly listed entities. For this horizontal market comparison the Supervisory Board particularly considers the market position of Deutsche Lufthansa AG on the basis of revenue, employees and market capitalisation.

For the vertical appropriateness review, the Supervisory Board looks at the remuneration of both senior executives and the workforce as a whole, with regard to the German Group companies in the Lufthansa collective bargaining group. For this purpose, the Supervisory Board has defined senior executives as the group of managers on the three levels beneath the Executive Board of Deutsche Lufthansa AG. The remaining workforce consists of non-payscale employees below the management levels and payscale staff on the ground, in the cockpit and in the cabin.

C34 GOVERNANCE OF EXECUTIVE BOARD REMUNERATION

Steering Committee
Prepares the decisions on the remuneration system as well as on the structure and amount of the executive board remuneration and submits them to the Supervisory Board.

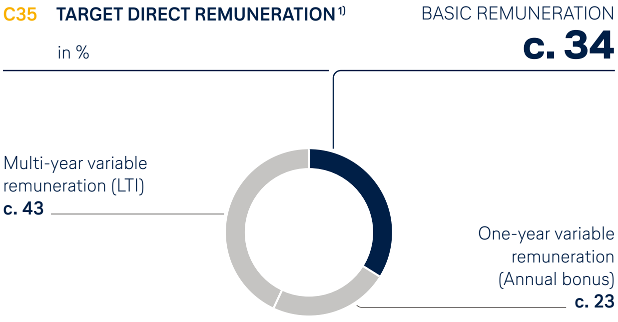
Supervisory Board
Decides on the remuneration system as well as on the structure and amount of the executive board remuneration. Submits remuneration system to the Annual General Meeting for approval.

Annual General Meeting
Decides on approval of remuneration system.

Structure of Executive Board remuneration 2019

Executive Board remuneration consists of three main performance-related and non-performance-related components: basic remuneration, one-year variable remuneration (annual bonus) and the long-term variable remuneration (long-term incentive, LTI). Other non-performance-related components which also form part of the remuneration system are the ancillary benefits and retirement benefit commitments.

C35 **TARGET DIRECT REMUNERATION** [1]
in %



[1] Target remuneration = Basic remuneration + Target figure annual bonus + Target figure LTI.

The Share Ownership Guidelines are another important component of the remuneration system. They oblige the Executive Board members to hold a multiple of their basic salary in Lufthansa shares for the duration of their work on the Executive Board.

Non-performance-related remuneration

FIXED ANNUAL REMUNERATION

Each Executive Board member receives a fixed basic salary. It is paid in twelve equal monthly instalments.

ANCILLARY BENEFITS

Ancillary benefits particularly include the financial benefit of using company cars and concessionary fares for private flights in line with the international IATA standards for airline employees.

RETIREMENT BENEFIT COMMITMENTS

The members of the Executive Board receive retirement benefit commitments based on a defined contribution plan. When the remuneration system was changed the link between contributions and variable remuneration was severed. As of 2019 every Executive Board member receives, for the duration of their employment, a fixed annual amount of EUR 855k for the CEO and EUR 450k for ordinary members, as a contribution to their retirement benefit account. The investment guidelines for the retirement benefit account are based on the investment concept for the Lufthansa Pension Trust, which also applies to staff members of Deutsche Lufthansa AG.

Benefits are paid when the individual reaches retirement age (between 60 and 65), or in the event of disability or death. If employment ends before an Executive Board member reaches retirement age, he or she retains the pension entitlement from the pension account, which is continued without further contributions. On reaching retirement age the beneficiaries or their surviving dependants acquire a retirement benefit credit equivalent to the balance of the pension account at the time. Deutsche Lufthansa AG guarantees the amounts paid in retirement benefits.

A supplementary risk capital sum will be added to the pension credit in the event of a claim for a disability pension or a pension for surviving dependants. This sum will consist of the average contributions paid into the pension account over the past three years multiplied by the number of full years by which the claimant is short of the age of 60 from the time a disability pension entitlement arises.

The pension credit is paid out in ten instalments. On application by the Executive Board member or his/her surviving dependants, a payment as a lump sum or in fewer than ten instalments may also be made, subject to approval by the Company. For pension agreements in effect before 1 January 2019, the pension credit may also be paid as an annuity, on application and with the approval of the Company.

The dependant's pension is 60% of the deceased's pension entitlement. If the fatality occurs during the period of employment, the surviving dependants continue to receive the deceased's basic salary for six months, but no longer than the end of the service contract.

Under his contract as a pilot, which is currently not active, Carsten Spohr is entitled to a transitional pension in accordance with the wage agreement "Transitional pensions for cockpit staff". If Carsten Spohr leaves the Executive Board before he becomes 60 and resumes his employment as a pilot, he is entitled to draw a "Transitional pension for cockpit staff at Lufthansa" once he becomes 60 or on request once he becomes 55, in accordance with the provisions of the wage agreement. This additional benefit is paid if certain conditions of eligibility are met and provides for a monthly pension of up to 60% the last modified salary until the beneficiary reaches the age of 63.

Performance-related remuneration

When the remuneration system was modified, the performance-related payment was switched from a margin participation system to a modern target achievement bonus model with a strong focus on sustainable company development. The link between financial targets and sustainability components in both the annual and long-term variable remuneration particularly emphasizes the need for sustainable economic activity. In addition to the existing sustainability parameters (customers, employees and environment), the sustainability parameters "quality", "reputation" and "compliance" will also be taken into consideration in future, with the Supervisory Board defining annual focal points.

ONE-YEAR VARIABLE REMUNERATION (ANNUAL BONUS)

85% of the one-year variable remuneration for 2019 is based on financial targets and 15% on non-financial sustainability targets. For the financial targets, half each of the EBIT margin and the Adjusted EBIT growth compared with the four-year average are compared with a target figure. For 2019 the Supervisory Board defined “customers” and “employees” as focal points for the sustainability targets in the one-year variable remuneration. One-year variable remuneration is paid after the consolidated financial statements have been adopted.

The target bonus for the one-year variable remuneration, for a performance of 100%, is EUR 1,140,000 for the CEO and EUR 600,000 for an ordinary Executive Board member. If the targets are exceeded, the one-year variable remuneration is capped at 200% of the target bonus (EUR 2,280,000 or EUR 1,200,000 gross).

The range for both individual financial targets and sustainability targets is between 0% and 200%. The financial targets are set by the Supervisory Board on the basis of the medium-term Group budget for the upcoming financial year. For 2019 the target for the EBIT margin was 6%. The end points of the range (floor and cap) were defined by a deviation of +/– 3 percentage points from the target. For the parameter “Adjusted EBIT growth” the floor was set as “Average Adjusted EBIT for the past 4 years”. The target for financial year 2019 was growth of 7%.

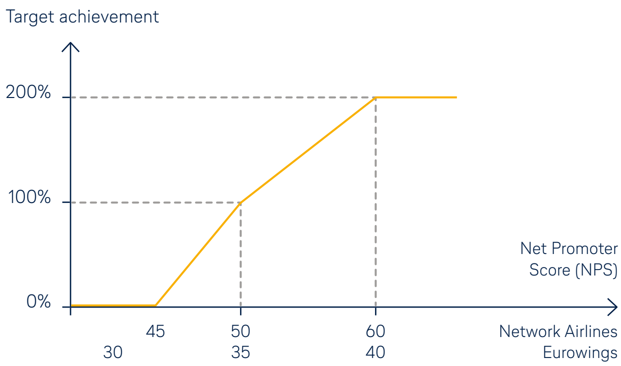
To calculate the performance for 2019, the EBIT margin and the Adjusted EBIT growth rate were compared with one another in a two-dimensional matrix. Payments of more than 100% of the target were possible if one target was achieved and the other was exceeded or if both targets were exceeded. An EBIT margin of 5.1% and Adjusted EBIT growth of –12.4% in 2019 result in a performance figure of 35.0% for the Executive Board members. This is weighted at 85% in the calculation of the one-year variable remuneration.

T056 ANNUAL BONUS 2019: MATRIX FINANCIAL TARGETS

		EBIT margin				
in %		< Floor of range 3	→	Target figure 6	→	> Cap of range 9
Adjusted EBIT growth						
< Target figure	0	0	→	50	→	100
	↓	↓		↓		↓
Target figure	7	50	→	100	→	150
	↓	↓		↓		↓
> Target figure	15	100	→	150	→	200

For the sustainability parameter “Customers”, the Net Promoter Score[1] (↗ **Combined non-financial declaration, p. 79ff.**), i.e. the proportion of customers recommending the Company, is used. The corresponding results are taken from the Network Airlines (Lufthansa German Airlines, Austrian Airlines, SWISS) and from Eurowings, with three-quarters weighted for the Network Airlines and one-quarter for Eurowings. The performance curve is linear. Interim figures are interpolated along this line.

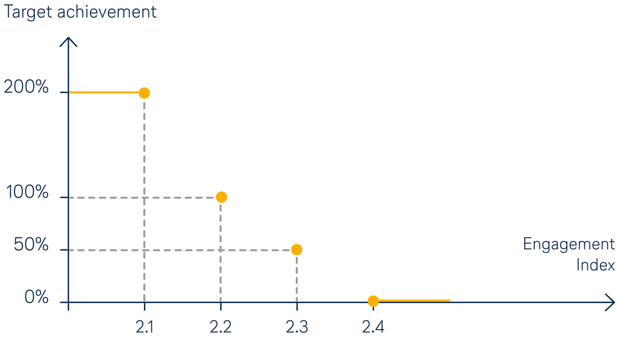
C36 ANNUAL BONUS 2019: SUSTAINABILITY TARGET „CUSTOMER“



What is known as the Engagement Index is used for the parameter “Employees” (↗ **Combined non-financial declaration, p. 79ff.**). It measures the extent to which employees identify with the Company, as well as their commitment and willingness to recommend the Company to others. Each index score corresponds to a performance level. The target of 100% represents the actual value for 2018. The Supervisory Board decided that the participation rate in the 2019 survey should be at least 55% in order for the Engagement Index to be used as a performance benchmark. The participation rate of 61.6% was higher than ever and this target was clearly exceeded.

[1] The Net Promoter Score is a registered service mark of Bain & Company, Inc., Fred Reichheld and Satmetrix Systems, Inc.

C37 ANNUAL BONUS 2019: SUSTAINABILITY TARGET „EMPLOYEE“



The “Customers” and “Employees” targets each account for 7.5% of the annual bonus. The following table shows performance against the sustainability targets for the 2019 financial year.

T057 ANNUAL BONUS 2019: TARGET ACHIEVEMENT SUSTAINABILITY TARGETS

	Weighting	100% target figure	Actual figure	Level of target achievement
Customer (NPS)	7.50%			
Network Airlines		50	57	170.00%
Eurowings		35	40	200.00%
				177.50%
Employee (Engagement index)	7.50%	2.2	2.2	100.00%
Total	**15.00%**			**138.75%**

As before, the Supervisory Board can apply an individual performance factor (bonus/malus factor) of 0.8 to 1.2 when assessing the performance of each individual Executive Board member for the annual bonus. This is based on the individual performance targets agreed every year between the Supervisory Board and the individual Executive Board members, which are tailored to their areas of responsibility. At the end of the financial year these are reviewed by the Steering Committee and the Supervisory Board. For each Executive Board member the factor of 0.8 to 1.2 is then applied to the total performance against all financial and sustainability targets. For financial year 2019 the Supervisory Board set an individual performance factor of 1.0 for all Executive Board members.

On the basis of actual target achievement, this results in a performance of 50.56% for the annual bonus payable to Executive Board members for 2019.

LONG-TERM VARIABLE REMUNERATION (LTI)

The current long-term variable remuneration includes still ongoing programmes from several financial years, which are partly based on remuneration systems in effect before 1 January 2019 (old remuneration system). Among the variable remuneration components based on the old remuneration system are the amounts deferred from financial years 2017 and 2018. These will be paid in 2020 and 2021 respectively. Until 2018 the Executive Board members also participated in share programmes for Lufthansa Executive Board members and managers (LH-Performance) with a four-year term. Final payments under these programmes will be made in 2022.

Long-term variable remuneration (granted from 2019)

As of 2019 the long-term variable remuneration for the Executive Board is based on the Total Shareholder Return (TSR) in relation to the DAX companies and on the Adjusted Return on Capital Employed (Adjusted ROCE), which each have a weighting of 42.5%. This means the new long-term variable remuneration is based on both an internal and an external target. In addition, sustainability parameters are included with a weighting of 15%. The performance period for the targets is four years. Payment is in cash after the consolidated financial statements have been adopted for the last year of the respective performance period.

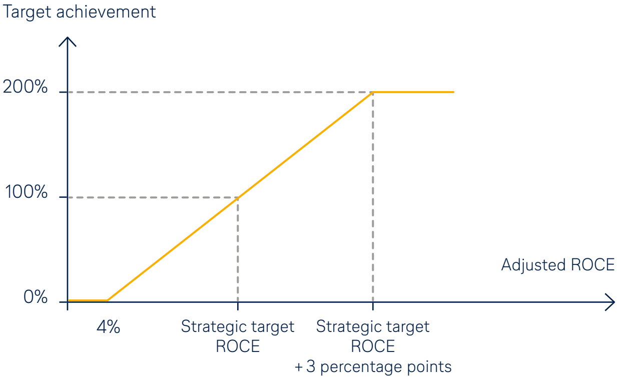
The target long-term variable remuneration for 100% performance is EUR 2,090,000 for the CEO and EUR 1,100,000 for an ordinary Executive Board member. The long-term variable remuneration is capped at 200% of the target amount (EUR 4,180,000 and EUR 2,200,000 gross).

Since the long-term variable remuneration was changed from a three-year to a four-year performance period when the remuneration system was modified in 2019, Executive Board members were granted a transitional option for the LTI 2019. This means the Executive Board members can receive a payment of 50% of the target amount as early as 2022 (“gap year payment”). If the Executive Board member chooses to exercise this option, the gap year payment is offset against the 2019 LTI entitlement in 2023. If there is no 2019 LTI entitlement in 2023, or it is lower than the gap year payment, the amount that cannot be offset is carried forward and offset against the LTI entitlements of the Executive Board member in the following years. If the person leaves the Executive Board beforehand, the gap year payment not offset at this time must be returned (net of tax).

At the beginning of each performance period the Supervisory Board defines the performance targets for the parameters "Adjusted ROCE" and "relative TSR". At the same time it decides on the sustainability parameters to apply and their targets. At the end of each performance period the performance level is measured and confirmed by the Supervisory Board.

Performance against the target of Adjusted ROCE is measured by comparing average Adjusted ROCE over the four-year performance period with a strategic target set by the Supervisory Board beforehand. The Supervisory Board takes its orientation from the four-year operational planning for the Group, whereby no long-term incentive payment for 2019 is made from the multi-year component if the figure is below 4%. This is in accordance with the strategic objective of earning a return on capital employed that is higher than the cost of capital. Only then does the Company create value.

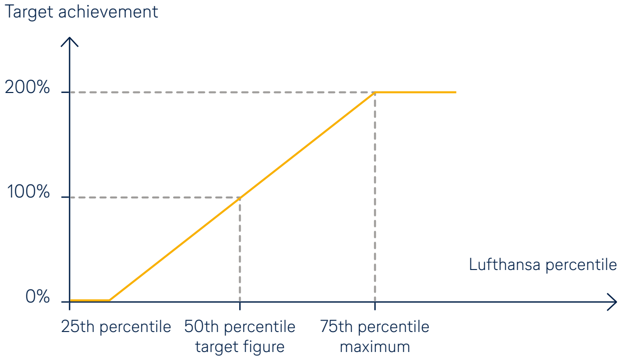
C38 LTI 2019: TARGET ACHIEVEMENT ADJUSTED ROCE



To calculate the TSR performance, the average share price for the last 30 exchange trading days before the start of the performance period is compared with the average share price for the last 30 exchange trading days before the end of the performance period. Consideration is taken of fictitiously reinvested dividends. The companies in the DAX are used as the peer group for the relative TSR, both those in the index at the beginning and at the end of the performance period. The TSR performance of all companies is ranked and the relative performance of Deutsche Lufthansa AG determined by its percentile position. Target achievement is 100% if the TSR of Deutsche Lufthansa AG corresponds to the median (50th percentile) for the peer group. A performance on or below the 25th percentile corresponds to a target achievement of 0%. The maximum of 200% is achieved for a TSR on or above the 75th percentile. Interim figures are interpolated along this line.

C39 LTI 2019: TARGET ACHIEVEMENT RELATIVE TOTAL SHAREHOLDER RETURN

Relative Total Shareholder Return for the Lufthansa share compared with the DAX

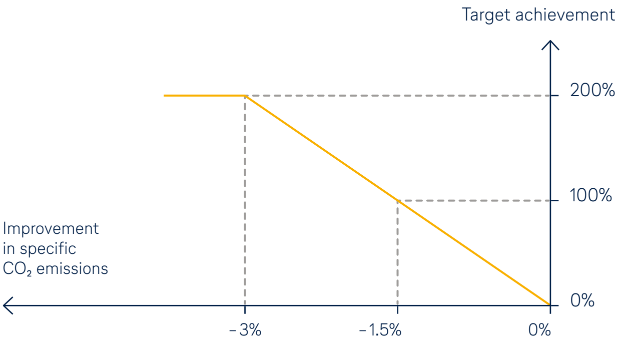


For the long-term variable remuneration granted in 2019, the Supervisory Board has set the parameter "Environment" as the focus for the sustainability criteria. The IATA targets for fuel efficiency were used, i.e. the average kerosene consumption to carry a passenger 100 kilometres (↗ **Combined non-financial declaration, p. 79ff.**) which provide for an improvement of 1.5% p.a. in specific fuel consumption and so an improvement in specific CO_2 emissions. To calculate performance, the improvement in specific CO_2 emissions is measured annually over the four-year performance period. This then accounts for one-quarter of the total performance against the sustainability target at the end of the performance period. The end points of the range are defined by a deviation of +/−1.5 percentage points from the annual target. Interim figures are interpolated along this line. Since until 2018 the average specific kerosene consumption figures were only available in the middle of the following financial year, the Supervisory Board decided when setting the LTI 2019 to compare the previous year's fuel efficiency figures with those for the year before that. For 2019 the environmental target is therefore measured on the basis of a comparison between the specific CO_2 emissions in 2017 and 2018. For 2019 the figures are now available for the first time for the 2019 annual report, so a direct comparison with the previous year is constantly possible for the LTI 2020.

Performance in 2019 for the environmental parameter was 53%. At the end of the performance period this figure accounts for one-quarter of the total target achievement of the sustainability factor.

C40 LTI 2019: SUSTAINABILITY TARGET

Annual improvement in specific CO_2 emissions



Deferral from the annual bonus (granted up to 2018)
In the remuneration system for Executive Board members in effect until 31 December 2018, the variable remuneration was based on the Lufthansa Group's EBIT margin. Since 2017, 50% of the variable remuneration has been paid in the following year, with 50% deferred for two further years. At the end of the full three-year assessment period, the amount carried forward is multiplied by a factor determined on the basis of objective indicators, of which cumulative three-year EACC accounts for 70% and the sustainability parameters of environment, customer satisfaction and staff commitment account for 30%. The factor can vary between 0.0 and 2.0 and is applied uniformly for the entire Executive Board to the amount carried forward before it is paid out. The multiplier based on EACC increases on a linear basis from a value of 0.0, which corresponds to EACC of EUR –1,000m or lower, to a maximum value of 2.0, which is attained when EACC reaches EUR 1,000m. The sustainability factor, which can also vary between 0.0 and 2.0, is determined by the Supervisory Board on the basis of a recommendation from the Steering Committee and represents a discretionary assessment of changes in the figures "Reduction of CO_2 emissions", "Customer satisfaction at Lufthansa German Airlines (CPI)" and "Employee survey indices in the Group". The total amount of variable remuneration that can be paid for a given financial year is capped at 175% of fixed annual salary.

For the amount granted and deferred in 2017 the cap applies due to the EACC factor of 2.0 (cumulative three-year EACC 2017–2019: EUR 3,624m). In this year the sustainability factor therefore does not apply to the calculation of the payment amount. The concrete payments of variable remuneration deferred from 2017 are shown for each Executive Board member in the tables of remuneration received (↗ **T064, p. 127**).

Share-based remuneration – LH-Performance (granted until 2018)
Up to and including 2018, the Executive Board members were also obliged to take part in the share programme for Executive Board members and managers.

Participation in LH-Performance required an investment in Lufthansa shares in tranches of EUR 4k. The CEO was obliged to hold Lufthansa shares valued at EUR 180k and an ordinary Executive Board member to hold shares valued at EUR 120k, whereby Lufthansa granted a discount of 50% on the share price. Payments under the share programmes are linked both to the absolute performance of the Lufthansa share (performance option) and to the performance of the Lufthansa share compared with a notional index of European competitors' shares (outperformance option). The performance and outperformance of the Lufthansa shares are calculated on the principle of total shareholder return. This means that cash dividends, subscription rights, capital rights and other special rights are included in the calculation of performance/outperformance, as well as the change in the share price. The performance option for 2015 results in a cash payment if the share price goes up by more than 29%. The option is capped at a performance of more than 44%. For the outperformance option the participants receive a payment for each percentage point of outperformance. When this is more than 20%, it is capped at a defined amount. The maximum is EUR 20k per tranche for both the performance and the outperformance options. Further information about the ongoing LH-Performance programmes can be found in ↗ **Note 37, p. 189ff.**

T058 SHARE OPTION PROGRAMME 2015: TARGET ACHIEVEMENT

	Hurdle	Cap	Actual figure	Payment per tranche
Performance Lufthansa share	29%	44%	+34.8%	EUR 13k
Outperformance compared with peer group	1%	20%	+39.7%	EUR 20k

Payments are only made to Executive Board members under the options if they are still active members of the Executive Board of Deutsche Lufthansa AG at the end of the programme. If the Executive Board member has retired or steps down once his appointment comes to an end, a payment is made pro rata temporis for the portion of the programme during which the participant was still a member of the Executive Board. Information about the ongoing LH-Performance programmes and the payments made to Executive Board members in 2019 for LH-Performance 2015 are shown in the table ↗ **T063, p. 126f.**, and in the tables ↗ **T060** and **T061, p. 124.**

Cap on total remuneration (maximum remuneration)

In addition to the maximum amounts of short-term and long-term variable remuneration, a cap has been agreed on total remuneration in a given financial year (including ancillary benefits and retirement benefit commitments). This is EUR 9.5m for the Chairman of the Executive Board and CEO and EUR 5.0m for an ordinary Executive Board member. In 2019, the private flights of Executive Board members which took place in line with IATA rules and which had restricted booking status for full-fare passengers were not included in the cap. Further information can be found in the corresponding disclosure in the declaration of compliance with the German Corporate Governance Code **www.lufthansagroup.com/en/corporate_governace_declaration.**

If remuneration for a given financial year exceeds this cap, the variable remuneration is reduced accordingly.

Share Ownership Guidelines

The Share Ownership Guidelines (SOG) have been an integral part of the remuneration system for the Executive Board since 2019. They oblige the CEO to hold Lufthansa shares worth twice his or her basic salary and ordinary Executive Board members to hold shares worth one year's basic salary. Existing shareholdings are included in the calculation.

When the share ownership programme was introduced as of 1 January 2019, an annual investment was required of 15% of the (gross) variable remuneration actually paid, in order to build up the share portfolio. A share purchase was initially planned to take place with payment of the one-year variable remuneration in April 2020. This rule no longer applies now that the Share Ownership Guidelines have taken effect as of 1 January 2020. Further details of the Share Ownership Guidelines in effect since 1 January 2020 can be found at **https://investor-relations.lufthansagroup.com/en/corporate-governance/compensation.html.**

Secondary activities of Executive Board members

Prior approval from the Steering Committee of the Supervisory Board is required for Executive Board members to carry out secondary activities outside the Lufthansa Group.

If Executive Board members hold board seats or similar functions in companies in which Deutsche Lufthansa AG holds direct or indirect equity interests, this work is deemed to be covered by the Executive Board remuneration and is not remunerated separately. Any payments for work on such boards is offset against the Executive Board remuneration.

End-of-service benefits

CAP ON SEVERANCE PAY

If a contract is terminated early for reasons other than good cause or a change of control, the Company will not remunerate more than the value of outstanding entitlements for the remainder of the contract, as recommended by the German Corporate Governance Code, whereby these payments may not exceed annual remuneration for two years (maximum compensation). The cap on severance pay is determined by the annual remuneration, which is made up of basic salary and the target amounts of one-year and long-term variable remuneration; in-kind benefits and ancillary benefits are not considered. This means the maximum severance pay for an ordinary Executive Board member is EUR 2,560,000 per annum, or EUR 4,864,000 for the CEO.

POST-CONTRACTUAL NON-COMPETE CLAUSE

Since 2019 the Executive Board members have been subject to a one-year non-competition clause after leaving the Executive Board. The Company pays the Executive Board member a leave compensation of half their annual salary for the duration of the post-contractual non-compete clause. The Company has the option of waiving compliance with the post-contractual non-compete clause up to the end of the service contract, with the effect that it is no longer obliged to pay leave compensation six months after the waiver is entered. Current service contracts with Executive Board members do not provide for the severance payment to be offset against compensation for the leave. For new and repeat appointments in future, the Company will follow the recommendation of the German Corporate Governance Code as amended on 16 December 2019 and offset the severance payment against compensation for the non-competition period.

CHANGE OF CONTROL

If the contract between an Executive Board member and Deutsche Lufthansa AG is terminated in connection with a change of control at the Company, the Executive Board member is entitled to a payment equivalent to the remuneration outstanding for the remainder of the contract. The amount of payment may not exceed 150% the contractual cap on severance pay mentioned above. For new and repeat appointments in future, the Company will follow the recommendation of the German Corporate Governance Code as amended on 16 December 2019 and offset the severance payment against compensation for the non-competition period.

Amount of Executive Board remuneration

EXECUTIVE BOARD REMUNERATION IN THE FINANCIAL YEAR

Total remuneration paid to the active members of the Executive Board for their work in 2019 came to EUR 13,967k (previous year: EUR 13,015k). Of this, EUR 6,044k (previous year: EUR 5,259k) related to non-performance-related components and EUR 7,923k (previous year: EUR 7,756k) was paid as performance-related remuneration. The service cost of pension commitments was EUR 3,076k (previous year: EUR 3,191k).

The following remuneration was paid to the individual active members of the Executive Board in 2019:

T059 TOTAL REMUNERATION OF THE EXECUTIVE BOARD (HGB) 2019

In € thousands	Basic remuneration	Other[1]	One-year variable remuneration	Long-term variable remuneration	Option programme[2]	**Total remuneration**
Carsten Spohr	1,634	28	576	864	823	3,925
Thorsten Dirks	860	15	303	360	433	1,971
Harry Hohmeister	860	18	303	540	433	2,154
Detlef Kayser	860	12	303	–	433	1,608
Ulrik Svensson	860	15	303	540	433	2,151
Bettina Volkens[3]	860	22	303	540	433	2,158
Total (HGB)	**5,934**	**110**	**2,091**	**2,844**	**2,988**	**13,967**

1) Other remuneration includes in particular the non-cash benefit of using company cars and benefits from concessionary travel in accordance with the international IATA standards.
2) Fair value of long-term, share-based remuneration component "Relative Total Shareholder Return (TSR)" 2019 at the time the options are granted.
3) The employment contract with Bettina Volkens was ended early as of 31 December 2019. The severance payment is not included in the table "Total remuneration of the Executive Board 2019".

The following remuneration was paid to the individual active members of the Executive Board in 2018:

T059 TOTAL REMUNERATION OF THE EXECUTIVE BOARD (HGB) 2018

In € thousands	Basic remuneration	Other[1]	One-year variable remuneration	Long-term variable remuneration	Option programme[2]	**Total remuneration**
Carsten Spohr	1,380	115	1,385	436	517	3,833
Thorsten Dirks	863	73	865	–	344	2,145
Harry Hohmeister	863	86	865	291	344	2,449
Ulrik Svensson	863	76	865	–	344	2,148
Bettina Volkens	863	77	865	291	344	2,440
Total (HGB)	**4,832**	**427**	**4,845**	**1,018**	**1,893**	**13,015**

1) Other remuneration includes in particular the non-cash benefit of using company cars, the discount granted in connection with option programme issues (↗ **Notes to the consolidated financial statements, Note 37, p. 189ff.**), benefits from concessionary travel in accordance with the international IATA standards and attendance fees and daily allowances for work on the supervisory boards of subsidiaries.
2) Fair value of the option programme 2018 at the time the options are granted.

As of 31 December 2019 (2018), the members of the Executive Board held the following shares and option packages from current share programmes:

T060 SHARE PROGRAMMES

	2016 programme		2017 programme		2018 programme	
Number of shares	Number of shares purchased from own funds	Number of option packages	Number of shares purchased from own funds	Number of option packages	Number of shares purchased from own funds	Number of option packages
Thorsten Dirks	– (–)	– (–)	4,350 (4,350)	30 (30)	6,750 (6,750)	30 (30)
Harry Hohmeister	10,080 (10,080)	30 (30)	4,350 (4,350)	30 (30)	6,750 (6,750)	30 (30)
Carsten Spohr	15,120 (15,120)	45 (45)	6,525 (6,525)	45 (45)	10,125 (10,125)	45 (45)
Ulrik Svensson	– (–)	– (–)	4,350 (4,350)	30 (30)	6,750 (6,750)	30 (30)
Bettina Volkens	10,080 (10,080)	30 (30)	4,350 (4,350)	30 (30)	6,750 (6,750)	30 (30)

In accordance with the terms of the share programmes, payments are only made under the options if the respective Executive Board member is still an active member of the Executive Board of Deutsche Lufthansa AG at the end of the programme. If the Executive Board member has retired, the options are paid out pro rata temporis for the portion of the programme during which they were still an active member of the Executive Board. According to the remuneration system in effect as of 1 January, the Executive Board no longer takes part in the LH-Performance share programme from 2019 onwards.

The following table shows changes in the ongoing share programmes in 2019. Also included here is the pro rata performance of the long-term share-based remuneration component "Relative Total Shareholder Return (TSR)" granted to Executive Board members from 2019.

T061 PERFORMANCE SHARE PROGRAMMES

	Financial year 2019			Financial year 2018		
in €	Payments from maturing share programmes	Change in fair value of ongoing share programmes	**Total**	Payments from maturing share programmes	Change in fair value of ongoing share programmes	**Total**
Carsten Spohr	-1,485,000	613,772	-871,228	-1,800,000	1,302,422	-497,578
Thorsten Dirks	–	79,468	79,468	–	96,625	96,625
Harry Hohmeister	-990,000	392,856	-597,144	-1,200,000	868,281	-331,719
Detlef Kayser (Executive Board member since 1 Jan 2019)	–	61,225	61,225	–	–	–
Ulrik Svensson	–	79,468	79,468	–	96,625	96,625
Bettina Volkens	-990,000	715,636	-274,364	-1,200,000	868,281	-331,719
	-3,465,000	**1,942,425**	**-1,522,575**	**-4,200,000**	**3,232,234**	**-967,766**

More information on payment caps can be found in the Notes to the consolidated financial statements. ↗ **Note 37, p. 189ff.**

The total amount of pension entitlements acquired by the Executive Board members in 2019 of EUR 3.1m (previous year: EUR 3.2m) according to HGB and EUR 3.3m (previous year: EUR 3.5m) under IFRS was recognised in staff costs (service cost). The individual current service cost and present values of pension entitlements are as follows:

T062 PENSION ENTITLEMENTS ACCORDING TO HGB AND IFRS

	HGB Current service costs		HGB Settlement amount of pension obligations		IFRS Current service costs		IFRS Present value of pension obligations	
in € thousands	**2019**	2018	**31 Dec 2019**	31 Dec 2018	**2019**	2018	**31 Dec 2019**	31 Dec 2018
Carsten Spohr	839	899	7,198	5,758	920	1,001	6,948	5,505
Thorsten Dirks	432	584	1,534	1,023	486	637	1,497	970
Harry Hohmeister	421	558	3,129	2,462	486	627	3,068	2,375
Detlef Kayser (Executive Board member since 1 Jan 2019)	522	–	522	–	450	–	450	–
Ulrik Svensson	435	569	1,715	1,180	471	629	1,707	1,158
Bettina Volkens	427	581	3,102	2,431	478	616	3,068	2,375
	3,076	**3,191**	**17,200**	**12,854**	**3,291**	**3,510**	**16,738**	**12,383**

Severance agreement with Bettina Volkens

The employment contract with Bettina Volkens was terminated prematurely as of 31 December 2019 in accordance with a Supervisory Board resolution of 3 December 2019 and the corresponding severance agreement. In accordance with the contractual maximum severance payment, Ms Volkens received a severance payment of 1.5 times her annual salary (EUR 3.84m) for the remaining term of her employment contract. The Company waives the post-contractual non-compete clause. This means the Company is only obliged to pay compensation for six months (EUR 215k). This compensation is not offset against the severance payment.

Ms Volkens' claims to one-year and long-term variable remuneration for the proportion attributable to the financial year 2019 are not affected.

With regard to the transitional rules agreed in view of the switch from a three-year to a four-year performance period for long-term variable remuneration in the course of the changes to the remuneration system in 2019, Ms Volkens opted to receive 50% of the target amount (EUR 550k) of the long-term variable remuneration for 2019 in 2022 (gap year payment). If her entitlement is less than the gap year payment when the long-term variable remuneration is determined in 2023, Ms Volkens is obliged to repay the (net) difference.

In terms of the ongoing LH-Performance programmes, retirement benefit plans and the use of concessionary terms for private flights, Ms Volkens will be treated as if she had fulfilled her employment contract until the original end date of 30 June 2021. The Company will therefore make a corresponding annual contribution of EUR 450k – pro rata for 2021 (EUR 225k) – for retirement benefits to Ms Volkens' pension account.

Furthermore, the Company has covered Ms Volkens' pro rata legal costs of EUR 40k in connection with the severance agreement.

Benefits paid to former Executive Board members

Current payments and other benefits for former members of the Executive Board and their surviving dependants came to EUR 6.4m (previous year: EUR 6.8m). This also includes non-cash benefits and concessionary travel. Pension obligations towards former Executive Board members and their surviving dependants amount to EUR 69.1m (previous year: EUR 68.3m).

Benefits granted and payments made in financial year 2019

The following tables show for each individual member of the Executive Board the benefits granted, the payments made (cash inflows) and the retirement benefits.

The figures for benefits granted and allocated are divided into fixed and variable components and supplemented by the figures for retirement benefit commitments. This corresponds to the current service cost as defined in IAS 19 for pensions and other retirement benefit commitments. The fixed remuneration components include the fixed salary and ancillary benefits that are not performance-related. The variable, performance-related remuneration components are divided into the one-year variable remuneration and the two long-term components, variable remuneration and option programmes.

The figure shown for "Benefits granted" is the value of the variable remuneration at the time it was granted (for a performance against targets of 100%). For share-based remuneration, the figure shown is the value of the shares when they are granted. Individual caps and floors for these remuneration elements are also shown.

The figure shown for "Allocations" in the reporting year comprises the fixed remuneration components actually paid in the reporting year, plus the amounts of the one-year and long-term variable remuneration that have been determined at the time the remuneration report is prepared and that are to be paid out in the following year. The figures for the option programmes relate to programmes ending in the reporting period; these correspond to the amount paid. Total remuneration also includes the annual current service cost of pension commitments, although it is not strictly speaking an allocation.

In 2019, the members of the Executive Board received no benefits or promises of benefits from third parties relating to their work on the Executive Board.

T063 BENEFITS GRANTED

	Carsten Spohr, Chairman of the Executive Board Chairman since 1 May 2014; Member of the Executive Board since 1 Jan 2011				Thorsten Dirks Member of the Executive Board since 1 May 2017			
in € thousands	**2019**	2018	**2019** (min)	**2019** (max)	**2019**	2018	**2019** (min)	**2019** (max)
Fixed salary	1,634	1,380	1,634	1,634	860	863	860	860
Ancillary benefits	28	115	28	28	15	73	15	15
Total	**1,662**	**1,495**	**1,662**	**1,662**	**875**	**936**	**875**	**875**
One-year variable remuneration	1,140	679	0	2,280	600	424	0	1,200
Long-term variable remuneration								
Four-year variable remuneration	1,267	679	0	2,404	667	424	0	1,265
Option programme (4 years)	823	517	0	1,776	433	344	0	935
Total	**3,230**	**1,875**	**0**	**6,460**	**1,700**	**1,192**	**0**	**3,400**
Service cost	920	1,001	920	920	486	637	486	486
Total remuneration	**5,812**	**4,371**	**2,582**	**9,042**	**3,061**	**2,765**	**1,361**	**4,761**

	Harry Hohmeister Member of the Executive Board since 1 Jul 2013				Detlef Kayser Member of the Executive Board since 1 Jan 2019			
in € thousands	**2019**	2018	**2019** (min)	**2019** (max)	**2019**	2018	**2019** (min)	**2019** (max)
Fixed salary	860	863	860	860	860	0	860	860
Ancillary benefits	18	86	18	18	12	0	12	12
Total	**878**	**949**	**878**	**878**	**872**	**0**	**872**	**872**
One-year variable remuneration	600	424	0	1,200	600	0	0	1,200
Long-term variable remuneration								
Four-year variable remuneration	667	424	0	1,265	667	0	0	1,265
Option programme (4 years)	433	344	0	935	433	0	0	935
Total	**1,700**	**1,192**	**0**	**3,400**	**1,700**	**0**	**0**	**3,400**
Service cost	486	627	486	486	450	0	450	450
Total remuneration	**3,064**	**2,768**	**1,364**	**4,764**	**3,022**	**0**	**1,322**	**4,722**

	Ulrik Svensson Member of the Executive Board since 1 Jan 2017				Bettina Volkens 1) Member of the Executive Board since 1 Jul 2013			
in € thousands	**2019**	2018	**2019** (min)	**2019** (max)	**2019**	2018	**2019** (min)	**2019** (max)
Fixed salary	860	863	860	860	860	863	860	860
Ancillary benefits	15	76	15	15	22	77	22	22
Total	**875**	**939**	**875**	**875**	**882**	**940**	**882**	**882**
One-year variable remuneration	600	424	0	1,200	600	424	0	1,200
Long-term variable remuneration								
Four-year variable remuneration	667	424	0	1,265	667	424	0	1,265
Option programme (4 years)	433	344	0	935	433	344	0	935
Total	**1,700**	**1,192**	**0**	**3,400**	**1,700**	**1,192**	**0**	**3,400**
Service cost	471	629	471	471	478	616	478	478
Total remuneration	**3,046**	**2,760**	**1,346**	**4,746**	**3,060**	**2,748**	**1,360**	**4,760**

1) The employment contract with Bettina Volkens was ended early as of 31 December 2019. The severance payment is not included in the table "Benefits granted".

T064 ALLOCATIONS

	Carsten Spohr, Chairman of the Executive Board Chairman since 1 May 2014; Member of the Executive Board since 1 Jan 2011		Thorsten Dirks Member of the Executive Board since 1 May 2017		Harry Hohmeister Member of the Executive Board since 1 Jul 2013		Detlef Kayser Member of the Executive Board since 1 Jan 2019	
in € thousands	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018
Fixed salary	1,634	1,380	860	863	860	863	860	–
Ancillary benefits	28	115	15	73	18	86	12	–
Total	**1,662**	**1,495**	**875**	**936**	**878**	**949**	**872**	**0**
One-year variable remuneration	576	1,385	303	865	303	865	303	–
Long-term variable remuneration								
Three-year variable remuneration	864	436	360	–	540	291	–	–
Option programme (4 years)	1,485	1,800	–	–	990	1,200	–	–
Total	**2,925**	**3,621**	**663**	**865**	**1,833**	**2,356**	**303**	**0**
Service cost	920	1,001	486	637	486	627	450	–
Total remuneration	**5,507**	**6,117**	**2,024**	**2,438**	**3,197**	**3,932**	**1,625**	**0**

	Ulrik Svensson Member of the Executive Board since 1 Jan 2017		Bettina Volkens 1) Member of the Executive Board since 1 Jul 2013	
in € thousands	**2019**	2018	**2019**	2018
Fixed salary	860	863	860	863
Ancillary benefits	15	76	22	77
Total	**875**	**939**	**882**	**940**
One-year variable remuneration	303	865	303	865
Long-term variable remuneration				
Three-year variable remuneration	540	–	540	291
Option programme (4 years)	–	–	990	1,200
Total	**843**	**865**	**1,833**	**2,356**
Service cost	471	629	478	616
Total remuneration	**2,189**	**2,433**	**3,193**	**3,912**

1) The employment contract with Bettina Volkens was ended early as of 31 December 2019.
The severance payment is not included in the table "Allocations".

Ongoing development of the remuneration system for the Executive Board members for financial years from 2020
The Supervisory Board has adopted changes to the remuneration system in place since 2019, which take effect from 2020. They are particularly intended to reflect the statutory changes through the Act on Implementation of the Second Shareholder Rights Directive (ARUG II), as well as the revised version of the German Corporate Governance Code as of 16 December 2019. Furthermore, the changes are the Supervisory Board's response to the demands of investors and proxies after the last Annual General Meeting. The new remuneration system applies as of 1 January 2020 to all seven current Executive Board members and will be applied to new appointments and contract renewals.

The revised remuneration system, adopted by the Supervisory Board, will be presented at the Annual General Meeting on 5 May 2020 for approval in accordance with Section 120a (1) AktG. Changes to the remuneration system for the members of the Executive Board are clarified below. Shareholders are referred to the invitation to the Annual General Meeting for a complete description of the system being put to the vote.

CHANGE IN FINANCIAL TARGETS FOR THE ONE-YEAR VARIABLE REMUNERATION

In the spirit of value-based management, the financial targets are being switched to the Adjusted ROCE (2019: Adjusted EBIT growth) and the Adjusted EBIT margin (2019: EBIT margin). This aligns remuneration with the Group's key performance indicators and particularly emphasises the use of capital. ↗ **Financial strategy and value-based management, p. 20ff.** Both criteria are weighted 42.5% in the calculation of one-year variable remuneration. As in the past, 15% of the annual bonus depends on non-financial targets, achievement of which is measured using objective, measurable indicators. By renaming this target category "Overall and individual commercial and sustainability targets" the Supervisory Board has the option of including additional targets, as well as the six sustainability parameters adopted in 2018 (employees, customers, compliance, reputation, quality and environment).

CHANGE FROM LONG-TERM VARIABLE REMUNERATION TO A PERFORMANCE SHARE PLAN

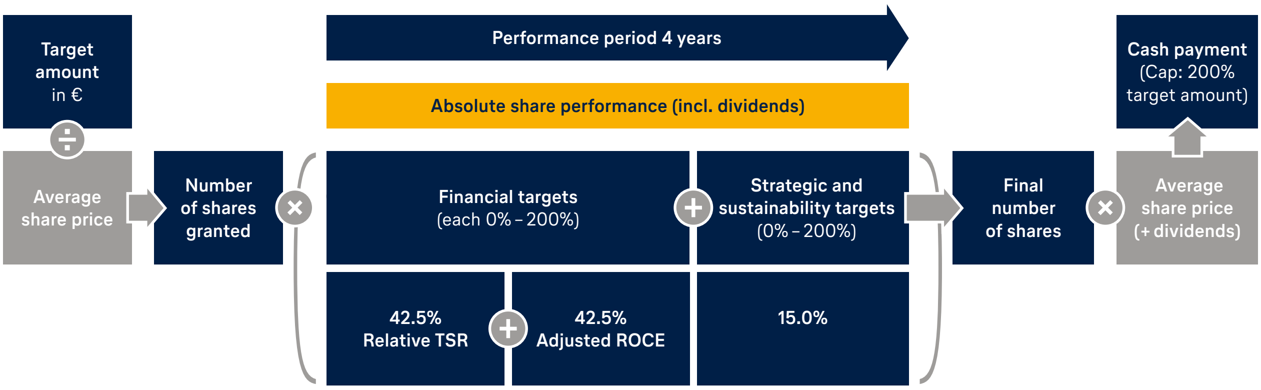
To strengthen the link to capital markets and in line with the recommendation of the German Corporate Governance Code as amended on 16 December 2019, long-term variable remuneration for Executive Board members will be granted in the form of a share plan from 2020. In future the Executive Board members will receive a number of virtual shares at the beginning of the performance period, the final number of which depends on achieving the performance targets. This means the absolute price of the Lufthansa share is considered in addition to its relative performance. Adjusted ROCE and relative Total Shareholder Return are kept as performance targets and each account for 42.5% of the LTI. The same applies to the non-financial targets, which continue to account for 15%. By renaming them "Strategic and Sustainability Targets", the Supervisory Board has again underlined the importance of deriving Executive Board incentives from the long-term strategy and basing it on the sustainable company value.

C41 OVERVIEW OF THE AMENDMENTS TO THE REMUNERATION SYSTEM

Remuneration system until financial year 2019	Aspect	Remuneration system as of financial year 2020
Performance targets: — Adjusted EBIT growth (42.5%) — EBIT margin (42.5%) — Sustainability (15%)	**One-year variable remuneration (Annual bonus)**	Performance targets: — Adjusted ROCE (42.5%) — Adjusted EBIT margin (42.5%) — Overall and individual business and sustainability targets (15%)
Performance Cash Plan	**Multi-year variable remuneration (LTI)**	Performance Share Plan — Granting of virtual shares — Maintaining the current financial targets — Extension of the non-financial targets: "Strategic and sustainability targets"
— Investment obligation: 15% of the actual variable remuneration achieved p.a. (gross) — Holding period: until the end of the appointment	**Share Ownership Guidelines**	— Agreement on a fixed establishment period of 4 years in principle, independent of variable remuneration — Extension of the holding period to up to 4 years after the end of the appointment, with pro rata reduction of a maximum of 25% of the SOG shares p.a.
No Clawback	**Clawback**	Introduction of a Compliance- and Performance-Clawback provision
— Cap exists for Annual bonus, LTI and total remuneration (incl. retirement and fringe benefits) — Exception: no cap for flight benefits (Declaration of deviation from the German Corporate Governance Code)	**Maximum remuneration (Overall Cap)**	— Inclusion of the flight benefits granted to the members of the executive board in the Cap

Performance Share Plan in the LTI from 2020

C42 MULTI-YEAR VARIABLE REMUNERATION (LTI) 2020



INTRODUCTION OF A CLAWBACK CLAUSE

The Supervisory Board has the ability to withhold or claw back the one-year and long-term variable remuneration in the following cases:

- In the event of an intentional or grossly negligent breach of statutory duties or a breach of internal policies (compliance clawback), the Company is entitled to recover the amount of the loss incurred, but not more than the variable remuneration paid for the financial year in which the breach took place.
- If variable remuneration components based on achieving specific targets are paid erroneously on the basis of incorrect data (performance clawback), the Company is entitled to recover the difference between the original payment and the amount of variable remuneration calculated using the correct data.

Enforcement of the withholding or repayment claim is at the professional discretion of the Supervisory Board.

SHARE OWNERSHIP GUIDELINES

The share ownership obligation introduced in 2019 has been adapted, replacing the obligation to invest part of the variable bonus with a fixed ramp-up period, generally of four years. At the same time, the share ownership obligation was extended to a period of four years following departure from the Executive Board. The proportion of shares to be held may decrease pro rata every year after the end of the service period.

Executive Board members must demonstrate their compliance with this requirement. This will be published as part of the remuneration report starting in the coming financial year.

MAXIMUM REMUNERATION

Even before the Act on Implementation of the Second Shareholder Rights Directive (ARUG II) came into effect, the Supervisory Board had agreed on maximum amounts of one-year and long-term variable remuneration, as well as of total remuneration (including ancillary benefits and retirement benefit commitments). Previously, the private flights of Executive Board members which take place in line with IATA rules and which had restricted booking status for full-fare passengers were not included in the cap, however. As of 1 January 2020, the maximum remuneration now also includes these ancillary benefits for Executive Board members. There is therefore no longer any deviation from the German Corporate Governance Code in this regard.

If remuneration exceeds this cap, the variable remuneration is reduced accordingly.

Remuneration of Supervisory Board members

Structure of Supervisory Board remuneration

In accordance with the resolution taken at the Annual General Meeting on 8 May 2012, the members of the Supervisory Board have received only fixed remuneration since the financial year 2013.

In accordance with Section 13 Paragraph 1 of the Articles of Association, for each financial year ordinary Supervisory Board members receive remuneration of EUR 80K. The Chair receives EUR 240k, and the Deputy Chair EUR 120k. The Chair of the Audit Committee receives an additional EUR 60k and other members of the Audit Committee receive an additional EUR 30k. Chairs of other committees receive an additional EUR 40k and other members of other committees receive an additional EUR 20k. Remuneration for committee work is subject to the proviso that the committee must have met at least once in the financial year.

If Supervisory Board members leave the Supervisory Board or a post in one of its committees for which additional remuneration is paid during the course of a financial year, they receive their remuneration pro rata temporis. Pro rata temporis remuneration for committee work is subject to the proviso that the committee must have met at least once before their departure.

Amount of Supervisory Board remuneration

Expenses for fixed remuneration and remuneration for committee work for the Supervisory Board amounted to EUR 2,170k in 2019 (previous year: EUR 2,107k).

The figures for the individual Supervisory Board members are shown in the following table.

Other remuneration, mainly attendance fees, amounted to EUR 62k (previous year: EUR 68k). The Deutsche Lufthansa AG Supervisory Board members were also paid EUR 2k for work on supervisory boards of Group companies (previous year: EUR 27k).

T065 REMUNERATION SUPERVISORY BOARD

	2019			2018		
in € thousands	**Fixed remuneration**	**Remuneration for committee work**	**Total Supervisory Board remuneration**	Fixed remuneration	Remuneration for committee work	Total Supervisory Board remuneration
Karl-Ludwig Kley	240	60	300	240	40	280
Christine Behle	120	20	140	120	20	140
Nicoley Baublies (until 8 May 2018)	–	–	–	28	–	28
Alexander Behrens (since 8 May 2018)	80	30	110	52	20	72
Jörg Cebulla	80	30	110	80	20	100
Herbert Hainer	80	40	120	80	20	100
Christian Hirsch (since 8 May 2018)	80	–	80	52	–	52
Robert Kimmitt (until 8 May 2018)	–	–	–	28	–	28
Carsten Knobel (since 9 Jan 2018)	80	30	110	78	29	107
Holger Benjamin Koch (since 8 May 2018)	80	–	80	52	–	52
Martin Koehler	80	20	100	80	–	80
Doris Krüger	–	–	–	28	10	38
Eckhard Lieb (until 8 May 2018)	–	–	–	28	10	38
Jan-Willem Marquardt (until 8 May 2018)	–	–	–	28	10	38
Martina Merz	80	–	80	80	–	80
Ralf Müller (until 8 May 2018)	–	–	–	28	–	28
Michael Nilles (since 8 May 2018)	80	–	80	52	–	52
Monika Ribar	80	30	110	80	30	110
Birgit Rohleder (since 8 May 2018)	80	–	80	52	–	52
Ilja Schulz (since 8 May 2018)	80	20	100	52	13	65
Olivia Stelz (since 8 May 2018)	80	–	80	52	–	52
Miriam Sapiro	80	–	80	80	–	80
Andreas Strache (until 8 May 2018)	–	–	–	28	–	28
Stephan Sturm	80	60	140	80	60	140
Christina Weber	80	30	110	80	20	100
Birgit Weinreich (until 8 May 2018)	–	–	–	28	7	35
Klaus Winkler (since 8 May 2018)	80	–	80	52	–	52
Matthias Wissmann	80	–	80	80	–	80
Total	**1,800**	**370**	**2,170**	**1,798**	**309**	**2,107**

DISCLOSURES IN ACCORDANCE WITH SECTION 289A PARAGRAPH 1 HGB AND SECTION 315A PARAGRAPH 1 HGB

Composition of issued capital, types of shares, rights and duties
Deutsche Lufthansa AG's issued capital amounts to EUR 1,224,177,297.92 and is divided into 478,194,257 registered shares. Each share corresponds to EUR 2.56 of the issued capital. The transfer of shares requires the Company's authorisation (restriction of transferability). The Company may only withhold authorisation if registering the new shareholder in the share register could jeopardise the maintenance of air traffic rights. This did not occur in financial year 2019, however. Shareholders exercise their rights and cast their votes at the Annual General Meeting in accordance with statutory regulations and the Company's Articles of Association. Each share is entitled to one vote.

Voting and share transfer restrictions
To preserve international air traffic rights and air traffic rights to fly to various international destinations, the proportion of German/European shareholders must be at least 50% of the Company's issued capital. If the proportion of foreign shareholders reaches 40%, Deutsche Lufthansa AG is granted special permission under Section 4 Paragraph 1 German Aviation Compliance Documentation Act (LuftNaSiG) together with Section 71 Paragraph 1 No. 1 German Stock Corporation Act (AktG) to buy back its own shares. If the proportion of foreign shareholders in the share register reaches 45%, the Company is authorised, subject to Supervisory Board approval, to increase issued capital by up to 10% by issuing new shares for payment in cash without subscription rights for existing shareholders (Section 4 Paragraphs 2 and 3 LuftNaSiG together with Section 4 Paragraph 3 of the Articles of Association). If the proportion of foreign shareholders approaches the 50% threshold, the Company is entitled to withhold authorisation to register new foreign shareholders in the share register (Section 5 Paragraph 1 of the Articles of Association). Furthermore, the Company is authorised, according to Section 5 Paragraph 2 LuftNaSiG and subject to the approval of the Supervisory Board, to require the most recently registered shareholders to sell their shares. From the fourth day after this requirement has been published, the shareholders concerned can no longer exercise the rights conferred by the shares concerned. If they do not comply with the requirement within four weeks, the Company is entitled after a further notice period of three weeks to declare the shares to be forfeited and to compensate the shareholders accordingly. On 31 December 2019, foreign shareholders held 33.7% of the shares in the shareholders' register of the Company. On 11 April 2019, the Company announced that the proportion of non-German shareholders was above 40% (41.7%). After careful analysis, however, the Company decided not to buy any treasury shares in accordance with Section 4 Paragraph 1 LuftNaSiG. Therefore no steps were taken in 2019 to limit the percentage of foreign shareholders.

Detailed information on the German Aviation Compliance Documentation Act (LuftNaSiG) and the quarterly update on our shareholder structure can be found at **www.lufthansagroup.com/investor-relations.**

The annual share investment programmes for employees, managers and Executive Board members have time-based restrictions on trading in shares, particularly lock-up periods of up to four years.

Direct or indirect shareholdings with more than 10% of voting rights
As of 31 December 2019, the Company had received no notification of direct or indirect shareholdings with more than 10% of voting rights.

Holders of shares with special controlling rights
The Company has no shares that confer special controlling rights.

Control of voting rights for employee shares when control rights are exercised indirectly
Where the Company issues shares to its staff as part of its employee programmes, these shares are transferred to the employees directly. The staff beneficiaries can exercise the controlling rights that accrue to them from the employee shares directly in the same way as other shareholders, in accordance with statutory regulations and the provisions of the Articles of Association.

Statutory regulations and provisions of the Company's Articles of Association on the appointment and dismissal of members of the Executive Board and amendments to the Company's Articles of Association
The Supervisory Board appoints the members of the Executive Board and decides how many members there should be. The Supervisory Board can revoke appointments for membership and to the position of Chairman of the Executive Board for good reason. All amendments to the Articles of Association must be approved by resolution of an Annual General Meeting, with a majority of at least three quarters of the issued capital present. The Supervisory Board is authorised to adopt changes to the Articles of Association that only relate to wording (Section 11 Paragraph 4 of the Articles of Association). Furthermore, the Supervisory Board is entitled to amend Section 4 of the Articles of Association if authorised capital is exercised or expires.

Rights of the Executive Board to issue or repurchase shares
As of 31 December 2019, Deutsche Lufthansa AG had Authorised Capital A amounting to EUR 450,000,000.00 and Authorised Capital B amounting to EUR 22,362,168.32.

A resolution passed at the Annual General Meeting on 7 May 2019 authorised the Executive Board until 6 May 2024, subject to approval by the Supervisory Board, to increase the Company's issued capital by up to EUR 450,000,000.00 by issuing new registered shares on one or more occasions for payment in cash or in kind (Authorised Capital A). No use was made of this authorisation in the reporting period.

A resolution passed by the Annual General Meeting on 7 May 2019 authorised the Executive Board until 6 May 2024, subject to approval by the Supervisory Board, to increase the Company's issued capital on one or more occasions by up to EUR 30,000,000.00 by issuing new registered shares to employees (Authorised Capital B) for payment in cash. Existing shareholders' subscription rights are excluded. In the reporting period, the Company used EUR 7,637,831.68 of this authorised amount to issue 2,983,528 new shares to employees.

A resolution passed at the Annual General Meeting on 28 April 2016 authorised the Executive Board until 27 April 2021, subject to approval by the Supervisory Board, to issue bearer or registered convertible bonds, bond/warrant packages, profit sharing rights or participating bonds (or combinations of these instruments) for a total nominal value of up to EUR 1,500,000,000. To grant shares to the holders or creditors of the bonds mentioned above, the Company's contingent capital was increased by up to EUR 237,843,840 by issuing up to 92,907,750 new registered shares. The contingent capital increase will only be carried out to the extent that the holders or creditors of conversion and/or option rights from convertible bonds, bond/warrant packages, profit-sharing rights or participating bonds (or any combination of these instruments) issued by the Company or its Group companies for cash pursuant to the authorisation given at the Annual General Meeting for the period 28 April 2016 to 27 April 2021 exercise their conversion or option rights or that the holders or creditors of convertible bonds issued by the Company or its Group companies pursuant to the authorisation given at the Annual General Meeting for the period 28 April 2016 to 27 April 2021 (or of profit-sharing rights or other forms of mezzanine capital with obligatory conversion) meet their conversion obligations or shares are delivered and to the extent that the debt is not settled using treasury shares or other rights. The Executive Board is authorised to determine the further details of the way in which the contingent capital increase is to be carried out.

Deutsche Lufthansa AG is entitled to repurchase shares and to sell repurchased shares in those cases defined in Section 71 AktG. In addition, the Company is authorised by resolutions of the Annual General Meeting on 7 May 2019 to buy back its own shares until 6 May 2024. The resolutions can be used, among other things, to expand the financing alternatives in the event that another company or an equity stake in a company is acquired. The proportion of shares acquired on the basis of this authorisation, along with any other Lufthansa shares that the Company has already acquired and still holds, must at no time amount to more than 10% of issued capital.

Further information on authorised capital, contingent capital and share buy-backs ↗ **Note 31, p. 176f.**

Important Company agreements subject to a change-of-control clause in the event of a takeover offer

The EMTN programme operated by the Company to issue bonds includes a change-of-control clause, according to which holders of bonds issued thereunder can demand redemption of the bond in the event of a change of control. The change of control is tied to the concepts of control, which are defined in detail in the EMTN programme, and of a rating downgrade resulting from the change of control within a change-of-control period. A bond for EUR 500m maturing on 6 September 2024 is currently outstanding under this programme.

In August 2015, Deutsche Lufthansa AG issued a hybrid bond for EUR 500m, due on 12 August 2075, which also includes the change-of-control clause described above. Furthermore, Deutsche Lufthansa AG placed borrower's note loans in 2016 and 2019 that also include similar change-of-control clauses. As of 31 December 2019, a total of EUR 2,076m was still outstanding.

Compensation agreements with Executive Board members or employees in the event of a takeover offer

In the event of a change of control at Deutsche Lufthansa AG defined more precisely in the employment contract, the Executive Board members and the Company are entitled to terminate the contract within six months of this change of control.

If the contract ends because the special termination right is exercised or the contract is revoked amicably within six months of and in connection with the change of control, the Executive Board member is entitled to compensation for remuneration outstanding for the remainder of the contract. In accordance with the relevant recommendation of the German Corporate Governance Code, compensation may not exceed 150% of the maximum compensation of two annual salaries agreed in the contract (including fringe benefits).
↗ **Remuneration report, p. 115ff.**

DECLARATION ON CORPORATE GOVERNANCE IN ACCORDANCE WITH SECTION 289F HGB AND SECTION 315D HGB

The declaration on corporate governance required for listed companies in accordance with Section 289f HGB and Section 315d HGB has been issued and made publicly available on the Company's website at ↗ **www.lufthansagroup.com/corporate_governance_declaration.**

Notes to the individual financial statements of Deutsche Lufthansa AG (HGB)

Revenue of Deutsche Lufthansa AG matches last year's at EUR 16,273m. | Net profit for the year of EUR 595m. | Total assets climb to EUR 29,132m.

The financial statements of Deutsche Lufthansa AG have been prepared in accordance with the German Commercial Code (HGB), the supplementary provisions of the German Stock Corporation Act (AktG) and the Articles of Association, and have been audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Dusseldorf. They are published in the electronic Federal Gazette. The financial statements are permanently available online. **http://investor-relations.lufthansagroup.com/en/financial-reports.html.**

In this annual report, the management report for Deutsche Lufthansa AG has been combined with the management report for the Lufthansa Group. Deutsche Lufthansa AG and its results also include the Group headquarters with the central functions for Corporate Development, Finance and Controlling, Communications, Public Affairs, Human Resources, Legal and Compliance, as well as Data Security, Safety and Procurement. The economic environment for Deutsche Lufthansa AG is essentially the same as for the Group. ↗ **Macroeconomic situation p. 28f.; Sector developments, p. 29f.; Course of business, p. 31f.**

EARNINGS POSITION

Deutsche Lufthansa AG increased its net profit for the financial year 2019 by 75% to EUR 595m. The market performance of the plan assets available to cover retirement benefit obligations, which was significantly better the previous year, made a decisive influence on earnings and has more than offset a much weaker result from equity investments and another increase in fuel costs.

Revenue and income

70 million passengers transported
In financial year 2019, the number of passengers was 1% up on the previous year at 70 million (previous year: 69 million). Capacity increased by 4% and sales were up by 5%. The passenger load factor rose as a result by 1 percentage point to 82%. Yields contracted by 3% compared with a year ago.

Operating income up 4%
Operating income was partly defined by an increase in traffic revenue of 1% to EUR 14,885m (previous year: EUR 14,677m). Other operating income also increased by 44% to EUR 1,663m (previous year: EUR 1,158m). This is mainly due to the early termination of a currency hedge of EUR 402m.

Expenses

Operating expenses up by 6%
Operating expenses came to EUR 17,390m and so were EUR 908m higher than in the previous year (EUR 16,482m).

The main driver in the increase in the cost of materials and services by EUR 760m to EUR 10,762m in the reporting year was again fuel expenses, which rose by 12% to EUR 3,672m. This is due to higher volumes than in the previous year (2%) and a stronger US dollar (6%). Furthermore, the 8% year-on-year decline in pricing was more than offset by a heavily burdened result of price hedging of EUR 428m.

T066 TRENDS IN TRAFFIC REGIONS OF DEUTSCHE LUFTHANSA AG

	Traffic revenue		Number of passengers		Available seat-kilometres		Revenue seat-kilometres		Passenger load factor	
	2019 in €m	Change in %	2019 in thousands	Change in %	2019 in millions	Change in %	2019 in millions	Change in %	2019 in %	Change in pts
Europe	5,589	-2	51,780	-1	54,885	3	41,893	2	76	-1
America	5,300	2	8,962	5	80,542	3	68,967	5	86	2
Asia/Pacific	2,878	4	5,286	6	49,637	5	42,223	6	85	1
Middle East/Africa	1,118	9	3,565	12	17,877	6	14,175	8	79	1
Total	**14,885**	**1**	**69,593**	**1**	**202,941**	**4**	**167,258**	**5**	**82**	**1**

The costs of purchased services increased by 5% to EUR 6,993m (previous year: EUR 6,653m). Fees and charges, at EUR 1,982m, still constitute the largest expense item under purchased services. Despite lower prices, they were 2% higher than the previous year, mainly due to volumes and exchange rates (previous year: EUR 1,946m). Higher air traffic control charges (1%), landing fees (5%) and handling charges (2%) were offset by the decline in passenger fees (2%).

The costs of external MRO services climbed by 15% on the previous year to EUR 2,042m (previous year: EUR 1,781m). The year-on-year change is due to the higher number of engine maintenance events and further additions to maintenance provisions. Charter expenses were down year-on-year by 7% at EUR 627m (previous year: EUR 675m). This decline is mainly due to contract amendments in the context of the regional charter concept with Lufthansa CityLine. Expenses for operating leases went up year-on-year by 6% to EUR 865m. Six leases were ended in two Austrian sale-and-lease-back models, while new contracts were signed for various aircraft used by Lufthansa itself, as well as the other airlines of the Lufthansa Group Eurowings, Lufthansa CityLine, Lufthansa Cargo and Air Dolomiti.

Personnel costs fell by 3% to EUR 3,049m (previous year: EUR 3,134m), mostly due to lower bonus payments and lower retirement benefit expenses. The previous year's figure included a one-off measurement effect from the first-time use of adjusted mortality tables.

Depreciation and amortisation was up year-on-year by 11% at EUR 594m (previous year: EUR 534m). The increase is mainly due to the write-down of several aircraft and of capitalised development expenses for a digital distribution platform for the entire Group.

Other operating expenses of EUR 2,985m were 6% up on the year (previous year: EUR 2,812m). The increase is mainly due to higher expenses from foreign currency translation.

Earnings performance

Result from operating activities down by 28%

The result from operating activities fell by 28% to EUR 546m in financial year 2019 (previous year: EUR 759m). While operating income rose by 4% to EUR 17,936m (previous year: EUR 17,241m), operating expenses went up by 6% to EUR 17,390m (previous year: EUR 16,482m). Adjusted EBIT, calculated as for the Group, came to EUR 1,117m in the financial year (previous year: EUR 1,621m). Key reconciliation items are write-downs and write-ups on the carrying amounts of investments, impairment losses on several aircraft and the write-down of a miscellaneous receivable against an insolvent business partner.

T067 INCOME STATEMENT FOR DEUTSCHE LUFTHANSA AG IN ACCORDANCE WITH HGB

in €m	**2019**	2018
Traffic revenue	14,885	14,677
Other revenue	1,388	1,406
Total revenue	**16,273**	**16,083**
Other operating income	1,663	1,158
Cost of materials and services	–10,762	–10,002
Staff costs	–3,049	–3,134
Depreciation, amortisation and impairment	–594	–534
Other operating expenses	–2,985	–2,812
Result from operating activities	**546**	**759**
Result from other equity investments	476	942
Net interest	–352	–1,333
Impairment on investments and current securities	–45	–46
Financial result	**79**	**–437**
Result from ordinary activities	**625**	**322**
Current income taxes	–293	–363
Deferred income taxes	291	421
Earnings after taxes	**623**	**380**
Other taxes	–28	–41
Net profit/loss for the year	**595**	**339**
Transfers to retained earnings	297	–
Transfers from retained earnings	–	41
Distributable earnings	**298**	**380**

Financial result up by EUR 516m

The financial result rose by EUR 516m to EUR 79m (previous year: EUR –437m). It was made up of the result from equity investments of EUR 476m (previous year: EUR 942m), net interest of EUR –352m (previous year: EUR –1,333m) and other financial items of EUR –45m (previous year: EUR –46m).

The result from equity investments includes profit and loss transfers of EUR –221m (previous year: EUR 242m) and other investment income of EUR 697m (previous year: EUR 700m). The significant decline is mainly due to negative earnings of EUR –414m at Eurowings GmbH (previous year: EUR –292m), of EUR –47m at Lufthansa Cargo AG (previous year: EUR 263m), of EUR – 144m at LSG Lufthansa Service Holding AG (previous year: EUR – 25m) and of EUR – 110m at Lufthansa CityLine GmbH (previous year: EUR – 61m), which was not offset by the year-on-year improvement in earnings of EUR 310m at Lufthansa Technik AG (previous year: EUR 230m) and of EUR 115m at Miles & More GmbH (previous year: EUR 101m). Other income from investments included the dividend from Air Trust GmbH of EUR 404m (previous year: EUR 429m) and the dividends from the Austrian leasing companies of EUR 288m (previous year: EUR 267m).

Net interest came to EUR EUR – 352m in the financial year (previous year: EUR – 1,333m). It declined by EUR 1,231m (previous year: EUR 719m) because of a further reduction in the discount rate used to measure pension provisions to 2.71% (previous year: 3.21%). Net interest was also reduced by interest payments of EUR 146m in connection with a tax back payment resulting from a ruling by the Federal Finance Court on the non-deductibility of partial write-downs on cross-border loans. It was offset by the significantly better year-on-year market valuation of EUR 1,067m for the pension assets used to fund retirement benefit obligations (previous year: EUR – 566m).

Impairment losses on investments and current securities were included in other financial items and came to EUR – 45m, roughly the same as the previous year. They stem from the impairment loss on the carrying amount of two Austrian aircraft leasing entities and the write-down of a receivable owed by an insolvent business partner.

Net profit for the year up by EUR 256m

The operating result and the financial result add up to EUR 625m (previous year: EUR 322m). In the reporting year, the expenses for income taxes of EUR 293m were roughly offset by deferred tax income of EUR 291m. Expenses of EUR 28m were incurred in the financial year for other taxes. In total, net profit for the year 2019 was therefore EUR 595m (previous year: EUR 339m).

FINANCIAL POSITION

Cash flow

Cash flow from operating activities down by EUR 237m

Cash flow from operating activities fell by EUR 237m to EUR 416m (previous year: EUR 653m). Deutsche Lufthansa AG invested EUR 1,502m in 2019 (previous year: EUR 1,288m) in aircraft and advance payments for aircraft. EUR 772m of the total (previous year: EUR 266m) was for down payments. To finance future payment of retirement benefit obligations to its employees, Deutsche Lufthansa AG transferred a total of EUR 198m in 2019 (previous year: EUR 276m) to various ring-fenced funds.

High capital expenditures in non-current assets and significantly lower offsetting effects, such as loan repayments and dividends, than in the previous year added up to cash outflows of EUR 1,330m as of the reporting date. Cash inflows from financing activities came to EUR 179m (previous year: EUR – 424m) and resulted primarily from the issue of a euro bond.

NET ASSETS

Total assets increased by EUR 1,669m or 6% to EUR 29,132m (previous year: EUR 27,463m). Non-current assets account for 81% of total assets (previous year: 82%).

T068 BALANCE SHEET FOR DEUTSCHE LUFTHANSA AG IN ACCORDANCE WITH HGB

in €m	31 Dec 2019	31 Dec 2018
Assets		
Intangible assets	309	323
Aircraft	6,679	6,429
Property, plant and other equipment	82	89
Financial investments	16,440	15,588
Non-current assets	**23,510**	**22,429**
Inventories	108	78
Trade receivables	642	601
Other receivables	1,725	1,718
Securities	41	–
Cash and cash equivalents	897	755
Current assets	**3,413**	**3,152**
Prepaid expenses	**60**	**31**
Deferred tax assets	**2,142**	**1,851**
Excess of plan assets over provisions for pensions	**7**	**–**
Total assets	**29,132**	**27,463**
Shareholders' equity and liabilities		
Issued capital	1,224	1,217
Capital reserve	378	343
Retained earnings	6,200	5,902
Distributable earnings	298	380
Shareholders' equity	**8,100**	**7,842**
Provisions	**6,602**	**6,769**
Bonds	1,098	1,000
Liabilities to banks	2,089	1,967
Payables to affiliated companies	6,094	5,512
Other liabilities	5,135	4,366
Liabilities and provisions	**14,416**	**12,845**
Deferred income	**14**	**7**
Total shareholders' equity and liabilities	**29,132**	**27,463**

Assets

Non-current assets up by EUR 1,081m
Non-current assets increased by EUR 1,081m or 5% to EUR 23,510m (previous year: EUR 22,429m). Aircraft and advance payments for aircraft were up by EUR 250m year-on-year due to investing activities. Non-current financial assets rose year-on-year by EUR 852m. This is largely due to the contribution of aircraft to several Austrian leasing companies and to capital increases at Lufthansa Technik AG, Lufthansa Cargo AG and Lufthansa Commercial Holding GmbH. The carrying amounts for Crane Strategic Investment S.C.S., Air Dolomiti S.p.A. and Lufthansa Leasing Austria GmbH & Co. OG Nr. 29 were written up, increasing non-current financial assets, whereas the impairment losses recognised on the carrying amounts of Lufthansa Leasing Austria GmbH & Co. OG Nr. 35 and Nr. 36 had the opposite effect. New and increased loans to affiliated companies (EUR 144m) were offset in the financial year 2019 by repayments of EUR 322m.

Current assets up by EUR 261m
Current assets rose by 8% to EUR 3,413m (previous year: EUR 3,152m). The increase stems mainly from higher bank balances than in the previous year. At the same time, trade receivables and the emissions certificates shown under inventories were also higher.

Shareholders' equity and liabilities

Equity up by EUR 258m
Equity increased year-on-year by 3% due to the higher profit for the year and came to EUR 8,100m as of the reporting date (previous year: EUR 7,842m). Since total assets also increased, the equity ratio declined by one percentage point to 28% (previous year: 29%). The information required according to Section 160 Paragraph 1 No. 2 AktG on the portfolio development of treasury shares is provided in the Notes to the consolidated financial statements ↗ **Note 31, p. 176f.**

Non-current liabilities and provisions up by EUR 1,425m
The long-term liabilities and provisions available to the Company increased in 2019 by 25% to EUR 7,155m (previous year: EUR 5,730m). This is mainly due to the issue of a new bond, new borrower's note loans and additional aircraft leasing deals completed in the reporting period.

The increase in shareholders' equity and non-current liabilities and provisions, accompanied by an increase in total assets, meant that non-current funding accounted for a larger proportion of total assets of 52% (previous year: 49%). Non-current funds cover 65% of non-current assets (previous year: 61%).

Current liabilities and provisions on par with previous year
Current liabilities and provisions of EUR 13,877m were only slightly below last year's figure (EUR 13,891m). The increase in the provision for unused flight documents and liabilities to affiliated companies resulting from assuming losses at companies with profit and loss transfer agreements was offset by lower provisions for taxes and provisions for special bonuses.

Net debt up by EUR 747m
Net indebtedness increased by EUR 747m or 21% to EUR 4,300m, mainly as a result of new aircraft lease liabilities (previous year: EUR 3,553m).

OTHER DISCLOSURES

Risk report

Business at Deutsche Lufthansa AG is subject to essentially the same risks and opportunities as business at the Network Airlines segment as presented in the consolidated financial statements. Deutsche Lufthansa AG is exposed to the risks of its equity investments and subsidiaries in proportion to its respective equity stakes. ↗ **Network Airlines business segment, p. 45ff.**

Supplementary report

The main events taking place after the reporting date are those described in the consolidated financial statements pertaining to the Network Airlines business segment.

Forecast

Future business performance at Deutsche Lufthansa AG is subject to essentially the same factors as Lufthansa German Airlines as presented in the consolidated financial statements.

Further information on anticipated macroeconomic developments and the performance of the segments, as well as the assumptions on which the Group forecast is based, can be found in the ↗ **Forecast, p. 106ff.**

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Consolidated income statement
for the financial year 2019

T069 CONSOLIDATED INCOME STATEMENT

in €m	Notes	2019	2018[1]
Traffic revenue	3	28,136	27,801
Other revenue	4	8,288	7,741
Total revenue		**36,424**	**35,542**
Changes in inventories and work performed by entity and capitalised	5	685	531
Other operating income[2]	6	1,889	1,818
Cost of materials and services	7	-19,827	-18,367
Staff costs	8	-9,121	-8,811
Depreciation, amortisation and impairment[3]	9	-2,776	-2,205
Other operating expenses[4]	10	-5,585	-5,708
Profit/loss from operating activities		**1,689**	**2,800**
Result of equity investments accounted for using the equity method	11	88	114
Result of other equity investments	11	80	60
Interest income	12	79	68
Interest expenses	12	-394	-212
Other financial items	13	318	-46
Financial result		**171**	**-16**
Profit/loss before income taxes		**1,860**	**2,784**
Income taxes	14	-615	-588
Profit/loss after income taxes		**1,245**	**2,196**
Profit/loss attributable to non-controlling interests		-32	-33
Net profit/loss attributable to shareholders of Deutsche Lufthansa AG		**1,213**	**2,163**
Basic/diluted earnings per share in €	15	**2.55**	**4.58**

[1] Total revenue and cost of materials and services previous year's figures have been adjusted.
[2] This includes EUR 46m (previous year: EUR 61m) from the reversal of write-downs on non-current receivables.
[3] This includes EUR 23m (previous year: EUR 13m) for the recognition of write-downs on current receivables.
[4] This includes EUR 120m (previous year: EUR 100m) for the recognition of loss allowances on receivables.

Statement of comprehensive income
for the financial year 2019

T070 STATEMENT OF COMPREHENSIVE INCOME

in €m	2019	2018
Profit/loss after income taxes	**1,245**	**2,196**
Other comprehensive income		
Other comprehensive income with subsequent reclassification to the income statement		
Differences from currency translation	115	124
Subsequent measurement of financial assets at fair value without effect on profit and loss	10	–10
Subsequent measurement of hedges – cash flow hedge reserve	258	434
Subsequent measurement of hedges – costs of hedging	476	–90
Other comprehensive income from investments accounted for using the equity method	13	–2
Other expenses and income recognised directly in equity	15	1
Income taxes on items in other comprehensive income	–182	–87
	705	**370**
Other comprehensive income without subsequent reclassification to the income statement		
Revaluation of defined-benefit pension plans	–1,108	–974
Other comprehensive income from investments accounted for using the equity method	–	–
Subsequent measurement of financial assets at fair value	7	5
Other expenses and income recognised directly in equity	–1	–
Income taxes on items in other comprehensive income	345	117
	–757	**–852**
Other comprehensive income after income taxes	**–52**	**–482**
Total comprehensive income	**1,193**	**1,714**
Comprehensive income attributable to non-controlling interests	–31	–34
Comprehensive income attributable to shareholders of Deutsche Lufthansa AG	**1,162**	**1,680**

Further details on the statement of comprehensive income can be found in ↗ **Note 32, Reserves, p. 177f.**

Consolidated statement of financial position
as of 31 December 2019

T071 CONSOLIDATED STATEMENT OF FINANCIAL POSITION – ASSETS

in €m	Notes	31 Dec 2019	31 Dec 2018
Intangible assets with an indefinite useful life[1]	16	1,395	1,381
Other intangible assets	17	547	512
Aircraft and reserve engines	18 20	18,349	16,776
Repairable spare parts for aircraft		2,270	2,133
Property, plant and other equipment	19 20	4,041	2,221
Investments accounted for using the equity method	21	672	650
Other equity investments	22 43	256	246
Non-current securities	22 43	53	41
Loans and receivables	23 43	469	512
Derivative financial instruments	43	906	828
Deferred charges and prepaid expenses	27	116	118
Effective income tax receivables		32	10
Deferred tax assets	14	2,268	2,131
Non-current assets		**31,374**	**27,559**
Inventories	24	980	968
Contract assets	25	277	234
Trade receivables and other receivables	26 43	5,417	5,576
Derivative financial instruments	43	459	357
Deferred charges and prepaid expenses	27	245	217
Effective income tax receivables		153	58
Securities	28 43	1,970	1,735
Cash and cash equivalents	29 43	1,415	1,500
Assets held for sale	30	369	9
Current assets		**11,285**	**10,654**
Total assets		**42,659**	**38,213**

[1] Including Goodwill.

T072 CONSOLIDATED STATEMENT OF FINANCIAL POSITION – SHAREHOLDERS' EQUITY AND LIABILITIES

in €m	Notes	31 Dec 2019	31 Dec 2018 [1]
Issued capital	31	1,224	1,217
Capital reserve	32	378	343
Retained earnings	32	5,617	4,555
Other neutral reserves	32	1,715	1,185
Net profit/loss		1,213	2,163
Equity attributable to shareholders of Deutsche Lufthansa AG		**10,147**	**9,463**
Non-controlling interests		109	110
Shareholders' equity		**10,256**	**9,573**
Pension provisions	33	6,659	5,865
Other provisions	34	490	537
Borrowings	35 43	8,396	5,008
Contract liabilities	36	25	22
Other financial liabilities		76	137
Advance payments received, deferred income and other non-financial liabilities	37	32	51
Derivative financial instruments	43	128	222
Deferred tax liabilities	14	611	583
Non-current provisions and liabilities		**16,417**	**12,425**
Other provisions	34	794	894
Borrowings	35 43	1,634	1,677
Trade payables and other financial liabilities	39 43	5,351	5,720
Liabilities from unused flight documents	38	4,071	3,969
Other contract liabilities	38	2,675	2,391
Advance payments received, deferred income and other non-financial liabilities	40	382	388
Derivative financial instruments	43	137	393
Effective income tax obligations		402	783
Liabilities in connection with assets held for sale	30	540	–
Current provisions and liabilities		**15,986**	**16,215**
Total shareholders' equity and liabilities		**42,659**	**38,213**

[1] Other provisions, trade payables and other contract liabilities previous year's figures have been adjusted.

Consolidated statement of changes in shareholders' equity
as of 31 December 2019

T073 CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

in €m	Issued capital	Capital reserve	Fair value measurement of financial instruments	Currency differences	Revaluation reserve (due to business combinations)	Other neutral reserves	**Total other neutral reserves**	Retained earnings	Net profit/loss	**Equity attributable to shareholders of Deutsche Lufthansa AG**	Minority interests	**Total shareholders' equity**
As of 31 Dec 2017	**1,206**	**263**	**605**	**264**	**236**	**326**	**1,431**	**3,449**	**2,340**	**8,689**	**103**	**8,792**
Capital increases/reductions	11	80	–	–	–	–	–	–	–	91	1	92
Reclassifications	–	–	–	–	–	–	–	1,963	-1,963	–	–	–
Dividends	–	–	–	–	–	–	–	–	-377	-377	-28	-405
Transactions with non-controlling interests	–	–	–	–	–	–	–	–	–	–	–	–
Income after taxes	–	–	–	–	–	–	–	–	2,163	2,163	33	2,196
Other expenses and income recognised directly in equity	–	–	252	124	–	-2	374	-857	–	-483	1	-482
Hedging results reclassified from non-financial assets to acquisition costs	–	–	-620	–	–	–	-620	–	–	-620	–	-620
As of 31 Dec 2018	**1,217**	**343**	**237**	**388**	**236**	**324**	**1,185**	**4,555**	**2,163**	**9,463**	**110**	**9,573**
Restatement IFRIC 23	–	–	–	–	–	–	–	33	–	33	–	33
Adjusted as of 31 Dec 2018	**1,217**	**343**	**237**	**388**	**236**	**324**	**1,185**	**4,588**	**2,163**	**9,496**	**110**	**9,606**
Capital increases/reductions	7	35	–	–	–	–	–	–	–	42	1	43
Reclassifications	–	–	-9	–	–	–	-9	1,792	-1,783	–	–	–
Dividends	–	–	–	–	–	–	–	–	-380	-380	-33	-413
Transactions with non-controlling interests	–	–	–	–	–	–	–	–	–	–	–	–
Income after taxes	–	–	–	–	–	–	–	–	1,213	1,213	32	1,245
Other expenses and income recognised directly in equity	–	–	569	115	–	28	712	-763	–	-51	-1	-52
Hedging results reclassified from non-financial assets to acquisition costs	–	–	-173	–	–	–	-173	–	–	-173	–	-173
As of 31 Dec 2019	**1,224**	**378**	**624**	**503**	**236**	**352**	**1,715**	**5,617**	**1,213**	**10,147**	**109**	**10,256**

Consolidated cash flow statement
for the financial year 2019

T074 CONSOLIDATED CASH FLOW STATEMENT

in €m	Notes	2019	2018
Cash and cash equivalents 1 Jan		**1,434**	**1,218**
Net profit/loss before income taxes		1,860	2,784
Depreciation, amortisation and impairment losses on non-current assets (net of reversals)		2,738	2,178
Depreciation, amortisation and impairment losses on current assets (net of reversals)		99	23
Net proceeds on disposal of non-current assets	6 10	20	-34
Result of equity investments	11	-168	-174
Net interest	12	315	144
Income tax payments/reimbursements		-1,009	-670
Significant non-cash-relevant expenses/income		-134	-276
Change in trade working capital		490	410
Change in other assets/shareholders' equity and liabilities		-181	-276
Cash flow from operating activities		**4,030**	**4,109**
Capital expenditure for property, plant and equipment and intangible assets	16 17 18 19 20	-3,486	-3,709
Capital expenditure for financial investments	22 23	-73	-48
Additions/loss to repairable spare parts for aircraft		-231	-388
Proceeds from disposal of non-consolidated equity investments		1	2
Proceeds from disposal of consolidated equity investments		3	4
Cash outflows for acquisitions/capital increases of/at non-consolidated equity investments	21 22 43	-107	-48
Cash outflows for acquisitions of consolidated equity investments	47	–	-12
Proceeds from disposal of intangible assets, property, plant and equipment and other financial investments		132	146
Interest income		70	51
Dividends received		243	143
Net cash from/used in investing activities		**-3,448**	**-3,859**
Purchase of securities/fund investments		-4,989	-3,289
Disposal of securities/fund investments		4,570	3,879
Net cash from/used in investing and cash management activities		**-3,867**	**-3,269**
Capital increase	31 32	–	–
Transactions by non-controlling interests		1	1
Non-current borrowing		3,843	987
Repayment of non-current borrowing		-3,413	-1,196
Dividends paid		-414	-349
Interest paid		-178	-69
Net cash from/used in financing activities		**-161**	**-626**
Net increase/decrease in cash and cash equivalents		**2**	**214**
Changes due to currency translation differences		-5	2
Cash and cash equivalents 31 Dec	29	**1,431**	**1,434**
Less cash and cash equivalents of companies held for sale as of 31 Dec		16	–
Cash and cash equivalents of companies not classified as held for sale as of 31 Dec[1]		**1,415**	**1,434**
Securities	28	1,970	1,735
Liquidity		**3,385**	**3,169**
Net increase/decrease in liquidity		216	-600

[1] The difference between the bank balances and cash-in-hand shown in the statement of financial position comes from fixed-term deposits of EUR 0m with terms of four to twelve months (previous year: EUR 66m).

Further details can be found in the section ↗ **Notes to the consolidated cash flow statement, p. 198f.**

Notes to the consolidated financial statements
Deutsche Lufthansa AG 2019

GENERAL REMARKS

1 Company information

The Lufthansa Group is a global aviation group whose subsidiaries and equity investments were organised into five operating segments in the financial year 2019: Network Airlines, Eurowings, Logistics, MRO and Catering.

Deutsche Lufthansa AG has its headquarters in Cologne, Germany, and is filed in the Commercial Register of Cologne District Court under HRB 2168.

The declaration on the German Corporate Governance Code required by Section 161 of the German Stock Corporation Act (AktG) was issued and made available to shareholders on the internet at **www.lufthansagroup.com/declaration-of-compliance.**

The consolidated financial statements of Deutsche Lufthansa AG, Cologne, and its subsidiaries have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), taking account of interpretations by the IFRS Interpretations Committee as applicable in the European Union (EU).

The commercial law provisions of Section 315e Paragraph 1 of the German Commercial Code (HGB) have also been applied. All IFRSs issued by the IASB, in effect at the time that these financial statements were prepared and applied by Deutsche Lufthansa AG have been adopted by the European Commission for application in the EU. The consolidated financial statements of Deutsche Lufthansa AG are prepared in millions of euros. Its financial year is the calendar year.

The accounting policies applied in the previous year have been retained, with the exception of changes required by new or amended standards, interpretations and the IFRIC agenda decision on recognising obligations to compensate customers for delayed or cancelled flights.

The Executive Board of Deutsche Lufthansa AG prepared the consolidated financial statements for 2019 on 13 March 2020. These consolidated financial statements were examined and approved for publication by the Supervisory Board of Deutsche Lufthansa AG in its meeting on 18 March 2020.

2 New international accounting standards in accordance with IFRS and interpretations and summary of the significant accounting policies and valuation methods

INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) AND INTERPRETATIONS (IFRIC) TO BE APPLIED FOR THE FIRST TIME IN THE FINANCIAL YEAR AND AMENDMENTS TO STANDARDS AND INTERPRETATIONS

T075 IFRS-PRONOUNCEMENT (APPLICABLE FROM FINANCIAL YEAR 2019)
IFRS 16, Leases
IFRIC 23, Uncertainty over Income Tax Treatments
Amendments to IAS 28, Non-current equity investments in associated companies and joint ventures
Amendments to IFRS 9, Prepayment Features with Negative Compensation
Annual Improvements to IFRS, 2015 – 2017, Cycle for amendments to IFRS 3, IFRS 11, IAS 12 und IAS 23
Amendments to IAS 19, Plan amendments, curtailments and settlements

The standards, clarifications and interpretations mandatory from 1 January 2019 onwards, particularly IFRS 16, Leases, and IFRIC 23, Uncertainty over Income Tax Treatments, had the following effects on the Group's net assets, financial and earnings position. The first-time application of all of the other amended accounting standards listed below had no or no material effect on the presentation of the net assets, financial and earnings position or on earnings per share.

IFRS 16, Leases. The new provisions of IFRS 16 require lessees to recognise a lease liability and a right-of-use asset for the payment obligations resulting from their lease agreements. IFRS 16 was initially applied using the modified retrospective approach, in accordance with the transitional provisions of IFRS 16. The comparative figures for the financial year 2018 were therefore not adjusted. The Lufthansa Group decided not to reassess whether a contract is or contains a lease. Accordingly, the definition of a lease in accordance with IAS 17 and IFRIC 4 will continue to be applied to those contracts entered or modified before 1 January 2019.

As of 1 January 2019, payment obligations from contracts previously classified as operating leases are discounted using the incremental borrowing rate and recognised as lease liabilities. The discount rate is generally calculated using incremental borrowing rates for the specific lease terms and currencies, unless the implicit interest rate on which the lease payments are based is available. All lease payments are divided into redemption payments and interest expenses. The interest expense is recognised in profit or loss over the term of the lease. The right-of-use asset is depreciated on a straight-line basis over the shorter of the lease term or the useful life of the leased item.

The right-of-use asset corresponds at initial application to the lease liability, adjusted for any prepaid lease instalments. Initial direct costs are not included in the measurement of the right-of-use asset when the standard is applied for the first time. For the initial application of IFRS 16 hindsight was used. The Lufthansa Group has decided not to apply IFRS 16 to intangible assets and to account for leases ending in 2019 in accordance with the practical expedients for short-term leases. Payments under leases with a term of no more than twelve months beginning after 31 December 2018, and leases in which the leased asset is of low value, will be recognised in profit or loss at the payment date in line with this option. For contracts that include non-lease components alongside lease components, these components are separated. At the time of the transition, the Lufthansa Group had no provisions for onerous leases.

At the transition date of IFRS 16, right-of-use assets of EUR 2.0bn and lease liabilities of the same amount were recognised on 1 January 2019. The operating leases as of 31 December 2018 were reconciled with the opening amount of the lease liabilities in the statement of financial position as of 1 January 2019 as follows:

T076 RECONCILIATION LEASE LIABILITIES

in €m	**2019**
Obligations from operating leases as of 31 December 2018 [1]	2,739
Short-term leases	10
Leases on assets of low value	338
Concluded contracts with right-of-use assets not yet acquired	126
Other	18
Discounting with incremental borrowing rate at the first application of IFRS 16	289
Lease liabilities newly accounted due to IFRS 16 as of 1 January 2019	**1,958**
Existing finance lease liabilities as of 31 December 2018	596
Total leasing liabilities	**2,554**

[1] Adjusted figure.

The weighted average incremental borrowing rate used to calculate the lease liabilities as of 1 January 2019 was 1.95%. Reference interest rates based on congruent, risk-free rates in major countries and currencies were used to calculate the incremental borrowing rate. A credit risk premium was added to the respective reference rates.

The right-of-use asset is presented under the same item of property, plant and equipment as would have been used if the underlying asset had been purchased. The right-of-use assets recognised relate to the following types of assets:

T077 RIGHT-OF-USE ASSETS AND LEASE LIABILITIES

in €m	**31 Dec 2019**	1 Jan 2019
Aircraft and reserve engines		
Right-of-use assets – aircraft and reserve engines	471	401
Right-of-use assets – from former lease liabilities according to IAS 17	466	578
Property, plant and other equipment		
Right-of-use assets – land and property	1,873	1,531
Right-of-use assets – technical equipment	–	–
Right-of-use assets – other equipment, operating and office equipment	20	19
Right-of-use assets – from former lease liabilities according to IAS 17	80	93
Total right-of-use assets	**2,910**	**2,622**
of which first-time application due to IFRS 16	**2,364**	**1,951**
Non-current financial liabilities		
Lease liabilities newly accounted due to IFRS 16	1,983	1,599
Existing lease liabilities of finance lease liabilities	400	497
Current financial liabilities		
Lease liabilities newly accounted due to IFRS 16	403	359
Existing lease liabilities of finance lease liabilities	86	99
Total lease liabilities	**2,872**	**2,554**
of which first-time application due to IFRS 16	**2,386**	**1,958**

In terms of property, the Lufthansa Group mainly leases airport infrastructure, including hangars, parking and handling spaces, lounges, and offices. Other office buildings, production and warehouse space are also leased. In addition, the Group uses aircraft and other operating and office equipment on the basis of leases.

The additional right-of-use assets recognised in line with IFRS 16 led to additional depreciation of EUR 401m and additional interest expenses of EUR 53m, due to the accrued interest on the newly recognised lease liabilities. Foreign currency measurement for the lease liabilities resulted in expenses of EUR 6m in the financial result. The first-time application of IFRS 16 and the discontinuation of lease expenses caused the cost of materials and services to fall by EUR 165m and other operating expenses by EUR 267m.

In addition, the change in the presentation of the expenses related to leases resulted in a shift of EUR 432m between cash flow from financing activities and cash flow from operating activities as the lease payments no longer affect the operating cash flow and are instead recognised as interest and redemption payments within cash flow from financing activities, to the extent that they are not payments under current or low-value leases.

The definition of free cash flow was adjusted following the application of IFRS 16. The new figure Adjusted free cash flow consists of free cash flow adjusted for the effects of IFRS 16. This adjustment accounted for EUR 379m in the reporting year.

First-time application of IFRS 16 meant that earnings per share for the period from 1 January 2019 to 31 December 2019 fell by EUR 0.04 per share.

The regulations on lease accounting on the part of the lessors remain almost unchanged. The Lufthansa Group rents engines and buildings on a minor basis.

Detailed information can be found in the corresponding chapters of the Notes. ↗ **Note 20, p. 170ff.**

IFRIC 23, Uncertainty over Income Tax Treatments, was published by the IASB in June 2017. IFRIC 23 is applicable for financial years beginning on or after 1 January 2019. The interpretation supplements the provisions of IAS 12 on accounting for effective and deferred taxes with regard to uncertainties over the treatment of particular circumstances and transactions by the tax authorities and courts pertaining to income tax.

In the past, the Lufthansa Group has only recognised claims against tax authorities when a cash inflow was considered to be virtually certain. Following the transition to IFRIC 23, the claims will be recognised as soon as the cash inflow is deemed to be probable. IFRIC 23 was applied using the modified retrospective approach without adjusting the figures for prior year periods. The transition resulted in an increase in effective income tax receivables of EUR 33m, recognised in retained earnings.

On 17 September 2019, the IFRS Interpretations Committee published an **agenda decision on IFRS 15 concerning compensation for flight delays or cancellations.** Obligations to compensate customers for delayed or cancelled flights (as required by law) are to be recognised as variable compensation components within the meaning of IFRS 15, thus reducing the amount of revenue. The Lufthansa Group had previously recognised these payments in the income statement along with cost of care (e.g. for accommodation and meals in the case of delays, or damage to luggage). The consolidated financial statements were retrospectively changed as of 31 December 2019 as a result of the agenda decision. The change in compensation payments resulted in an equivalent reduction in revenue and the cost of materials of EUR 239m (2018: EUR 302m). At the same time, the other provisions (EUR 31m) and trade payables (EUR 44m) previously recognised for these items were transferred to other contract liabilities. As of 31 December 2019, this led to a reclassification of EUR 58m (2018: EUR 75m).

PUBLISHED INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) AND INTERPRETATIONS (IFRIC) NOT YET APPLIED/APPLICABLE AND AMENDMENTS TO STANDARDS AND INTERPRETATIONS

The following standards and amendments have already been adopted by the European Union but are only mandatory for financial statements after 31 December 2019:

T078 IFRS-PRONOUNCEMENT (ADOPTED BY THE EU)

	Mandatory application for financial years beginning on or after
Changes to conceptual framework	1 Jan 2020
Amendments to IAS 1 and IAS 8: Definition of materiality	1 Jan 2020
Amendments to IFRS 9, IAS 39 and IFRS 7, reform of reference interest rates	1 Jan 2020

Amendments to IFRS 9, IAS 39 and IFRS 7 aim to reduce the potential impact of reforms to the interbank offered rates (IBORs) on companies' financial reporting. The Lufthansa Group is applying this pronouncement in advance. First-time adoption has no effect on the presentation of the net assets, the financial and earnings position or on earnings per share, but does require additional disclosures in the notes.
↗ **Note 43, p. 207.**

The IASB and the IFRS Interpretations Committee have adopted other standards and interpretations whose application is not mandatory for the financial year 2019:

T079 IFRS-PRONOUNCEMENT (NOT YET ENDORSED BY THE EU)

	Mandatory application for financial years beginning on or after
Amendments to IFRS 3, Business combinations	1 Jan 2020
IFRS 17, Insurance Contracts	1 Jan 2021
Amendments to IAS 1, Classification of financial liabilities	1 Jan 2022

Currently, the new or amended IFRS pronouncements listed in the table are not considered to have a material effect on the presentation of the net assets, financial and earnings position.

The Lufthansa Group has not voluntarily applied any of the new or amended regulations mentioned above before their binding date of application. If the effective dates of the standards and interpretations mentioned above fall within the year, they are applied as of 1 January of the following financial year. This is subject to the endorsement of the standards by the EU.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND VALUATION METHODS

The companies included in the consolidated financial statements use uniform accounting policies to prepare their financial statements.

The application of the accounting policies prescribed by IFRS and IFRIC requires making a large number of estimates and assumptions with regard to the future that may, naturally, not coincide with actual future conditions. All of these estimates and assumptions are, however, reviewed continuously and are based either on past experience and/or expectations of future events that seem reasonable in the circumstances on the basis of sound business judgement. Estimates and assumptions that are of material importance in determining the carrying amounts for assets and liabilities are explained in the following description of the accounting policies applied to material items in the statement of financial position.

The fundamental valuation method applied in the consolidated financial statements is the acquisition cost principle. Where IFRSs stipulate that other methods of measurement should be applied, these are used instead, and are referred to specifically in the following comments on measuring assets and liabilities.

Amendments to accounting policies as a result of revised and new standards are applied retrospectively unless provided otherwise for a specific standard. The income statement for the previous year and the opening statement of financial position for the comparable period are adjusted as if the new accounting policies had always been applied.

Recognition of income and expenses
Revenue and other operating income are recognised when the service has been provided.

Passenger transport and ancillary services
The Lufthansa Group sells flight tickets and related ancillary services primarily via agents, its own websites or other airlines in the course of interlining. The payments are received by the Lufthansa Group via credit card billing companies, agents or other airlines, generally before the corresponding service is provided. Receivables from the sale of flight tickets and related ancillary services are only amounts payable by credit card billing companies, agents or other airlines.

The Lufthansa Group initially recognises all ticket sales as liabilities from unused flight documents. These are presented as contract liabilities in accordance with IFRS 15. Depending on the terms of the selected fare, the contract liabilities reflect a range of possibilities for refunding services that have not yet been provided. Liabilities include both the deferred income for future flights and ancillary services that are recognised as revenue when the flight documents are used, and the liabilities for award miles credited to the passenger when the flight documents are used. The Lufthansa Group allocates the transaction price to all of the performance obligations identified on the flight ticket on the basis of their individual transaction prices. The individual transaction prices for flight segments are determined using the IATA procedure. The total price payable is allocated to individual flight segments using what is known as a prorate calculation, which meets the IFRS 15 definition of a relative individual transaction price. The individual transaction prices for ancillary services that are not included in the fare are directly observable prices within the meaning of IFRS 15. On average, it takes 2.5 months for a flight coupon to be realised.

The Lufthansa Group reduces liabilities from unused flight documents and recognises revenue for each flight segment (including the related ancillary revenue) when the respective document is used. For tickets that cover more than one flight segment, the Lufthansa Group identifies each flight segment as a distinct performance obligation, since each flight segment is independent and can be distinguished in the context of the contract.

Interlining means that the passenger is carried by another airline for one (or more) flight segments. Only the commission paid by the other carrier is recognised as revenue for these flight segments, since the Lufthansa Group acts solely as an agent in terms of these performance obligations. If passengers with tickets sold by other airlines are carried partly or fully by the Lufthansa Group, the Group shows the pro rata ticket income received from the other airlines less the commission retained by the ticketing airline as revenue.

Generally speaking, the Lufthansa Group does not expect to receive any amount if a flight document is not used (or does not expect the amount to be material) and so for this reason does not anticipate the possibility that documents for a flight segment will not be used. The expected amount if flight documents are not used is only recognised as revenue if the probability that the passengers (in accordance with the portfolios) exercise their remaining rights is low, and no later than when the expiry of flight documents is certain and known.

Logistics
Lufthansa Cargo markets the freight capacities of passenger aircraft at Lufthansa German Airlines, Austrian Airlines, Eurowings and Brussels Airlines and operates a fleet of cargo aircraft. In addition to income from standard cargo services, Lufthansa Cargo generates part of its revenue from ancillary services that are closely connected to the freight service.

In its cargo business, the Lufthansa Group has identified the entire freight service as a distinct performance obligation. The end customer receives the benefit of the transport service and uses the service at the same time as this performance obligation is fulfilled with each transport segment. In this case, the customer takes control of the company's output while the carrier provides its service. The customer receives the benefit of the service as each transport segment is fulfilled. The corresponding cargo revenue is therefore recognised at the prorate value when the documents for each individual freight segment are used.

Lufthansa Cargo typically receives the consideration for performing its service once the transport has been carried out.

MRO
The main distinct performance obligations in the MRO segment are the provision of maintenance and aircraft and engine overhaul services, which are recognised over time since the condition of IFRS 15.35 (b) is generally met. These performance obligations involve estimating the proportion of the total contract already completed and the profit on the whole contract, so that an input-orientated measurement of the percentage of completion can be made. Contract assets and contract liabilities are therefore both recognised.

Access to Lufthansa Technik's pool of spare parts and components is another key performance obligation, which is satisfied either over time or at a point in time, depending on the contract model agreed.

In some cases, the contracts in the MRO segment make it necessary not to recognise distinct services as individual performance obligations but rather as a series, as described in IFRS 15.22 (b). Furthermore, some of the contracts include standby obligations that require the recognition of revenue over time. This is particularly the case when remuneration is paid in the form of a fixed rate per hour of flying time. For such contacts the percentage of completion is primarily measured on the basis of the hours invoiced monthly to the customer. Revenue from component supply contracts is realised taking into consideration the margin shown in the business plans, which are updated annually.

A significant portion of the contracts in the MRO business segment run for several years and so have price adjustment clauses, but which are only considered in the transaction price when the event that triggers a price adjustment (a wage increase, for example) has occurred.

Catering
The LSG group offers products and services related to in-flight service. These include catering, in-flight sales and entertainment, in-flight service equipment and the associated logistics as well as consultancy services and the operation of lounges.

Airline catering is the main business of the LSG group as far as revenue is concerned. Taking the business model and the value chain for airline catering into account, the preparation of meals and the logistics related to this catering have been identified as distinct performance obligations. The performance obligation to prepare meals is generally fulfilled when the meals are delivered to the customers. The catering logistics performance obligation is fulfilled over time between the transport of the meals to the airport and the disposal of the waste, depending on the services ordered by the customer. For performance obligations over time, the percentage of completion is measured on an output basis in accordance with IFRS 15.B15 in conjunction with IFRS 15.B16.

Billing and payment in the Catering segment generally take place one to two months after the performance obligation has been fulfilled. This gives rise to trade receivables, but no significant contract liabilities or contract assets from catering contracts.

Variable consideration (e.g. volume discounts) must be taken into account when determining the transaction price in the catering business. The majority of the variable consideration is estimated using the expected value method on the basis of historic data and current developments. The LSG group updates the estimated transaction price at the end of each reporting period and accounts for the resulting changes in accordance with IFRS 15.87–90.

Operating expenses are recognised when the product or service is used or the expense arises. Provisions for warranties are generally accounted for when the corresponding revenue is recognised, while provisions for onerous contracts are generally set up when they are identified.

Further disclosures on the Lufthansa Group's revenue from contracts with customers can be found in ↗ **Notes 3 and 4, p. 157ff.**

Interest income and expenses are accrued in the appropriate period. Dividends from shareholdings not accounted for using the equity method are recognised when a legal claim to them arises.

Initial consolidation and goodwill
The initial consolidation of Group companies takes place using the purchase method. This involves measuring the fair value of the assets, liabilities and contingent liabilities identified, in accordance with the provisions of IFRS 3, of the company acquired at the acquisition date, and allocating the acquisition costs to them. The proportion of fair value of assets and liabilities not acquired is shown under non-controlling interests. The ancillary acquisition costs are recognised as expenses in the periods in which they occur.

Any excess of cost over the value of equity acquired is capitalised as goodwill. If the value of the acquirer's interest in the shareholders' equity exceeds the purchase price paid by the acquiring company, the difference is recognised immediately in profit or loss.

Differences from non-controlling interests acquired after control has been gained are set off directly against equity.

Goodwill is not amortised, but is tested annually for impairment. The impairment tests applied to goodwill are carried out using established discounted cash flow methods. This is done on the basis of expected future cash flows from the latest business plan, which are extrapolated on the basis of long-term revenue growth rates and assumptions with regard to margin development and are discounted for the capital costs of the business unit. Tests are performed at the cash generating unit (CGU) level. For the individual premises on which impairment tests were based in the financial year 2019, see ↗ **Note 16, p. 164ff.**

Additional impairment tests are also applied during the course of the year if events give reason to believe that goodwill could be permanently impaired.

Once an impairment loss has been recognised on goodwill, it is not reversed in subsequent periods.

Notwithstanding the principles described above, Group companies that have no material impact on the Lufthansa Group's net assets, financial and earnings position are not consolidated, but rather recognised in the consolidated financial statements at cost less any impairments.

Currency translation and consolidation methods
The financial statements of the foreign Group companies are prepared in the relevant functional currency and translated into euros before consolidation. The functional currency is mainly the currency of the country in which the company concerned is located. Occasionally, the functional currency differs from the national currency. Assets and liabilities are translated at the middle rates on the balance sheet date. Income statements are translated at the average exchange rates for the year. Any translation differences are recognised directly in equity without effect on profit and loss and are only recognised in profit or loss when control is lost or the equity investment is disposed of.

Goodwill from capital consolidation of foreign subsidiaries prior to 2005 is carried at historical cost net of amortisation accumulated by the end of 2004. Goodwill acquired after 2005 is held in the functional currency of the purchased company and translated at the middle rates on the reporting date.

Transaction differences, however, are recognised in profit or loss. These differences arise in the financial statements of consolidated companies from the measurement of assets and liabilities denominated in a currency other than the company's functional currency. Any resulting exchange rate differences are included in other operating income as exchange rate gains, or in other operating expenses as exchange rate losses.

Translation differences relating to items whose fair value changes are recognised in equity are also recognised in equity without effect on profit and loss.

The most important exchange rates used in the consolidated financial statements have developed in relation to the euro as follows:

T080 EXCHANGE RATES

	2019		2018	
	Balance sheet exchange rate	**Income statement average rate**	Balance sheet exchange rate	Income statement average rate
AUD	0.62443	0.62094	0.61536	0.63223
CAD	0.68299	0.67379	0.64094	0.65241
CHF	0.92137	0.89864	0.88776	0.86633
CNY	0.12767	0.12955	0.12708	0.12787
GBP	1.17019	1.14121	1.11000	1.13057
HKD	0.11456	0.11410	0.11163	0.10771
INR	0.01251	0.01271	0.01250	0.01235
JPY	0.00819	0.00820	0.00792	0.00767
KRW	0.00077	0.00077	0.00078	0.00077
NOK	0.10137	0.10171	0.10014	0.10426
PLN	0.23505	0.23209	0.23234	0.23463
SEK	0.09564	0.09444	0.09747	0.09727
USD	0.89198	0.89432	0.87409	0.84415

The provisions of IAS 29, Financial Accounting in Hyperinflationary Economies, were applied to one consolidated company in Argentina. Gains and losses from adjusting for inflation on the carrying amounts of non-monetary assets and liabilities and the income statement were immaterial and were recognised in other operating income.

The effects of intra-Group transactions are completely eliminated in the course of consolidation. Receivables and liabilities between consolidated companies are offset against one another and intra-Group provisions are reversed through profit or loss. Intra-Group profits and losses in non-current assets and inventories are eliminated – mostly in connection with the internal resale of aircraft and maintenance events. Intra-Group income is set off against the corresponding expenses. Tax accruals and deferrals are made as required by IAS 12 for temporary differences arising from consolidation.

Other intangible assets (except goodwill)
Acquired intangible assets are shown at cost, while internally generated intangible assets from which the Lufthansa Group expects to derive future benefit and that can be measured reliably are capitalised at cost of production and amortised regularly using the straight-line method over an estimated useful life. The cost of production includes all costs directly attributable to the production process, including borrowing costs as required under IAS 23, as well as appropriate portions of production-related overhead.

Intangible assets with indefinite useful lives (mainly brands and purchased, resellable take-off and landing rights) are not amortised, but rather subjected to a regular annual impairment test, as is goodwill.

Property, plant and equipment
Tangible assets used in business operations for longer than one year are valued at cost less regular straight-line depreciation. The cost of production includes all costs directly attributable to the manufacturing process as well as appropriate portions of production-related overhead. Borrowing costs in close connection with the financing of the purchase or production of a qualifying asset are also capitalised.

Key components of property, plant and equipment that have different useful lives are recognised and depreciated separately. Seats and in-flight entertainment systems installed in commercial aircraft are recognised separately. If costs are incurred in connection with regular extensive maintenance work (e.g. overhauling aircraft and major engine overhauls), these costs are recognised as a separate component insofar as they meet the criteria for recognition.

The following useful lives are applied throughout the Group:

T081 USEFUL LIVES OF PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment	Useful life
Buildings	45 years
New commercial aircraft and reserve engines	20 years to a residual value of 5%
Separable aircraft components	4 to 6 years
Technical equipment and machinery	8 to 20 years
Other equipment, operating and office equipment	3 to 20 years

Buildings, fixtures and fittings on rented premises are depreciated according to the terms of the leases or over a shorter useful life.

Assets acquired second-hand are depreciated over their expected remaining useful life.

When assets are sold or scrapped, the difference between the net proceeds and the net carrying amount of the assets is recognised as a gain or loss in the other operating income or expenses, respectively.

In addition to the impairment tests for goodwill, slots and brands, individual items of property, plant and equipment and intangible assets are also tested for impairment if they are no longer intended for future use, either because they are damaged, retired or due to be sold. In this case, the assets are measured individually in line with the applicable standard (full write-down to scrap value, or disposal proceeds less costs to sell). The lowest level at which assets can form a CGU is a production facility, to the extent that separate product lines or customer (groups) can be assigned to it. When aircraft are held for service in the Lufthansa Group fleet and there is no immediate intention to sell them, they are combined with the assets of the respective operating unit for the purposes of impairment testing.

Impairment losses on intangible assets and property, plant and equipment

In addition to depreciation and amortisation on property, plant and equipment and intangible assets, impairment losses are also recognised on the balance sheet date if the asset's recoverable amount has fallen below its carrying amount. The recoverable amount is determined as the higher of an asset's fair value less costs to sell and the present value of the estimated net future cash flows from continued use of the asset (value in use).

Fair value less costs to sell is derived from recent market transactions, if available.

If it is impossible to forecast expected cash flows for an individual asset, the cash flows for the next larger asset unit are estimated, discounted at a rate reflecting the risk involved, and the recoverable amount allocated to the individual assets in proportion to their respective carrying amounts.

If the reason for an impairment loss recognised in previous years should cease to exist in whole or in part in subsequent periods, the impairment loss is reversed up to the amount of the asset's amortised cost.

Repairable spare parts for aircraft

Initial supply of spare parts for aircraft that can be reused after repair are classified as non-current assets.

Repairable spare parts for aircraft are held at continually adjusted prices based on average acquisition costs. For measurement purposes, spare parts to be allocated to a maintenance pool are assigned to individual aircraft models and depreciated on a straight-line basis depending on the life phase of the fleet models for which they can be used. Other spare parts, mainly intended for replacement, are recognised in the statement of financial position at a discount to their acquisition costs, depending on how common they are.

Leases

The Lufthansa Group is a lessee for certain assets, particularly property and aircraft. In accordance with IFRS 16, the Lufthansa Group assesses at contract inception whether a contract is, or contains, a lease. That is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Right-of-use assets are measured at cost less accumulated depreciation and impairment losses and adjusted for any change in the measurement of the lease liability. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received.

Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term or the estimated useful life of the leased item.

If ownership of the leased asset passes to the Lufthansa Group at the end of the lease term or is included in the costs of exercising a purchase option, depreciation is calculated for the expected useful life of the leased asset.

Right-of-use assets are also tested for impairment.

At the commencement date of the lease, Lufthansa Group recognises **lease liabilities** measured at the present value of the lease payments to be made over the term of the lease. The lease payments include fixed payments less any lease incentives owed, variable lease payments that depend on an index or a rate, and any amounts that are expected to be paid in the context of residual value guarantees. Lease payments also include the exercise price of a purchase option or penalties for early termination if the exercise of the purchase or termination option by the lessee is reasonably certain.

The Lufthansa Group has several leases that include renewal and termination options, particularly for properties. Judgement is used when determining the probability that the option to renew or terminate the lease will be exercised. When determining lease terms, all the facts and circumstances are considered that offer an economic incentive to exercise renewal options or not to exercise termination options. After the commencement date of the lease, the Lufthansa Group reestimates the term of the lease if a significant event occurs or if circumstances change.

Variable lease payments that do not depend on an index or a reference rate are recognised as expenses in the period in which the event or condition triggering the payment occurs.

Lease payments are discounted at the interest rate implicit in the lease, if it can be determined. Otherwise they are discounted at the incremental borrowing rate.

As the lessor in an operating lease, the Lufthansa Group presents the leased item as an asset at amortised cost in property, plant and equipment. Lease payments received in the period are shown as other operating income. The Lufthansa Group leases some of its properties and engines to other entities. There are currently no finance leases at the Lufthansa Group.

Further information about accounting for leases can be found in ↗ **Note 20, p. 170ff.**

Equity investments accounted for using the equity method
Equity investments accounted for using the equity method are capitalised at cost at the time of acquisition.

In subsequent periods, the carrying amounts are either increased or reduced annually by changes in the shareholders' equity of the associated company or joint venture that is held by the Lufthansa Group. The principles of purchase price allocation that apply to full consolidation are applied accordingly to the initial measurement of any difference between the acquisition cost of the investment and the pro rata share of shareholders' equity of the company in question. An impairment test is only carried out in subsequent periods if there are indications of a potential impairment in the entire investment valuation.

Financial instruments
Financial assets are classified within the Lufthansa Group in accordance with IFRS 9 as "at amortised cost", "at fair value through profit or loss", "at fair value through other comprehensive income (with and without recycling)" and "derivative financial instruments as an effective part of a hedging relationship".

The category **"at amortised cost"** consists of financial assets that are debt instruments and are intended to be held to maturity on the basis of the company's business model. Furthermore, these instruments have fixed payment terms and meet the criteria for cash flow characteristics, i.e. contractual payments of principal and interest. For the Lufthansa Group, this item particularly includes loans and receivables, cash-in-hand and bank balances. They are classified as non-current or current assets according to their remaining maturity.

The category **"at fair value through profit or loss"** comprises debt instruments for which the business model is neither to hold nor to sell them, or which do not pass the cash flow characteristics test. This is generally not the case for the Lufthansa Group. Equity instruments are also allocated to this category as a rule, so the Lufthansa Group generally recognises shares and equity investments that are financial instruments in this category. Derivatives are also classified in this category if they do not meet the criteria for hedge accounting.

Debt instruments are classified as **"at fair value through other comprehensive income (with recycling)"** when the business model is to both hold and sell these instruments and they pass the cash flow characteristics test. For the Lufthansa Group, this applies to securities representing debt instruments.

An option can be exercised to classify specific equity instruments as **"at fair value through other comprehensive income (without recycling)".** The Lufthansa Group exercises this option for individual share positions.

The Lufthansa Group uses derivatives for hedging, which are classified as **"derivative financial instruments as an effective part of a hedging relationship"** if all the requirements for hedge accounting are satisfied.

Financial instruments are recognised on the settlement date, i.e. on the date that they are created or transferred. Financial assets are capitalised at fair value plus transaction costs. Unrealised gains and losses are recognised directly in equity, taking deferred taxes into account. Long-term low or non-interest-bearing loans are recognised at net present value using the effective interest method. Subsequent measurement of the financial instrument depends on the classification, either at amortised cost using the effective interest method, or at fair value, through profit or loss or in equity without effect on profit and loss.

Receivables denominated in foreign currencies are measured at the balance sheet date rate.

The fair value of securities is determined by the price quoted on an active market. For unlisted fixed-interest securities, the fair value is determined from the difference between effective and market interest rate at the valuation date.

If there are doubts as to the recoverability of receivables, then impairment losses are recognised and these receivables are recognised at the lower recoverable amount. Subsequent reversals (write-backs) are recognised in profit or loss. IFRS 9 requires that when a receivable is recognised for the first time, an expected loss is provided for that reflects the credit risk of the receivable before a default event occurs. An external credit risk exists for the Lufthansa Group, especially in its portfolio of trade receivables, for which an expected credit loss is recognised.

Derivative financial instruments are measured at fair value on the basis of published market prices. If there is no quoted price on an active market, other appropriate valuation methods are applied. Appropriate valuation methods take all factors into account that independent, knowledgeable market participants would consider in arriving at a price and that constitute recognised, established economic models for calculating the price of financial instruments.

In accordance with its internal guidelines, the Lufthansa Group uses derivative financial instruments to hedge interest rate and exchange rate risks and to hedge fuel price risks. This is based on the hedging policy defined by the Executive Board and monitored by a committee.

Interest rate swaps and interest rate/currency swaps are used to manage interest rate risks. Interest rate/currency swaps also hedge exchange rate risks arising from borrowing in foreign currencies.

Fuel price hedging takes the form of spread options and other hedging combinations, primarily for crude oil. To a limited extent, hedging may also be undertaken for other products, such as jet fuel or gas oil.

Hedging transactions are used to secure either fair values (fair value hedge) or future cash flows (cash flow hedge).

To the extent that the financial instruments used qualify as effective cash flow hedging instruments within the scope of a hedging relationship, in accordance with the provisions of IFRS 9, the fluctuations in market value will not affect the result for the period during the term of the derivative. They are recognised without effect on profit or loss in the corresponding reserves. If the hedged cash flow is an investment, the result of the hedging transaction that has previously been recognised in equity is set off against the cost of the capital expenditure at the time the underlying transaction matures. In all other cases, the cumulative gain or loss previously stated in equity is included in net profit or loss for the period on maturity of the hedged cash flow.

In the case of effective hedging of fair values that are designated as a fair value hedge, the changes in the market value of the hedged asset or the hedged debt and those of the financial instrument will balance out in the income statement.

Derivatives that do not meet the criteria for hedge accounting are presented in the category "at fair value through profit or loss". Changes in fair value are then recognised directly in profit or loss. For the Lufthansa Group, this generally occurs when the exposure or item being hedged cannot be measured reliably or the exposure ceases to exist prematurely over the course of the hedge.

Embedded derivatives – to the extent that they should, but cannot, be separated from the financial host contract – are also considered with these as trading transactions for measurement purposes. Changes in market value are also recognised directly as profit or loss in the income statement. Both types must be classified as financial assets stated at fair value through profit or loss.

It is the Lufthansa Group's hedging policy (↗ Note 43, p. 200ff.) only to acquire effective derivatives for the purpose of hedging interest rate, exchange rate and fuel price risks.

Initial recognition of **financial guarantees** given to third parties is at fair value. Thereafter, financial guarantees are either measured in the category "at fair value through profit or loss" or at the higher of the originally recognised amount, less any cumulative amortisation through profit or loss in line with IFRS 15, and the value of the contractual obligation measured in line with IAS 37.

Emissions certificates
CO_2 emissions certificates are recognised as intangible assets and presented under other receivables. Rights, both those purchased and those allocated free of charge, are measured at cost and not amortised.

Contract assets and receivables
If the customer has fulfilled their contractual obligations, a contract asset or receivable is recognised. Receivables are recognised if the right to receive consideration is no longer subject to conditions. This is generally the case when the Group is contractually entitled to send the customer an invoice. Contract assets mainly relate to construction or service contracts for MRO and IT services.

Inventories
The item “Inventories” comprises non-repairable spare parts and assets used in production or the provision of services (raw materials, consumables and supplies), purchased merchandise, finished and unfinished goods and advance payments for them. They are measured at cost, determined on the basis of average prices, or at production costs. The cost of production includes all costs directly attributable to the production process, including borrowing costs as required under IAS 23, as well as appropriate portions of production-related overheads. Average capacity utilisation of 96% is assumed in determining the costs of production (previous year: 100%). Measurement on the balance sheet date is at the lower of cost and net realisable value. Net realisable value is defined as the estimated selling price less the estimated cost of completion and the estimated costs necessary to make the sale.

Assets held for sale
Individual, formerly non-current assets or groups of assets that are expected to be sold within the next twelve months are measured at the lower of their carrying amount at the time they are reclassified and fair value less costs to sell. Fair value less costs to sell is derived from recent market transactions, if available.

Property, plant and equipment and intangible assets are no longer depreciated or amortised and affiliated companies accounted for using the equity method are no longer accounted for in this way once they are classified as held for sale or distribution. While the impairment charge from the last measurement before reclassification is recognised as an impairment loss, all subsequent changes in the measurement of current assets held for sale, e.g. due to exchange rate movements, are shown in other operating expenses or income.

Cash and cash equivalents
Cash and cash equivalents comprise cash-in-hand, cheques received and credit balances at banks. Cash equivalents are financial investments that can be liquidated at short notice. At the time of purchase or investment, they have a maturity of three months or less.

Pension provisions
The pension provisions for defined benefit plans correspond to the present value of the defined benefit obligations (DBO) on the reporting date less the fair value of plan assets, if necessary taking the rules on the maximum surplus of plan assets over the obligation (asset ceiling) into account.

The DBO is calculated annually by independent actuaries using the projected unit credit method prescribed in IAS 19 for defined benefit pension plans. The measurement of pension provisions within the statement of financial position is based on a number of actuarial assumptions.

Capital account plans are measured using the market value of the assets assigned to the individual capital accounts as of the reporting date, whereby the present value of the minimum benefit payable when the beneficiary becomes entitled to the benefit is compared with the amount of contributions already paid in, measured using the assumptions for the benefit plans. Additional risk premiums that the employer contributes to insure against early entitlements are included in current service expense.

They include, in particular, assumptions about long-term salary and pension trends as well as average life expectancy. The assumptions about salary and pension trends are based on developments observed in the past and take into account national interest and inflation rates and labour market trends. Estimates of average life expectancy are based on recognised biometric calculation formulas.

The interest rate used to discount the individual future payment obligations is based on the return from investment grade corporate bonds in the same currency and with a similar term to maturity. The discount rate is determined by reference to high-quality corporate bonds with an issue volume of at least EUR 100m and an AA rating from at least one of the rating agencies Moody's Investor Service, Fitch Ratings or Standard & Poor's Rating Services.

Actuarial gains and losses arising from the regular adjustment of actuarial assumptions are recognised directly in equity in the period in which they arise, taking deferred taxes into account. Also presented without effect on profit and loss are differences between the interest income at the beginning of the period calculated on plan assets based on the interest rate used to discount the pension obligations and the earnings from plan assets actually recorded at the end of the period. The actuarial gains and losses and any difference between the forecast result and the actual result from plan assets form part of the remeasurement.

Past service costs are recognised immediately in profit or loss.

Payments to pension providers for defined contribution retirement benefit commitments for which the pension provider or the beneficiary assumes the financial risks are recognised in staff costs as they fall due.

Other provisions
Other provisions are recognised for present legal and constructive obligations to third parties arising from past events that will probably give rise to a future outflow of resources provided that a reliable estimate can be made of the amount of the obligations as of the reporting date.

The amount of the provision is determined by the best estimate of the amount required to settle the present obligation. Past experience, current cost and price information as well as estimates from internal and external experts are used to determine the amount of provisions.

The management regularly analyses the current information on legal risks and makes provisions for probable obligations. These provisions cover estimated payments to the claimant, court and procedural costs, the costs of lawyers and of any out-of-court settlement. Internal and external lawyers assist with the estimate. When deciding on the necessity of a provision for litigation, the management takes into account the probability of an unfavourable outcome and the chance of making a sufficiently accurate estimate of the amount of the obligation.

The commencement of legal proceedings, the formal assertion of a claim against the Group or the disclosure of certain litigation in the Notes does not automatically mean that a provision was made for the risk concerned. A ruling in court proceedings, a decision by a public authority or an out-of-court settlement may cause the Group to incur expenses for which no provision was made because the amount could not be reliably determined or for which the provision made and the insurance coverage is not sufficient.

Provisions for obligations that are not expected to lead to an outflow of resources in the following year are recognised to the amount of the present value of the expected outflow, taking foreseeable price rises into account.

The assigned value of provisions is reviewed on each balance sheet date. Provisions in foreign currencies are translated at reporting date rates.

If no provision could be recognised because one of the stated criteria was not fulfilled, the corresponding obligations are shown as contingent liabilities and discussed in the relevant section.

Liabilities
Trade and other payables are initially recognised at fair value. Fair value is approximately equivalent to the carrying amount.

Measurement in subsequent periods is at amortised cost using the effective interest rate method.

Liabilities in foreign currencies are measured at the balance sheet date.

Obligations from share programmes were measured at fair value as cash-settled share-based payment transactions in accordance with IFRS 2. Fair value was measured using a Monte Carlo simulation.

The liability is recognised on the basis of the resulting fair value, taking the remaining term of the programme into account. Changes are recognised as staff costs in profit or loss.

Details of the assumptions used for the model and the structure of the share programmes can be found in ↗ **Note 37, p. 189ff.**

Contract liabilities
A contract liability is an obligation on the part of the Group towards a customer to provide goods or services for which the customer has already performed an obligation, e.g. by making an advance payment.

The Group's contract liabilities consist of liabilities from unused flight documents, unredeemed miles from customer loyalty programmes, construction contracts and other contract liabilities.

Until they are used, sold flight documents are recognised as an **obligation from unused flight documents.** Coupons that are unlikely to be used any more are recognised pro rata temporis as traffic revenue in the income statement at their estimated value. The estimate is based on historical statistical data.

The Lufthansa Group uses various bonus miles programmes with the aim of ensuring long-term **customer loyalty.** Participants in the Miles & More programme, which is the biggest bonus miles programme in the Lufthansa Group, can collect and redeem bonus miles for flights with the airlines in the Lufthansa Group as well as with numerous partners (including other airlines, hotels, global car hire companies, financial and insurance providers, telecommunications companies, retailers, automobile clubs, etc.). Miles expire three years after they are collected, in accordance with the terms of membership, unless they are protected by frequent flyer status or credit card use.

Revenue for award miles is recognised at the point in time or over the time at which the goods and services purchased with the award miles are transferred.

Observable past redemption patterns are used to measure the premium claims that are collected on flights with the airlines in the Lufthansa Group. Miles that are expected to be used for flights with airlines in the Lufthansa Group are measured with the average price of the premium flight or upgrade for the average number of miles used. The price is calculated on the basis of past redemption patterns, weighted for the various geographic regions and booking classes. This is then corrected to allow for the reduced flexibility of premium flights and the award miles granted for normal flights. Miles that are expected to be redeemed for other bonuses are measured at the average price for these bonuses and the average number of miles redeemed. The prices for additional miles are recalculated every year and applied to all additions in that year. Consumption of miles is measured using the average rate for total miles at the beginning of the year (same as previous year).

Premium points collected from other partners are measured at the amounts paid by these partners in relation to the average number of miles collected and redeemed.

The calculation method for the legal and economic expiry rate entails calculating the expiry rate from the rates observed in prior years, increased or decreased as necessary by reference to past trends or future enhancements to the programme. IFRS 15 requires that income from the expiry of miles is recognised in parallel with revenue from the performance obligations that do not expire. A period of three years is therefore assumed for revenue recognition, and the revenue from miles expected to expire is recognised on a straight-line basis over this time.

Tax liabilities
Obligations towards tax authorities that are uncertain with regard to their occurrence, probability and amount are recorded as tax liabilities on the basis of best estimates or expectations. Any contingent liabilities existing in this context are addressed separately as needed.

Deferred tax items
In accordance with IAS 12, deferred taxes are recognised for all temporary differences between the statements of financial position with regard to tax of individual companies and the consolidated financial statements. Tax loss carryforwards are recognised to the extent that the deferred tax assets are likely to be used in the future. Company earnings forecasts and specific, realisable tax strategies are used to determine whether deferred tax assets from tax losses carried forward are usable or not, i.e. whether they have a value that can be realised. The planning period used to assess this probability is determined by the individual Group company according to the specific circumstances and lies generally between three and five years.

Effective income taxes
The Lufthansa Group is liable for income taxes in various countries. Material assumptions are necessary to calculate the income tax liabilities. For certain transactions and calculations, the final taxation cannot be assessed definitively in the course of normal business. The amount of the liability for future tax inspections is based on estimates of whether additional income taxes will be owed, and if so, at which amount. Estimates will be corrected as necessary in the period in which taxation is definitively assessed.

NOTES TO THE CONSOLIDATED INCOME STATEMENT

3 Traffic revenue

In the consolidated income statement, the Lufthansa Group attributes revenue to the segments Network Airlines, Eurowings, Logistics, MRO, Catering and Additional Businesses and Group Functions.

The IFRIC agenda decision on 17 September 2019 means that compensation payments for flight cancellations and delays are no longer recognised in the income statement but rather reduce traffic revenue. The Lufthansa Group has applied this change retrospectively. The adjustment came to EUR 239m for 2019, with traffic revenue for the previous year being reduced by EUR 302m.

The following table provides a breakdown of traffic revenue according to the different business models for the financial year that ended on 31 December 2019; the table following shows the adjusted previous year's figures:

T082 TRAFFIC REVENUE BY SECTOR 2019

in €m	**Total**	Europe[1]	North America[1]	Central and South America[1]	Asia/Pacific[1]	Middle East[1]	Africa[1]
Network Airlines	21,826	13,867	4,238	509	2,324	567	321
Lufthansa German Airlines	14,875						
SWISS[2]	5,010						
Austrian Airlines	1,941						
Eurowings[2]	3,992	3,566	204	12	46	23	141
Logistics	2,318	1,153	265	94	703	31	72
Total	**28,136**						

[1] Traffic revenue is allocated according to the original location of sale.
[2] Disclosure of traffic revenue, including belly revenue; this is reported in the segment reporting in the reconciliation column.

T082 TRAFFIC REVENUE BY SECTOR 2018

in €m	Total[3]	Europe[1]	North America[1]	Central and South America[1]	Asia/Pacific[1]	Middle East[1]	Africa[1]
Network Airlines[2]	21,201	13,846	3,731	554	2,257	538	275
Lufthansa German Airlines	14,496						
SWISS[2]	4,749						
Austrian Airlines	1,956						
Eurowings[2]	4,050	3,626	173	12	68	26	145
Logistics	2,550	1,313	256	103	798	26	54
Total	**27,801**						

[1] Traffic revenue is allocated according to the original location of sale.
[2] Disclosure of traffic revenue, including belly revenue; this is reported in the segment reporting in the reconciliation column.
[3] Previous year's figures have been adjusted.

Traffic revenue of EUR 28,136m (previous year: EUR 27,801m) includes freight and mail revenue of EUR 2,774m (previous year: EUR 3,106m). Of the total, EUR 2,318m (previous year: EUR 2,550m) relate to the Logistics segment. Other freight and mail revenue of EUR 456m (previous year: EUR 557m) mainly comes from marketing belly capacities on passenger flights by SWISS and Brussels Airlines.

4 Other revenue

The following table provides a breakdown of other revenue by category (type of service) and geography for 2019 and the previous year:

T083 OTHER OPERATING REVENUE BY AREA OF OPERATIONS 2019

in €m	**Total**	Europe[1]	North America[1]	Central and South America[1]	Asia/Pacific[1]	Middle East[1]	Africa[1]
MRO	4,378	1,973	1,054	282	793	173	103
MRO services	3,765						
Other operating revenue	613						
Catering	2,623	502	1,377	164	468	75	37
Catering services	2,210						
Revenue from in-flight sales	169						
Other services	244						
Network Airlines	591	486	41	1	47	8	8
Eurowings	23	20	1	–	–	–	2
Logistics	119	68	41	–	3	7	–
Additional Businesses and Group Functions	554	388	43	16	83	18	6
IT services	188						
Travel management	279						
Other	87						
Total	**8,288**						

[1] Traffic revenue is allocated according to the original location of sale.

T083 OTHER OPERATING REVENUE BY AREA OF OPERATIONS 2018

in €m	Total	Europe[1]	North America[1]	Central and South America[1]	Asia/Pacific[1]	Middle East[1]	Africa[1]
MRO	3,927	1,821	863	196	759	129	159
MRO services	3,402						
Other operating revenue	525						
Catering	2,499	483	1,270	147	495	62	42
Catering services	2,119						
Revenue from in-flight sales	142						
Other services	238						
Network Airlines	621	495	51	7	50	8	10
Eurowings	30	25	2	–	1	–	2
Logistics	131	73	47	–	4	7	–
Additional Businesses and Group Functions	533	386	39	11	74	17	6
IT services[2]	175						
Travel management	276						
Other	82						
Total	**7,741**						

[1] Traffic revenue is allocated according to the original location of sale.
[2] Adjustment due to change in allocation of three Lufthansa Systems companies.

MRO services make up the majority of external revenue in the MRO segment. Other revenue in the MRO segment from the sale of material and hiring out material and engines, as well as logistics services, are classified as other services.

The revenue listed under catering services originates exclusively in the Catering segment. The Catering segment also generates revenue from other services, particularly in the areas of flight security concepts, in-flight service equipment, transport/warehouse logistics and lounge operations.

Other revenue also includes revenue from customer contracts that are fulfilled over a given period. These are mainly MRO and IT services.

5 Changes in inventories and work performed by entity and capitalised

T084 CHANGES IN INVENTORIES AND WORK PERFORMED BY ENTITY AND CAPITALISED

in €m	2019	2018
Increase/decrease in finished goods and work in progress	-9	2
Other internally produced and capitalised assets	694	529
	685	**531**

Other own work capitalised relates almost exclusively to aircraft and engine overhauls.

6 Other operating income

T085 OTHER OPERATING INCOME

in €m	2019	2018
Foreign exchange gains	761	794
Income from the reversal of provisions and accruals	321	260
Income from operating-leasing aircraft	49	48
Rental income	43	40
Compensation received for damages	42	55
Income from the reversal of impairment losses on fixed assets	38	15
Reversal of write-downs on receivables	27	48
Services provided by the Group	26	27
Income from staff secondment	20	19
Income from the disposal of non-current assets	18	50
Commission income	14	14
Income from the disposal of non-current available-for-sale financial assets	2	1
Miscellaneous other operating income	528	447
	1,889	**1,818**

Foreign exchange gains (excluding financial liabilities) mainly include gains from differences between the average rate for the month on the transaction date and on the payment date, along with foreign exchange gains from measurement at the closing date rate. Income from exchange rate hedging is also recognised here. Foreign exchange losses from these transactions are reported under other operating expenses. ↗ **Note 10, p. 161.** The foreign currency effects of borrowing are recognised in other financial items, in the context of the net results of exchange rate hedging relationships for borrowing.

Income from the reversal of provisions and accruals relates to a number of provisions and accruals recognised in previous years that have not been fully used. In contrast, expenses from insufficient provisions recognised in previous years are recognised together with the primary expense item to which they relate.

First-time application of IFRS 16 had no impact on the accounting for operating leases in which the Lufthansa Group is a lessor. No contracts were classified as finance leases. The Lufthansa Group recognised lease income of EUR 92m in 2019 (previous year: EUR 88m).

The following table shows the contractual lease payments:

T086 CONTRACTUAL LEASE PAYMENTS (LESSOR)

in €m	31 Dec 2019
to 1 year	79
more than 1 year to 2 years	50
more than 2 years to 3 years	35
more than 3 years to 4 years	28
more than 4 years to 5 years	8
more than 5 years	22

Income of EUR 38m was recognised from reversals on assets in 2019 (previous year: EUR 15m). EUR 19m of the total concerns an Airbus A340-600 from the Network Airlines segment. A further EUR 18m relates to write-backs on financial investments.

Income from the disposal of property, plant and equipment also includes EUR 6m from aircraft sold (previous year: EUR 13m).

Other operating income includes items not attributable to any of the aforementioned categories.

7 Cost of materials and services

T087 COST OF MATERIALS AND SERVICES

in €m	2019	2018 [1]
Aircraft fuel and lubricants	6,715	6,087
Other raw materials, consumables and supplies	3,589	3,107
Purchased goods	512	489
Total cost of raw materials, consumables and supplies and of purchased goods	**10,816**	**9,683**
Fees and charges	4,523	4,457
External MRO services	1,911	1,848
Charter expenses [2]	814	717
External IT services	452	416
In-flight services	409	383
Flight irregularities	199	216
Other services	703	647
Total cost of purchased services	**9,011**	**8,684**
	19,827	**18,367**

[1] Previous year's figures have been adjusted.
[2] In 2018 also including operating lease costs acording to IAS 17.

The cost of materials has decreased due to the implementation of IFRS 16 by EUR 165 million in the financial year 2019.

Retrospectively changing the recognition of payments to customers in connection with flight irregularities resulted in an adjustment to other purchased services reported in the previous year. Expenses for flight irregularities are also shown separately for the first time. This includes accommodation and meals in the case of delays, for instance, or payments for damaged luggage. ↗ **Note 2, p. 144ff.**

8 Staff costs

T088 STAFF COSTS

in €m	2019	2018
Wages and salaries	7,452	7,286
Social security contributions	1,024	977
Expenses for pension plans and other employee benefits	645	548
	9,121	**8,811**

Expenses for pension plans principally consist of additions to the pension provisions. ↗ **Note 33, p. 178ff.**

In the previous year, the expenses for pension plans and other employee benefits were reduced by EUR 113m because of negative past service expenses resulting essentially from the changes to the retirement benefits system in Switzerland.

T089 EMPLOYEES

	Average for the year 2019	Average for the year 2018	**As of 31 Dec 2019**	As of 31 Dec 2018
Ground staff	91,241	88,478	91,642	89,278
Flight staff	45,305	44,858	45,281	45,169
Trainees	1,238	994	1,430	1,087
	137,784	**134,330**	**138,353**	**135,534**

The annual average is calculated pro rata temporis from the time companies are consolidated or deconsolidated.

9 Depreciation, amortisation and impairment

The notes to the individual items show the breakdown of depreciation, amortisation and impairment charges between intangible assets, aircraft and other property, plant and equipment. Total depreciation, amortisation and impairment came to EUR 2,776m (previous year: EUR 2,205m).

T090 DEPRECIATION, AMORTISATION AND IMPAIRMENT

in €m	2019	2018
Amortisation of other intangible assets	102	98
Depreciation of aircraft	2,084	1,833
Depreciation of other tangible assets	506	250
Total amortisation/depreciation	**2,692**	**2,181**
Impairment of goodwill	–	–
Impairment of other intangible assets	24	2
Impairment of aircraft	36	4
Impairment of other tangible assets	1	5
Impairment of financial assets	23	13
Total impairment	**84**	**24**
Total depreciation, amortisation and impairment	**2,776**	**2,205**

The increase in depreciation and amortisation resulted mainly from the first-time application of IFRS 16. Additional right-of-use assets under IFRS 16 resulted in an increase in depreciation and amortisation of EUR 401m.

Impairment losses of EUR 84m were recognised in the financial year 2019. EUR 36m of the total was for four Boeing MD-11Fs from the Logistics segment held for sale. Other impairment losses related to write-downs of other receivables (EUR 22m) and discontinued IT projects (EUR 24m).

Other operating expenses included further impairment losses of EUR 50m on the assets of the European catering operations held for sale and already reclassified as current assets (previous year: no impairment of assets already classified as held for sale). ↗ Note 30, p. 175.

A write-down of EUR 43m was recognised in the result from equity investments for the shares in the joint venture Alpha Holding Ltd. (Catering segment), which is accounted for using the equity method. It relates to the insolvency of the Thomas Cook Group plc.

10 Other operating expenses

T091 OTHER OPERATING EXPENSES

in €m	2019	2018
Staff-related expenses	1,201	1,226
Rental and maintenance expenses	742	923
Foreign exchange losses	648	771
Expenses for computerised distribution systems	506	524
Advertising and sales promotions	384	439
Sales commission paid to agencies	368	330
Auditing, consulting and legal expenses	312	252
Commissions for credit cards	232	222
Other services	144	148
Write-downs on receivables	120	100
Communications costs	85	84
Other taxes	84	84
Insurance premiums for flight operations	61	56
Losses on disposal of non-current assets	39	17
Miscellaneous other operating expenses	609	532
	5,585	**5,708**

Staff-related expenses also include travel and training costs for Group employees and the costs of outside staff.

Foreign exchange losses (excluding financial liabilities) mainly consist of losses from differences between the monthly average rates on the transaction date and on the payment date, expenses from exchange rate hedges and translation losses from measurement at the exchange rate on the balance sheet date. ↗ Note 6, p. 159. The foreign currency effects of borrowing are recognised in other financial items, in the context of the net results of exchange rate hedging relationships for borrowing.

Lease expenses were eliminated from rental expenses and right-of-use assets recognised as a result of the first-time application of IFRS 16 in 2019, to the extent that the corresponding leases meet the conditions for recognition. ↗ Note 20, p. 170ff. Rental expenses would have been EUR 267m higher in 2019 without this change. Rental expenses include property maintenance expenses of EUR 166m (previous year: EUR 150m).

Impairment losses of EUR 50m were recognised in other operating expenses for assets already reclassified as current assets in connection with the sale of the European catering operations.

11 Result from equity investments

T092 RESULT FROM EQUITY INVESTMENTS

in €m	2019	2018
Result of joint ventures accounted for using the equity method	14	75
Result of associated companies accounted for using the equity method	74	39
Result of equity investments accounted for using the equity method	**88**	**114**
Dividends from other joint ventures	12	13
Dividends from other associated companies	3	6
Income from profit transfer agreements	35	31
Expenses from loss transfer agreements	-19	-26
Dividends from other equity investments	49	36
Result of other equity investments	**80**	**60**
	168	**174**

Write-downs on shares are also presented in the result of joint ventures accounted for using the equity method. ↗ Note 9, p. 160f. The increase in the result of associated companies accounted for using the equity method comes from a one-off disposal gain of EUR 33m for an associate in the MRO segment.

Income and expenses from profit and loss transfer agreements are shown including tax contributions.

12 Net interest

T093 NET INTEREST

in €m	2019	2018
Income from other securities and non-current financial loans	8	5
Other interest and similar income	71	63
Interest income	**79**	**68**
Interest expenses on pensions obligations	-119	-97
Interest expenses on other provisions	3	-8
Interest and other similar expenses	-278	-107
Interest expenses	**-394**	**-212**
	-315	**-144**

Net interest comprises interest income and expenses – calculated using the effective interest method in accordance with IFRS 9 – from financial assets and liabilities not classified as at fair value through profit or loss.

Lower net interest is mainly due to interest expenses in connection with a supplementary tax payment due to the non-deductibility of partial write-downs on cross-border loans (EUR 146m) and interest expenses for leases (EUR 53m) recognised for the first time as a result of the adoption of IFRS 16 as of 1 January 2019.

13 Other financial items

T094 OTHER FINANCIAL ITEMS

in €m	2019	2018
Result of fair value hedges – change in time value of hedged transactions	-90	-47
Result of fair value hedges – change in time value of hedging instruments	89	60
Ineffective portion of derivatives used as cash flow hedges	-18	17
Result of derivatives held for trading classified as at fair value through profit or loss	359	-16
Result of measuring securities classified as at fair value through profit or loss	-17	-35
Exchange rates effects from financial liabilities	-5	-26
	318	**-46**

Exchange rate hedges in cash flow hedges for investments were reversed in October 2019 for total proceeds of EUR 402m after the hedges were terminated early as of 30 September 2019. These hedges covered orders for 14 Boeing 777 aircraft, which were originally held as reconfirmable orders and had been hedged using long-term forward currency transactions in accordance with the hedging strategy. In the third quarter of 2019, the orders for 14 B777s were converted into options which, at present, are not sufficiently certain to be exercised. From a hedge accounting perspective, this means the forecast transactions are no longer highly probable, so the hedge relationships had to be terminated.

14 Income taxes

T095 INCOME TAXES

in €m	2019	2018
Current income taxes	547	614
Deferred income taxes	68	-26
	615	**588**

Current income taxes include corporation tax, solidarity surcharge, trade tax and other income taxes paid outside Germany totalling EUR 382m for 2019 (previous year: EUR 538m). Other tax expenses of EUR 165m related to prior years (previous year: EUR 76m). The tax rates used to calculate deferred taxes abroad ranged from 3.5% to 35.0% in 2019 (previous year: 3.5% to 35.0%). For measuring deferred taxes, the relevant taxation rules in force or adopted at the balance sheet date are used.

The following table reconciles expected and effective tax expenses. Expected tax expense is calculated by multiplying profit before income taxes by a tax rate of 25% for the parent company (previous year: 25%). This is made up of a tax rate of 15.825% (previous year: 15.825%) for corporation tax/solidarity surcharge and 9.175% for trade tax (previous year: 9.175%). The portion of trade income related to the foreign air transport operations of the German-based airlines is deducted when calculating the tax rate for trade tax.

T096 TAX RECONCILIATION

	2019		2018	
in €m	Basis of assessment	Tax expenses	Basis of assessment	Tax expenses
Expected income tax expenses	1,860	465	2,784	696
Tax free gains/losses	–	-1	–	–
Non-deductible costs	–	59	–	55
Non-taxable income	–	-84	–	-61
Non-taxable income from equity investments	–	-51	–	-42
Difference between local taxes and the deferred tax rates of the parent company as well as effects of changes in tax rates	–	-5	–	-23
Taxes from other periods [1]	–	193	–	–
Effects from use or deferred tax assets not recognised	–	39	–	-37
Recognised income tax expenses	**–**	**615**	**–**	**588**

[1] Deferred tax expenses of EUR 28m for other periods (previous year: EUR 76m tax revenue) and effective tax expenses of EUR 165m for other periods (previous year: EUR 76m).

Deferred tax liabilities of EUR 48m (previous year: EUR 47m) were not recognised on temporary differences in connection with shares in subsidiaries, as the temporary differences are not expected to reverse in the foreseeable future.

Deferred tax assets and liabilities in 2019 and 2018 were allocable to the following items in the statement of financial position:

T097 DEFERRED TAX ASSETS AND LIABILITIES

	31 Dec 2019		31 Dec 2018	
in €m	**Assets**	**Liabilities**	Assets	Liabilities
Tax loss carry-forwards and tax credits	45	–	121	–
Pension provisions	2,574	–	2,331	–
Intangible assets, property, plant and equipment	–	1,112	–	923
Non-current financial assets	–	24	–	14
Fair value measurement of financial instruments	–	235	–	126
Provisions for contingent losses	6	–	19	–
Receivables/liabilities/other provisions	163	–	–	110
Inventories	242	–	247	–
Assets held for sale	–	–	–	1
Other	–	2	4	–
Offset amounts	-762	-762	-591	-591
	2,268	**611**	**2,131**	**583**

A deferred tax receivable of EUR 28m (previous year: EUR 47m) was recognised for companies incurring a net tax loss in the reporting year because tax and earnings planning indicates that there is a high probability that the tax receivable will be realised.

In addition to recognised deferred tax assets from tax loss carry-forwards, non-deductible interest carry-forwards and tax credits, further tax loss carry-forwards and temporary differences totalling EUR 3,050m (previous year: EUR 2,423m) exist for which no deferred tax assets could be recognised.

The usage restrictions for non-capitalised tax loss carry-forwards and the resulting deferred taxes are distributed as follows:

T098 LIMITS ON THE USE OF NON-CAPITALISED LOSS CARRY-FORWARDS

in €m	Non-capitalised loss carry-forwards	Deferred taxes
Usable		
until 2023	184	40
until 2024	42	9
until 2025	16	5
until 2026	3	1
until 2027	1	1
until 2028	1	–
2029 and beyond	2,250	569
Total	**2,497**	**625**
of which from companies in the disposal group under assets held for sale	67	14

15 Earnings per share

Basic/diluted earnings per share are calculated by dividing consolidated net profit by the weighted average number of shares in circulation during the financial year. To calculate the average number of shares, the shares bought back and reissued for the employee share programmes are included pro rata temporis.

T099 EARNINGS PER SHARE

		2019	2018
Basic/diluted earnings per share	€	**2.55**	**4.58**
Consolidated net profit/loss	€m	1,213	2,163
Weighted average number of shares		475,730,992	472,553,216

For the financial year 2019, there was a net profit at Deutsche Lufthansa AG of EUR 595m. Following the transfer of EUR 297m to retained earnings, distributable profit comes to EUR 298m. In view of the current impact of the coronavirus on the course of business and to further strengthen the statement of financial position, the Executive Board and Supervisory Board propose to the Annual General Meeting to transfer the distributable profit of EUR 298m in full to retained earnings.

In 2019, EUR 0.80 per share was distributed as a dividend to shareholders from the net profit for 2018, including a transfer from retained earnings.

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Assets

16 Goodwill and intangible assets with an indefinite useful life

T100 GOODWILL AND INTANGIBLE ASSETS WITH AN INDEFINITE USEFUL LIFE

in €m	Goodwill from consolidation	Intangible assets with an indefinite useful life	Total
Cost as of 1 Jan 2018	1,027	634	1,661
Accumulated impairment losses	-314	-4	-318
Carrying amount 1 Jan 2018	**713**	**630**	**1,343**
Currency translation differences	–	15	15
Additions due to changes in consolidation	–	–	–
Additions	23	–	23
Reclassifications	–	–	–
Disposals due to changes in consolidation	–	–	–
Disposals	–	–	–
Reclassifications to assets held for sale	–	–	–
Impairment losses	–	–	–
Reversal of impairment losses	–	–	–
Carrying amount 31 Dec 2018	**736**	**645**	**1,381**
Cost as of 1 Jan 2019	1,050	648	1,698
Accumulated impairment losses	-314	-3	-317
Carrying amount 1 Jan 2019	**736**	**645**	**1,381**
Currency translation differences	–	14	14
Additions due to changes in consolidation	–	–	–
Additions	–	–	–
Reclassifications	–	–	–
Disposals due to changes in consolidation	–	–	–
Disposals	–	–	–
Reclassifications to assets held for sale	–	–	–
Impairment losses	–	–	–
Reversal of impairment losses	–	–	–
Carrying amount 31 Dec 2019	**736**	**659**	**1,395**
Cost as of 31 Dec 2019	1,044	663	1,707
Accumulated impairment losses	-308	-4	-312

All goodwill and intangible assets with an indefinite useful life were subjected to a regular impairment test in 2019 as required by IAS 36. Furthermore, there is the obligation to perform an impairment test if there is an indication of impairment. For impairment testing following an indication of impairment ↗ **Note 9, p. 160f.**

Acquired brands and slots have an indefinite useful life due to their lasting legal and economic significance. The tests were performed at the level of the smallest cash generating unit (CGU) on the basis of fair value less costs to sell or value in use. Due to the future organisational and commercial integration of Brussels Airlines with Network Airlines and the re-allocation of Eurowings' long-haul business, the fair value of the Eurowings business segment was divided among the remaining Eurowings group, Lufthansa German Airlines and Brussels Airlines in proportion to their market value.

The following table provides an overview of the goodwill tested and the assumptions made in the respective impairment tests regarding the smallest possible cash-generating unit (CGU) in each case.

T101 IMPAIRMENT TESTS OF GOODWILL 2019

Name of the CGU	Lufthansa German Airlines	Brussels Airlines	Eurowings	LSG Sky Chefs USA group	LSG Sky Chefs Korea	Other[1]
Segment	Network Airlines	Brussels Airlines	Eurowings	Catering	Catering	Catering/Service and financial companies
Carrying amount of goodwill (31 Dec)	€ 252m	€ 44m	€ 57m	€ 277m	€ 60m	€ 45m
Impairment losses	–	–	–	–	–	–
Duration of planning period	4 years	4 years	4 years	4 years	4 years	4 years
Revenue growth p.a. after end of planning period	2.0%	2.0%	2.0%	1.9%	2.6%	1.7% to 3.5%
Discount rate	3.9%[2]	3.9%[2]	3.9%[2]	4.6%[3]	4.1%[3]	3.9%[2] to 7.7%[3]

[1] Goodwill of less than EUR 25m carrying amount in any individual instance.
[2] After-tax rate.
[3] Pre-tax rate.

The assumptions on revenue growth used for the impairment tests are based on approved internal budgets and external sources for the planning period. In some cases, reductions were made for risk to allow for special regional features and market share trends specific to the respective companies. The margins used are based on past experience or were developed on the basis of cost-cutting measures initiated. The investment rates are based on past experience and take account of the replacement of any means of production envisaged during the planning period. Costs of the central functions were charged to the individual units based on their use of these functions. The tests also covered the right-of-use assets recognised in line with IFRS 16. Additional debt resulting from the recognition of lease liabilities in accordance with IFRS 16 was included in the weighted cost of capital.

Assuming sustained revenue growth by the CGUs as described in the table, the recoverable amounts would exceed the carrying amount by a significant figure, even if the growth assumptions were reduced by one percentage point in each case. Worsening the scenarios by one percentage point in each case, in terms of planned margins or the discount rates used for the impairment tests, would also not reduce the recoverable amounts below the respective carrying amounts for all of the other CGUs. The sensitivity analysis takes into account changes in one assumption at a time, whereby the other assumptions remain unchanged from the original calculation.

The following table shows the assumptions used for the previous year's impairment tests.

T101 IMPAIRMENT TESTS OF GOODWILL 2018

Name of the CGU	Lufthansa German Airlines	Eurowings	LSG Sky Chefs USA group	LSG Sky Chefs Korea	Other[1]
Segment	Network Airlines	Eurowings	Catering	Catering	Catering/Service and financial companies
Carrying amount of goodwill (31 Dec)	€ 238m	€ 116m	€ 277m	€ 61m	€ 44m
Impairment losses	–	–	–	–	–
Duration of planning period	4 years	4 years	4 years	4 years	4 years
Revenue growth p.a. after end of planning period	2.2%	2.2%	2.0%	2.9%	1.0% to 5.0%
Discount rate	4.7%[2]	4.7%[2]	5.2%[3]	4.9%[3]	4.5%[2] to 9.0%[3]

[1] Goodwill of less than EUR 25m in any individual instance.
[2] After-tax rate.
[3] Pre-tax rate.

The earnings situation of the Logistics segment provided an indication for an impairment test, but this did not result in an impairment loss.

The earnings situation of Austrian Airlines would also have triggered an impairment test if the value of the assets attributable to Austrian Airlines had not already been confirmed by the impairment testing of the slots described below.

The intangible assets with indefinite useful lives consist of slots purchased as part of company acquisitions (insofar as they are tradeable) and brand names acquired.

The following table shows the assumptions made for regular impairment testing of the smallest cash-generating unit (CGU) in each case.

T102 IMPAIRMENT TESTS OF SLOTS 2019

Group company	SWISS	Austrian Airlines
Carrying amount for slots (31 Dec)	€ 135m	€ 23m
Impairment losses	–	–
Duration of planning period	4 years	4 years
Revenue growth p.a. after end of planning period	2.0%	2.0%
Discount rate	3.9%[1]	3.9%[1]

[1] After-tax rate.

Based on sustainable revenue growth according to assumptions described in the table, the recoverable amounts significantly exceed the carrying amounts. Even if the assumptions on revenue growth, the discount rate and margins are all reduced by one percentage point in each case, the recoverable amounts are still higher than the carrying amounts.

The sensitivity analysis takes into account changes in one assumption at a time, whereby the other assumptions remain unchanged from the original calculation.

The following table shows the assumptions used for the previous year's impairment tests.

T102 IMPAIRMENT TESTS OF SLOTS 2018

Group company	SWISS	Austrian Airlines
Carrying amount for slots (31 Dec)	€ 129m	€ 23m
Impairment losses	–	–
Duration of planning period	4 years	4 years
Revenue growth p.a. after end of planning period	2.2%	2.2%
Discount rate	4.8%[1]	4.7%[1]

[1] After-tax rate.

The slots purchased by Deutsche Lufthansa AG were allocated to Lufthansa German Airlines and Eurowings at their historic cost in accordance with their use. A carrying amount of EUR 76m was allocated to Lufthansa German Airlines and a carrying amount of EUR 36m to Eurowings as of 31 December 2019. Both carrying amounts were subjected to impairment testing with identical assumptions to those used for the goodwill of the CGUs Lufthansa German Airlines and Eurowings.

The regular impairment test for the brands acquired was carried out on the basis of the revenue generated from each brand.

The following additional assumptions were used in the impairment test for the acquired brands:

T103 IMPAIRMENT TESTS OF BRANDS 2019

Group company	SWISS	Austrian Airlines	Brussels Airlines	Other
Carrying amount for brand (31 Dec)	€ 238m	€ 107m	€ 37m	€ 7m
Impairment losses	–	–	–	–
Duration of planning period	4 years	4 years	4 years	4 years
Revenue growth p.a. after end of planning period	2.0%	2.0%	1.0%	0.0% to 2.0%
Savings in hypothetical leasing payments before taxes (royalty rate)	0.63%	0.35%	0.20%	0.23% to 0.50%
Discount rate	3.9%[1]	3.9%[1]	3.9%[1]	3.9% to 4.4%[1]

[1] After-tax rate.

Assuming sustained brand-related revenue growth at the end of the planning period, as described in the table, the recoverable amounts for the brands exceed their carrying amounts significantly. Even if the assumptions for sustained brand-related revenue growth were to be reduced or the discount rate were to be increased by one percentage point in each case, the recoverable amounts would exceed the carrying amounts.

There was no impairment charge within the other brands in 2019.

The sensitivity analysis takes into account changes in one assumption at a time, whereby the other assumptions remain unchanged from the original calculation.

The assumptions used for the previous year's impairment tests can be derived from the following table.

T103 IMPAIRMENT TESTS OF BRANDS 2018

Group company	SWISS	Austrian Airlines	Brussels Airlines	Other
Carrying amount for brand (31 Dec)	€ 230m	€ 107m	€ 37m	€ 7m
Impairment losses	–	–	–	–
Duration of planning period	4 years	4 years	4 years	4 years
Revenue growth p.a. after end of planning period	2.2%	2.2%	1.0%	0.0% to 2.2%
Savings in hypothetical leasing payments before taxes (royalty rate)	0.63%	0.35%	0.20%	0.23% to 0.50%
Discount rate	4.8% [1)]	4.7% [1)]	4.7% [1)]	4.5% to 5.1% [1)]

[1)] After-tax rate.

17 Other intangible assets

T104 OTHER INTANGIBLE ASSETS

in €m	Concessions, industrial property rights and similar rights and licences to such rights and assets	Internally developed software	Advance payments	**Total**
Cost as of 1 Jan 2018	1,230	133	112	1,475
Accumulated amortisation	-861	-107	-15	-983
Carrying amount 1 Jan 2018	**369**	**26**	**97**	**492**
Currency translation differences	5	2	-1	6
Additions due to changes in consolidation	–	–	–	–
Additions	29	4	77	110
Reclassifications	30	10	-35	5
Disposals due to changes in consolidation	–	–	–	–
Disposals	-1	–	-1	-2
Reclassifications to assets held for sale	–	–	–	–
Amortisation	-92	-7	–	-99
Reversal of impairment losses	–	–	–	–
Carrying amount 31 Dec 2018	**340**	**35**	**137**	**512**
Cost as of 1 Jan 2019	1,289	150	152	1,591
Accumulated amortisation	-949	-115	-15	-1,079
Carrying amount 1 Jan 2019	**340**	**35**	**137**	**512**
Currency translation differences	4	-1	–	3
Additions due to changes in consolidation	–	–	–	–
Additions	52	3	101	156
Reclassifications	43	11	-41	13
Disposals due to changes in consolidation	–	–	–	–
Disposals	-7	–	-8	-15
Reclassifications to assets held for sale	-1	–	–	-1
Amortisation	-99	-9	-13	-121
Reversal of impairment losses	–	–	–	–
Carrying amount 31 Dec 2019	**332**	**39**	**176**	**547**
Cost as of 31 Dec 2019	1,324	163	205	1,692
Accumulated amortisation	-992	-124	-29	-1,145

Non-capitalised research and development expenses for intangible assets of EUR 49m (previous year: EUR 44m) were incurred in the period. Fixed orders have been placed for intangible assets worth EUR 14m (previous year: EUR 10m), but they are not yet at the Lufthansa Group's economic disposal.

18 Aircraft and reserve engines including right-of-use assets

T105 AIRCRAFT AND RESERVE ENGINES INCLUDING RIGHT-OF-USE ASSETS

in €m	Aircraft and reserve engines	Advance payments for aircraft and reserve engines	**Total**
Cost as of 1 Jan 2018	29,405	1,373	30,778
Accumulated amortisation	-15,445	–	-15,445
Carrying amount 1 Jan 2018	**13,960**	**1,373**	**15,333**
Currency translation differences	114	13	127
Additions due to changes in consolidation	–	–	–
Additions	2,542	782	3,324
Reclassifications	475	-475	–
Disposals due to changes in consolidation	-5	–	-5
Disposals	-158	-3	-161
Reclassifications to assets held for sale	-7	–	-7
Depreciation	-1,837	–	-1,837
Reversal of impairment losses	2	–	2
Carrying amount 31 Dec 2018	**15,086**	**1,690**	**16,776**
Cost as of 1 Jan 2019	31,208	1,690	32,898
Accumulated amortisation	-16,122	–	-16,122
Carrying amount 1 Jan 2019	**15,086**	**1,690**	**16,776**
First-time application of IFRS 16	401	–	401
Adjusted carrying amount 1 Jan 2019	**15,487**	**1,690**	**17,177**
Currency translation differences	111	10	121
Additions due to changes in consolidation	–	–	–
Additions	2,149	1,098	3,247
Reclassifications	691	-691	–
Disposals due to changes in consolidation	–	–	–
Disposals	-69	-5	-74
Reclassifications to assets held for sale	-20	–	-20
Depreciation	-2,121	–	-2,121
Reversal of impairment losses	19	–	19
Carrying amount 31 Dec 2019	**16,247**	**2,102**	**18,349**
Cost as of 31 Dec 2019	32,945	2,102	35,047
Accumulated amortisation	-16,698	–	-16,698

Accounting changes in accordance with IFRS 16 and the resulting capitalisation of right-of-use assets meant that the figures were adjusted as of the beginning of the year. For a detailed description of the effects, we refer to ↗ **Note 2, p. 144ff.** Aircraft previously classified under finance leases in line with IAS 17, the accounting for which has not changed following the introduction of IFRS 16, were carried at EUR 466m as of 31 December 2019 (previous year: EUR 578m). ↗ **Note 20, p. 170ff.**

Additions in 2019 included right-of-use assets of EUR 227m. Other additions were for the procurement of new aircraft.

The item also includes 80 aircraft with a carrying amount of EUR 2,549m (previous year: 72 aircraft with a carrying amount of EUR 2,173m), which have mostly been sold to and leased back from foreign leasing companies with the aim of obtaining favourable financing conditions. The leasing companies were fully consolidated as structured entities. The Lufthansa Group is entitled to buy the aircraft back at a fixed price and at a given point in time.

In the reporting year, borrowing costs of EUR 24m were capitalised (previous year: EUR 22m). The financing rate used was 1.3% (previous year: 1.7%).

Order commitments for aircraft and reserve engines amount to EUR 14.3bn (previous year: EUR 13.5bn).

In the aircraft item, aircraft with a carrying amount of EUR 2,550m (previous year: EUR 2,323m) serve as collateral for current financing arrangements.

19 Property, plant and other equipment

T106 PROPERTY, PLANT AND OTHER EQUIPMENT

in €m	Land and buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Advance payments and plant under construction	**Total**
Cost as of 1 Jan 2018	2,648	1,247	1,409	167	5,471
Accumulated depreciation	-1,388	-906	-979	-12	-3,285
Carrying amount 1 Jan 2018	**1,260**	**341**	**430**	**155**	**2,186**
Currency translation differences	6	4	5	1	16
Additions due to changes in consolidation	–	–	–	–	–
Additions	38	44	121	94	297
Reclassifications	43	38	33	-118	-4
Disposals due to changes in consolidation	–	–	–	–	–
Disposals	-7	-1	-9	-3	-20
Reclassifications to assets held for sale	–	–	–	–	–
Depreciation	-90	-57	-107	–	-254
Reversal of impairment losses	–	–	–	–	–
Carrying amount 31 Dec 2018	**1,250**	**369**	**473**	**129**	**2,221**
Cost as of 1 Jan 2019	2,717	1,315	1,509	142	5,683
Accumulated depreciation	-1,467	-946	-1,036	-13	-3,462
Carrying amount 1 Jan 2019	**1,250**	**369**	**473**	**129**	**2,221**
First-time application of IFRS 16	1,531	–	19	–	1,550
Adjusted carrying amount 1 Jan 2019	**2,781**	**369**	**492**	**129**	**3,771**
Currency translation differences	21	4	2	3	30
Additions due to changes in consolidation	36	–	–	–	36
Additions	692	42	151	102	987
Reclassifications	50	15	18	-98	-15
Disposals due to changes in consolidation	–	–	–	–	–
Disposals	-50	-1	-8	-3	-62
Reclassifications to assets held for sale	-112	-22	-56	-9	-199
Depreciation	-327	-58	-122	–	-507
Reversal of impairment losses	–	–	–	–	–
Carrying amount 31 Dec 2019	**3,091**	**349**	**477**	**124**	**4,041**
Cost as of 31 Dec 2019	4,715	1,245	1,470	124	7,554
Accumulated depreciation	-1,624	-896	-993	–	-3,513

The increase in property, plant and other equipment was due to the first-time application of IFRS 16. For further information about right-of-use assets, we refer to ↗ **Note 20, p. 170ff.** In connection with finance lease arrangements formerly covered by IAS 17, there are also leases for property, plant and equipment with a carrying amount of EUR 80m (previous year: EUR 93m).

As in the previous year, charges of EUR 4m exist over land and property. Pre-emption rights are registered for land held at EUR 185m (previous year: EUR 193m). Other property, plant and equipment carried at EUR 4m (previous year: EUR 4m) serves as collateral for existing financing arrangements.

The following items of property, plant and equipment have been ordered, but are not yet at the Lufthansa Group's economic disposal:

T107 ORDERS OF PROPERTY, PLANT AND EQUIPMENT AS OF THE REPORTING DATE

in €m	**31 Dec 2019**	31 Dec 2018
Land and buildings	20	61
Technical equipment and vehicles	37	31
Operating and office equipment	61	51
	118	**143**

20 Leases

Leases for items of property, plant and equipment were categorised as either finance or operating leases up to and including 2018. Since 1 January 2019, leases are accounted for as a right-of-use asset and a corresponding lease liability from the time the Lufthansa Group gains control of the leased asset in accordance with IFRS 16. Further details of the change can be found in ↗ **Note 2, p. 144ff.**

The following table shows the carrying amounts of the recognised right-of-use assets and the changes during the reporting period.

T108 RIGHT-OF-USE ASSETS

in €m	Aircraft and reserve engines	Land and buildings	Technical equipment and machinery	Other intangible assets and technical equipment	**Total**
Cost as of 1 Jan 2018	862	248	1	10	1,121
Accumulated depreciation	-407	-152	-1	-4	-564
Carrying amount 1 Jan 2018	**455**	**96**	**–**	**6**	**557**
Currency translation differences	3	–	–	–	3
Additions due to changes in consolidation	–	–	–	–	–
Additions	243	–	–	–	243
Reclassifications	2	–	–	–	2
Disposals due to changes in consolidation	–	–	–	–	–
Disposals	–	–	–	-1	-1
Reclassifications to assets held for sale	–	–	–	–	–
Depreciation	-125	-6	–	-2	-133
Reversal of impairment losses	–	–	–	–	–
Carrying amount 31 Dec 2018 [1]	**578**	**90**	**–**	**3**	**671**
Cost as of 1 Jan 2019	1,055	218	1	9	1,283
Accumulated depreciation	-477	-128	-1	-6	-612
Carrying amount 1 Jan 2019	**578**	**90**	**–**	**3**	**671**
First-time application of IFRS 16	401	1,531	–	19	1,951
Adjusted carrying amount 1 Jan 2019	**979**	**1,621**	**–**	**22**	**2,622**
Currency translation differences	4	14	–	–	18
Additions due to changes in consolidation	–	–	–	–	–
Additions	227	642	–	13	882
Reclassifications	-1	-6	–	–	-7
Disposals due to changes in consolidation	–	–	–	–	–
Disposals	-8	-45	–	-1	-54
Reclassifications to assets held for sale	–	-30	–	-1	-31
Depreciation	-264	-244	–	-12	-520
Reversal of impairment losses	–	–	–	–	–
Carrying amount 31 Dec 2019	**937**	**1,952**	**–**	**21**	**2,910**
Cost as of 31 Dec 2019	1,588	2,225	–	38	3,851
Accumulated depreciation	-651	-273	–	-17	-941

[1] In the previous year these were finance lease assets within the meaning of IAS 17.

The Lufthansa Group mainly leases property, particularly at airports, as well as aircraft and other operating and office equipment. Leases may include renewal and termination options. The terms of the leases are negotiated individually and cover a wide range of different areas. Longer-term leases exist particularly for property. There is a residual lease term of up to 36 years for land and buildings (previous year: up to 29 years) as of the reporting date. EUR 359m of the increase in right-of-use assets for land and buildings in 2019 was due to a long-term land lease at Frankfurt Airport.

As a rule, the aircraft leases that were previously deemed to be in the economic ownership of the Lufthansa Group under IAS 17 cannot be terminated during a fixed basic lease term of at least four years and they run for a maximum of 24 years (previous year: 23 years). New right-of-use assets for aircraft under IFRS 16 have an average residual term of three years.

The leases existing under IFRS 16 affected the consolidated income statement as follows:

T109 LEASE EXPENSES RECOGNISED IN PROFIT OR LOSS

in €m	**2019**
Amortisation of right-of-use assets	520
Interest expenses for lease liabilities	72
Expenses for short-term leases	193
Expenses for low-value leases	120
Variable lease payments	126

In addition, the Lufthansa Group has signed leases for capacities and unspecified assets; the relevant payments are still recognised in the income statement.

Many of the Lufthansa Group's leases for properties (including airports) and aircraft include renewal options and variable lease payments. These options are used to obtain the greatest possible flexibility in terms of capacities. They have not been taken into account in various cases when measuring the lease liability, because it is not reasonably certain that they will be exercised. Potential future lease payments for periods after the exercise date of the renewal options are summarised in the following table:

T110 DISCLOSURES ON RENEWAL OPTIONS AND VARIABLE LEASE PAYMENTS

	Recognised lease liability (discounted)	Potential future lease payments not included in lease liabilities (undiscounted payments)		
in €m	31 Dec 2019	Payable 2021 – 2025	Payable after 2026	**Total**
Aircraft	486	71	–	71
Property [1]	1,929	55	292	347
Total	**2,415**	**126**	**292**	**418**

[1] Of which EUR 27m lease liabilities from held-for-sale entities and EUR 3m from potential future lease payments.

As of 31 December 2019, there were no renewal options for aircraft that had been classified as not reasonably certain.

There are also future payments subject to termination options, but the Lufthansa Group considers these to be immaterial.

Amounts included in the cash flow statement are shown in the following table:

T111 CASH OUTFLOWS FOR LEASES [1]

in €m	**2019**
Lease expenses from short-term and low-value leases and variable lease payments not included in the measurement of lease liabilities	439
Repayment of the redemption portion of the lease liability	499
Interest payments	64
Total	**1,002**

[1] Disclosures include the former IAS 17 finance lease liabilities and the new IFRS 16 lease liabilities.

Lease payments are shown from 2019 as cash flows from financing activities, unless they relate to short-term or low value leases or are variable lease payments. This positively altered cash flows from operating activities in the reporting year by EUR 563m, of which EUR 432m is due to the new lease liabilities for right-of-use assets in accordance with IFRS 16.

The maturity analysis of lease liabilities is shown under borrowings, ↗ Note 35, p. 188.

Information about operating leases in which the Lufthansa Group is lessor can be found in ↗ Note 6, p. 159.

21 Equity investments accounted for using the equity method

T112 EQUITY INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

in €m	Investments in joint ventures	Investments in associated companies	**Total**
Cost as of 1 Jan 2018	350	239	589
Accumulated impairment losses	–	-4	-4
Carrying amount 1 Jan 2018	**350**	**235**	**585**
Currency translation differences	3	1	4
Additions due to changes in consolidation	–	–	–
Additions	32	–	32
Changes with and without an effect on profit and loss	75	37	112
Reclassifications	–	–	–
Disposals due to changes in consolidation	–	–	–
Disposals	–	–	–
Dividends paid	-69	-14	-83
Reclassifications to assets held for sale	–	–	–
Impairment losses	–	–	–
Reversal of impairment losses	–	–	–
Carrying amount 31 Dec 2018	**391**	**259**	**650**
Cost as of 1 Jan 2019	391	263	654
Accumulated impairment losses	–	-4	-4
Carrying amount 1 Jan 2019	**391**	**259**	**650**
Currency translation differences	3	9	12
Additions due to changes in consolidation	–	–	–
Additions	77	–	77
Changes with and without an effect on profit and loss	70	73	143
Reclassifications	–	–	–
Disposals due to changes in consolidation	–	–	–
Disposals	–	–	–
Dividends paid	-62	-101	-163
Reclassifications to assets held for sale	–	-4	-4
Impairment losses	-43	–	-43
Reversal of impairment losses	–	–	–
Carrying amount 31 Dec 2019	**436**	**236**	**672**
Cost as of 31 Dec 2019	479	241	720
Accumulated impairment losses	-43	-5	-48

For the write-down on shares in joint ventures in 2019 ↗ Note 9, p. 160f.

Individual interests in companies accounted for using the equity method

The following tables contain summarised data from the income statements and data from the statement of financial position for the individual material joint ventures accounted for using the equity method.

T113 BALANCE SHEET DATA GÜNES EKSPRES HAVACILIK ANONIM SIRKETI (SUNEXPRESS), ANTALYA, TURKEY

in €m	**31 Dec 2019**	31 Dec 2018[1]
Current assets	594	400
of which cash and cash equivalents	317	196
Non-current assets	1,204	820
Current liabilities	769	404
Non-current liabilities	715	559
Current financial liabilities (except trade and other payables and provisions)	312	114
Non-current financial liabilities (except trade and other payables and provisions)	583	412
Shareholders' equity	**314**	**257**
Share of equity	157	129
Other	21	19
Carrying amount	**178**	**148**

[1] Previous year's figures have been adjusted.

T114 INCOME STATEMENT DATA GÜNES EKSPRES HAVACILIK ANONIM SIRKETI (SUNEXPRESS), ANTALYA, TURKEY

in €m	**2019**	2018
Revenue	1,432	1,261
Depreciation and amortisation	148	53
Interest income	6	6
Interest expenses	25	15
Income tax expense or income	14	34
Profit or loss from continuing operations	**48**	**47**
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	9	-6
Total comprehensive income	**57**	**41**
Share of profit or loss from continuing operations	24	24
Share of comprehensive income	31	21

The item "Other" in the reconciliation with the carrying amount for SunExpress includes the difference from the first-time consolidation of the company.

T115 BALANCE SHEET DATA TERMINAL 2 GESELLSCHAFT MBH & CO. OHG, MUNICH AIRPORT, GERMANY

in €m	31 Dec 2019	31 Dec 2018
Current assets	46	80
of which cash and cash equivalents	–	4
Non-current assets	1,323	1,381
Current liabilities	400	266
Non-current liabilities	908	1,133
Current financial liabilities (except trade and other payables and provisions)	256	122
Non-current financial liabilities (except trade and other payables and provisions)	880	1,103
Shareholders' equity	**61**	**62**
Share of equity	25	25
Other	–	–
Carrying amount	**25**	**25**

T116 INCOME STATEMENT DATA TERMINAL 2 GESELLSCHAFT MBH & CO. OHG, MUNICH AIRPORT, GERMANY

in €m	2019	2018
Revenue	357	357
Depreciation and amortisation	84	84
Interest income	–	–
Interest expenses	36	39
Income tax expense or income	10	10
Profit or loss from continuing operations	**78**	**77**
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	16	8
Total comprehensive income	**94**	**85**
Share of profit or loss from continuing operations	31	31
Share of comprehensive income	38	34
Dividends received	38	37

The following table contains summarised aggregated data from the income statements and carrying amounts for the individually immaterial joint ventures accounted for using the equity method.

T117 INCOME STATEMENTS DATA AND CARRYING AMOUNTS OF JOINT VENTURES ACCOUNTED FOR USING THE EQUITY METHOD

in €m	2019	2018
Profit or loss from continuing operations	1	23
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	–	–
Total comprehensive income	**1**	**23**
Carrying amount	**233**	**218**

The following table contains summarised aggregated data from the income statements and carrying amounts for the individually immaterial associated companies accounted for using the equity method.

T118 INCOME STATEMENTS DATA AND CARRYING AMOUNTS OF ASSOCIATED COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD

in €m	2019	2018
Profit or loss from continuing operations	74	39
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	-1	-2
Total comprehensive income	**73**	**37**
Carrying amount	**236**	**259**

22 Other equity investments and non-current securities

T119 OTHER EQUITY INVESTMENTS AND NON-CURRENT SECURITIES

in €m	31 Dec 2019	31 Dec 2018
Investments in affiliated companies	223	222
Investments	33	24
Other investments	**256**	**246**
Non-current securities	53	41

Shares in related parties include shares in affiliated companies, joint ventures and associates that are not consolidated for reasons of materiality. These shares are carried at amortised cost. Disclosures on the equity investments and non-current securities can be found in ↗ **Note 43, p. 200ff.**

In the current financial year, other equity investments held at EUR 1m (previous year: EUR 8m) were sold for a loss of EUR 0m (previous year: loss of EUR 1m).

23 Non-current loans and receivables

T120 NON-CURRENT LOANS AND RECEIVABLES

in €m	31 Dec 2019	31 Dec 2018
Loans to and receivables from affiliated companies	104	108
Loans to and receivables from other equity investments	–	–
Other loans and receivables	241	351
Emissions certificates	124	53
	469	**512**

Non-current loans and receivables are carried at amortised cost.

For the impairment test for emissions certificates, we refer to the disclosures on the cash-generating units (CGU) Lufthansa German Airlines, SWISS, Austrian Airlines, Brussels Airlines and Eurowings in ↗ **Note 16, p. 164ff.**

Other receivables include expected reimbursements for obligations for which provisions have been made amounting to EUR 2m (previous year: EUR 2m). Of the non-current receivables, EUR 1m (previous year: EUR 32m) serve as collateral for liabilities.

24 Inventories

T121 INVENTORIES

in €m	31 Dec 2019	31 Dec 2018
Raw materials, consumables and supplies	888	813
Finished goods and work in progress	88	150
Advance payments	4	5
	980	**968**

No inventories have been pledged as collateral for loans. EUR 782m of the inventories (previous year: EUR 695m) consist of non-repairable spare parts for aircraft.

The gross value of written-down inventories as of 31 December 2019 was EUR 998m (previous year: EUR 859m). Inventories with a carrying amount of EUR 716m (previous year: EUR 604m) are held at net realisable value. Write-downs to net realisable value of EUR 259m were made at the beginning of the financial year (previous year: EUR 232m). New impairment losses of EUR 41m were recognised in the reporting year (previous year: EUR 36m). Write-downs of EUR 18m made in the previous year were reversed (previous year: EUR 13m). In addition, accumulated impairment losses of EUR 3m were reclassified to assets held for sale.

25 Contract assets

The Lufthansa Group recognised the following contract assets in 2019:

T122 CONTRACT ASSETS

in €m	31 Dec 2019	31 Dec 2018
Contract assets from MRO and IT services	278	234
Impairment of contract assets	–1	–
Total contract assets	**277**	**234**

26 Trade receivables and other receivables

T123 TRADE RECEIVABLES AND OTHER RECEIVABLES

in €m	31 Dec 2019	31 Dec 2018
Trade receivables		
Trade receivables from affiliated companies	58	67
Trade receivables from other equity investments	2	7
Trade receivables from third parties	3,802	3,938
	3,862	**4,012**
Other receivables		
Receivables from affiliated companies	89	93
Receivables from other equity investments	1	–
Other receivables	1,370	1,408
Emissions certificates	95	63
	1,555	**1,564**
Total	**5,417**	**5,576**

For the impairment test for emissions certificates, we refer to the disclosures on the cash-generating units (CGU) Lufthansa German Airlines, SWISS, Austrian Airlines, Eurowings and Brussels Airlines in ↗ **Note 16, p. 164ff.**

Collateral received for trade receivables has a fair value of EUR 0m (previous year: EUR 2m). Other receivables include expected reimbursements for obligations for which provisions have been made amounting to EUR 1m (previous year: EUR 26m).

For disclosures on impairment losses, credit risks and term structures, we refer to ↗ **Note 43, p. 200ff.**

Other receivables include claims of EUR 149m (previous year: EUR 154m) against insurers in connection with the accident involving the Germanwings aircraft on 24 March 2015. As of the reporting date, these receivables are offset by provisions of EUR 135m for outstanding obligations relating to this accident (previous year: EUR 139m).

Other receivables of EUR 0m (previous year: EUR 34m) serve to secure negative market values of derivatives.

27 Deferred charges and prepaid expenses

Deferred charges and prepaid expenses consist of various services paid for in advance for subsequent periods.

28 Current securities

Current securities are fixed income securities, participation certificates, shares and investments in money market funds.

29 Cash and cash equivalents

The item does not include any material fixed-term deposits (previous year: EUR 66m) with terms of four to twelve months.

Bank balances in foreign currencies are translated at the exchange rate on the balance sheet date.

30 Assets held for sale

Assets with a carrying amount of EUR 369m were held for sale as of year-end 2019. These largely consist of the assets in the disposal group "European activities of the LSG group". The related assets and liabilities were reclassified as of 30 September 2019 in view of the high probability of a sale within twelve months. On 6/7 December 2019, a contract was signed with Gategroup Holding AG for shares and some assets attributable to the catering activities of the Lufthansa Group in Europe. The agreement is still subject to conditions precedent, in particular approval by the competition authorities. The transaction is expected to be closed in the first half of 2020.

Impairment testing as of 31 December 2019 resulted in a write-down of EUR 50m regarding the expected sale price to reflect the concrete underlying valuation assumptions following the conclusion of the contract. ↗ **Note 10, p. 161.** The following table shows the now consolidated assets and liabilities in terms of main categories:

T124 ASSETS AND LIABILITIES IN THE DISPOSAL GROUP "EUROPEAN BUSINESS OPERATIONS OF THE LSG GROUP" AFTER CONSOLIDATION AS OF 31 DECEMBER 2019 AND OTHER RECEIVABLES

in €m	31 Dec 2019
Assets	
Intangible assets	1
Property, plant and other equipment	151
Other non-current assets	13
Deferred tax assets	31
Inventories	80
Other current assets	82
Total	**358**
Shareholders' equity and liabilities	
Pension provisions	289
Other non-current provisions	16
Other non-current liabilities	32
Other current provisions	11
Trade payables and other non-financial liabilities	175
Other current liabilities	17
Total	**540**

In addition to the assets in the disposal group, the assets held for sale include three freighter aircraft and one building (EUR 11m in total). The carrying amount in the previous year was EUR 9m and related to two aircraft and one building.

Shareholders' equity and liabilities

31 Issued capital

SHARE CAPITAL

Deutsche Lufthansa AG's issued capital totals EUR 1,224m. Issued capital is divided into 478,194,257 registered shares, with each share representing EUR 2.56 of issued capital.

AUTHORISED CAPITAL

A resolution passed at the Annual General Meeting on 7 May 2019 authorised the Executive Board until 6 May 2024, subject to approval by the Supervisory Board, to increase the Company's issued capital by up to EUR 450,000,000 by issuing new registered shares on one or more occasions for payment in cash or in kind (Authorised Capital A). In certain cases, the shareholders' subscription rights can be excluded with the approval of the Supervisory Board.

A resolution passed at the Annual General Meeting on 7 May 2019 authorised the Executive Board until 6 May 2024, subject to approval by the Supervisory Board, to increase the issued capital by up to EUR 30,000,000 by issuing new registered shares to employees (Authorised Capital B) for payment in cash. Existing shareholders' subscription rights are excluded. In order to issue new shares to employees of Deutsche Lufthansa AG and its affiliated companies, the Executive Board of Deutsche Lufthansa AG decided, with the approval of the Supervisory Board, to make use of the authorisation voted at the Annual General Meeting on 7 May 2019 (Authorised Capital B) and increase the Company's issued capital by EUR 7,637,831.68 excluding shareholders' subscription rights, by issuing 2,983,528 new registered shares with transfer restrictions and profit entitlement from 1 January 2019 for payment in cash. The capital increase was entered in the Commercial Register of Cologne District Court (HRB 2168) on 25 October 2019. As of 31 December 2019, Authorised Capital B amounts to EUR 22,362,168.32.

CONTINGENT CAPITAL

A resolution passed at the Annual General Meeting on 28 April 2016 authorised the Executive Board until 27 April 2021, subject to approval by the Supervisory Board, to issue bearer or registered convertible bonds, bond/warrant packages, profit sharing rights or participating bonds (or combinations of these instruments), on one or more occasions, for a total nominal value of up to EUR 1.5bn, with or without restrictions on maturity. To do so, contingent capital (Contingent Capital II) was created for a contingent capital increase of up to EUR 237,843,840 by issuing up to 92,907,750 new registered shares. The contingent capital increase will only take place insofar as the holders of convertible bonds or warrants from bond/warrant packages decide to exercise their conversion and/or option rights.

AUTHORISATION TO PURCHASE TREASURY SHARES

A resolution passed at the Annual General Meeting held on 7 May 2019 authorised the Executive Board pursuant to Section 71 Paragraph 1 No. 8 Stock Corporation Act (AktG) to purchase treasury shares until 6 May 2024. The authorisation is limited to 10% of current issued capital, which can be purchased on the stock exchange or by a public purchase offer to all shareholders. The authorisation states that the Executive Board can use the shares, in particular, for the purposes defined in the resolution passed at the Annual General Meeting. According to the resolution of the Annual General Meeting held on 7 May 2019, the Executive Board is also authorised to purchase treasury shares by means of derivatives and to conclude corresponding derivative transactions.

At various points in 2019, Deutsche Lufthansa AG bought back 95,753 of its own shares at an average price of EUR 17.27. This corresponds to 0.02% or EUR 245,127.68 of share capital.

The shares purchased or created by means of the capital increase were used as follows:

- 2,098,795 shares were transferred to the employees of Deutsche Lufthansa AG and to 34 other affiliated companies and equity investments as part of the profit-sharing for 2018, at a share price of EUR 14.18.
- 974,540 shares were transferred as part of performance-related variable remuneration in 2019 to managers and non-payscale employees of Deutsche Lufthansa AG and to 45 further affiliated companies and equity investments at a price of EUR 17.43.
- 377 shares were transferred for previous years' programmes (performance-related variable remuneration for 2017 and 2018 to managers, non-payscale employees and other employees of Deutsche Lufthansa AG and to further affiliated companies and equity investments from profit-sharing for 2017) at a price of EUR 29.58.
- 5,569 shares were resold at a price of EUR 16.54.

On the balance sheet date, treasury shares were no longer held.

CAPITAL MANAGEMENT

The Lufthansa Group continues to aim for a sustainable equity ratio of 25%, in order to ensure long-term financial flexibility and stability as a basis for its growth targets for the Group. As of 31 December 2019 and 2018, equity and total assets were as follows:

T125 EQUITY AND LIABILITIES

in €m	31 Dec 2019	31 Dec 2018
Shareholders' equity	10,256	9,573
In % of total assets	24.0	25.1
Liabilities	32,403	28,640
In % of total assets	76.0	74.9
Total capital	**42,659**	**38,213**

In the financial year 2019, the equity ratio declined by 1.1 percentage point compared with the figure for the previous year to 24.0%. The IFRS 16 accounting change reduced the equity ratio by 1.5 percentage points.

Deutsche Lufthansa AG's Articles of Association do not stipulate any capital requirements.

32 Reserves

Capital reserves only include the share premium paid on capital increases and a convertible bond that was redeemed in full in previous years. The legal reserve contained in retained earnings is unchanged at EUR 26m; other reserves consist of other retained earnings.

The following table shows changes in other neutral reserves in 2019:

T126 NOTES ON OTHER COMPREHENSIVE INCOME

in €m	2019	2018
Other comprehensive income after income taxes		
Currency translation differences		
Profit/loss for the period	115	124
Reclassification adjustments recognised in profit or loss	–	–
Subsequent measurement of financial assets at fair value (with recycling)	10	-10
Subsequent measurement of financial assets at fair value (without recycling)	7	5
Profit/loss for the period	–	-3
Reclassification adjustments recognised in profit or loss	–	-2
Subsequent measurement of hedges – cash flow hedge reserve	258	434
Subsequent measurement of hedges – costs of hedging	476	-90
Profit/loss for the period	1,278	401
Reclassification adjustments recognised in profit or loss	-544	-57
Other comprehensive income from investments accounted for using the equity method		
Profit/loss for the period – reclassifiable	13	-2
Profit/loss for the period – non-reclassifiable	–	–
Revaluation of defined-benefit pension plans	-1,108	-974
Other expenses and income recognised directly in equity (with recycling)	15	1
Other expenses and income recognised directly in equity (without recycling)	-1	–
Income taxes on items in other comprehensive income	163	30
Other comprehensive income after income taxes	**-52**	**-482**

T127 NOTE ON INCOME TAXES RECOGNISED FOR OTHER COMPREHENSIVE INCOME

in €m	2019			2018		
	Amount before income taxes	**Tax expenses/ income**	**Amount after income taxes**	Amount before income taxes	Tax expenses/ income	Amount after income taxes
Currency translation differences	115	–	115	124	–	124
Subsequent measurement of financial assets at fair value (with recycling)	10	–	10	-10	–	-10
Subsequent measurement of financial assets at fair value (without recycling)	7	–	7	5	–	5
Subsequent measurement of hedges – cash flow hedge reserve	258	-64	194	434	-125	309
Subsequent measurement of hedges – costs of hedging	476	-118	358	-90	38	-52
Other comprehensive income from investments accounted for using the equity method – reclassifiable	13	–	13	-2	–	-2
Revaluation of defined-benefit pension plans	-1,108	345	-763	-974	117	-857
Other expenses and income recognised directly in equity (with recycling)	15	–	15	1	–	1
Other expenses and income recognised directly in equity (without recycling)	-1	–	-1	–	–	–
Other comprehensive income	**-215**	**163**	**-52**	**-512**	**30**	**-482**

The overall change in equity is shown in ↗ T073 Consolidated statement of changes in shareholders' equity, p. 142.

33 Pension provisions

The Group's pension obligations comprise both defined benefit and defined contribution plans and include both obligations to make current payments and entitlements to future pension payments.

Obligations under defined benefit pension plans for employees of the Lufthansa Group related mostly to pension obligations in Germany, Switzerland, Austria and the USA. Various commitments have been made to different groups of employees.

For the employees in Germany and for staff posted abroad by German companies who joined the Company before 1995, the supplementary pension scheme for state employees (VBL) was retained as the Company's pension scheme after the Lufthansa Group's privatisation. Employees who joined after 1994 received a retirement benefit commitment based on an average salary plan, which provided for pension units to be granted annually, with the size of these components depending on the employee's age and salary. In 2003, the VBL pension scheme was changed to the average salary plan applicable to the employees recruited after 1995. Since 2015, the existing domestic retirement benefit commitments to the individual groups of employees have been converted successively into defined contribution schemes.

The Lufthansa collective agreement on benefits for ground staff established a new Company retirement benefit plan in the form of a defined contribution benefit commitment for the ground staff in Germany, in particular those at Deutsche Lufthansa AG, Lufthansa Cargo AG, the Lufthansa Technik group and the LSG group. For employees recruited before 1 January 2016, the entitlements vested up until 31 December 2015 are maintained. For service periods starting from 1 January 2016, employees can reach the same level of benefits by making contributions from their own pocket. For employees recruited from 1 January 2016, the contributions to the new model will be invested on the capital market. When the employee reaches retirement age, the entire account balance is converted into an annuity on the basis of the applicable BilMoG interest rate, subject to a pension adjustment of 1% per annum and while guaranteeing the contributions that were originally made.

On 17 March 2017, the "Lufthansa Pension Cabin" wage agreement was signed with the trade union UFO for cabin crew at Deutsche Lufthansa AG (DLH). It replaces the agreements on the "Lufthansa Company Pension" for cabin crew and the "Lufthansa Transitional Benefit for Cabin Crew".

For employees recruited up to 5 July 2016, the pension entitlements vested up until 30 June 2016 are maintained. For service periods from 1 July 2016, these employees receive employer contributions to the Company pension scheme depending on their eligible gross salary. An initial contribution to the transitional benefit scheme was calculated for the staff concerned as of 30 June 2016 on the basis of parameters and valuation methods defined by the collective bargaining partners. This initial transitional benefit contribution will replace all existing claims by the employees concerned under the collective agreement on "Transitional Benefit for Cabin Crew" and will be switched to a contribution commitment with a minimum guaranteed payment. All employees are free to make their own contributions on a voluntary basis. Contributions from both employer and employee, as well as the initial transitional benefit contribution, are invested on the capital markets with a capital guarantee. When the employee reaches retirement age, the available account balance is converted into an annuity on the basis of the applicable BilMoG interest rate, subject to a pension adjustment of 1% per annum.

On 21 December 2017, the "Lufthansa Pension Cockpit" wage agreement for cockpit staff was signed with the Vereinigung Cockpit pilots' union. At the same time, a new "Transitional Benefit Cockpit" wage agreement was signed.

For employees recruited before 1 January 2017, the pension entitlements vested up until 31 December 2016 are maintained. For service periods from 1 January 2017, the employees receive employer contributions to the Company pension scheme depending on their eligible gross salary. All employees are free to make their own contributions on a voluntary basis. The capital is invested on capital markets with a capital guarantee and the guaranteed interest rate offered by the life insurance companies (currently 0.9% per annum) as an additional commitment. When the employee reaches retirement age, the available account balance is converted into an annuity on the basis of the applicable BilMoG interest rate, subject to a pension adjustment of 1% per annum.

In the new Company retirement benefit scheme for ground, cabin and cockpit staff, the obligations from the capital market-oriented components are recognised at the time value of the corresponding assets, insofar as the assets exceed the minimum guaranteed amount. Plan assets and benefit obligations are presented on a net basis. The employer contributions constitute service expense.

Cockpit staff are still additionally entitled to a transitional pension arrangement covering the period from the end of their active in-flight service until the beginning of their statutory/Company pension plans. Benefits depend on the number of years of service and the final salary before retirement (final salary plans). Pension entitlements continue to accrue while transitional benefits are being received.

In line with the revised version of the wage agreement, the old rules continue to apply to transitional benefits for cockpit staff. The collective retirement age for pilots will go up in stages from 58 to 60 by 2021. The benefits in the latest version have been extended to cover cockpit staff at Germanwings who were recruited before 1 January 2005.

Defined-benefit Company pension schemes and transitional pension arrangements for Germany are funded by plan assets, while amounts that have not yet been transferred are covered by pension provisions.

There are no minimum funding requirements in Germany.

In the course of acquiring Swiss International Air Lines AG, pension obligations, mainly statutory obligations, were taken on in Switzerland. The retirement benefits are funded via pension funds known as collective foundations. In addition to retirement benefits, the plans cover invalidity and dependant persons' benefits. Beneficiaries can choose between an annuity and a lump sum payment. The retirement age for the plans lies between 58 and 63 years. Contributions to the pension funds are made by employers and employees, whereby the Company contributions must be at least equal to the employee contributions defined in the terms of the plan. Contributions are deducted from the qualifying salary according to a sliding scale. If there is a deficit of plan assets, employer and employee contributions can be increased, a lower return can be determined or other steps permissible by law can be taken. The decision is taken by the trustees of the pension fund concerned. The trustees' strategies for making good a deficit are based on the report by a pension fund expert and must be presented to the regulatory authority. The approval of the authority is not required, however.

The pension obligations for employees of Austrian Airlines AG are mostly on a defined contribution basis and have been outsourced to a pension fund. They consist of retirement, invalidity and dependant persons' benefits.

Obligations under defined benefit plans at Austrian Airlines AG relate to former directors and Executive Board members and others already drawing their pensions. Obligations under defined benefit plans for ground staff are now contribution-free and are determined by converting plan assets into an annuity. There are no defined benefit plans but only defined contribution pension obligations for active pilots, flight attendants and members of the top management level.

The defined benefit pension plans at LSG Sky Chefs in the USA are largely closed to new entrants and no further benefits are being granted to beneficiaries still in service. Benefit payments are based on average salary and the years of service acquired before the plan was closed or frozen. The retirement age is 65. Pension payments are funded externally. Retirement benefits have been switched to defined contribution plans.

Other staff abroad are also entitled to minor retirement benefits and in some cases to medical care based mainly on length of service and salary earned. As a rule, benefits are financed by means of external funds.

Contributions for defined contribution retirement benefit commitments came to EUR 499m in 2019 (previous year: EUR 470m).

In the financial year 2004, work began on building up plan assets to fund and safeguard future pension payments. The aim was to fund the pension obligations under existing plans in Germany in full. Contractual trust arrangements (CTAs) in the form of a mutual two-stage trusteeship were set up for this purpose.

The main trustee is Lufthansa Pension Trust e.V., a separate legal entity subject to German regulations. Deutsche Lufthansa AG and the trustees/other trustors agree on contributions and, if such a contribution is determined, make a payment to Lufthansa Pension Trust e.V. Deutsche Lufthansa AG and its subsidiaries Lufthansa Technik AG and Lufthansa Cargo AG are parties to the contractual trust arrangement.

The trust assets have largely been held by a Maltese corporate vehicle since 2007. The Investment Board of Lufthansa Malta Pension Holding decides on the fund's asset allocation. The asset management itself is delegated to fund management companies, who invest the assets in accordance with the general investment principles defined by the Investment Board.

The assets to fund pension obligations in the new Lufthansa Pension Ground, Lufthansa Pension Cabin and Lufthansa Pension Cockpit capital market-based benefits system were transferred to an external trustee, Deutsche Treuinvest Stiftung, as part of a contractual trust arrangement. Capital is invested in what are known as age group funds, whose investment strategy is based on a life cycle model. As employees get older, less and less is invested in asset classes with a higher risk-return profile and a greater percentage in more conservative asset classes. The Company has set up an Investment Committee that is responsible for defining and monitoring the investment strategy, e.g. how the age group funds are composed and how the asset allocation changes over time.

Assets to fund pension obligations for other German subsidiaries have also been invested with Deutsche Treuinvest Stiftung.

EUR 250m was contributed to plan assets for employees in Germany in the reporting year (previous year: EUR 330m).

Amounts shown in the statement of financial position for defined benefit commitments are made up as follows:

T128 DEFINED-BENEFIT RETIREMENT COMMITMENTS

	31 Dec 2019				31 Dec 2018			
in €m	**Defined-benefit obligations (DBO)**	**Fair value of plan assets**	**Effect of asset ceiling**	**Net carrying amount for defined-benefit obligations**	Defined-benefit obligations (DBO)	Fair value of plan assets	Effect of asset ceiling	Net carrying amount for defined-benefit obligations
Retirement benefits Germany	18,227	-13,135	–	5,092	15,627	-11,446	–	4,181
Transitional benefits Germany	1,462	-441	–	1,021	1,391	-395	–	996
Switzerland	3,840	-3,434	2	408	3,224	-2,921	–	303
Austria	450	-183	–	267	427	-184	–	243
USA	369	-327	–	42	339	-279	–	60
Other countries	517	-440	–	77	404	-351	–	53
Carrying amounts	**24,865**	**-17,960**	**2**	**6,907**	**21,412**	**-15,576**	**–**	**5,836**
of which pension provisions	–	–	–	6,658	–	–	–	5,865
of which other assets	–	–	–	40	–	–	–	29
of which shown under liabilities for disposal	–	–	–	289	–	–	–	–

Reconciliation between the funding status and the amounts shown in the consolidated balance sheet is as follows:

T129 RECONCILIATION FUNDING STATUS

in €m	2019	2018
Present value of funded pension obligations	24,374	20,847
Plan assets	-17,960	-15,576
Funding status (net)	**6,414**	**5,271**
Present value of unfunded pension obligations	**491**	**565**
Adjustment for asset ceiling	2	–
Carrying amounts	**6,907**	**5,836**
of which pension provisions	6,658	5,865
of which other assets	40	29
of which shown under liabilities for disposal	289	–

During the reporting period, the present value of defined benefit pension obligations changed as follows:

T130 CHANGE IN PRESENT VALUE OF PENSION OBLIGATIONS

in €m	2019	2018
Balance on 1 Jan	21,412	21,006
Current service costs	514	552
Interest expenses	418	388
Past service cost/effects of curtailments	11	-113
Effects of settlements	–	–
Revaluations		
Actuarial gains/losses from changes in demographic assumptions	-64	146
Actuarial gains/losses from changes in financial assumptions	2,461	-246
Experience adjustments	281	-119
Currency translation differences	154	137
Changes in the group of consolidated companies	–	–
Plan contributions – employees	116	124
Pension payments	-449	-463
Settlement payments	–	–
Other [1]/reclassifications	11	–
As of 31 Dec	**24,865**	**21,412**
of which shown under liabilities for disposal	-755	–

[1] The amounts are partly for benefit obligations which were measured in accordance with IAS 19 for the first time.

Actuarial gains/losses from changes in financial assumptions include losses due to the fall in the discount rate for Germany, Austria and Switzerland compared with the previous year. Adjustments to obligations regarding capital market-based pension plans, which are due to changes in exchange rates, are shown in adjustments based on past experience.

The following table provides a detailed reconciliation of changes in the fair value of plan assets:

T131 CHANGE IN FAIR VALUE OF PLAN ASSETS

in €m	2019	2018
Balance on 1 Jan	15,576	15,917
Interest income	299	291
Revaluations		
Income from plan assets, without amounts included in interest	1,571	-1,195
Currency translation differences	139	121
Changes in the group of consolidated companies	–	–
Plan contributions – employers	394	463
Plan contributions – employees	111	124
Pension payments	-138	-126
Settlement payments	–	–
Administrative costs related to obligations	-3	-3
Other [1]/reclassifications	11	-16
As of 31 Dec	**17,960**	**15,576**
of which shown under liabilities for disposal	-466	–

[1] The amounts are partly for benefit obligations which were measured in accordance with IAS 19 for the first time.

In the financial years 2019 and 2018, pension provisions developed as follows:

T132 PENSION PROVISIONS

in €m	2019	2018
Balance on 1 Jan	5,865	5,116
Currency translation differences carried forward	15	16
Changes in the group of consolidated companies	–	–
Pensions payments	-311	-337
Current service costs	514	552
Interest expenses	418	388
Interest income	-299	-291
Effects of amendments incl. curtailments, settlements and administrative costs	14	-110
Revaluations		
Actuarial gains/losses and experience adjustments	2,678	-219
Income from plan assets, without amounts included in interest	-1,571	1,195
Net effect of adjustments for asset ceiling	2	-2
Plan contributions/reclassifications	-378	-443
As of 31 Dec	**6,947**	**5,865**
of which shown under liabilities for disposal	-289	

Expenses and income for defined-benefit plans are made up as follows:

T133 EXPENSES AND INCOME FOR DEFINED-BENEFIT PENSION PLANS

in €m	2019	2018
Current service costs	514	552
Past service cost/effects of curtailments	11	-113
Income from settlements	–	–
Accrued interest on projected pension obligations	418	388
Interest income on plan assets	-299	-291
Administrative costs related to obligations	3	3
Balance of expenses and income recognised in the income statement	**647**	**539**
Income from plan assets, without amounts included in interest	-1,571	1,195
Actuarial gains and losses	2,678	-219
Net effect of adjustment for asset ceiling	2	-2
Other comprehensive income	**1,109**	**974**
	1,756	**1,513**

Interest expenses on pension provisions and interest income on plan assets are shown in the financial result. Current service expense and past service expense are recognised in staff costs.

A profit of EUR 1,870m was generated from plan assets in the financial year 2019. This amount is made up of the interest income recognised in the income statement and the revaluation component for plan assets. Total expenses of EUR 904m were recognised in the previous year.

There were no significant effects from the asset ceiling defined in IAS 19.64.

The past service cost incurred in the reporting year stemmed mainly from the agreement on retirement benefit plans for cockpit and cabin staff at Lufthansa CityLine GmbH.

The main actuarial assumptions used to calculate pension obligations and the corresponding plan assets are shown below:

T134 MAIN ACTUARIAL ASSUMPTIONS FOR GERMAN COMPANIES

in %	31 Dec 2019	31 Dec 2018
Interest rate		
Retirement benefits	1.4	2.0
Transitional benefits	1.4	2.0
Salary increase		
Retirement benefits	2.5	2.5
Transitional benefits	2.5	2.5
Pension increase		
Retirement benefits	1.0	1.0
Transitional benefits	1.0	1.0

The Heubeck Actuarial Tables 2018 G were used in the biometric calculations for the German companies in the Group.

T135 MAIN ACTUARIAL ASSUMPTIONS FOR FOREIGN COMPANIES

in %	31 Dec 2019	31 Dec 2018
Interest rates		
Austria	1.4	2.0
Switzerland	0.3	1.1
USA	3.2	4.3
Salary increase		
Austria	1.8	1.9
Switzerland	1.5	1.5
USA	–	–
Pension increase		
Austria	2.0	2.0
Switzerland	0.0	0.0
USA	–	–

The BVG 2015 generation tables are used for the biometric calculations for Switzerland. Country-specific mortality tables are used in the other countries.

The following table shows how the present value of defined benefit obligations would have been affected by changes in the relevant actuarial assumptions for the main pension plans described above:

T136 CHANGE IN ACTUARIAL ASSUMPTIONS, AS OF 2019

	Effect on the defined-benefit contribution as of 31 Dec 2019 in €m	Change in %
Present value of the obligation [1]	24,865	–
Interest rate		
Increase by 0.5 percentage points	22,862	-8.1
Decrease by 0.5 percentage points	27,201	+9.4
Salary trend		
Increase by 0.5 percentage points	25,022	+0.6
Decrease by 0.5 percentage points	24,717	-0.6
Pension trend		
Increase by 0.5 percentage points	25,140	+1.1
Decrease by 0.5 percentage points	24,606	-1.0

[1] Present value of the obligation using the assumptions shown in the "Actuarial assumptions" tables.

T136 CHANGE IN ACTUARIAL ASSUMPTIONS, AS OF 2018

	Effect on the defined-benefit contribution as of 31 Dec 2018 in €m	Change in %
Present value of the obligation [1]	21,412	–
Interest rate		
Increase by 0.5 percentage points	19,712	-7.9
Decrease by 0.5 percentage points	23,399	+9.3
Salary trend		
Increase by 0.5 percentage points	21,556	+0.7
Decrease by 0.5 percentage points	21,283	-0.6
Pension trend		
Increase by 0.5 percentage points	21,662	+1.2
Decrease by 0.5 percentage points	21,187	-1.1

[1] Present value of the obligation using the assumptions shown in the "Actuarial assumptions" tables.

A reduction of 10% in the mortality rates used to calculate the pension obligations increases the life expectancy of the beneficiaries by a given amount depending on their individual ages. It roughly corresponds to an increase of one year in the life expectancy of a male employee who is 55 years old today. A 10% reduction in the mortality rate would therefore increase the present value of the main benefit obligations in Germany and Switzerland by EUR 176m as of 31 December 2019 (previous year: EUR 151m).

The sensitivity analysis examines changes in one assumption and leaves the other assumptions unchanged compared with the original calculation. The effects of any correlation between the individual assumptions are therefore not taken into account.

Plan assets for funded defined benefit pension obligations consist mainly of fixed-income securities, equities and cash and cash equivalents. They do not include financial instruments issued by companies in the Group nor properties used by Group companies.

Plan assets serve solely to meet the defined benefit obligations. Funding these benefit obligations with assets provides security for future payments. In some countries, this takes place on the basis of statutory regulations, while in others (Germany, for example), this takes place on a voluntary basis.

The Lufthansa Group aims to completely cover its German pension obligations by means of cover assets and positive capital market returns in the medium to long term. Additional capital is transferred to the trustees for this purpose. Investment performance plays a crucial role in meeting this target.

The investment strategy for the capital market-based pension plans is initially defined by the Company and is regularly reviewed in the course of an allocation study. Where necessary, it is adjusted by the Investment Committee to reflect changes in capital market requirements. This may result in changes to the investment strategy for amounts that have already been invested.

The Lufthansa Group manages and monitors the financial risks that arise from outsourcing the defined benefit pension obligations. There was no change in the risk management and monitoring processes compared with the previous year. Derivative financial instruments are used, especially to manage foreign exchange risks.

The allocation of the funds to asset classes (e.g. equities) for the defined benefit plans is carried out on the basis of asset-liability matching studies performed by the Lufthansa Group. The Asset-Liability Matching (ALM) study is conducted every three years with an external adviser in order to review the funding strategy on a regular basis and to make adjustments as necessary. The results of the study should indicate what combination of investments (annuities, equities, etc.) can be used to cover the long-term pension obligations. Step one of this process is for the actuary to draft a long-term forecast charting how the pension obligations will develop.

In addition to this, target figures are needed for the relative return and relative risk as regards coverage of the obligations. Last but not least, a risk budget must also be defined.

A simulation is used to test all permissible investment allocations for their future compliance with these objectives. Those which do not fulfil the criteria are eliminated. Preference is given to allocations that are return-oriented yet conservative and that have a high probability of achieving the investment target.

The results of the ALM study show whether there will be strategic shifts in the existing allocation. Alternative investments (e.g. property, private equity, infrastructure) are currently being further developed.

Plan assets are made up as follows:

T137 COMPOSITION OF PLAN ASSETS

	31 Dec 2019				31 Dec 2018			
	Listed price in an active market in €m	No listed price in an active market in €m	**Total in €m**	**in %**	Listed price in an active market in €m	No listed price in an active market in €m	**Total in €m**	**in %**
Equities			**5,189**	**28.9**			**4,003**	**25.9**
Europe	3,299	–			2,847	–		
Other	1,890	–			1,156	–		
Fixed-income securities			**6,111**	**34.0**			**6,716**	**43.6**
Government bonds	3,053	–			3,246	–		
Corporate bonds	3,058	–			3,470	–		
Share funds	847	–	**847**	**4.7**	525	–	**525**	**3.4**
Fixed-income funds	1,482	–	**1,482**	**8.3**	422	–	**422**	**2.7**
Mixed funds[1]	247	–	**247**	**1.4**	148	–	**148**	**1.0**
Money market investments	1,039	–	**1,039**	**5.8**	1,443	–	**1,443**	**9.4**
Property			**1,015**	**5.7**			**792**	**5.1**
Direct investments	–	7			–	7		
Indirect investments	744	264			638	147		
Insurance contracts	–	133	**133**	**0.7**	–	174	**174**	**1.1**
Bank balances	334	191	**525**	**2.9**	311	203	**514**	**2.4**
Other investments[2]	288	1,084	**1,372**	**7.6**	201	638	**839**	**5.4**
Total	**16,281**	**1,679**	**17,960**	**100.0**	**14,407**	**1,169**	**15,576**	**100.0**

[1] Includes equities and interest-bearing securities.
[2] Other investments include, in particular, alternative investments such as hedge funds, commodities and private equity funds.

In addition to various actuarial risks such as interest rate risk, life expectancy risk and the risk of salary increases, the pension plans expose the Group primarily to financial risks in connection with plan assets.

The return on plan assets is assumed at the beginning of the period to be the discount rate, which is determined on the basis of investment grade corporate bonds. For the old pension plans, if the actual return on plan assets is less than the discount rates applied, the net obligation from the pension plan goes up. With the new capital market-based pension plans, a gross obligation is recognised for the time value of the corresponding plan assets, taking the minimum guaranteed amount into account.

The share price risk that arises from the proportion of plan assets invested in equities is considered to be reasonable. The risk of default by bond issuers is limited, because investments are only made in investment grade bonds.

The amount of the net obligation under the old pension plans depends to a large extent on the rates of interest, whereby the current low-interest environment results in a relatively high net obligation. If yields on corporate bonds continue to decline, this would lead to a further increase in defined benefit obligations, which could probably only be partly offset by positive developments in the market values of the corporate bonds held in plan assets.

Based on current knowledge, an estimated EUR 808m is expected to be transferred to pension plans in 2020 (previous year: EUR 737m). The transfers are made up of planned allocations and benefit payments that are not covered by equivalent reimbursements from plan assets. The weighted duration of pension obligations was 18 years as of 31 December 2019 (previous year: 17 years).

Over the next ten years, the following pension payments are forecast for the defined benefit commitments in existence as of the reporting date:

T138 FORECAST MATURITIES OF UNDISCOUNTED PENSION PAYMENTS, AS OF 2019

in €m	**Forecast pension payments 31 Dec 2019**
2020	574
2021	596
2022	612
2023	637
2024	656
2025 – 2029	3,828

T138 FORECAST MATURITIES OF UNDISCOUNTED PENSION PAYMENTS, AS OF 2018

in €m	Forecast pension payments 31 Dec 2018
2019	531
2020	547
2021	571
2022	586
2023	615
2024 – 2028	3,533

34 Other provisions

Other provisions disclosed in the statement of financial position as non-current and current other provisions are made up as follows:

T139 NON-CURRENT AND CURRENT OTHER PROVISIONS

	31 Dec 2019			31 Dec 2018 [1]		
in €m	**Total**	Non-current	Current	**Total**	Non-current	Current
Obligations under partial retirement contracts	**20**	18	2	**31**	14	17
Other staff costs	**202**	159	43	**196**	150	46
Obligation to return emissions certificates	**95**	–	95	**63**	–	63
Onerous contracts	**49**	20	29	**64**	34	30
Environmental restoration	**30**	27	3	**27**	24	3
Legal proceedings	**77**	11	66	**85**	18	67
Restructuring/severance payments	**171**	79	92	**210**	119	91
Maintenance of lease aircraft	**293**	139	154	**281**	131	150
Warranties	**46**	–	46	**49**	–	49
Other provisions	**301**	37	264	**425**	47	378
Total	**1,284**	**490**	**794**	**1,431**	**537**	**894**

[1] Previous year's figures have been adjusted.

Provisions for staff costs mainly relate to staff anniversary bonuses and other current obligations.

A provision for the obligation to submit CO_2 emissions certificates to the relevant authorities is recognised for an amount equivalent to the carrying amount of the capitalised CO_2 certificates. If the obligation is not fully covered by available certificates, the outstanding amount of the provision is measured using the market price of the emissions certificates as of the reporting date.

Expected losses from onerous contracts result from ongoing obligations or other contractual relationships in which performance and consideration are out of balance.

Provisions for environmental restoration are based on surveyors' findings and the assumption that all contamination is removed within ten years without any further legal requirements.

Provisions for ongoing legal proceedings were based on an assessment of the likely outcome of the proceedings.

The provisions for the overhaul of leased aircraft mainly relate to obligations for the maintenance, overhaul and repair of aircraft.

Other provisions of EUR 135m (previous year: EUR 139m) relate to outstanding obligations in connection with the accident involving the Germanwings aircraft on 24 March 2015.

Changes in groups of individual provisions in 2019 were as follows:

T140 CHANGES IN OTHER PROVISIONS 2019

in €m	Obligations under partial retirement contracts	Other staff costs	Obligation to return emissions certificates	Expected losses from onerous contracts	Environmental restoration	Legal proceedings
As of 1 Jan 2019	31	196	63	64	27	85
Changes in the group of consolidated companies	–	–	–	–	–	–
Currency translation differences	–	–	–	–	–	–
Utilisation	-57	-30	-73	-11	-2	-14
Increase/addition	54	42	104	16	5	28
Interest added back	-7	2	–	–	–	–
Reversal	–	-1	–	-19	–	-22
Transfers	-1	-7	1	-1	–	–
As of 31 Dec 2019	**20**	**202**	**95**	**49**	**30**	**77**

T140 CHANGES IN OTHER PROVISIONS 2019 (continued)

in €m	Restructuring/ severance payments	Maintenance of lease aircraft	Warranties	Other provisions	**Total**
As of 1 Jan 2019	210	281	49	425	**1,431**
Changes in the group of consolidated companies	–	–	–	–	**–**
Currency translation differences	–	4	–	–	**4**
Utilisation	-77	-95	-10	-85	**-454**
Increase/addition	45	127	14	84	**519**
Interest added back	–	–	–	1	**-4**
Reversal	-6	-24	-6	-34	**-112**
Transfers	-1	–	-1	-90	**-100**
As of 31 Dec 2019	**171**	**293**	**46**	**301**	**1,284**

Changes in groups of individual provisions in the previous year were as follows:

T140 CHANGES IN OTHER PROVISIONS 2018

in €m	Obligations under partial retirement contracts	Other staff costs	Obligation to return emissions certificates	Expected losses from onerous contracts	Environmental restoration	Legal proceedings
As of 1 Jan 2018	30	186	31	103	28	119
Changes in the group of consolidated companies	–	2	–	–	–	–
Currency translation differences	–	1	–	–	–	-1
Utilisation	-60	-28	-31	-35	-1	-32
Increase/addition	60	35	63	6	–	28
Interest added back	5	2	–	–	–	–
Reversal	–	-2	–	-10	–	-29
Transfers	-4	–	–	–	–	–
As of 31 Dec 2018	**31**	**196**	**63**	**64**	**27**	**85**

T140 CHANGES IN OTHER PROVISIONS 2018 (continued)

in €m	Restructuring/ severance payments	Maintenance of lease aircraft	Warranties	Other provisions [1]	**Total [1]**
As of 1 Jan 2018	208	292	41	457	**1,495**
Changes in the group of consolidated companies	–	-31	–	1	**-28**
Currency translation differences	–	7	–	–	**7**
Utilisation	-69	-84	-13	-161	**-514**
Increase/addition	82	110	25	195	**604**
Interest added back	–	–	–	–	**7**
Reversal	-10	-13	-4	-33	**-101**
Transfers	-1	–	–	-34	**-39**
As of 31 Dec 2018	**210**	**281**	**49**	**425**	**1,431**

[1] Previous year's figures have been adjusted.

The funding status for provisions for obligations to employees under partial retirement agreements is as follows:

T141 FUNDING STATUS

in €m	**2019**	2018
Present value of funded obligations under partial retirement agreements	146	166
External plan assets	-141	-156
	5	**10**
of which other provisions	20	31
of which other assets	15	21

A total of EUR 121m has been transferred to an external trust fund as insolvency insurance for employer's performance arrears as part of partial retirement agreements under which the employee at first works full-time for less pay and then retires early on the same reduced pay. These assets, which fulfil the requirements for plan assets and therefore reduce the gross amount of obligations accordingly, are measured at market value on the balance sheet date.

Assets held for sale include a trust fund of EUR 23m and a provision of EUR 17m for partial retirement agreements.

Obligations under partial retirement agreements were measured in 2019 using an interest rate of 0.01% (previous year: 0.34%).

The following cash outflows are estimated for the non-current portion of the other groups of provisions:

T142 CASH OUTFLOWS FOR NON-CURRENT PROVISIONS, AS OF 2019

in €m	2021	2022	2023	2024 and thereafter
Expected losses from onerous contracts	11	3	–	7
Environmental restoration	3	3	3	18
Restructuring/ severance payments	54	23	9	5
Maintenance of aircraft on leases	87	16	12	29
Other provisions	15	6	4	44

At the end of 2018, the corresponding cash outflows were estimated as follows:

T142 CASH OUTFLOWS FOR NON-CURRENT PROVISIONS, AS OF 2018

in €m	2020	2021	2022	2023 and thereafter
Expected losses from onerous contracts	21	8	2	3
Environmental restoration	3	3	3	16
Restructuring/ severance payments	47	47	19	8
Maintenance of aircraft on leases	80	19	11	24
Other provisions	23	16	7	31

35 Financial liabilities

Financial liabilities consist of a non-current portion with a residual term of more than one year and a current portion of less than one year, which is shown under current liabilities. The following table shows the total amount of borrowings:

T143 FINANCIAL LIABILITIES 31 DEC 2019

in €m	**Total**	Non-current	Current
Bonds	**1,094**	996	98
Liabilities to banks	**2,110**	1,453	657
Leasing liabilities	**2,872**	2,384	488
Other loans	**3,954**	3,563	391
	10,030	**8,396**	**1,634**

T143 FINANCIAL LIABILITIES 31 DEC 2018

in €m	**Total**	Non-current	Current
Bonds	**1,007**	508	499
Liabilities to banks	**1,957**	1,401	556
Leasing liabilities	**596**	497	99
Other loans	**3,125**	2,602	523
	6,685	**5,008**	**1,677**

Collateral was provided for EUR 2m of the liabilities to banks (previous year: EUR 75m).

There were no delays or defaults on payment obligations under these loan agreements in either 2019 or 2018.

The Lufthansa Group applied IFRS 16 for the first time as of 1 January 2019. This means that the Lufthansa Group recognised lease liabilities for leases that had previously been classified as operating leases for the first time. This increased lease liabilities by EUR 2,386m. ↗ **Note 2, p. 144ff.**

The Lufthansa Group's lease liabilities have the following term structure: The disclosures are based on contractual, undiscounted payments.

T144 MATURITY ANALYSIS OF LEASE LIABILITIES

in €m	**31 Dec 2019**
1st quarter	146
Up to 1 year[1]	392
1–5 years	1,350
Later	1,461

[1] Without payments in 1st quarter.

Other loans include in particular aircraft financing transactions that are described in ↗ **Note 18, p. 168.** A total of 19 additional aircraft financing arrangements were concluded in 2019.

36 Non-current contract liabilities

T145 NON-CURRENT CONTRACT LIABILITIES

in €m	**31 Dec 2019**	31 Dec 2018
Non-current contract liabilities	25	22
	25	**22**

Non-current contract liabilities consist of long-term deferrals for construction contracts where the payments received exceed the performance to date.

37 Non-current advance payments received, deferred income and other non-financial liabilities

T146 NON-CURRENT ADVANCE PAYMENTS RECEIVED, DEFERRED INCOME AND OTHER NON-FINANCIAL LIABILITIES

in €m	31 Dec 2019	31 Dec 2018
Advance payments received	7	4
Deferred income	13	21
Other non-financial liabilities	12	26
	32	**51**

Deferred income includes EUR 7m (previous year: EUR 8m) for grants and subsidies received for capital expenditure, which are realised over the useful life of the assets in the following years.

Other non-financial liabilities include obligations under share-based remuneration agreements for Executive Board members, managers and non-payscale employees. As part of the share-based remuneration agreements, the Lufthansa Group and other consolidated and non-consolidated Group companies participating in the programme offer a 50% discount on employee investment in Lufthansa shares to Executive Board members, managers and non-payscale employees. The option packages granted in 2016, 2017, 2018 and 2019 consist of an outperformance option and a performance option. At the end of the programme, the participants receive a cash payment if the conditions are met.

The outperformance option is linked to the performance of the Lufthansa share compared with a notional index of shares in European competitors. When the beneficiary exercises the outperformance option, they receive a cash payment for every percentage point of outperformance, with a hurdle rate of 1%. The cash payment is capped at an outperformance of more than 20%.

The performance option is linked to the absolute performance of the Lufthansa share. The amount of the payment depends on meeting defined performance targets, whereby both a hurdle rate and a cap apply.

The programmes are scheduled to run for four years. The performance and the outperformance in all programmes are calculated on the principle of total shareholder return. The shares invested in personally may not be sold until the option is exercised.

T147 OUTPERFORMANCE OPTION – OVERVIEW

	€ per outperformance level	Maximum per tranche in €
Board member	1,000 per percentage point from 1%	20,000
Managers	400 per percentage point from 1%	8,000
Non-payscale staff	200 per 5 percentage points from 1%	1,000

T148 PERFORMANCE OPTION – PERFORMANCE TARGETS

Performance option per year	Hurdle rate	Cap
2016	27%	41%
2017	23%	35%
2018	22%	33%
2019	22%	33%

T149 PERFORMANCE OPTION – PAYMENT AMOUNTS

	€ per performance level	Maximum per tranche in €
Board member	10,000 + 1,000 per performance unit	20,000
Managers	4,000 + 500 per performance unit	8,000
Non-payscale staff	500 + 100 per performance unit	1,000

A different system of variable remuneration has applied to the Executive Board since 2019. Under this system, one of the financial targets for the share-based remuneration compares the performance of the Lufthansa share, expressed as the total shareholder return (TSR), to other DAX companies. The performance period is still four years. To calculate the TSR in the performance period, the arithmetic mean closing prices in XETRA trading at Deutsche Börse for shares in Deutsche Lufthansa AG and its peer group over the 30 days immediately preceding the beginning of the performance period are compared with the prices over the 30 days immediately preceding the end of the performance period.

The performance of all the companies in the DAX index at the beginning and end of the period is ranked and the relative position of Deutsche Lufthansa AG is determined by its achieved percentile. Performance against the target and the amount of the payment depend on the percentile position of Deutsche Lufthansa AG. Target achievement is adjusted on a linear basis for positions between the 25th and 50th percentile and between the 50th and 75th percentile.

T150 RELATIVE TSR – PERFORMANCE AND PAYMENT

Position of Lufthansa share compared with peer group	Target achievement	Payment in € for Executive Board members	Payment in € for Executive Board Chairman
≤ 25th percentile	0%	–	–
≥ 50th percentile	100%	467,500	888,250
≥ 75th percentile	200%	935,000	1,776,500

Over the financial years 2019 and 2018, the number of options changed as follows:

T151 CHANGE IN NUMBER OF OPTIONS

	2019		2018	
	Number of options / option packages	**Cash settlement in € thousands**	Number of options / option packages	Cash settlement in € thousands
Outstanding options on 1 Jan	20,546	–	19,167	–
Options issued	7,420	–	6,066	–
Expired or unused options	1,110	–	523	–
Options exercised	4,543	31,726	4,164	36,868
Outstanding options on 31 Dec	22,313	–	20,546	–

The performance and outperformance option of the share programme 2015, which has now expired, resulted in a payment of EUR 32m (previous year: EUR 37m). A total of 974,863 shares were issued in the reporting year at an average price of EUR 17.43 for the share programme 2019, adding up to a total value of EUR 17m. The 50% discount for employees meant the new share issuance resulted in staff costs of EUR 8.5m. Participants in the programme therefore hold 3,594,679 shares as of the reporting date (previous year: 3,561,026 shares).

The fair values of the option rights in the share programmes still running were calculated using Monte Carlo simulations. This involves simulating the future returns of the shares in the comparative index and of Deutsche Lufthansa AG and calculating the value of the option rights as the forecast amount of a dividend.

The following fair values were measured in total:

T152 FAIR VALUE OF OPTION RIGHTS AS OF 31 DEC 2019

	Number of options	Fair value per option in €	Proportional vested benefit	Total fair value in €
Board member				
Options 2016	135	31,582	0.70	2,980,551
Options 2017	181	5,376	0.58	559,576
Options 2018	165	5,770	0.36	342,594
Options 2019	6	281,633	0.25	422,450
Managers				
Options 2016	2,062	12,628	0.79	20,614,158
Options 2017	2,173	2,148	0.54	2,528,286
Options 2018	2,525	2,354	0.29	1,733,623
Options 2019	3,071	5,479	0.04	701,084
Non-payscale staff				
Options 2016	2,470	1,579	0.79	3,087,603
Options 2017	2,301	274	0.54	341,507
Options 2018	3,164	286	0.29	263,930
Options 2019	4,060	659	0.04	111,481
Total	**22,313**			**33,686,841**

T152 FAIR VALUE OF OPTION RIGHTS AS OF 31 DEC 2018

	Number of option packages	Fair value per option package in €	Vested benefit as a proportion	Fair value in €
Board member				
Options 2015	135	37,052	0.71	3,543,098
Options 2016	135	33,643	0.46	2,081,661
Options 2017	165	12,029	0.29	578,896
Options 2018	165	11,481	0.04	78,932
Managers				
Options 2015	1,869	14,816	0.79	21,922,124
Options 2016	2,247	13,454	0.54	16,375,200
Options 2017	2,333	4,809	0.29	3,272,324
Options 2018	2,622	4,680	0.04	511,290
Non-payscale staff				
Options 2015	2,539	1,850	0.79	3,718,577
Options 2016	2,631	1,681	0.54	2,395,635
Options 2017	2,426	606	0.29	428,796
Options 2018	3,279	566	0.04	77,330
Total	**20,546**			**54,983,861**

Staff fluctuation of 4.9% is again assumed when accounting for the liability resulting from the valuation of option rights, so that the recognised liability is less than their calculated time value. The measurement of option rights therefore resulted in a liability of EUR 32m as of the reporting date (previous year: EUR 53m), of which EUR 7m (previous year: EUR 25m) is shown under non-current liabilities. The payment of EUR 32m in the financial year on the basis of option rights that have now expired reduced the previously recognised liability, so that the change in option rights in the reporting year increased staff costs by EUR 11m.

The weighted average share prices at the calculation date (excluding the Executive Board TSR programme) were used in the Monte Carlo simulation. As stated in the terms of the programme, these are 50-day averages for the shares of Deutsche Lufthansa AG and the competitors included in the comparative index. The volatilities and correlations used are forecasts for a specific date and maturity on the basis of current market estimates.

Swap rates were used as the interest rate for the remaining term of the outperformance option in each case. The maximum term of the programmes was used for measurement purposes.

Time values for the Executive Board TSR programme were also measured using a Monte Carlo simulation based on historical and current market data for the relevant peer group of DAX companies. Forecast volatilities are based on the historic TSR data. The share prices for the past four years were used to calculate historical volatility. A remaining term of 37 months and a risk-free interest rate of – 0.66% were applied.

The parameters used by the external service provider for the notional airline peer group index are shown in the following table:

T153 REFERENCE PRICE

		Options 2016	Options 2017	Options 2018	Options 2019
Lufthansa	EUR	10.55	23.00	21.18	14.84
Air France-KLM	EUR	5.00	13.12	8.56	9.90
IAG	GBP	400.94	612.70	646.28	480.37
Ryanair	EUR	12.40	17.25	12.82	11.00
easyJet	GBP	1,018.21	1,240.72	1,340.31	1,131.63
Air Berlin	EUR	0.68	–	–	–
Norwegian	NOK	–	218.45	236.70	37.49
WIZZair	GBP	–	2,991.52	2,858.46	3,667.66

T154 PROJECTED VOLATILITIES

in % for:	Options 2016 as of 31 Dec 2019	Options 2016 as of 31 Dec 2018	Options 2017 as of 31 Dec 2019	Options 2017 as of 31 Dec 2018	Options 2018 as of 31 Dec 2019	Options 2018 as of 31 Dec 2018	Options 2019 as of 31 Dec 2019	Options 2019 as of 31 Dec 2018
Lufthansa	30.24	29.76	31.05	31.77	29.94	31.46	31.40	–
Air France-KLM	39.30	37.48	38.66	37.22	38.07	36.85	37.73	–
IAG	31.04	24.38	27.42	33.00	26.76	32.51	32.51	–
Ryanair	35.17	29.00	34.01	31.72	31.16	31.41	32.59	–
easyJet	39.22	30.08	34.95	34.97	33.35	33.82	36.06	–
Air Berlin	–	140.85	–	–	–	–	–	–
Norwegian	–	–	81.10	51.97	70.93	50.01	64.75	–
WIZZair	–	–	32.96	35.27	32.14	35.27	33.70	–
Risk-free interest rate	Options 2016: – 0.64% for euro zone (previous year: – 0.64%) 0.67% for UK (previous year: 0.74%)				Options 2018: –0.66% for euro zone (previous year: –0.41%) 0.50% for UK (previous year: 0.85%) 1.25% for Norway (previous year: 1.31%)			
	Options 2017: – 0.66% for euro zone (previous year: – 0.54%) 0.55% for UK (previous year: 0.79%) 1.25% for Norway (previous year: 1.20%)				Options 2019: –0.64% for euro zone 0.48% for UK 1.24% for Norway			
Fluctuation	4.9% (previous year: 5.1%)				4.9% (previous year: 5.1%)			

38 Current contract liabilities

The Lufthansa Group recognised the following contract liabilities:

T155 CONTRACT LIABILITIES

in €m	31 Dec 2019	31 Dec 2018[1]
Contract liabilities from unused flight documents	**4,071**	**3,969**
Liabilities from customer loyalty programmes	2,200	2,186
Liabilities from MRO and IT services	196	78
Miscellaneous contract liabilities	279	127
Other contract liabilities	**2,675**	**2,391**
Liabilities from contracts with customers	**6,746**	**6,360**
Revenue recognised in the reporting period		
Revenue recognised that was included in the contract liability balance at the beginning of the period		
Revenue from unused flight documents	3,768	3,491
Revenue from customer loyalty programmes	576	578
Revenue from MRO and IT services	76	69
Other	50	56
Total	**4,470**	**4,194**

[1] Previous year's figures have been adjusted.

Liabilities under customer loyalty programmes as of 31 December 2019 included 225 billion miles from bonus miles programmes, as in the previous year.

Other contract liabilities include repayment obligations of EUR 58m for compensation payments in connection with passenger rights (previous year: EUR 75m) (↗ **Note 2, p. 144ff.**).

The unsatisfied performance obligation under existing long-term service contracts came to EUR 6.4bn in total, assuming that the services are performed as agreed, of which EUR 1.2bn relate to the next twelve months. These essentially consist of maintenance contracts in the MRO segment for the long-term maintenance and overhaul of airline sub-fleets. To calculate the outstanding performance obligations, the number of maintenance events derived from the respective flight plans and agreed in the contracts are taken into account, along with the expected revenue and fixed prices for certain services (VIP and cabin modifications). Around 62% of performance obligations beyond twelve months are expected to have been fulfilled by 2025.

As in the previous year, no revenue was recognised in 2019 for performance obligations fulfilled in prior financial years.

In line with the simplification rules of IFRS 15, no disclosures are made for the performance obligations as of 31 December 2019 or 31 December 2018 that have a forecast original term of one year or less. Award miles can be redeemed for at least three years, but may be redeemed at short notice.

The Lufthansa Group applies the simplification rule defined in IFRS 15.94, which allows contract initiation costs to be expensed if the amortisation period otherwise to be taken into account would be twelve months or less.

39 Trade payables and other current financial liabilities

T156 TRADE PAYABLES AND OTHER CURRENT FINANCIAL LIABILITIES

in €m	31 Dec 2019	31 Dec 2018[1]
Trade payables		
Trade payables to affiliated companies	42	43
Trade payables to other equity investments	2	–
Trade payables to third parties	3,678	3,825
	3,722	**3,868**
Other liabilities		
Liabilities to banks	17	39
Other liabilities to affiliated companies	260	269
Other liabilities to equity investments	–	–
Liabilities from equity investments	356	574
Other financial liabilities	996	970
	1,629	**1,852**
Total	**5,351**	**5,720**

[1] Previous year's figures have been adjusted.

The carrying amount of these liabilities corresponds to their fair value.

40 Current advance payments received, deferred income and other non-financial liabilities

T157 CURRENT ADVANCE PAYMENTS RECEIVED, DEFERRED INCOME AND OTHER NON-FINANCIAL LIABILITIES

in €m	31 Dec 2019	31 Dec 2018
Advance payments received	17	16
Deferred income	59	39
Other non-financial liabilities	306	333
	382	**388**

Other non-financial liabilities include EUR 279m (previous year: EUR 303m) in deferred amounts for outstanding holiday allowance and overtime. Other non-financial liabilities also include the current portion of obligations under share-based remuneration agreements measured at fair value (↗ **Note 37, p. 189ff.**)

NOTES TO THE SEGMENT REPORTING

41 Notes to the reportable segments and segment data

NOTES TO THE REPORTABLE SEGMENTS

As of 31 December 2019, the Lufthansa Group operates in five reporting segments, which make up its Group activities. The segments are defined in line with the internal reporting and management structure.

Segmentation has been changed compared with the financial statements as of 31 December 2018. Part of the Lufthansa Systems group is managed by the Lufthansa Technik group as of financial year 2019 and so has been allocated to the MRO segment. The figures for the previous year have been adjusted accordingly.

The airline activities were combined in their respective reporting segments based on the similarity between the economic characteristics of the individual airlines, such as network and sales structures, as well as customers and services. The Network Airlines segment comprises Lufthansa German Airlines, SWISS and Austrian Airlines. Further information about the individual airlines can be found in the Group management report ↗ **starting on p. 45.**

The Eurowings segment comprises Eurowings, Germanwings and Brussels Airlines, as well as the equity investment in SunExpress.

The Logistics segment comprises the scheduled airfreight activities of the Lufthansa Cargo group. Lufthansa Cargo is Europe's leading cargo airline.

The MRO segment is a leading global provider of maintenance, repair and overhaul services for civil and commercial aircraft and is represented by the Lufthansa Technik group.

The Catering segment, represented by the LSG Lufthansa Service/Sky Chefs group, is the global market leader in airline catering.

Business activities not allocated to a reportable segment are presented in the "Additional Businesses and Group Functions" column of the segment reporting along with the income and expenses of central Group functions. They include income and expenses of Lufthansa Commercial Holding GmbH, Lufthansa AirPlus group, the Lufthansa Systems group, the Lufthansa Aviation Training group and other Group companies.

NOTES TO SEGMENT DATA AND INTERNAL MANAGEMENT

The accounting policies of the reportable segments are the same as those described in ↗ **Note 2, p. 144ff.**

Due to the IFRIC Agenda decision of 17 September 2019 compensations for flight cancellations and delays can no longer be recognised as an expense, but result in a reduction of traffic revenues. The Lufhansa Group has applied this amendment retrospectively.

The Lufhansa Group measures the performance of its segments using two segment result indicators: EBIT and Adjusted EBIT. EBIT is made up of the IFRS operating result and the result from equity investments. Adjusted EBIT is obtained by correcting EBIT for gains and losses on the disposal of assets and impairment losses and earnings attributable to other periods in connection with pension obligations (plan adjustments and plan settlements).

Sales and revenue between reportable segments are based on arm's length prices. Administrative services are charged as cost allocations.

For information on external traffic revenue ↗ **Note 3, p. 157.**

Capital employed largely comprises segment assets, adjusted for derivative financial instruments, and deferred tax items less non-interest-bearing debt.

The result of the equity valuation for the segment's equity investments is part of its segment result. However, from a Group perspective, it is not attributed to the operating result, but rather to the financial result.

T158 SEGMENT INFORMATION FOR THE 2019 REPORTING SEGMENTS

in €m	Network Airlines	Eurowings	Logistics	MRO	Catering	Total reportable operating segments	Additional Businesses and Group Functions	Reconciliation: Not allocated	Reconciliation: Consolidation	Group
External revenue	22,417	4,015	2,437	4,378	2,623	35,870	554	–	–	36,424
of which traffic revenue	21,375	3,987	2,318	–	–	27,680	–	456	–	28,136
Inter-segment revenue	689	108	41	2,543	737	4,118	239	–	-4,357	–
Total revenue	**23,106**	**4,123**	**2,478**	**6,921**	**3,360**	**39,988**	**793**	**–**	**-4,357**	**36,424**
Other operating income	785	342	103	260	95	1,585	1,939	–	-1,009	2,515
Total operating income	**23,891**	**4,465**	**2,581**	**7,181**	**3,455**	**41,573**	**2,732**	**–**	**-5,366**	**38,939**
Operating expenses	**22,132**	**4,655**	**2,621**	**6,748**	**3,355**	**39,511**	**2,971**	**–**	**-5,358**	**37,124**
of which cost of materials and services	12,799	3,005	1,778	3,927	1,441	22,950	287	–	-3,410	19,827
of which staff costs	4,210	628	406	1,671	1,290	8,205	913	–	-7	9,111
of which depreciation and amortisation	1,678	465	160	207	119	2,629	107	–	-44	2,692
of which other operating expenses	3,445	557	277	943	505	5,727	1,664	–	-1,897	5,494
Results of equity investments[1]	**46**	**24**	**41**	**60**	**28**	**199**	**12**	**–**	**–**	**211**
of which result of investments accounted for using the equity method	31	24	18	34	24	131	–	–	–	131
Adjusted EBIT[2]	**1,805**	**-166**	**1**	**493**	**128**	**2,261**	**-227**	**–**	**-8**	**2,026**
Reconciliation items	**-48**	**-8**	**-34**	**9**	**-30**	**-111**	**6**	**–**	**-64**	**-169**
Impairment losses/gains	-23	-4	-38	12	-42	-95	7	–	-51	-139
Effects from pension provisions	-3	–	-1	-2	-1	-7	-4	–	1	-10
Results of disposal of assets	-22	-4	5	-1	13	-9	3	–	-14	-20
EBIT	**1,757**	**-174**	**-33**	**502**	**98**	**2,150**	**-221**	**–**	**-72**	**1,857**
Other financial result										3
Profit/loss before income taxes										1,860
Capital employed[3]	11,834	2,570	2,135	5,607	1,513	23,659	1,904	–	-528	25,035
of which from investments accounted for using the equity method	25	178	49	279	139	670	5	–	-3	672
Segment capital expenditure[4]	2,605	260	286	313	127	3,591	107	–	-32	3,666
of which from investments accounted for using the equity method	–	–	–	49	28	77	–	–	–	77
Number of employees at end of period	52,741	8,809	4,539	26,650	35,679	128,418	9,935	–	–	138,353
Average number of employees	52,378	9,087	4,543	25,872	35,954	127,834	9,950	–	–	137,784

[1] The result from equity investments does not include any impairment losses on investments accounted for using the equity method.
[2] For reconciliation from Adjusted EBIT to EBIT ↗ T024, p. 36, in the Group management report.
[3] The capital employed results from total assets adjusted for non-operating items (deferred taxes, positive market values, derivatives) less non-interest bearing liabilities (including trade payables and liabilities from unused flight documents).
[4] Investment in intangible assets and property, plant and equipment, as well as in loans to and shares in companies. Investment is shown without capitalised borrowing costs.

T158 SEGMENT INFORMATION FOR THE 2018 REPORTING SEGMENTS

in €m	Network Airlines	Eurowings	Logistics	MRO	Catering	Total reportable operating segments	Additional Businesses and Group Functions	Reconciliation		Group
								Not allocated	Consoli-dation	
External revenue	21,822	4,080	2,681	3,927	2,499	35,009	533	–	–	35,542
of which traffic revenue	20,707	3,986	2,550	–	–	27,243	–	558	–	27,801
Inter-segment revenue	727	18	32	2,178	718	3,673	250	–	-3,923	–
Total revenue	**22,549**	**4,098**	**2,713**	**6,105**	**3,217**	**38,682**	**783**	**–**	**-3,923**	**35,542**
Other operating income	699	290	57	270	77	1,393	1,879	–	-988	2,284
Total operating income	**23,248**	**4,388**	**2,770**	**6,375**	**3,294**	**40,075**	**2,662**	**–**	**-4,911**	**37,826**
Operating expenses	**20,854**	**4,643**	**2,538**	**5,936**	**3,208**	**37,179**	**2,914**	**–**	**-4,929**	**35,164**
of which cost of materials and services	11,714	3,042	1,753	3,376	1,385	21,270	246	–	-3,149	18,367
of which staff costs	4,159	619	420	1,552	1,218	7,968	963	–	-7	8,924
of which depreciation and amortisation	1,497	372	104	126	66	2,165	52	–	-37	2,180
of which other operating expenses	3,484	610	261	882	539	5,776	1,653	–	-1,736	5,693
Results of equity investments	**35**	**24**	**36**	**7**	**29**	**131**	**43**	**–**	**–**	**174**
of which result of investments accounted for using the equity method	31	24	25	9	25	114	1	–	-1	114
Adjusted EBIT[1]	**2,429**	**-231**	**268**	**446**	**115**	**3,027**	**-209**	**–**	**18**	**2,836**
Reconciliation items	**120**	**–**	**-5**	**-1**	**-5**	**109**	**27**	**–**	**2**	**138**
Impairment losses/gains	1	–	-4	3	-5	-5	-5	–	1	-9
Effects from pension provisions	110	–	–	–	–	110	2	–	1	113
Results of disposal of assets	9	–	-1	-4	–	4	30	–	–	34
EBIT	**2,549**	**-231**	**263**	**445**	**110**	**3,136**	**-182**	**–**	**20**	**2,974**
Other financial result										-190
Profit/loss before income taxes										2,784
Capital employed[2]	9,635	2,220	1,430	4,836	1,264	19,385	1,727	–	-139	20,973
of which from investments accounted for using the equity method	25	148	52	284	138	647	6	–	-3	650
Segment capital expenditure[3]	2,573	515	374	244	79	3,785	56	–	-24	3,817
of which from investments accounted for using the equity method	–	–	–	32	–	32	–	–	–	32
Number of employees at end of period	51,778	9,255	4,505	24,594	35,512	125,644	9,890	–	–	135,534
Average number of employees	51,327	9,296	4,422	23,833	35,548	124,426	9,904	–	–	134,330

[1] For reconciliation from Adjusted EBIT to EBIT ↗ T024, p. 36, in the Group management report.
[2] The capital employed results from total assets adjusted for non-operating items (deferred taxes, positive market values, derivatives) less non-interest bearing liabilities (including trade payables and liabilities from unused flight documents).
[3] Investment in intangible assets and property, plant and equipment, as well as in loans to and shares in companies. Investment is shown without capitalised borrowing costs.

The reconciliation column includes both the effects of consolidation activities and the amounts resulting from different definitions of segment item contents compared with the corresponding Group items.

Eliminated segment revenue generated with other consolidated segments is shown in the reconciliation column for revenue.

The amounts in the reconciliation column for Group EBIT include the effects of consolidation procedures on profit or loss in which income and expense do not figure for two companies at the same amount, or in the same period.

The change in accounting for compensation payments had the following effects on segment results:

T159 RESTATEMENT EFFECTS OF COMPENSATION PAYMENTS BY REPORTABLE SEGMENTS

in €m	Network Airlines	Eurowings	**Group**
Traffic revenue	-146	-93	-239
Cost of materials and services	-146	-93	-239
Effect on Adjusted EBIT 2019	**–**	**–**	**–**
Effect on EBIT 2019	**–**	**–**	**–**
Traffic revenue	-170	-132	-302
Cost of materials and services	-170	-132	-302
Effect on Adjusted EBIT 2018	**–**	**–**	**–**
Effect on EBIT 2018	**–**	**–**	**–**

NOTES ON GEOGRAPHICAL REGIONS IN 2019

The allocation of traffic revenue to geographic regions is based on the original location of sale. Non-current assets are allocated according to the location of the relevant asset. The allocation of other revenue to the individual regions is based on the geographical location of the customer.

The regions are defined on a geographical basis. As an exception to this rule, traffic revenue generated in Turkey is attributed to Europe.

The Lufthansa Group controls its air traffic operations on the basis of network results and not on the basis of regional earnings contributions. The same applies to the Catering segment. Consequently, the presentation of regional segment results is of no informational value for the Lufthansa Group.

A presentation of traffic revenue generated in the Network Airlines, Eurowings and Logistics segments by traffic region, rather than by original location of sale, is included in the information on the respective segments in the management report.

External revenue, non-current assets and capital expenditure are as follows:

T160 EXTERNAL REVENUE AND NON-CURRENT ASSETS BY REGION FOR 2019

in €m	Europe	North America	Central and South America	Asia/Pacific	Middle East	Africa	**Group**
Traffic revenue [1]	18,586	4,707	615	3,073	621	534	**28,136**
Other revenue	3,437	2,557	463	1,394	281	156	**8,288**
Non-current assets [2] [3] [4]	23,385	564	48	305	4	26	**24,332**
Capital expenditure on non-current assets [3]	3,434	50	6	17	–	3	**3,510**

[1] Traffic revenue is allocated according to the original location of sale.
[2] Non-current assets include property, plant and equipment and intangible assets with the exception of repairable spare parts for aircraft.
[3] Aircraft are allocated according to their location of registration.
[4] Including rights of uses in accordance with first-time application of IFRS 16.

The figures for the main countries are as follows:

T161 EXTERNAL REVENUE AND NON-CURRENT ASSETS BY COUNTRIES FOR 2019

in €m	Germany	USA
Traffic revenue [1]	8,610	4,233
Other revenue	1,077	2,097
Non-current assets [2] [3] [4]	16,207	533
Capital expenditure on non-current assets [3]	2,913	45

[1] Traffic revenue is allocated according to the original location of sale.
[2] Non-current assets include property, plant and equipment and intangible assets with the exception of repairable spare parts for aircraft.
[3] Aircraft are allocated according to their location of registration.
[4] Including rights of uses in accordance with first-time application of IFRS 16.

NOTES ON GEOGRAPHICAL REGIONS IN 2018

External revenue, non-current assets and capital expenditure are as follows:

T160 EXTERNAL REVENUE AND NON-CURRENT ASSETS BY REGION FOR 2018

in €m	Europe	North America	Central and South America	Asia/Pacific	Middle East	Africa	**Group**
Traffic revenue [1]	18,785	4,160	669	3,123	590	474	**27,801**
Other revenue	3,283	2,272	361	1,383	223	219	**7,741**
Non-current assets [2] [3]	20,342	276	41	206	2	23	**20,890**
Capital expenditure on non-current assets [3]	3,773	39	5	16	–	5	**3,838**

[1] Traffic revenue is allocated according to the original location of sale.
[2] Non-current assets include property, plant and equipment and intangible assets with the exception of repairable spare parts for aircraft.
[3] Aircraft are allocated according to their location of registration.

The figures for the main countries are as follows:

T161 EXTERNAL REVENUE AND NON-CURRENT ASSETS BY COUNTRIES FOR 2018

in €m	Germany	USA
Traffic revenue [1]	8,819	3,730
Other revenue	1,066	1,896
Non-current assets [2] [3]	13,984	261
Capital expenditure on non-current assets [3]	2,410	36

[1] Traffic revenue is allocated according to the original location of sale.
[2] Non-current assets include property, plant and equipment and intangible assets with the exception of repairable spare parts for aircraft.
[3] Aircraft are allocated according to their location of registration.

In 2019 and in the previous year, no more than 10% of Lufthansa Group revenue was generated with any one customer.

SEGMENT REPORTING FROM 2020

Brussels Airlines is managed by Network Airlines as of the start of financial year 2020 and has therefore been allocated to the Network Airlines segment. Brussels Airlines generated revenue of EUR 1,471m and Adjusted EBIT of EUR –26m in the reporting period. The previous year's figures will be adjusted accordingly in the 2020 financial reporting.

The long-haul business of the Eurowings segment will remain in the Lufthansa German Airlines segment in organisational terms, and operational management will mostly take place there too. Segment reporting therefore follows management reporting and presents this unit as part of Network Airlines, adjusting the previous year's figures accordingly. In 2019, the activities concerned accounted for revenue of EUR 340m and Adjusted EBIT of EUR –60m for the Eurowings segment.

In the medium term, one aim of restructuring the Eurowings segment is to reduce the number of flight operations. In this context, the flight operations of Germanwings are to be allocated to Lufthansa German Airlines for organisational purposes. Until the restructuring is complete, Germanwings will provide services to the other airlines in the Lufthansa Group as purely a wet-lease operator. Segment reporting from 2020 will present Germanwings operations as part of Lufthansa German Airlines. The figures for the previous year will be adjusted accordingly. In 2019, the company had no external revenue and reported positive earnings of EUR 29m.

As of 1 January 2020, the line maintenance business of Lufthansa Technik was transferred to Deutsche Lufthansa AG, which will carry out the work itself from this point on. To facilitate comparison, the previous year's figures for the MRO and Network Airlines segments have been adjusted in line with the situation in place from 2020. In 2019, this concerned MRO segment revenue of EUR 354m and Adjusted EBIT of EUR 30m.

NOTES TO THE CONSOLIDATED CASH FLOW STATEMENT

42 Notes to cash flow from operating, investing and financing activities

The cash flow statement shows how cash and cash equivalents have changed over the reporting period at the Lufthansa Group. In accordance with IAS 7, cash flows are divided into cash inflows and outflows from operating activities, from investing activities and from financing activities. The cash and cash equivalents shown in the cash flow statement comprise the statement of financial position items bank balances and cash-in-hand, without fixed-term deposits with terms of three to twelve months, amounting to EUR 0m (previous year: EUR 66m). The amount of liquidity in the broader sense is reached by adding securities that can be liquidated at short notice.

Interest paid and interest income from the corresponding interest rate hedges are netted to avoid overemphasising the items interest income and interest paid.

ADDITIONAL INFORMATION ON THE CASH FLOW STATEMENT

Cash flow from operating activities
Cash flow from operating activities is derived from profit/loss before income taxes using the indirect method. It is adjusted for non-cash income and expenses as well as changes in trade working capital and in other assets/liabilities that are not attributable to investing or financing activities.

Lease accounting in line with IFRS 16 means that payments under operating leases previously shown in cash flow from operating activities are now presented as capital repayments or interest payments within cash flow from financing activities. In the financial year this had an impact of EUR +432m on cash flow from operating activities and a corresponding negative effect in cash flow from financing activities.

In the current financial year, the Group primarily recognised the following non-cash income and expenses:

T162 SIGNIFICANT NON-CASH INCOME AND EXPENSES

in €m	**2019**	2018
Result of miscellaneous financial items	84	46
Write-down on receivables	120	99
Reversal of write-downs on receivables	-27	-48
Income from the reversal of provisions and accruals	-321	-260
Adjustments to retirement and transitional benefit systems	10	-113
Total	**-134**	**-276**

Trade working capital consists of changes in the carrying amounts of inventories, trade receivables and payables, contract assets and down payments, other current assets and other current liabilities, contract liabilities and current deferrals and prepaid expenses.

Other assets/liabilities mainly include corrections between pension expenses and payments, changes in other provisions, accruals/deferrals and corrections for non-cash effects from currency translation.

Cash flow from investing (and cash management) activities
Cash flows from investing and financing activities are calculated on the basis of payments.

Cash flow from investing activities results mainly from investments and disinvestments in non-current assets.

The Lufthansa Group contributed EUR 394m to pension assets in 2019 (previous year: EUR 463m). These payments were categorised as cash flow from investing and cash management activities. By contrast, pension payments from fund assets led to cash inflows from investments (EUR 138m; previous year: EUR 126m). They correspond to cash outflows from operating activities.

Cash flow from financing activities
Cash flow from financing activities now also includes capital repayments and interest payments on lease liabilities following the first-time application of IFRS 16.

Borrowing and the instruments used to hedge it changed as follows in the financial year:

T163 FINANCIAL LIABILITIES 2019

in €m	31 Dec 2018	Cash effective	Non-cash effective						**31 Dec 2019**
			Addition due to changes in consoli-dation	Addition due to lease liabilities [1]	Currency translation differences	Accrued interest	Reclassi-fication	Changes in fair value	
Non-current borrowings	5,008	2,688	–	2,410	66	91	-1,867	–	8,396
Current borrowings	1,677	-2,236	–	359	3	-2	1,833	–	1,634
Other borrowings	39	-22	–	–	–	–	–	–	17
Interest rate swaps and currency futures used for hedging – assets	-154	89	–	–	–	–	–	-140	-205
Interest rate swaps and currency futures used for hedging – liabilities	49	–	–	–	–	–	–	-22	27

[1] This includes additions from the first-time application of IFRS 16 (non-current borrowings: EUR 1,599m and current borrowings: EUR 359m).

Changes in borrowing in the previous year were as follows:

T163 FINANCIAL LIABILITIES 2018

in €m	31 Dec 2017	Cash effective	Non-cash effective					31 Dec 2018
			Addition due to changes in consolidation	Currency translation differences	Accrued interest	Reclassi-fication	Changes in fair value	
Non-current borrowings	6,142	491	–	90	13	-1,728	–	5,008
Current borrowings	672	-722	–	4	-5	1,728	–	1,677
Other borrowings	18	22	–	-1	–	–	–	39
Interest rate swaps and currency futures used for hedging – assets	-83	30	–	–	–	–	-101	-154
Interest rate swaps and currency futures used for hedging – liabilities	2	–	–	–	–	–	47	49

OTHER DISCLOSURES

43 Additional disclosures on financial instruments

FINANCIAL ASSETS BY MEASUREMENT CATEGORY

As of the current reporting date, the financial assets can be broken down into measurement categories with the following carrying amounts:

T164 FINANCIAL ASSETS IN THE BALANCE SHEET AS OF 31 DEC 2019

in €m	Amortised cost	At fair value through profit or loss	At fair value through other comprehensive income (with recycling)	At fair value through other comprehensive income (without recycling)	Derivative financial instruments which are an effective part of a hedging relationship
Other equity investments	–	33	–	–	–
Non-current securities	–	–	–	–	–
of which equity instruments	–	–	–	22	–
of which debt instruments	31	–	–	–	–
Loans	154	–	–	–	–
Non-current receivables	316	–	–	–	–
Non-current derivative financial instruments	–	6	–	–	899
Trade receivables and other current receivables	5,322	–	–	–	–
Current derivative financial instruments	–	6	–	–	452
Current securities	–	–	–	–	–
of which equity instruments	–	360	–	–	–
of which debt instruments	–	–	1,610	–	–
Cash and cash equivalents	1,415	–	–	–	–
Total	**7,238**	**405**	**1,610**	**22**	**1,351**

T164 FINANCIAL ASSETS IN THE BALANCE SHEET AS OF 31 DEC 2018

in €m	Amortised cost	At fair value through profit or loss	At fair value through other comprehensive income (with recycling)	At fair value through other comprehensive income (without recycling)	Derivative financial instruments which are an effective part of a hedging relationship
Other equity investments	–	24	–	–	–
Non-current securities	–	–	–	–	–
of which equity instruments	–	–	–	30	–
of which debt instruments	11	–	–	–	–
Loans	174	–	–	–	–
Non-current receivables	279	–	–	–	–
Non-current derivative financial instruments	–	4	–	–	824
Trade receivables and other current receivables	5,513	–	–	–	–
Current derivative financial instruments	–	23	–	–	334
Current securities	–	–	–	–	–
of which equity instruments	–	280	–	–	–
of which debt instruments	–	–	1,457	–	–
Cash and cash equivalents	1,500	–	–	–	–
Total	**7,477**	**331**	**1,457**	**30**	**1,158**

The category "At fair value through other comprehensive income" includes derivatives that do not meet the requirements for applying hedge accounting and so are accounted for as stand-alone derivatives. This category also includes equity instruments, consisting of shares and equity investments, for which the instrument-specific option of fair value through other comprehensive income without recycling has not been exercised. As of the reporting date, the fair-value option without effect on profit and loss and without recycling was chosen for one share position, in order to avoid the recognition of changes in market value through profit or loss. The item includes shares in VISA Inc. (market value: EUR 22m, dividend payments: EUR 0.1m in the 2019 financial year) whose market valuation reserve increased by EUR 7m in 2019 (cumulative EUR 13m).

A share position in Alliance Aviation Services Ltd. held at fair value without effect on profit and loss and without recycling was sold for EUR 15m in the 2019 financial year. The cumulative market valuation reserve at the time of the sale was EUR 12m, which was transferred to retained earnings without effect on profit and loss.

The market valuation reserve for financial assets measured at fair value (with recycling) without effect on profit and loss was EUR 15m as of the reporting date.

FINANCIAL LIABILITIES BY MEASUREMENT CATEGORY

The financial liabilities can be divided into measurement categories with the following carrying amounts, whereby the category "at fair value through profit or loss" includes derivatives that do not meet the requirements for applying hedge accounting and so are accounted for as stand-alone derivatives.

T165 FINANCIAL LIABALITIES IN THE BALANCE SHEET AS OF 31 DEC 2019

in €m	Liabilities at fair value through profit or loss	Derivative financial instruments which are an effective part of a hedging relationship	Other financial liabilities at cost
Borrowings (without IFRS 16 lease liabilities)	–	–	7,158
Derivative financial instruments	67	199	–
Trade payables	–	–	3,722
Other financial liabilities	–	–	1,705
Total	**67**	**199**	**12,585**

T165 FINANCIAL LIABALITIES IN THE BALANCE SHEET AS OF 31 DEC 2018

in €m	Liabilities at fair value through profit or loss	Derivative financial instruments which are an effective part of a hedging relationship	Other financial liabilities at cost
Borrowings (without IFRS 16 lease liabilities)	–	–	6,685
Derivative financial instruments	29	586	–
Trade payables	–	–	3,868
Other financial liabilities	–	–	1,989
Total	**29**	**586**	**12,542**

The net result of the different categories of financial assets and liabilities is made up as follows:

T166 NET RESULT 2019 FOR FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORY

in €m	Interest expenses	Interest income	Depreciation	Result from valuation and sale	Currency result	**Net result**
Assets at amortised cost	–	8	-94	–	8	**-78**
At fair value through other comprehensive income (with recycling)	-10	21	–	13	5	**29**
At fair value through other comprehensive income (without recycling)	–	–	–	-8	–	**-8**
Assets at fair value through profit or loss	–	–	–	411	–	**411**
Liabilities at amortised cost	-123	–	–	–	-22	**-145**
Liabilities at fair value through profit or loss	–	–	–	-52	–	**-52**
Total	**-133**	**29**	**-94**	**364**	**-9**	**157**

For the result of measurement and disposal of assets at fair value through profit or loss ↗ **Note 13 p. 162.**

T166 NET RESULT 2018 FOR FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORY

in €m	Interest expenses	Interest income	Depreciation	Result from valuation and sale	Currency result	**Net result**
Assets at amortised cost	–	5	-50	–	29	**-16**
At fair value through other comprehensive income (with recycling)	-12	22	–	-10	7	**7**
At fair value through other comprehensive income (without recycling)	–	–	–	5	–	**5**
Assets at fair value through profit or loss	–	–	–	-32	–	**-32**
Liabilities at amortised cost	-124	–	–	–	-39	**-163**
Liabilities at fair value through profit or loss	–	–	–	-18	–	**-18**
Total	**-136**	**27**	**-50**	**-55**	**-3**	**-217**

The table to the right shows the carrying amounts and market values for individual classes of financial liabilities. The stated market values of bonds reflect their stock market listings (Level 1 of the fair value hierarchy). The market values for other types of financial liability have been calculated using the applicable interest rates for the remaining term to maturity and repayment structures at the balance sheet date based on the available market information (Bloomberg) (Level 2 of the fair value hierarchy). For other assets and liabilities, non-current receivables, trade receivables and cash-in-hand carried at amortised cost, the carrying amount is deemed to be a reasonable approximation of the fair value.

T167 FINANCIAL LIABILITIES

	31 Dec 2019		31 Dec 2018	
in €m	**Carrying amount**	**Market value**	Carrying amount	Market value
Bonds	1,094	1,026	1,007	1,026
Liabilities to banks	2,110	2,150	1,957	1,984
Leasing liabilities [1]	2,872	–	596	581
Other borrowings	3,954	3,883	3,125	3,083
Total	**10,030**	**7,059**	**6,685**	**6,674**

[1] With the introduction of IFRS 16, declaration of market value no longer applies as of 1 January 2019.

FINANCIAL ASSETS HELD AT FAIR VALUE BY LEVEL OF FAIR VALUE HIERARCHY

The following table shows financial assets and liabilities held at fair value by level of fair value hierarchy. The levels are defined as follows:

- Level 1: Financial instruments traded on active markets, the quoted prices for which are taken for measurement unchanged.
- Level 2: Measurement is made by means of valuation methods with parameters derived directly or indirectly from observable market data.
- Level 3: Measurement is made by means of valuation methods with parameters not based exclusively on observable market data.

In the financial year 2019, the fair value hierarchy for assets and liabilities held at fair value was as follows:

T168 FAIR VALUE HIERARCHY OF ASSETS AS OF 31 DEC 2019

in €m	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit and loss	**359**	**13**	**–**	**372**
Financial derivatives classified as held for trading	–	12	–	12
Securities	359	1	–	360
Derivative financial instruments which are an effective part of a hedging relationship	**–**	**1,352**	**–**	**1,352**
Financial assets at fair value through other comprehensive income	**–**	**1,632**	**–**	**1,632**
Equity instruments	–	22	–	22
Debt instruments	–	1,610	–	1,610
Total assets	**359**	**2,997**	**–**	**3,356**

T169 FAIR VALUE HIERARCHY OF LIABILITIES AS OF 31 DEC 2019

in €m	Level 1	Level 2	Level 3	Total
Derivative financial instruments at fair value through profit or loss	–	-67	–	-67
Derivative financial instruments which are an effective part of a hedging relationship	–	-199	–	-199
Total liabilities	**–**	**-266**	**–**	**-266**

In the previous year, the hierarchy was as follows:

T168 FAIR VALUE HIERARCHY OF ASSETS AS OF 31 DEC 2018

in €m	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit and loss	**278**	**29**	**–**	**307**
Financial derivatives classified as held for trading	–	27	–	27
Securities	278	2	–	280
Derivative financial instruments which are an effective part of a hedging relationship	**–**	**1,158**	**–**	**1,158**
Financial assets at fair value through other comprehensive income	**15**	**1,470**	**–**	**1,485**
Equity instruments	15	15	–	30
Debt instruments	–	1,455	–	1,455
Total assets	**293**	**2,657**	**–**	**2,950**

T169 FAIR VALUE HIERARCHY OF LIABILITIES AS OF 31 DEC 2018

in €m	Stufe 1	Stufe 2	Stufe 3	Gesamt
Derivative financial instruments at fair value through profit or loss	–	-29	–	-29
Derivative financial instruments which are an effective part of a hedging relationship	–	-586	–	-586
Total liabilities	**–**	**-615**	**–**	**-615**

NETTING OF FINANCIAL ASSETS AND LIABILITIES

The following financial assets and liabilities are subject to global netting agreements and other agreements.

T170 NETTING OF FINANCIAL ASSETS AS OF 31 DEC 2019

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Cash collateral	Net amount
Trade receivables and other current receivables	5,478	156	5,322	–	–	5,322
Derivative financial instruments – assets	1,364	–	1,364	-37	92	1,309
Cash and cash equivalents	1,445	30	1,415	–	–	1,415
Total assets	**8,287**	**186**	**8,101**	**-37**	**92**	**8,046**

T171 NETTING OF FINANCIAL LIABILITIES AS OF 31 DEC 2019

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Cash collateral	Net amount
Trade payables and other financial liabilities	3,908	186	3,722	–	92	3,722
Derivative financial instruments – liabilities	266	–	266	-37	–	303
Total liabilities	**4,174**	**186**	**3,988**	**-37**	**92**	**4,025**

In the previous year, the net balances were as follows:

T170 NETTING OF FINANCIAL ASSETS AS OF 31 DEC 2018

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Cash collateral	Net amount
Trade receivables and other current receivables	5,983	470	5,513	–	33	5,513
Derivative financial instruments – assets	1,185	–	1,185	10	13	1,162
Cash and cash equivalents	1,508	8	1,500	–	–	1,500
Total assets	**8,739**	**478**	**8,261**	**10**	**46**	**8,238**

T171 NETTING OF FINANCIAL LIABILITIES AS OF 31 DEC 2018

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Cash collateral	Net amount
Trade payables and other financial liabilities	4,390	478	3,912	–	13	3,912
Derivative financial instruments – liabilities	615	–	615	10	33	572
Total liabilities	**5,005**	**478**	**4,527**	**10**	**46**	**4,484**

PRINCIPLES OF HEDGING POLICY

As an aviation group with worldwide operations, the Lufthansa Group is exposed to exchange rate, interest rate and fuel price movement risks, as well as to credit and liquidity risks. Limiting these risks by means of systematic financial management is part of Company policy.

Market risk

The major market and price risks to which the Lufthansa Group is exposed are exchange rate fluctuations between the euro and other currencies, interest rate fluctuations in international money and capital markets, and price fluctuations in the crude oil and oil products markets. Hedging policy for limiting these risks is laid down by the Executive Board and documented by internal Group guidelines. It also provides for the use of financial derivatives. The corresponding financial transactions are concluded only with first-rate counterparties.

Foreign exchange risk

For US dollars, the Lufthansa Group is in a net payer position as regards currency risks from its operating business, since fuel payments are dollar-denominated. There is always a net surplus for other currencies. The main risks in this respect stem from the Chinese renminbi, the Swiss franc, British pound sterling, the Japanese yen and the Indian rupee. Depending on market liquidity, currency risks from projected operational exposure are hedged gradually over a period of 24 months by means of futures contracts, which are accounted for as cash flow hedges. The target hedging level is defined in the Group's internal guidelines. At the end of 2019, exposure from operations for the next 24 months was as follows:

T172 CURRENCY EXPOSURE, AS OF 2019

in millions	USD	CNY	JPY	GBP	INR
Exposure (currency)	-7,872	9,100	121,313	830	65,650
Exposure (EUR at spot rate)	-7,007	1,164	995	975	819
Hedges (currency)	3,076	-3,744	-49,122	-374	-19,760
Hedging level	39%	41%	40%	45%	20%
Hedging rate	1.18	8.14	124.55	0.90	82.50

50% of currency risks from capital expenditure on aircraft are hedged when the contract is signed. The hedging level is reviewed and increased, where necessary, if, over the lifetime of the contract, the exchange rate goes significantly above or below that used to calculate the investment. In the last 24 months before payment, the hedging level is increased in half-yearly steps of 10%, reaching 90% by the end. These investment hedges are therefore also accounted for as cash flow hedges. Capital expenditure on aircraft takes place in US dollars and is hedged in euros or Swiss francs, depending on the functional currency of the Group company making the purchase.

US dollar exposure for capital expenditure as of year-end 2019 was as follows, broken down by the hedged currency:

T173 USD INVESTMENT EXPOSURE, HEDGED IN EUR

in millions	2020	2021	2022	2023	2024	2025	2026	2027
Exposure from net capital expenditure (USD)	-1,687	-2,567	-2,496	-2,779	-1,516	-1,114	-368	-147
Exposure from net capital expenditure (EUR at spot rate)	-1,505	-2,290	-2,226	-2,479	-1,352	-994	-328	-131
Hedges (USD)	1,491	1,875	1,598	1,651	784	582	205	73
Hedging level	88%	73%	64%	59%	52%	52%	56%	56%
Hedging rate EUR/USD	1.26	1.31	1.38	1.35	1.39	1.35	1.35	1.36

T174 USD INVESTMENT EXPOSURE, HEDGED IN CHF

in millions	2020	2021	2022	2023	2024
Exposure from net capital expenditure (USD)	-308	-228	-185	-208	-224
Exposure from net capital expenditure (EUR at spot rate)	-275	-203	-165	-185	-200
Hedges (USD)	255	196	135	104	112
Hedging level	83%	86%	73%	50%	50%
Hedging rate USD/CHF	0.89	0.85	0.85	0.85	0.82

The following sensitivity analysis shows how net profit and equity would change if the currencies identified as price risk variables had been different from those at the balance sheet date.

T175 SENSITIVITY ANALYSIS BY CURRENCY

in €m	Effects on earnings after taxes[1]	Effects on equity[1]
Currency – USD		
+10%	-188	1,060
-10%	156	-867
Currency – JPY		
+10%	1	-34
-10%	-1	27
Currency – CHF		
+10%	11	-44
-10%	-9	36
Currency – GBP		
+10%	8	-36
-10%	-7	30
Currency – CNY		
+10%	2	-39
-10%	-2	32
Currency – INR		
+10%	1	-13
-10%	-1	11

[1] All amounts after deferred tax effects; +/– signs relate to net profit and/or equity.

Interest rate risk

The Lufthansa Group aims to pay interest on 100% of its financial liabilities in euros at floating rates of interest. To do so, interest rate swaps are arranged for interest-bearing, fixed-rate financial debt and leasing liabilities. Financial liabilities denominated in euros are hedged using “plain vanilla” interest rate swaps, while cross-currency interest rate swaps are used to hedge financial liabilities in foreign currencies. Depending on the interest rate structure of the exposure to be hedged, hedges are either classified as fair value hedges or cash flow hedges. The interest rate risk is monitored constantly; strategic interest rate hedges are used as needed in response to different market situations. Depending on the counterparties and the instruments used, cash collateral for interest rate swaps is either deposited with or received from counterparties (↗ T170, T171, p. 204).

The tables below describe the floating/fixed ratio for non-current borrowing as of financial year-end 2019 after taking into consideration interest rate hedging, as well as the distribution of the nominal volume of interest rate hedges.

T176 INTEREST RATE EXPOSURE AFTER HEDGING

in €m	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Fix	407	203	172	189	174	127	101	106	6	5	5
Variable	6,235	5,801	4,407	3,609	3,044	1,781	1,484	1,124	919	700	459
Float/Fix-Ratio	94%	97%	96%	95%	95%	93%	94%	91%	99%	99%	99%

T177 NOMINAL VOLUME OF INTEREST RATE HEDGES

in €m	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Fix	-4,107	-2,913	-1,885	-1,528	-525	-321	-48	-878	-664	-420	-162
Variable	4,014	2,831	1,846	1,504	512	332	54	880	661	420	162

The sensitivity analysis to the right shows how net profit and equity would change if the interest rate identified as a price risk variable had been different from the perspective of the balance sheet date. In view of the current low interest rates, a reduction of more than 50 basis points is not considered likely, which is why the analysis was limited to this figure.

T178 SENSITIVITY ANALYSIS BY INTEREST RATE

in €m	Effects on earnings after taxes[1]	Effects on equity[1]
Interest		
+100 basis points	50	-35
-50 basis points	-26	19

[1] All amounts after deferred tax effects; +/– signs relate to net profit and/or equity.

Effects of the EU benchmark regulation of global reference interest rates

In terms of the financial instruments used by the Lufthansa Group, the global reform of variable reference interest rates means that the variable reference interest rates for transactions that are available today will no longer be so in future or will be calculated differently. As of 31 December 2019, the Lufthansa Group held EUR 6.9bn in outstanding financial transactions, floating rate liabilities and hedging instruments based on variable interest rates. The following table shows the absolute nominal volume of the transactions as of the reporting date.

T179 NOMINAL VOLUME OF FLOATING RATE FINANCIAL INSTRUMENTS IN HEDGING RELATIONSHIPS

Reference floating interest rate by currency	Nominal volume of floating interest rate derivatives in €m	Nominal volume of floating interest rate financial liabilities (without derivatives) in €m
EUR - EURIBOR	5,055	1,154
USD - LIBOR	319	325
CHF - LIBOR	21	–
Total	**5,395**	**1,479**

EURIBOR's calculation method was adjusted in 2019 to ensure that it complies with the rules of the EU benchmark regulation. The change therefore has no effect on the Lufthansa Group for financial instruments based on EURIBOR. Since October 2019, the European Central Bank has also published €STR, a benchmark-compliant overnight interest rate. Clearing houses are expected to switch their mark-to-market accounting to the new overnight reference rates €STR (EUR) and SOFR (USD) in the course of 2020. No significant impact is expected for the Lufthansa Group from the change in the relevant USD and CHF LIBORs, since the volume of transactions in the portfolio is low.

The Lufthansa Group is applying early the Amendments to IFRS 9, IAS 39 and IFRS 7 Interest Rate Benchmark Reform published in September 2019, which include transitional rules and accounting exemptions for interest rate hedges. The outstanding changes to the benchmarks will not have any impact on the USD and CHF hedging relationships designated by the Lufthansa Group. Contracts for derivatives and financial liabilities will be analysed by the Lufthansa Group and fallback clauses added if necessary. Systematic adjustments will also be made to the extent required.

Fuel price risk

In 2019, fuel costs accounted for 18.1% of the Lufthansa Group's operating expenses (previous year: 17.1%). Significant changes in fuel prices can therefore have a significant effect on the Lufthansa Group's result.

Fuel price risk is limited by the use of crude oil hedges. The hedging level and the time horizon depend on the risk profile, which is derived from the business model of a Group company. As a rule, up to 5% of exposure is hedged monthly for up to 24 months by spread options and other combinations of hedges. Executive Board approval may be obtained to extend the hedging period and to increase the monthly hedging volume in order to exploit market opportunities. The target hedging level is up to 85%.

From a year-end perspective, fuel exposure was as follows:

T180 FUEL EXPOSURE

		2020	2021
Fuel requirement	in 1,000 tonnes	11,040	11,061
Hedges	in 1,000 tonnes	8,106	2,635
Hedging level	%	73	24
Hedging rate	USD/bbl	65.32	60.45

The following sensitivity analysis shows how equity would have been affected by changes in the market value of hedging instruments held as of the reporting date if the fuel price, the identified risk variable, had been different. Since hedge accounting rules mean that changes in the market value of the instruments are only recognised directly in equity without effect on profit and loss, the change in the fuel price alone has no effect on earnings.

T181 SENSITIVITY ANALYSIS BY FUEL PRICE

in €m	Effects on earnings after taxes[1]	Effects on equity[1]
Fuel price		
+10%	–	255
-10%	–	-238

[1] All amounts after deferred tax effects; +/– signs relate to net profit and/or equity.

Market values of the derivative financial instruments used for hedging
Hedging instruments in designated hedging relationships are used to hedge exchange rate, interest rate and fuel price risks as of the reporting date. They changed as follows in the financial year:

T182 DERIVATIVE FINANCIAL INSTRUMENTS USED FOR HEDGING AS OF 31 DEC 2019

in €m	Positive market value	Negative market value	Change in fair value of hedging instrument – designated risk	Change in fair value of hedging instrument – non-designated risk	Basis adjustment of hedged items	OCI – cash flow hedge reserve	OCI – cost of hedging	Ineffective portion of hedges – designated risk	Ineffective portion of hedges – non designated risk
Fair value hedge									
Interest rate hedges – interest rate swaps	156	-27	89	–	-90	–	–	-1	–
Cash flow hedge									
Fuel hedging – options	185	-39	404	163	–	402	164	2	-1
Exchange rate hedging – forward transactions	963	-133	-386	315	–	-380	319	-6	-4
Interest rate hedges – interest rate swaps	49	–	4	–	–	8	–	-4	–
Total	**1,353**	**-199**	**111**	**478**	**-90**	**30**	**483**	**-9**	**-5**
of which current	452	-135							

T182 DERIVATIVE FINANCIAL INSTRUMENTS USED FOR HEDGING AS OF 31 DEC 2018

in €m	Positive market value	Negative market value	Change in fair value of hedging instrument – designated risk	Change in fair value of hedging instrument – non-designated risk	Basis adjustment of hedged items	OCI – cash flow hedge reserve	OCI – cost of hedging	Ineffective portion of hedges – designated risk	Ineffective portion of hedges – non designated risk
Fair value hedge									
Interest rate hedges – interest rate swaps	101	-47	60	–	-47	–	–	13	–
Cash flow hedge									
Fuel hedging – options	27	-459	-833	-173	–	-840	-174	6	1
Exchange rate hedging – forward transactions	977	-78	463	83	–	462	76	1	6
Interest rate hedges – interest rate swaps	54	-1	19	–	–	15	–	3	–
Total	**1,159**	**-585**	**-291**	**-90**	**-47**	**-363**	**-98**	**23**	**7**
of which current	334	-383							

The market values stated for financial derivatives correspond to the price at which an independent third party would assume the rights and/or obligations from the financial instrument. The fair values of interest rate derivatives correspond to their respective market values, which are measured using appropriate mathematical methods, such as discounting expected future cash flows. Discounting takes market standard interest rates and the residual term of the respective instruments into account. Currency forward transactions and interest rate swaps are individually discounted to the balance sheet date based on their respective forward rates and the appropriate interest rate curve. The market prices of options used to hedge fuel prices are determined using acknowledged option pricing models.

Depending on the hedged exposure, the Lufthansa Group designates interest rate hedges as both fair value hedges and cash flow hedges and accounts for them accordingly. Interest rate swaps are designated as part of a hedging relationship and are not broken down into individual components. Ineffectiveness in these hedging relationships mainly occurs as a result of the subsequent designation of cross currency swaps in hedges as of 1 January 2018. Other reasons for ineffectiveness in hedging relationships are different parameters in the hedged item and the hedging instrument and the basis spread in cross currency swaps. Ineffectiveness in fair value hedges and cash flow hedges are recognised and presented as part of the financial result, below the other financial items.

Derivatives used in the context of fuel hedging to hedge future kerosene purchases are designated as cash flow hedges. Since 1 January 2018, the Lufthansa Group has applied the IFRS 9 component approach, using crude oil, based on Brent Crude ICE, as the designated risk component of the hedging instrument. The hedged item is composed of a global mix of crude oil types. The base risk between individual crude oil components in the hedging instrument and the crude oil mix in the hedged item is reduced by rebalancing the volumes that make up the hedged item on a quarterly basis. In 2019, the quarterly rebalancing factors for adjusting the hedged item were as follows: 1.02 (Q1), 1.02 (Q2), 1.022 (Q3) and 1.021 (Q4). The Lufthansa Group generally uses options and combinations of options to hedge fuel prices. The intrinsic value of the option is designated as the hedging instrument, so that effective changes in the intrinsic values are recognised in other comprehensive income in the cash flow hedge reserve. The time value of an option is not designated as a hedging instrument and effective changes in the time value are therefore recognised as a cost of hedging. This rule was applied for the first time retroactively. Ineffectiveness in fuel price hedges result from the base risk between the crude oil component and the crude oil mix in the component approach. Ineffectiveness is recognised and presented as part of the financial result, below the other financial items.

Since 1 January 2018, the Lufthansa Group has prospectively applied the spot-to-spot method for exchange rate forward transactions designated as cash flow hedges. The spot component of a forward contract is designated as a hedging instrument and effective value changes are recognised in the cash flow hedge reserve. The other effective components of a forward contract, the forward component and the cross-currency basis spread are presented in a separate OCI component in line with the legal requirements for the cost of hedging. Ineffectiveness in hedging relationships results from changes in the timing of the planned aircraft purchases. Ineffectiveness is presented as part of the financial result, below the other financial items (↗ **Note 13, p. 162**).

The Lufthansa Group uses the hypothetical derivative method to calculate changes in the value of hedged items designated as being part of a hedging relationship.

T183 DESIGNATED HEDGED ITEMS IN HEDGING RELATIONSHIPS 2019

in €m	Carrying amount of liabilities	Change in fair value of hedged items – designated risk	Change in fair value of hedged items – non-designated risk	Basis adjustment of hedged items from fair value hedges – cumulative
Fair value hedge				
Interest rate hedges – interest rate swaps	–7,330	–90	–	–99
Cash flow hedge				
Fuel hedging – options	–	–407	–164	–
Exchange rate hedging – forward transactions	–	390	–301	–
Interest rate hedges – interest rate swaps	–	9	–	–
Total	**–7,330**	**–98**	**–465**	**–99**

T183 DESIGNATED HEDGED ITEMS IN HEDGING RELATIONSHIPS 2018

in €m	Carrying amount of liabilities	Change in fair value of hedged items – designated risk	Change in fair value of hedged items – non-designated risk	Basis adjustment of hedged items from fair value hedges – cumulative
Fair value hedge				
Interest rate hedges – interest rate swaps	6,685	-47	–	-65
Cash flow hedge				
Fuel hedging – options	–	840	174	–
Exchange rate hedging – forward transactions	–	-502	-61	–
Interest rate hedges – interest rate swaps	–	-16	–	–
Total	**6,685**	**275**	**113**	**-65**

T184 STATEMENT OF EQUITY RECONCILIATION FOR CASH FLOW HEDGES 2019

in €m	As of 1 Jan 2019	Gains or losses from effective hedging relationships	Reclassification to profit or loss	Reclassification to acquisition costs of inventories	Reclassification to acquisition costs of aircraft	As of 31 Dec 2019
OCI – cash flow hedge reserve	**451**	**803**	**544**	**89**	**146**	**477**
Fuel hedging – options	-360	491	–	89	–	43
Exchange rate hedging – futures	820	310	544	–	146	440
Interest rate hedges – interest rate swaps	-9	2	–	–	–	-6
OCI – cost of hedging	**-151**	**476**	**–**	**–**	**–**	**326**
Fuel hedging – options	-227	157	–	–	–	-70
Exchange rate hedging – futures	76	319	–	–	–	396
Total	**300**	**1,279**	**544**	**89**	**146**	**803**

T184 STATEMENT OF EQUITY RECONCILIATION FOR CASH FLOW HEDGES 2018

in €m	As of 1 Jan 2018	Gains or losses from effective hedging relationships	Reclassification to profit or loss	Reclassification to acquisition costs of inventories	Reclassification to acquisition costs of aircraft	As of 31 Dec 2018
OCI – cash flow hedge reserve	**837**	**490**	**57**	**786**	**33**	**451**
Fuel hedging – options	479	-53	–	786	–	-360
Exchange rate hedging – futures	358	552	57	–	33	820
Interest rate hedges – interest rate swaps	–	-9	–	–	–	-9
OCI – cost of hedging	**-61**	**-90**	**–**	**–**	**–**	**-151**
Fuel hedging – options	-61	-166	–	–	–	-227
Exchange rate hedging – futures	–	76	–	–	–	76
Total	**776**	**400**	**57**	**786**	**33**	**300**

Derivative financial instruments that do not meet the requirements for applying hedge accounting are measured at fair value through profit or loss. As a rule, these derivatives were originally in an economic hedging relationship with a particular exposure, but the exposure can either not be measured for hedge accounting purposes or no longer exists.

Fair values are all calculated solely on the basis of recognised financial and mathematical methods, using publicly available market information.

Changes in the market values of derivatives that do not qualify as effective hedging transactions under IFRS 9 can be seen in the income statement and in the overview of other financial items ↗ **Note 13, p. 162.**

Liquidity risk
Complex financial planning systems enable the Lufthansa Group to identify its future liquidity position at an early stage. Based on the results of the Group strategy and planning processes, a monthly rolling liquidity plan differentiated by currency is drawn up with a planning horizon of 24 months. This planning method offers an up-to-date picture of anticipated liquidity developments within the Company and corresponding currency effects.

The Lufthansa Group always holds a liquidity reserve of at least EUR 2,300m that is available at short notice. In addition, the Lufthansa Group held confirmed unused lines of credit as of 31 December 2019 totalling EUR 774m (previous year: EUR 849m).

A maturity analysis for the financial liabilities and the derivative financial instruments based on undiscounted gross cash flows including the relevant interest payments shows the following projected cash inflows and outflows from the perspective of the balance sheet date 31 December 2019. As a result of the hedges used, there are generally direct connections between the cash inflows and outflows for the derivative financial instruments shown.

T185 MATURITY ANALYSIS OF LIABILITIES FROM DERIVATIVE FINANCIAL INSTRUMENTS

in €m	From fuel derivatives	Cash inflow from gross settlement of interest rate and exchange rate derivatives	Cash outflow from gross settlement of interest rate and exchange rate derivatives	**Net**
1st quarter	5	-1,020	1,048	**33**
Up to 1 year[1]	12	-2,094	2,169	**87**
1-5 years	1	-1,823	1,909	**87**
Later	–	-344	361	**17**

[1] Without payments in 1st quarter.

T186 MATURITY ANALYSIS FOR NON-DERIVATIVE FINANCIAL INSTRUMENTS

in €m	**Outflows**
1st quarter	-4,614
Up to 1 year[1]	-2,363
1-5 years	-4,955
Later	-2,274

[1] Without payments in 1st quarter.

Credit risk
The sale of passenger travel and freight documents mostly takes place via agencies. These agencies are mostly connected to national clearing systems for billing passenger and freight sales. The creditworthiness of the agents is reviewed by the responsible clearing systems. Due to the broad diversification, credit risk for the agencies is relatively low worldwide. Nonetheless, credit terms for agents in some markets were tightened significantly in cooperation with the International Air Transport Association (IATA) in order to reduce credit risks even further.

Receivables and liabilities between airlines are offset through bilateral arrangements or via the IATA clearing house, insofar as the contracts underlying services do not explicitly specify otherwise. Systematic settlement of weekly receivables and liability balances significantly reduces the default risk. Fidelity guarantee insurance also covers partial risks within a certain range. Service contracts occasionally require collateral for miscellaneous transactions. All other contractual relationships are subject to credit rules, which, depending on the type and volume of the contract involved, require collateral, credit ratings/references or historical data from prior dealings, particularly payment history, in order to avoid defaults.

Counterparty risks in connection with credit card companies are monitored closely and incoming payments are reviewed daily. To reduce risks even further, a permanent analysis process examines whether to further tighten credit terms for some settlement partners. In addition to the monitoring of receivables at the Company or segment level, there is also counterparty monitoring at Group level, with individually assigned limits, in order to identify the accumulation of portfolio risks across the entire Group and take appropriate action where necessary. The maximum credit risk for financial assets from the potential insolvency of customers is their carrying amount.

In addition to individual write-downs on receivables if a default event occurs, IFRS 9 requires risk provisions to be recognised for expected losses. The Lufthansa Group's trade receivables are exposed to external credit risks for which expected losses have already been taken into consideration in accordance with IFRS 9, in addition to individual write-downs. A simplified impairment model based on an impairment matrix is used for the portion of the receivables portfolio that does not consist of credit card receivables but is subject to external credit risks. The portfolio is divided into clusters based on customer groups, regions and days past due. A default matrix is calculated on the basis of historical default events in the Lufthansa Group's receivables portfolio, which is adjusted for forward-looking, publicly available insolvency forecasts. This impairment matrix is applied to trade receivables that are exposed to external credit risk and are not credit card receivables. In addition, the receivables portfolio includes credit card receivables for which the Lufthansa Group is the credit card issuer. Expected losses for these credit card receivables are calculated in a separate model, based on counterparty-specific external ratings and default probabilities. The Lufthansa Group uses a definition of default of 90 days past due for receivables, which are written off in full if the default event occurs. Exceptions are permitted in justified cases, however.

In the following tables, Levels 1 and 2 describe expected credit losses, whereas Level 3 shows individual impairment losses on the basis of actual default events.

T187 STATEMENT OF RISK PROVISIONS 2019

in €m	Opening balance risk provision as of 1 Jan 2019	Additions through profit or loss	Reversals through profit or loss	Utilisation	Closing balance risk provision as of 31 Dec 2019	Opening balance gross carrying amount as of 1 Jan 2019	Closing balance gross carrying amount as of 31 Dec 2019
Trade receivables and other receivables (simplified approach)	314	102	-10	-8	398	2,540	2,457
of which from expected losses	9	6	-3	0	12	2,234	2,066
of which from individual loss allowances	305	96	-7	-8	386	306	391
Trade receivables and other receivables (credit card receivables)	24	6	-5	-8	17	1,052	1,060
of which Level 1	17	1	-4	0	14	1,041	1,051
of which Level 2	0	0	0	0	0	0	0
of which Level 3	7	5	-1	-8	3	11	9
Total	**338**	**108**	**-15**	**-16**	**415**	**3,592**	**3,517**

T187 STATEMENT OF RISK PROVISIONS 2018

in €m	Opening balance risk provision as of 1 Jan 2018	Additions through profit or loss	Reversals through profit or loss	Utilisation	Closing balance risk provision as of 31 Dec 2018	Opening balance gross carrying amount as of 1 Jan 2018	Closing balance gross carrying amount as of 31 Dec 2018
Trade receivables and other receivables (simplified approach)	276	95	-31	-15	325	2,371	2,522
of which from expected losses	15	2	-8	0	9	2,095	2,216
of which from individual loss allowances	261	93	-23	-15	316	276	306
Trade receivables and other receivables (credit card receivables)	12	19	-2	-4	24	906	1,048
of which Level 1	12	7	-2	0	17	899	1,037
of which Level 2	0	0	0	0	0	0	0
of which Level 3	0	12	0	-4	7	7	11
Total	**288**	**114**	**-33**	**-19**	**349**	**3,277**	**3,570**

An expected loss of EUR 1m was recognised for contract assets as of the reporting date. In addition, a risk provision of EUR 0.4m was recognised as of the reporting date in Level 1 of the general impairment model for securities measured at fair value through other comprehensive income.

In the reporting year, the Lufthansa Group used the following default rates for each past due category in the impairment matrix for the simplified approach of the impairment model.

T188 IMPAIRMENT MATRIX FOR TRADE RECEIVABLES 2019

		Not overdue	1 – 30 days overdue	31 – 60 days overdue	61 – 90 days overdue	More than 90 days overdue	**Total**
Default rate	%	0.3	0.8	1.3	1.6	1.8	**–**
Carrying amounts for trade receivables	€m	1,419	393	47	41	166	**2,066**
Expected loss	€m	4	3	1	1	3	**12**

T188 IMPAIRMENT MATRIX FOR TRADE RECEIVABLES 2018

		Not overdue	1 – 30 days overdue	31 – 60 days overdue	61 – 90 days overdue	More than 90 days overdue	**Total**
Default rate	%	0.2	0.%	1.2	1.5	1.7	**–**
Carrying amounts for trade receivables	€m	1,484	364	163	30	175	**2,216**
Expected loss	€m	2	2	2	–	3	**9**

In order to determine expected losses of credit card receivables according to IFRS 9, the off-balance sheet exposure must be considered, in addition to the on-balance sheet exposure. The off-balance sheet exposure describes the portion of a credit card's unused or free limit. The following overview shows the risk data for the credit card portfolio. Expected losses are calculated at the level of the individual credit card, so that the sizes of the average default probability and the average loss relate to the individual credit card.

T189 CONCENTRATION OF CREDIT RISK FROM CREDIT CARD RECEIVABLES

Internal credit rating	Probability of default according to external credit rating	Average probability of default	Average expected loss per concerned credit card in €	Exposure Level 1 impairment model in €m	Exposure Level 2 impairment model in €m	Exposure Level 3 impairment model in €m
On-balance sheet exposure						
Low risk	≤ 2%	0.6%	36	802	2	–
Medium risk	> 2.0% to ≤ 6.5%	3.0%	65	224	–	–
High risk	> 6.5%	48.0%	4,905	21	1	9
Total				**1,047**	**3**	**9**
Off-balance sheet exposure						
Low risk	≤ 2%	0.6%	48	1,161	2	–
Medium risk	> 2.0% to ≤ 6.5%	3.0%	134	249	1	–
High risk	> 6.5%	48.0%	1,020	150	–	–
Total				**1,560**	**3**	**–**

Securities representing debt instruments are rated as follows (Standard & Poor's):

T190 SECURITIES RATINGS – DEBT INSTRUMENTS

in €m	
AAA	344
AA+	36
AA	130
AA–	95
A+	280
A	263
A–	252
BBB+	125
BBB	72
Below BBB or unrated	44
Total	**1,641**

The credit risk for derivative financial instruments and securities held at fair value through or without effect on profit and loss is the risk that a counterparty defaults. The maximum credit risk from these instruments is their carrying amount. The counterparty default risk for financial market transactions is limited by defining a maximum risk, taking the credit score given by recognised rating agencies into account.

44 Contingencies and events after the reporting period

T191 CONTINGENT LIABILITIES

in €m	**31 Dec 2019**	31 Dec 2018
From guarantees, bills of exchange and cheque guarantees	1,634	988
From warranty contracts	378	218
From providing collateral for third-party liabilities	47	45
	2,059	**1,251**

Warranties include an amount of EUR 248m (previous year: EUR 114m) relating to contingent liabilities towards creditors of joint ventures. As in the previous year, liabilities under collateral agreements included contingent liabilities of EUR 6m towards creditors of joint ventures. Of the total, EUR 1,715m (previous year: EUR 1,094m) relates to joint and several guarantees and warranties taken on. These are matched by compensatory claims against the other co-debtors amounting to EUR 1,654m (previous year: EUR 1,042m). Insofar as annual financial statements have yet to be published, these figures are preliminary.

Otherwise, provisions for other risks could not be made because utilisation was not sufficiently probable. The potential financial effect of these provisions on the result would have been EUR 55m (previous year: EUR 55m).

As in the previous year, no profits or cash inflows are expected from contracts for the sale of aircraft.

LEGAL RISKS

The Lufthansa Group is exposed to a number of legal risks in the course of its normal business. Based on current knowledge, the assumption is that these will not have any major, lasting effects on the net assets, financial and earnings position, beyond those for which provisions for litigation risks have been made, ↗ **Note 34, p. 185ff.**

Legal disputes and other claims made against the Group are always subject to uncertainty, however. Management estimates of these risks may also change over time. The actual outcome of these legal disputes may differ from earlier management estimates, which could have significant effects on the net assets, financial and earnings position and the reputation of our Company.

Due to the existing uncertainties and to those described below, we cannot make an assessment of the amount of the respective contingent liabilities or of the group of contingent liabilities. The legal disputes that these statements refer to include:

Risk of successful claims for damages in ongoing antitrust proceedings

Various cargo airlines, including Lufthansa Cargo AG and Swiss International Air Lines AG, were involved in a cargo cartel in the period between December 1999 and February 2006. Deutsche Lufthansa AG, Lufthansa Cargo AG and Swiss International Air Lines AG are at risk of civil claims for damages in Norway, Israel, Korea and the Netherlands. The lawsuits have been brought by both direct and indirect customers and are addressed to the airlines as co-debtors.

All litigation in Germany and the United Kingdom was ended by a settlement in the course of 2019.

In Germany, a lawsuit against Lufthansa Cargo AG and others for information and damages was filed with Cologne regional court by a subsidiary of Deutsche Bahn AG. Litigation proceedings were started in late 2013 and expanded in late 2014. The lawsuit is addressed to a total of eleven cargo airlines and claims for purported damages of around EUR 3bn in total, including interest. Settlements with some of the other airlines concerned had reduced the claim in the past to EUR 1.6bn. Intense negotiations with Deutsche Bahn AG led to a settlement in August 2019, thus bringing the proceedings against Group companies to an end. It is very unlikely that the other litigants will challenge the settlements.

At present, it is not possible to give a concrete assessment of the outcome of the lawsuits still pending or of the number and amount of any other claims. When evaluating the risk, it should nonetheless be borne in mind that the European Commission's decision on the cargo cartel, which the claimants in the civil lawsuits refer to, among others, is still not legally binding. Following the appeal of this 2010 decision by the European Court of Justice (ECJ) in December 2015, the European Commission sent revised penalty notices in March 2017 in which the content was the same but the reasoning had been altered. The airlines concerned, including Lufthansa, again contested them, so the penalty notices are still not effective.

Moreover, an expert economic opinion commissioned by Lufthansa Cargo AG and Swiss International Air Lines AG has come to the conclusion that the cartel did not inflict any actual damage on customers. Even if there were damages (i.e. allegedly higher cartel prices), the court would have to examine whether the claimants passed them on to their own customers (in the case of the freight forwarders) or whether they were passed on to the claimants (in the case of the final customers). Nonetheless, significant effects on the net assets, financial and earnings position of the Group cannot be ruled out if it should lose any of these legal proceedings.

Investigations in connection with work and service contracts
The investigations by the customs authorities in previous years into possible breaches of the German Law on Labour Leasing (Arbeitnehmerüberlassungsgesetz – AÜG) concerning the procurement of services by the Lufthansa Group have been concluded amicably. No penalties were imposed on individual employees of the Lufthansa Group nor on companies in accordance with Section 30 of the Administrative Offences Act (Gesetz über Ordnungswidrigkeiten – OWiG). Administrative proceedings with the German Statutory Pension Insurance Scheme concerning the legal status of two workers have been submitted for judicial review to the Higher Social Court in Berlin.

TAX RISKS

Tax risks exist largely because of differences in legal opinions between the German tax authorities and the Company. In tax audits for the financial years 2001 to 2012, the tax authorities came to a number of different conclusions to those on which the Company had based its tax returns, relating, in particular, to partial write-downs on shareholder loans, the treatment of various lease structures and the acquisition of a foreign subsidiary, as well as the recognition and measurement of certain provisions and assets. The Lufthansa Group has appealed against the resulting tax assessments. Without abandoning its legal position, almost all the disputed matters were settled in the past by paying the back taxes demanded by the authorities. As far as the partial write-downs are concerned, a change in Federal Finance Court case law in the reporting year resulted in a negative ruling for the Company. The Lufthansa Group still assumes, however, that there is a very strong likelihood of winning in all the matters still being disputed. To the extent that payments have already been made, claims against the tax authorities were recognised in line with IFRIC 23. No provisions were recognised for the remaining points as of the reporting date given the low probability of their use. There is, however, the risk of a possible subsequent payment totalling some EUR 200m for the circumstances mentioned. The assessment of the amount is subject to uncertainty. If the legal position of Deutsche Lufthansa AG should prevail, no negative effects are expected for the net assets, financial and earnings position.

EVENTS AFTER THE REPORTING PERIOD

Spread of the coronavirus significantly affects financial performance of the Lufthansa Group
The ongoing spread of the coronavirus has led to a significant fall in demand for air travel. Some countries, including the USA, imposed a travel ban for passengers from the European Union. This led to a decline in bookings at the Group airlines and to flight cancellations. In response, the Group has decided to cut its flight capacity significantly and to implement a wide range of cost-cutting measures affecting staff costs, operating costs and project budgets. Steps to raise liquidity will also improve the Group's capital structure.

The Lufthansa Group is assuming that Adjusted EBIT will fall significantly in 2020 compared with the previous year as a result of the coronavirus crisis. The precise extent of the fall depends above all on the further spread of the virus, the necessary capacity adjustments, the scope and impact of the cost-cutting measures and the development of fuel costs. ↗ **Forecast, p. 106ff.**

Agreement with UFO on resolution process for collective bargaining dispute

The Lufthansa Group and the independent flight attendants' union UFO agreed on 31 January 2020 on a multi-stage process to resolve the collective bargaining dispute. The process provides for a separation of wage and non-wage topics in three stages: mediation, arbitration and an out-of-court settlement. In the mediation process, questions of cooperation will be discussed, with a focus on future dealings with one another, and solutions found. At the same time the parties will begin a comprehensive arbitration process covering the wage claims made by UFO and other collective bargaining topics. In a separate, out-of-court settlement process, the specific legal affairs of both parties and individual officials will be presented to a labour law judge, ideally resulting in definitive solutions.

45 Other financial obligations

As of 31 December 2019, there were order commitments of EUR 14.6bn for capital expenditure on property, plant and equipment, including repairable spare parts, and for intangible assets (previous year: EUR 13.9bn). There were also capital and shareholder loan commitments of EUR 335m towards equity investments (previous year: EUR 336m).

46 Auditors' fees

The fees paid to the auditors in the financial year and charged to expenses in accordance with Section 314 Paragraph 1 No. 9 HGB are made up as follows:

T192 AUDITORS' FEES

in €m	2019	2018
Annual audit	4.4	4.2
Other assurance services	1.0	0.4
Tax advisory services	0.9	0.6
Other services	1.9	0.3
Total	**8.2**	**5.5**

The auditing services mainly consist of fees for auditing the consolidated financial statements, the review of the half-yearly financial statements and the audit of the financial statements of Deutsche Lufthansa AG and its consolidated subsidiaries, and for assistance in connection with the implementation of new accounting standards. Fees shown under other advisory services mainly relate to the audit of information systems and processes as well as services in connection with statutory and contractual requirements. Tax advisory services mainly relate to intended reorganisations at Group level, tax advice on transfer pricing, international taxes and inspections by tax authorities. Other services relate mainly to IT advisory services.

The following fees paid to the global PricewaterhouseCoopers group, especially abroad, were additionally recognised as expenses:

T193 ADDITIONAL AUDITORS' FEES

in €m	2019	2018
Annual audit	3.8	3.9
Other assurance services	0.1	0.2
Tax advisory services	0.3	0.4
Other services	0.2	0.2
Total	**4.4**	**4.7**

The auditor at PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft responsible for the Lufthansa Group is Eckhard Sprinkmeier. He held this position for the second time in financial year 2019.

COMPOSITION OF THE GROUP

47 Group of consolidated companies

The consolidated financial statements of Deutsche Lufthansa AG include all major subsidiaries, joint ventures and associated companies.

Subsidiaries are entities over which Deutsche Lufthansa AG has rights that give it the ability to control the entity's relevant activities. Relevant activities are those activities that have a significant influence on the entity's return. Deutsche Lufthansa AG therefore only has control over a company when it is exposed to variable returns from the company and its power over the company's relevant activities enables it to influence these returns. This definition of control also applies to structured entities that are identified as such in the list of significant Group companies. In general, the ability to control subsidiaries arises when Deutsche Lufthansa AG holds a direct or indirect majority of voting shares. In structured entities, the ability to control does not come from holding the majority of voting shares, but rather from contractual agreements. Entities are consolidated from the time that the ability to control begins. They cease to be consolidated when the ability to control ends.

Joint arrangements are classified either as joint ventures or as joint operations. A joint arrangement exists for when the Lufthansa Group carries on joint business activities with third parties on the basis of a contractual agreement. Joint management or control only exists when decisions on activities that have a significant effect on the returns from an agreement require the unanimous approval of the parties sharing control.

Significant interests in companies that are managed jointly with one or more partners (joint ventures) are accounted for using the equity method. Joint operations are defined by the fact that the parties exercising joint control over the arrangement have rights to the assets attributed to the arrangement and are liable for its debts. Assets and liabilities, revenue and expenses from the significant joint operations are recognised in the consolidated financial statements of the Lufthansa Group in proportion to these rights and obligations.

Associated companies are companies in which Deutsche Lufthansa AG has the opportunity to exercise major influence over financial and operating policy based on an interest of between 20% and 50%. Significant associated companies are accounted for in the consolidated financial statements using the equity method.

A list of major subsidiaries, joint arrangements and associated companies can be found in ↗ T201 – T204, p. 231 – 238, and the list of shareholdings in ↗ T205, p. 239 – 242.

In addition to Deutsche Lufthansa AG as the parent company, the group of consolidated companies includes 66 domestic and 267 foreign companies, including structured entities (previous year: 66 domestic and 256 foreign companies).

One material joint operation was also included in the consolidated financial statements on a pro rata basis in accordance with IFRS 11. It consists of a German cargo airline operated jointly by Deutsche Post AG and Deutsche Lufthansa AG, which each hold 50% of the share capital and voting rights. The two shareholders are also customers of the company and use the capacities of its cargo aircraft. In contrast to its capital and voting rights, the company's assets and liabilities, as well as its income and expenses, are allocated based on the user relationship of the shareholders according to their contracts.

Changes in the group of consolidated companies during the 2019 financial year are shown in the following table:

T194 CHANGES IN THE GROUP OF CONSOLIDATED COMPANIES FROM 1 JAN 2019 TO 31 DEC 2019

Name, registered office	Additions	Disposals	Reasons
Network Airlines business segment			
Yamasa Aircraft LH17 Kumiai, Okayama, Japan	17 Jan 2019		Established
Yamasa Aircraft LH18 Kumiai, Okayama, Japan	17 Jan 2019		Established
Yamasa Aircraft LH19 Kumiai, Okayama, Japan	17 Jan 2019		Established
Yamasa Aircraft LH15 Kumiai, Okayama, Japan	17 Jan 2019		Established
Yamasa Aircraft LH16 Kumiai, Okayama, Japan	17 Jan 2019		Established
Fleur Leasing Co. Ltd., Tokyo, Japan		23 Jan 2019	Liquidation
Yamasa Aircraft LH3 Kumiai, Tokyo, Japan		19 Mar 2019	Liquidation
Yamasa Aircraft LH21 Kumiai, Okayama, Japan	27 Mar 2019		Established
Dia Kranich Ltd., Tokyo, Japan		28 Mar 2019	Liquidation
SMLC Crater Co. Ltd., Tokyo, Japan		28 Mar 2019	Liquidation
Yamasa Aircraft LH4 Kumiai, Okayama, Japan		28 Mar 2019	Liquidation
Yamasa Aircraft LH 20 Kumiai, Okayama, Japan	3 Apr 2019		Established
Dia Orff Ltd., Tokyo, Japan	16 Apr 2019		Established
Dia Wagner Ltd., Tokyo, Japan	16 Apr 2019		Established
Yamasa Aircraft LH22 Kumiai, Okayama, Japan	16 Apr 2019		Established
Yamasa Aircraft LH23 Kumiai, Okayama, Japan	16 Apr 2019		Established
Dia Bach Ltd., Tokyo, Japan	18 Apr 2019		Established
AUA LNR/LNS/LNT/LNU Ltd., George Town, Grand Cayman		13 Jun 2019	Liquidation
Benjamin LH6 Kumiai, Okayama, Japan		23 Jul 2019	Liquidation
Tim LH5 Kumiai Japan, Okayama, Japan		23 Jul 2019	Liquidation
Nicolai LH7 Kumiai, Okayama, Japan		24 Jul 2019	Liquidation
AirUtopia Ltd. Japan, Tokyo, Japan		29 Jul 2019	Liquidation
Air Sylph Ltd., Tokyo, Japan		30 Jul 2019	Liquidation
Lufthansa Leasing Austria GmbH & Co. OG Nr. 40, Salzburg, Austria	17 Aug 2019		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 41, Salzburg, Austria	17 Aug 2019		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 42, Salzburg, Austria	17 Aug 2019		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 43, Salzburg, Austria	17 Aug 2019		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 44, Salzburg, Austria	17 Aug 2019		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 45, Salzburg, Austria	17 Aug 2019		Established
SJ Frankfurt Co. Ltd., Tokyo, Japan		19 Sep 2019	Liquidation
FK Yocasta Leasing Ltd., Tokyo, Japan	15 Oct 2019		Established
NBB Rothenburg Lease Co., Ltd., Tokyo, Japan	18 Oct 2019		Established
ORIX Aquila Corporation, Tokyo, Japan	23 Oct 2019		Established
ORIX Lysithea Corporation, Tokyo, Japan	23 Oct 2019		Established
ORIX Telesto Corporation, Tokyo, Japan	23 Oct 2019		Established
Dia Hausen Ltd., Tokyo, Japan	29 Oct 2019		Established
CRANE LTD., Tokyo, Japan	17 Dec 2019		Established
Tusker Leasing Co., Ltd., Tokyo, Japan	17 Dec 2019		Established
Eurowings business segment			
Luftfahrtgesellschaft Walter mit beschränkter Haftung, Dortmund		1 Apr 2019	Disposal
Catering business segment			
Inversiones Turisticas Aeropuerto Panama, S.A., Panama City, Panama		15 Mar 2019	Fusion
SC International Services, Inc., Wilmington, USA		29 Mar 2019	Fusion
Sky Chefs Argentine, Inc., Wilmington, USA		29 Mar 2019	Fusion
Servicios Complementarios de Cabina, S.A. de C.V., Mexico City, Mexico	1 May 2019		Beginning of operations
LSG Sky Chefs Brussels International BVBA, Brussels, Belgium		17 Dec 2019	Liquidation
Additional Businesses and Group Functions			
LCH Grundstücksgesellschaft Berlin mbH, Frankfurt/Main	1 Jan 2019		Extension of operations

USE OF EXEMPTION PROVISIONS

The following fully consolidated German Group companies made use of the exemption provisions in Section 264 Paragraph 3 and Section 264b HGB in 2019.

T195 USE OF EXEMPTION PROVISIONS

Company name	Registered office
Eurowings Aviation GmbH	Cologne
Eurowings Digital GmbH	Cologne
Eurowings GmbH	Dusseldorf
Eurowings Technik GmbH	Cologne
Germanwings GmbH	Cologne
Hamburger Gesellschaft für Flughafenanlagen GmbH	Hamburg
Jettainer GmbH	Raunheim
LSG Asia GmbH	Neu-Isenburg
LSG Lufthansa Service Europa/Afrika GmbH	Neu-Isenburg
LSG Lufthansa Service Holding AG	Neu-Isenburg
LSG South America GmbH	Neu-Isenburg
LSY GmbH	Norderstedt
Lufthansa AirPlus Servicekarten GmbH	Neu-Isenburg
Lufthansa Asset Management GmbH	Frankfurt/Main
Lufthansa Asset Management Leasing GmbH	Frankfurt/Main
Lufthansa Aviation Training Berlin GmbH	Berlin
Lufthansa Aviation Training Germany GmbH	Frankfurt/Main
Lufthansa Aviation Training GmbH	Hallbergmoos
Lufthansa Cargo AG	Frankfurt/Main
Lufthansa CityLine GmbH	Munich Airport
Lufthansa Commercial Holding GmbH	Frankfurt/Main
Lufthansa Global Business Services GmbH	Frankfurt/Main
Lufthansa Industry Solutions AS GmbH	Norderstedt
Lufthansa Industry Solutions BS GmbH	Raunheim
Lufthansa Industry Solutions GmbH & Co. KG	Norderstedt
Lufthansa Process Management GmbH	Neu-Isenburg
Lufthansa Seeheim GmbH	Seeheim-Jugenheim
Lufthansa Systems GmbH & Co. KG	Raunheim
Lufthansa Technik AERO Alzey GmbH	Alzey
Lufthansa Technik AG	Hamburg
Lufthansa Technik Immobilien- und Verwaltungsgesellschaft mbH	Hamburg
Lufthansa Technik Logistik GmbH	Hamburg
Lufthansa Technik Logistik Services GmbH	Hamburg
Lufthansa Technik Maintenance International GmbH	Frankfurt/Main
Lufthansa Technik Objekt- und Verwaltungsgesellschaft mbH	Hamburg
Miles & More GmbH	Frankfurt/Main
time:matters GmbH	Neu-Isenburg
time:matters Holding GmbH	Neu-Isenburg
time:matters Spare Parts Logistics GmbH	Neu-Isenburg

The companies are affiliated with Deutsche Lufthansa AG by means of direct or indirect profit and loss transfer agreements respectively.

Furthermore, LHBD Holding Limited, London, UK, registration number 06939137, is exempt from the obligation to have its individual financial statements audited pursuant to Section 479a of the 2006 Companies Act, United Kingdom.

The consolidated financial statements include equity interests in 35 joint ventures and 39 associates (previous year: 35 joint ventures and 37 associates), of which eleven joint ventures (previous year: ten) and 15 associates (previous year: 15) were accounted for using the equity method. The other joint ventures and associated companies were valued at amortised cost due to their minor overall significance.

48 Related party disclosures

Balances and transactions between the Company and its fully consolidated subsidiaries, which constitute related parties, have been eliminated in the course of consolidation and are not commented on in this Note. Details of transactions between the Lufthansa Group and other related parties are disclosed below.

The Lufthansa Group segments render numerous services to related parties within the scope of their ordinary business activities. Conversely, the companies in question provide services to the Lufthansa Group as part of their normal business. These extensive supply and service relationships take place on the basis of market prices.

In addition, the Lufthansa Group and certain non-consolidated subsidiaries have concluded numerous billing agreements, partly governing the joint use of services. In these cases, the administrative services provided are charged as cost allocations.

The Lufthansa Group's cash management is centralised, and, in this respect, the Lufthansa Group also performs a "banking function" vis-à-vis the non-consolidated companies of the Group. Non-consolidated Group companies included in the Group's cash management invest their available cash with the Group or borrow funds from the Group and carry out their derivative hedging transactions with the Group. All transactions take place at market conditions.

Due to geographical proximity in many cases, a large number of subletting contracts exists between the Lufthansa Group and related parties. In these cases, the Lufthansa Group usually charges the rental costs and incidental expenses incurred to the companies in question on a pro rata basis.

The following table shows the volume of significant services provided to or by related parties:

T196 VOLUME OF SIGNIFICANT SERVICES PROVIDED TO OR BY RELATED PARTIES

	Volume of services rendered		Volume of services received	
in €m	**2019**	2018	**2019**	2018
Non-consolidated subsidiaries				
Albatros Versicherungsdienste GmbH, Germany	0	1	50	42
Austrian Airlines Technik-Bratislava, s.r.o., Slovakia	2	2	10	6
Austrian Airlines Tele Sales Service GmbH, Austria	0	0	5	5
Delvag Versicherungs-AG, Germany	6	9	3	6
DLH Fuel Company mbH, Germany	0	0	508	476
Global Load Control (PTY) LTD, South Africa	0	0	8	7
handling counts GmbH, Germany	0	1	9	11
LGSP Lufthansa Ground Service Portugal, Unipessoal Lda., Portugal	1	0	6	8
Lufthansa Aviation Training Austria GmbH, Austria	1	2	6	5
Lufthansa Aviation Training Operations Germany GmbH, Germany	3	4	16	13
Lufthansa Aviation Training USA Inc., USA	1	1	14	13
Lufthansa Consulting GmbH, Germany	2	1	9	9
Lufthansa Engineering and Operational Services GmbH, Germany	4	4	32	33
Lufthansa Global Business Services Hamburg GmbH, Germany	7	7	29	30
Lufthansa Global Business Services Sp. z o. o., Poland	2	2	33	30
Lufthansa Global Tele Sales GmbH, Germany	7	1	60	57
Lufthansa Industry Solutions TS GmbH, Germany	1	0	13	10
Lufthansa Services (Thailand) Ltd., Thailand	0	0	7	5
Lufthansa Services Philippines, Inc., Philippines	0	1	5	5
Lufthansa Systems FlightNav AG, Switzerland	1	1	25	23
Lufthansa Systems Hungaria Kft, Hungary	1	1	25	21
Lufthansa Systems Poland Sp. z o.o., Poland	2	2	32	28
Lufthansa Technical Training GmbH, Germany	6	6	19	23
Lufthansa Technik Brussels N.V., Belgium	5	1	2	2
Lufthansa Technik Component Services Asia Pacific Limited, China	1	1	6	6
Lufthansa Technik Middle East FZE, United Arab Emirates	1	0	8	5
Lufthansa Technik Milan s.r.l., Italy	6	2	3	2
Lufthansa Technik Services India Private Limited, India	1	2	5	4
Lufthansa Technik Shenzhen Co. Ltd., China	22	19	34	28
Lufthansa Technik Turbine Shannon Limited, Ireland	3	5	19	15
LZ-Catering GmbH, Germany	5	5	12	13
Reservation Data Maintenance India Private Ltd., India	0	0	5	3
time:matters Courier Terminals GmbH, Germany	1	0	8	1
ZeroG GmbH, Germany	1	0	7	5

T196 VOLUME OF SIGNIFICANT SERVICES PROVIDED TO OR BY RELATED PARTIES (continued)

in €m	Volume of services rendered 2019	Volume of services rendered 2018	Volume of services received 2019	Volume of services received 2018
Joint ventures				
Airfoil Services Sdn. Bhd., Malaysia	1	5	7	7
LG-LHT Aircraft Solutions GmbH, Germany	6	0	0	0
Lufthansa Bombardier Aviation Services GmbH, Germany	2	2	8	9
N3 Engine Overhaul Services GmbH & Co. KG, Germany	5	13	0	0
Shanghai Pudong International Airport Cargo Terminal Co. Ltd., China	1	1	6	6
Spairliners GmbH, Germany	59	63	46	48
Star Alliance Services GmbH, Germany	2	3	8	7
Terminal 2 Gesellschaft mbH & Co. oHG, Germany	1	1	13	14
Terminal One Group Association, L.P., USA	7	5	7	5
XEOS Sp. z o.o., Poland	4	5	7	0
Associated companies				
Aircraft Maintenance and Engineering Corp., China	10	16	3	5
Airmail Center Frankfurt GmbH, Germany	1	0	9	9
AviationPower GmbH, Germany	0	0	29	27
HEICO Aerospace Holdings Corp., USA	0	0	13	12
Other affiliated companies				
Shanghai Pudong International Airport Public Cargo Terminal Co. Ltd. (West), Shanghai, China	0	0	97	90
SunExpress Deutschland GmbH, Germany	26	25	93	98

The following tables show receivables owed by and liabilities to related parties:

T197 RECEIVABLES FROM AFFILIATED COMPANIES

in €m	2019	2018
Trade receivables from non-consolidated subsidiaries	30	19
Trade receivables from joint ventures	22	22
Trade receivables from associated companies	5	14
Trade receivables from other affiliated companies	1	12
Total trade receivables	**58**	**67**
Other receivables from non-consolidated subsidiaries	30	42
Other receivables from joint ventures	49	41
Other receivables from associated companies	10	10
Total other receivables	**89**	**93**
Loans to non-consolidated subsidiaries	99	81
Loans to joint ventures	5	27
Loans to associated companies	–	–
Total non-current receivables	**104**	**108**

T198 LIABILITIES TO AFFILIATED COMPANIES

in €m	2019	2018
Trade payables to non-consolidated subsidiaries	29	27
Trade payables to joint ventures	8	9
Trade payables to associated companies	3	4
Trade payables to other affiliated companies	2	3
Total trade payables	**42**	**43**
Other liabilities to non-consolidated subsidiaries	260	269
Other liabilities to joint ventures	0	0
Other liabilities from associated companies	0	0
Total other liabilities	**260**	**269**

No individual shareholders of Deutsche Lufthansa AG exercise significant influence over the Group. For transactions involving members of the Executive Board and Supervisory Board ("directors' dealings") ↗ **Note 49, p. 222.**

49 Supervisory Board and Executive Board

The disclosure of remuneration for key managers required by IAS 24 includes the remuneration of the active members of the Executive Board and Supervisory Board.

The members of the Executive Board and the Supervisory Board as well as the other offices that they hold are named in the combined management report in the section ↗ **Corporate governance, p. 110ff.**

The principles of the remuneration system and the amount of remuneration paid to Executive Board and Supervisory Board members are shown and explained in detail in the remuneration report. The remuneration report forms part of the combined management report ↗ **p. 115 – 130.**

Total Executive Board remuneration under IFRS was EUR 14.8m (previous year: EUR 16.2m), including current service costs for pensions of EUR 3.3m (previous year: EUR 3.5m).

The active members of the Executive Board in past reporting years were remunerated as follows:

T199 EXECUTIVE BOARD REMUNERATION (IFRS)

in € thousands	**2019**	2018
Basic salary	5,934	4,832
Other [1]	110	427
One-year variable remuneration	2,091	4,845
Total short-term remuneration	**8,135**	**10,104**
Long-term variable remuneration [2]	877	3,570
Share-based remuneration	– 1,523	– 968
Current service cost for retirement benefits	3,291	3,510
Total long-term remuneration	**2,645**	**6,112**
Severance payments	4,055	–
Total	**14,835**	**16,216**

[1] Other remuneration includes in particular benefits from the use of company cars, discounts in connection with cash outflows from share programmes (↗ **Notes to the consolidated financial statements, Note 37, p. 189ff.**) and concessionary travel in accordance with the relevant IATA regulations.
[2] Expenses recognised in the reporting year for long-term variable remuneration for the financial years 2017 to 2019.

Pension provisions for Executive Board members active in the 2019 financial year came to EUR 16.7m (previous year: EUR 12.4m).

In addition to the provision for the one-year variable remuneration of EUR 2,091k (previous year: EUR 4,845k), provisions totalling EUR 877k were recognised for the future payment of long-term variable remuneration for the Executive Board members active in the financial year 2019 (previous year: EUR 3,570k). In addition, provisions of EUR 4,129k were recognised for the future payment of long-term, share-based remuneration for the Executive Board members active as of 31 December 2019 (previous year: EUR 5,651k).

Total remuneration (HGB) paid to the Executive Board of Deutsche Lufthansa AG in the financial year 2019 came to EUR 13,967k (previous year: EUR 13,015k). The above remuneration includes the new sharebased remuneration component Total Shareholder Return (TSR) of EUR 2,988k as part of the long-term variable remuneration incentive. Further comments on the new share-based remuneration component TSR can be found in ↗ **Note 37, p. 189ff.**

Current payments and other benefits for former members of the Executive Board and their surviving dependants came to EUR 6.4m (previous year: EUR 6.8m). This includes payments by subsidiaries as well as benefits in kind and concessionary travel.

Pension obligations towards former Executive Board members and their surviving dependants amount to EUR 69.1m (previous year: EUR 68.3m). They are included in pension provisions (↗ **Note 33, p. 178ff.**).

Expenses for the fixed remuneration of Supervisory Board members came to EUR 2,170k in 2019 (previous year: EUR 2,107k). Other remuneration, mainly attendance fees, amounted to EUR 62k (previous year: EUR 68k). The Deutsche Lufthansa AG Supervisory Board members were also paid EUR 2k for work on supervisory boards of Group companies (previous year: EUR 27k).

In the reporting year, as in the previous year, no loans or advance payments were made to members of the Executive Board and to members of the Supervisory Board.

In addition to their Supervisory Board remuneration, employee representatives on the Supervisory Board received compensation for their work in the form of wages and salaries including pension entitlements amounting to EUR 1.1m in total in 2019 (previous year: EUR 1.1m).

Declaration by the legal representatives

We declare that, to the best of our knowledge and according to the applicable accounting standards, the consolidated financial statements give a true and fair view of the net assets, the financial and earnings positions of the Group, and that the Group management report, which has been combined with the management report for Deutsche Lufthansa AG, includes a fair view of the course of business, including the business result, and the situation of the Group, and suitably presents the principal opportunities and risks to its future development.

Frankfurt, 13 March 2020
Executive Board

Carsten Spohr
Chairman of the
Executive Board
and CEO

Thorsten Dirks
Member of the
Executive Board
IT, Digital & Innovation

Christina Foerster
Member of the
Executive Board
Customer & Corporate
Responsibility

Harry Hohmeister
Member of the
Executive Board
Commercial Passenger
Airlines

Detlef Kayser
Member of the
Executive Board
Airline Resources &
Operations Standards

Michael Niggemann
Member of the
Executive Board
Corporate Human Resources
and Legal Affairs

Ulrik Svensson
Member of the
Executive Board
Chief Financial Officer

Independent auditor's report

To Deutsche Lufthansa AG, Cologne

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of Deutsche Lufthansa AG, Cologne, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2019, the consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from 1 January to 31 December 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Deutsche Lufthansa AG, which is combined with the Company's management report, for the financial year from 1 January to 31 December 2019. In accordance with the German legal requirements, we have not audited the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2019, and of its financial performance for the financial year from 1 January to 31 December 2019, and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISAs). Our responsibilities under those requirements, principles and standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional 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 audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matters of most significance in our audit were as follows:

1. Recognition of traffic revenue, including contract liabilities in respect of unused flight documents and customer loyalty programs
2. Pension provisions
3. Recoverability of non-current assets, in particular goodwill and intangible assets with indefinite useful lives
4. Accounting treatment of hedging transactions
5. Effects of the first-time application of IFRS 16 on the accounting of leases

Our presentation of these key audit matters has been structured in each case as follows:

a. Matter and issue
b. Audit approach and findings
c. Reference to further information

Hereinafter we present the key audit matters:

1. Recognition of traffic revenue, including contract liabilities in respect of unused flight documents and customer loyalty programs

a. Until they are used due to departure, sold flight documents are recognized as contract liabilities for unused flight documents in the Company's consolidated financial statements. Once a passenger coupon or an airfreight document has been used due to departure, the corresponding traffic revenue is recognized as revenue in the income statement. First of all, the part of the flight documents that has not yet been used in the financial year and is still valid in the following year is added to the contract liabilities for unused flight documents. In addition, based on historical data, the amount of expired flight documents which are expected to not be used is estimated; this amount is also recognized under contract liabilities for unused flight documents. In the financial year 2019, the Lufthansa Group realized a total of EUR 28.1 billion in traffic revenue, of which EUR 25.4 billion was attributable to passenger airlines. As of 31 December 2019, EUR 4.1 billion was recognized in the consolidated statement of financial position as contract liabilities for unused flight documents.

   Until they are redeemed, bonus miles awarded to Miles & More members are recognized as contract liabilities on the basis of the individual selling price per bonus mile. Where bonus miles are collected with external cooperation partners, these are recognized as liabilities until redeemed and measured at the prices paid to Lufthansa by the external cooperation partners. Bonus miles which are not expected to be used are realized as revenue over a period of three years. The contract liabilities from customer loyalty programs amounted to EUR 2.2 billion as of the balance sheet date.

   From our point of view, these matters were of particular significance for our audit, as recognition and measurement of these items, which are specific to the business model and significant in amount, are highly dependent on the estimates and assumptions of the executive directors regarding the use behavior of passengers regarding flight documents, to which calculation processes that are, in some cases, complex are applied.

b. We also included our specialists in the Risk Assurance Service (RAS) to audit traffic revenue. With their support, we evaluated, among other things, the appropriateness and effectiveness of the established internal control system used to settle and realize traffic revenue, including the IT systems used. To the extent that we were not able to conduct our own evaluation of the internal control system of services relating to IT systems or processes outsourced to third parties, we obtained an assurance report attesting to the appropriateness and effectiveness of the internal control system established by the service provider (ISAE 3402 Type II or SSAE 16), which our specialists assessed. In our audit of the contract liabilities for unused flight documents, we reconstructed among other things the individual steps used in the calculations. Specifically, we examined the open flight documents and their measurement by year of sale and validity. Furthermore, we considered the consistency and continuity of the methods used to calculate the flight prices, fees, taxes and other levies attributable to the flight documents no longer expected to be used. In order to assess the appropriateness of the contract liabilities from customer loyalty programs accounted for as of the balance sheet date, we evaluated among other things the fair value measurement for each category of use and the underlying assumptions and parameters derived therefrom. Furthermore, we assessed the mathematical accuracy of the calculation of the contract liabilities from customer loyalty programs. We were able to satisfy ourselves that the estimates and assumptions made by the executive directors are continuously derived and sufficiently documented.

c. The disclosures on traffic revenue, contract liabilities in respect of unused flight documents and customer loyalty programs are contained in sections 2, 3 and 38 of the notes to the consolidated financial statements.

2. Pension provisions

a. In the Company's consolidated financial statements pension provisions amounting to EUR 6.9 billion are reported (thereof EUR 0.3 billion within assets held for sale), comprising the net amount of the obligations under various pension plans amounting to EUR 24.9 billion and the fair values of the plan assets amounting to EUR 18.0 billion. The majority of these provisions relates to old-age and transitional pension commitments in Germany and Switzerland. The obligations from defined benefit pension plans were measured using the projected unit credit method in accordance with IAS 19. This requires in particular that assumptions be made as to long-term salary and pension trends and average life expectancy. The discount rate must be determined by reference to market yields on high-quality corporate bonds with matching currencies and consistent maturities. The plan assets are measured at fair value, which in turn involves making estimates that are subject to uncertainties.

   From our point of view, these matters were of particular significance in the context of our audit because the measurement of this significant item in terms of its amount is based to a large extent on estimates and assumptions made by the Company's executive directors.

b. As part of our audit we evaluated the actuarial expert reports obtained and the professional qualifications of the external experts. Due to the specific features of the actuarial calculations, we were assisted by internal specialists from Pension Consulting. Together with them, we evaluated the numerical data, the actuarial parameters and the valuation methods and assumptions on which the valuations were based for compliance with the standards and appropriateness. On this basis, we then assessed the calculations of the figures presented on the statement of financial position, the accounting entries for the provisions and the disclosures in the notes to the consolidated financial statements based on the expert opinions. Our evaluation of the fair values of plan assets was based on bank confirmations submitted to us. Based on our audit procedures, we were able to satisfy ourselves that the estimates and assumptions made by the executive directors are substantiated and sufficiently documented.

c. The disclosures relating to pension provisions are contained in sections 2 and 33 of the notes to the consolidated financial statements.

3. Recoverability of non-current assets, in particular goodwill and intangible assets with indefinite useful lives

a. In the Company's consolidated financial statements a total amount of EUR 1.4 billion is reported under the line item "Intangible assets with an indefinite useful life, incl. goodwill" of the consolidated statement of financial position. Goodwill and intangible assets with indefinite useful lives are regularly tested for impairment ("impairment test") once per financial year or if there are indications of an impairment. In addition, items of property, plant and equipment are tested for impairment if there are indications of impairment. The carrying amount of the relevant cash-generating units, including goodwill, is compared with the corresponding recoverable amount in the context of the impairment test. These measurements are generally based on the present value of future cash flows of the cash-generating unit/group of cash-generating units to which the respective asset is to be allocated. The present values are calculated using discounted cash flow models whose parameters were adjusted due to the first-time application of IFRS 16. The measurements are based on projections that were also used to prepare the four-year budget for the Lufthansa Group prepared by the executive directors and acknowledged by the Supervisory Board. The discount rate used is the weighted average cost of capital for the relevant cash-generating unit.

   The outcome of this valuation exercise is dependent to a large extent on the estimates made by the executive directors with respect to the future cash inflows, the discount rate used, the rate of growth and other assumptions, and is therefore subject to considerable uncertainty. Against this background and due to the complex nature of the valuation, this matter was of particular significance in the context of our audit.

b. As part of our audit and with the assistance of our internal specialists from Valuation & Strategy, we assessed the methodology used for the purposes of performing the impairment test, among other things. After matching the future cash inflows used for the calculation against the adopted four-year budget of the Group, we assessed the appropriateness of the calculation, in particular by reconciling it with general and sector-specific market expectations. In addition, we assessed the appropriate consideration of the costs of Group functions.

With the knowledge that even relatively small changes in the discount rate applied can have material effects on the values calculated in this way, we also focused our testing on the parameters used to determine the discount rate applied, and evaluated the calculation model. In order to reflect the uncertainty inherent in the projections, we assessed the sensitivity analyses performed by the Company and carried out our own additional sensitivity analyses with respect to those cash-generating units with low headroom (recoverable amount compared with the carrying amount). Taking into account the information available, we determined that the carrying amounts of the cash-generating units, including the allocated goodwill, were adequately covered by the discounted future net cash flows. Overall, the valuation parameters and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

c. The Company's disclosures relating to impairment testing are contained in sections 2, 9 and 16 of the notes to the consolidated financial statements.

4. Accounting treatment of hedging transactions

a. The Lufthansa Group uses a variety of derivative financial instruments to hedge against currency, fuel price and interest rate risks arising from its ordinary business activities. The executive directors' hedging policy is documented in corresponding internal guidelines and serves as the basis for these transactions. Currency risks arise primarily from sale transactions, procurement transactions (in particular fuel and investments in aircraft) and financing denominated in foreign currencies. The risk associated with changes in fuel prices results from future procurement transactions that are subject to market price risks. The risk of changes in interest rates results from changes in the fair values of fixed-rate financing.

Derivative financial instruments are recognized at fair value as of the balance sheet date. The positive fair values of all of the derivative financial instruments used as hedges amounted to EUR 1.4 billion as of the balance sheet date and the negative fair value amounted to EUR 0.3 billion. If the financial instruments used by the Lufthansa Group are effective hedges of future cash flows in the context of hedging relationships in accordance with the requirements of IFRS 9, changes in fair value are recognized in other comprehensive income over the duration of the hedging relationship (cash flow hedges). As of the balance sheet date, a cumulative amount of EUR 0.8 billion was recognized in other comprehensive income as effective fair value changes before income taxes (increasing equity) (EUR 0.5 billion in the cash flow hedge reserve and EUR 0.3 billion in the cost of hedging reserve).

In our view, these matters were of particular importance for our audit due to the high complexity and number of hedging transactions, as well as the extensive accounting requirements.

b. We involved our internal specialists from Corporate Treasury Solutions (CTS) to assist in the audit of the accounting including the effects of the various hedging transactions on equity and profit or loss. Together with these specialists, we assessed, among other things, the internal control system with regard to derivative financial instruments, including the internal activities to monitor compliance with the hedging policy. In our audit of the fair values, we also evaluated the measurement methods based on market data and the underlying data used. With respect to the hedging of expected future cash flows, we mainly carried out a retrospective assessment of past hedge effectiveness and an estimate of expected future hedge effectiveness, and assessed the corresponding effectiveness tests. We obtained bank confirmations in order to assess the completeness of and to examine the fair values of the recorded transactions. In doing so we were able to satisfy ourselves that, overall, the hedging transactions were appropriately accounted for and measured.

c. The disclosures on the hedging transactions are contained in sections 2 and 43 of the notes to the consolidated financial statements.

5. Effects of the first-time application of IFRS 16 on the accounting of leases

a. In the Company's consolidated financial statements right of use assets of EUR 2.9 billion and leasing liabilities of EUR 2.9 billion are reported as of the balance sheet date. In the financial year, the first-time application of the new accounting standard relating to leases (IFRS 16) resulted in material effects on the opening balance sheet figures and their updating throughout the financial year. The modified retrospective approach was applied for the conversion to IFRS 16. The comparable figures from the prior year's periods were not adjusted. Due to the large volume of leases and transactions resulting from them, the Company has established group-wide processes and controls for the complete and accurate recording of the leases. Furthermore, the first-time application required a central IT system to be implemented to report these leases.

The new IFRS 16 accounting standard necessitates that executive directors make estimates and take discretionary decisions for certain areas which have been assessed in the context of our audit. This relates, among other things, to assessments regarding exercising options with implications for the term of the leasing arrangement. Against this background and due to the complexity of the new requirements set forth in IFRS 16, the accounting of leases was of particular significance within the course of our audit.

b. As part of our audit and with the assistance of our internal specialists from Risk Assurance Services (RAS), we assessed, among other things, the appropriateness and operating effectiveness of the processes and controls established by the Group to record its leases. This also applies to the implementation of the central IT system to report the leases.

   In addition, as part of our audit and with the assistance of our internal specialists from Capital Markets & Accounting Advisory Services (CMAAS), we assessed the impact of the first-time application of IFRS 16. Together we assessed the implementation work and evaluated the design of the processes set up to report the transactions in accordance with IFRS 16 and of the central system IT system in place to support the implementation of the new requirements. In this context, we inspected, on a sample basis, lease arrangements and assessed whether these were recorded completely and appropriately in the newly implemented central system in place to report the leases. In doing so, we also evaluated those assessments relating to exercising options with implications for the term of the lease by means of inquiring the Company's employees and examining suitable supporting documentation.

   We were able to satisfy ourselves that the processes and controls implemented for the complete and correct recording of leasing arrangements are appropriate. Furthermore, we were able to assess that the estimates and assumptions made by the executive directors are sufficiently documented and substantiated to ensure that the leases are properly accounted for under the first-time application of IFRS 16.

c. The Company's disclosures relating to the accounting of leases and the effects of the first-time application of IFRS 16 are contained in sections 2 and 20 of the notes to the consolidated financial statements.

Other Information
The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

— the statement on corporate governance pursuant to § 289f HGB and § 315d HGB included in section "Corporate Governance" of the group management report

— the corporate governance report pursuant to No. 3.10 of the German Corporate Governance Code,

— the non-financial report pursuant to § 289b Abs. 1 HGB and § 315b Abs. 1 HGB included in section "Combined non-financial report" of the group management report.

The other information comprises further the remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit 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 consolidated financial statements, with the group management report or our knowledge obtained in the audit, or

— otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report
The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position,

and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group'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 unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group 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 group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated 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 audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 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) and supplementary compliance with the ISAs 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 consolidated financial statements and this group 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 consolidated financial statements and of the group 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 audit 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 control.

— Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

— Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

— Conclude on the appropriateness of the executive directors' 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 Group'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 consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit 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 Group to cease to be able to continue as a going concern.

— Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.

— Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

— Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

— Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors 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 audit 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 consolidated 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 group auditor by the annual general meeting on 7 May 2019. We were engaged by the supervisory board on 19 July 2019. We have been the group auditor of the Deutsche Lufthansa AG, Cologne, without interruption since the financial year 1955.

We declare that the audit 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).

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Eckhard Sprinkmeier.

Düsseldorf, 13 March 2020

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Petra Justenhoven
Wirtschaftsprüferin
(German Public Auditor)

Eckhard Sprinkmeier
Wirtschaftsprüfer
(German Public Auditor)

Major subsidiaries

T200 MAJOR SUBSIDIARIES AS OF 31 DEC 2019

Name, registered office	Equity stake in %	Voting share in %		Different reporting period
Network Airlines business segment				
Air Dolomiti S.p.A. Linee Aeree Regionali Europee, Dossobuono di Villafranca (Verona), Italy	100.00	100.00		
AirNavigator Ltd., Tokyo, Japan	0.00	0.00	1)	
AirTrust AG, Zug, Switzerland	100.00	100.00		June
ALIP No. 4 Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
ALIP No. 5 Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
ALIP No. 6 Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
ALIP No. 7 Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
AUA Beteiligungen Gesellschaft m.b.H., Vienna Airport, Austria	100.00	100.00		
Aura Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Auslese Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Austrian Airlines AG, Vienna Airport, Austria	100.00	100.00		
Austrian Airlines Lease and Finance Company Ltd., Guernsey, UK	100.00	100.00		
Bayern Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Bremen Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
CASTOR Ltd., Tokyo, Japan	0.00	0.00	1)	
Celine Leasing Co., Ltd., Tokyo, Japan	0.00	0.00	1)	
CRANE LTD., Tokyo, Japan	0.00	0.00	1)	
Dia Adler Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Bach Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Falke Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Flamingo Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Hausen Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Himmel Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Ibis Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Orff Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Vogel Ltd., Tokyo, Japan	0.00	0.00	1)	
Dia Wagner Ltd., Tokyo, Japan	0.00	0.00	1)	
Doppeladler Leasing Co., Ltd., Tokyo, Japan	0.00	0.00	1)	
Dunkel Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Edelweiss Air AG, Zurich, Switzerland	100.00	100.00		
Eifel Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Ellen Finance 2010 S.N.C., Puteaux, France	0.00	0.00	1)	
Empyrée S.A.S., Paris-Cedex, France	0.00	0.00	1)	
Evans Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
FG Honest Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
FG Unity Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
FG Vision Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
FI Beauty Leasing Ltd., Tokyo, Japan	0.00	0.00	1)	
FK Yocasta Leasing Ltd., Tokyo, Japan	0.00	0.00	1)	
FL Falcon Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
FL Uranus Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Gabriela Finance 2012 Limited, Dublin, Ireland	0.00	0.00	1)	
Gina Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Global Brand Management AG, Basel, Switzerland	100.00	100.00		
Heike LH8 Kumiai Ltd., Okayama, Japan	0.00	0.00	1)	
Helles Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Ingrid Finance 2010 S.N.C., Puteaux, France	0.00	0.00	1)	
Jour Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
Lahm Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
LHBD Holding Limited, London, UK	100.00	100.00	2)	
Lufthansa CityLine GmbH, Munich Airport	100.00	100.00		

T200 MAJOR SUBSIDIARIES AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %		Different reporting period
Lufthansa Leasing Austria GmbH & Co. OG Nr. 10, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 12, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 14, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 15, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 16, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 17, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 18, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 20, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 21, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 22, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 24, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 25, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 26, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 27, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 28, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 29, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 30, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 32, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 33, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 34, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 35, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 36, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 37, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 38, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 39, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 40, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 41, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 42, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 43, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 44, Salzburg, Austria	100.00	100.00		
Lufthansa Leasing Austria GmbH & Co. OG Nr. 45, Salzburg, Austria	100.00	100.00		
Lufthansa Malta Aircraft-Leasing Ltd., St. Julians, Malta	100.00	100.00		
Lufthansa Process Management GmbH, Neu-Isenburg	100.00	100.00		
Miles & More GmbH, Frankfurt/Main	100.00	100.00		
Muller Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
NBB Cologne Lease Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
NBB Harz Lease Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
NBB Koblenz Lease Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
NBB Rhine Valley Lease LLC, Tokyo, Japan	0.00	0.00	1)	
NBB Rothenburg Lease Co., Ltd., Tokyo, Japan	0.00	0.00	1)	
NBB Saxon Lease Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
ÖLB Österreichische Luftverkehrs-Beteiligungs GmbH, Vienna Airport, Austria	100.00	100.00		
ÖLH Österreichische Luftverkehrs-Holding GmbH, Vienna Airport, Austria	100.00	100.00	3)	
ÖLP Österreichische Luftverkehrs-Privatstiftung, Vienna Airport, Austria	0.00	0.00	4)	
ORIX Aquila Corporation, Tokyo, Japan	0.00	0.00	1)	
ORIX Himalia Corporation, Tokyo, Japan	0.00	0.00	1)	
ORIX Lysithea Corporation, Tokyo, Japan	0.00	0.00	1)	
ORIX Miranda Corporation, Tokyo, Japan	0.00	0.00	1)	
ORIX Telesto Corporation, Tokyo, Japan	0.00	0.00	1)	
Schloss Leasing Co. Ltd., Tokyo, Japan	0.00	0.00	1)	
SL Aurora Ltd., Tokyo, Japan	0.00	0.00	1)	
SL Prairie Ltd., Tokyo, Japan	0.00	0.00	1)	

T200 MAJOR SUBSIDIARIES AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
SL Victoria Ltd., Tokyo, Japan	0.00	0.00 [1]	
SMFL Y Lease Nin-i-Kumiai, Tokyo, Japan	0.00	0.00 [1]	
SMFL Y Lease Nin-i-Kumiai Two, Tokyo, Japan	0.00	0.00 [1]	
Soir Leasing Co. Ltd., Tokyo, Japan	0.00	0.00 [1]	
Swiss Aviation Software AG, Basel, Switzerland	100.00	100.00	
Swiss Global Air Lines AG, Basel, Switzerland	100.00	100.00	
Swiss International Air Lines AG, Basel, Switzerland	100.00	100.00	
Sylvaner Leasing Co. Ltd., Tokyo, Japan	0.00	0.00 [1]	
TI DC Leasing Co. Ltd., Tokyo, Japan	0.00	0.00 [1]	
TI DD Leasing Co. Ltd., Tokyo, Japan	0.00	0.00 [1]	
TimBenNico Finance 2011 S.N.C., Puteaux, France	0.00	0.00 [1]	
TLC Amaryllis Ltd., Tokyo, Japan	0.00	0.00 [1]	
TLC Petunia Ltd., Tokyo, Japan	0.00	0.00 [1]	
TLC Salvia Ltd., Tokyo, Japan	0.00	0.00 [1]	
Tusker Leasing Co., Ltd., Tokyo, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH9 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH10 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH11 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH12 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH13 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH14 Kumiai, Okoyama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH15 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH16 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH17 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH18 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH19 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH20 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH21 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH22 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Yamasa Aircraft LH23 Kumiai, Okayama, Japan	0.00	0.00 [1]	
Eurowings business segment			
Brussels Airlines SA/NV, Brussels, Belgium	100.00	100.00	
Eurowings Aviation GmbH, Cologne	100.00	100.00	
Eurowings Digital GmbH, Cologne	100.00	100.00	
Eurowings Europe GmbH, Vienna Airport, Austria	100.00	100.00	
Eurowings GmbH, Dusseldorf	100.00	100.00	
Eurowings Technik GmbH, Cologne	100.00	100.00	
Germanwings GmbH, Cologne	100.00	100.00	
LeaseAir GmbH & Co. Verkehrsflugzeuge V KG, Dusseldorf	100.00	100.00	
Lufthansa Asset Management Leasing GmbH, Frankfurt/Main	100.00	100.00	
Lufthansa Leasing Austria GmbH & Co. OG Nr. 19, Salzburg, Austria	100.00	100.00	
Lufthansa Leasing Austria GmbH & Co. OG Nr. 31, Salzburg, Austria	100.00	100.00	
SN Airholding SA/NV, Brussels, Belgium	100.00	100.00	
Logistics business segment			
Jettainer Americas, Inc., Wilmington, USA	100.00	100.00	
Jettainer GmbH, Raunheim	100.00	100.00	
Lufthansa Cargo AG, Frankfurt/Main	100.00	100.00	
Lufthansa Leasing Austria GmbH & Co. OG Nr. 50, Salzburg, Austria	100.00	100.00	
time:matters GmbH, Neu-Isenburg	100.00	100.00	
time:matters Holding GmbH, Neu-Isenburg	100.00	100.00	
time:matters Spare Parts Logistics GmbH, Neu-Isenburg	100.00	100.00	

T200 MAJOR SUBSIDIARIES AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
MRO business segment			
BizJet International Sales & Support, Inc., Tulsa, USA	100.00	100.00	
Hamburger Gesellschaft für Flughafenanlagen mbH, Hamburg	100.00	100.00	
Hawker Pacific Aerospace, Sun Valley, USA	100.00	100.00	
JASEN Grundstücksgesellschaft mbH & Co. oHG, Grünwald	100.00	50.00 [1]	
Lufthansa Industry Solutions AS GmbH, Norderstedt	100.00	100.00	
Lufthansa Industry Solutions BS GmbH, Raunheim	100.00	100.00	
Lufthansa Industry Solutions GmbH & Co. KG, Norderstedt	100.00	100.00	
Lufthansa Technik AERO Alzey GmbH, Alzey	100.00	100.00	
Lufthansa Technik AG, Hamburg	100.00	100.00	
Lufthansa Technik Airmotive Ireland Holdings Ltd., Dublin, Ireland	100.00	100.00	
Lufthansa Technik Airmotive Ireland Leasing Ltd., Dublin, Ireland	100.00	100.00	
Lufthansa Technik Budapest Repülögép Nagyjavító Kft., Budapest, Hungary	100.00	100.00	
Lufthansa Technik Component Services LLC, Tulsa, USA	100.00	100.00	
Lufthansa Technik Immobilien- und Verwaltungsgesellschaft mbH, Hamburg	100.00	100.00	
Lufthansa Technik Landing Gear Services UK Ltd., Kestrel Way, Hayes, UK	100.00	100.00	
Lufthansa Technik Logistik GmbH, Hamburg	100.00	100.00	
Lufthansa Technik Logistik Services GmbH, Hamburg	100.00	100.00	
Lufthansa Technik Maintenance International GmbH, Frankfurt/Main	100.00	100.00	
Lufthansa Technik Malta Limited, Luqa, Malta	92.00	92.00	
Lufthansa Technik North America Holding Corp., Tulsa, USA	100.00	100.00	
Lufthansa Technik Objekt- und Verwaltungsgesellschaft mbH, Hamburg	100.00	100.00	
Lufthansa Technik Philippines, Inc., Manila, Philippines	51.00	51.00	
Lufthansa Technik Puerto Rico LLC, San Juan, Puerto Rico	100.00	100.00	
Lufthansa Technik Shannon Limited, Claire, Ireland	100.00	100.00	
Lufthansa Technik Sofia OOD, Sofia, Bulgaria	75.10	75.10	
Catering business segment			
Aerococina S.A. de C.V., Mexico City, Mexico	100.00	100.00	
AIRO Catering Services Eesti OÜ, Tallinn, Estonia	100.00	100.00	
Airo Catering Services Latvija SIA, Marupe, Latvia	100.00	100.00	
AIRO Catering Services Sweden AB, Upplands Väsby, Sweden	100.00	100.00	
AIRO Catering Services – Ukraine, Boryspil, Ukraine	100.00	100.00	
Arlington Services, Inc., Wilmington, USA	100.00	100.00	
Arlington Services Mexico, S.A. de C.V., Mexico City, Mexico	100.00	100.00	
Arlington Services Panama S.A., Panama City, Panama	100.00	100.00	
AVIAPIT-SOCHI OOO, Sotschi, Russia	100.00	100.00	
Bahia Catering Ltda., Sao Cristovao (Salvador), Brazil	100.00	100.00	
Belém Serviços de Bordo Ltda., Maracangalha, Belém, Brazil	70.00	70.00	
Capital Gain International (1986) Ltd., Hong Kong, China	100.00	100.00	
Cater Suprimento de Refeicoes, Ltda., Rio de Janeiro, Brazil	100.00	100.00	
Caterair Servicos de Bordo e Hotelaria Ltda., Ilha do Governador, Brazil	100.00	100.00	
Charm Food Service Co. Ltd., Incheon, South Korea	80.00	100.00	
CLS Catering Services Ltd., Vancouver, British Columbia, Canada	70.00	70.00	
Comercializadora de Servicios Limitada, ENEA, Pudahuel, Santiago, Chile	100.00	100.00	
Comisariato de Baja California, S.A. de C.V., Tijuana, Mexico	51.00	51.00	
Comisariatos Gotre, S.A. de C.V., Torreon, Mexico	51.00	51.00	
Constance Food Group, Inc., New York, USA	100.00	100.00	
Evertaste GmbH, Alzey	100.00	100.00	
Evertaste Limited, Hounslow, UK	51.00	51.00	
Evertaste Oy, Vantaa, Finland	100.00	100.00	
Evertaste S.r.l., Fiumicino, Italy	100.00	100.00	

T200 MAJOR SUBSIDIARIES AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Fortaleza Serviços de Bordo Ltda., Fortaleza, Brazil	70.00	70.00	
Inflight Catering (Pty) Ltd., Johannesburg, South Africa	100.00	100.00	
Inflight Catering Services Limited, Dar es Salaam, Tansania	61.99	61.99	
International Food Services Ltd., Hong Kong, China	100.00	100.00	
LSG Asia GmbH, Neu-Isenburg	100.00	100.00	
LSG Catering (Thailand) Ltd., Bangkok, Thailand	100.00	100.00	
LSG Catering China Ltd., Hong Kong, China	100.00	100.00	
LSG Catering Guam, Inc., Guam, USA	100.00	100.00	
LSG Catering Hong Kong Ltd., Hong Kong, China	100.00	100.00	
LSG Catering Saipan, Inc., Saipan, Micronesia	100.00	100.00	
LSG France SAS, Paris, France	100.00	100.00	
LSG Helvetia SAS, Paris, France	100.00	100.00	
LSG Holding Asia Ltd., Hong Kong, China	86.88	80.00	
LSG Linearis S.A.S., Paris, France	100.00	100.00	
LSG Lufthansa Service Asia Ltd., Hong Kong, China	100.00	100.00	
LSG Lufthansa Service Cape Town (Pty) Ltd., Boksburg, South Africa	100.00	100.00	
LSG Lufthansa Service Catering- und Dienstleistungsgesellschaft mbH, Neu-Isenburg	100.00	100.00	
LSG Lufthansa Service Enterprises Ltd., Hong Kong, China	100.00	100.00	
LSG Lufthansa Service Europa/Afrika GmbH, Neu-Isenburg	100.00	100.00	
LSG Lufthansa Service Guam, Inc., Tamuning, Guam, USA	100.00	100.00	
LSG Lufthansa Service Holding AG, Neu-Isenburg	100.00	100.00	
LSG Lufthansa Service Hong Kong Ltd., Hong Kong, China	47.90	50.00 [4)]	
LSG Lufthansa Service Saipan, Inc., Saipan, Micronesia	100.00	100.00	
LSG Lufthansa Service – Sky Chefs do Brasil Catering, Refeições Ltda., Guarulhos, Brazil	100.00	100.00	
LSG Sky Chefs Argentina S.A., Ezeiza, Argentina	100.00	100.00	
LSG Sky Chefs Belgium N.V., Zaventem, Belgium	100.00	100.00	
LSG Sky Chefs Berlin GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Czechia spol. s.r.o., Bor, Czech Republic	100.00	100.00	
LSG Sky Chefs Danmark A/S, Dragør, Denmark	100.00	100.00	
LSG Sky Chefs de Venezuela C.A., Caracas, Venezuela	99.99	99.93	
LSG Sky Chefs Düsseldorf GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Europe GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs – First Catering Schweiz AG, Bassersdorf, Switzerland	60.00	60.00	
LSG Sky Chefs Frankfurt International GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Frankfurt ZD GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Havacilik Hizmetleri A.S., Sefaköy-Istanbul, Turkey	100.00	100.00	
LSG Sky Chefs (India) Private Ltd., Bangalore, India	100.00	100.00	March
LSG Sky Chefs Istanbul Catering Hizmetleri A.S., Istanbul, Turkey	100.00	100.00 [6)]	
LSG Sky Chefs Kenya Limited, Nairobi, Embakasi District, Kenya	50.20	50.20	
LSG Sky Chefs Köln GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Korea Co Ltd., Incheon, South Korea	80.00	80.00	
LSG Sky Chefs Lounge GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Lounge, Inc., Wilmington, USA	100.00	100.00	
LSG Sky Chefs Malmö AB, Kungsör, Sweden	100.00	100.00	
LSG Sky Chefs München GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs New Zealand Limited, Auckland, New Zealand	100.00	100.00	
LSG Sky Chefs Norge AS, Gardermoen, Norway	100.00	100.00	
LSG Sky Chefs North America Solutions, Inc., Wilmington, USA	100.00	100.00	
LSG Sky Chefs Objekt- und Verwaltungsgesellschaft mbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs (Qingdao) Co., Ltd., Laixi City, China	100.00	100.00	
LSG Sky Chefs Rus, Moscow, Russia	100.00	100.00	
LSG Sky Chefs S.p.A., Fiumicino, Italy	100.00	100.00	

T200 MAJOR SUBSIDIARIES AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %		Different reporting period
LSG Sky Chefs Schweiz AG, Bassersdorf, Switzerland	100.00	100.00		
LSG Sky Chefs South Africa (Proprietary) Ltd., Johannesburg, South Africa	100.00	100.00		
LSG Sky Chefs Spain, S.A., Madrid, Spain	100.00	100.00		
LSG Sky Chefs Supply Chain Solutions, Inc., Wilmington, USA	100.00	100.00		
LSG Sky Chefs Sverige AB, Kungsör, Sweden	100.00	100.00		
LSG Sky Chefs TAAG Angola S.A., Luanda, Angola	40.00	40.00	4)	
LSG Sky Chefs (Thailand) Ltd., Bangkok, Thailand	64.30	100.00		
LSG Sky Chefs UK Ltd., West Drayton, UK	100.00	100.00		
LSG Sky Chefs USA, Inc., Wilmington, USA	100.00	100.00		
LSG Sky Chefs Verwaltungsgesellschaft mbH, Neu-Isenburg	100.00	100.00		
LSG South America GmbH, Neu-Isenburg	100.00	100.00		
LSG Transalpino SAS, Paris, France	100.00	100.00		
LSG-Food & Nonfood Handel GmbH, Neu-Isenburg	100.00	100.00		
LSG/Sky Chefs Europe Holdings Ltd., West Drayton, UK	100.00	100.00		
MIM IFE Limited, Dublin, Ireland	100.00	100.00		
Myanmar LSG Lufthansa Service Ltd., Yangon, Myanmar	100.00	100.00		
Natal Catering Ltda., Aeroporto São Gonçalo do Amarante, Brazil	70.00	70.00		
Oakfield Farms Solutions, L.L.C., Wilmington, USA	100.00	100.00		
Retail In Motion Asia Limited, Hong Kong, China	100.00	100.00		
Retail in Motion GmbH, Neu-Isenburg	100.00	100.00		
Retail in Motion Latin America SpA, ENEA, Pudahuel, Santiago, Chile	100.00	100.00		
Retail in Motion Limited, Dublin, Ireland	100.00	100.00		
Retail In Motion Mexico S. de R.L. de C.V., Mexico City, Mexico	51.00	100.00		
Retail in Motion Middle East L.L.C., Abu Dhabi, United Arab Emirates	100.00	100.00		
RISTO RAIL PORTUGAL, LDA, Lisbon, Portugal	100.00	100.00		
SCIS Air Security Corporation, Wilmington, USA	100.00	100.00		
ServCater Internacional Ltda., Guarulhos, Brazil	90.00	90.00		
Servicios Complementarios de Cabina, S.A. de C.V., Mexico City, Mexico	51.88	99.80		
Siam Flight Services Ltd., Bangkok, Thailand	49.00	66.67		
Silver Wings Bulgaria OOD, Sofia, Bulgaria	28.75	28.75	5)	
Sky Chefs Chile SpA, ENEA, Pudahuel, Santiago, Chile	100.00	100.00		
Sky Chefs De Mexico, S.A. de C.V., Mexico City, Mexico	51.00	51.00		
Sky Chefs de Panama, S.A., Panama City, Panama	100.00	100.00		
Sky Chefs Things Remembered Services FZE, Lagos, Nigeria	51.00	51.00		
Sky Chefs Things Remembered Services Limited, Lagos, Nigeria	51.00	51.00		
Sky Chefs, Inc., Wilmington, USA	100.00	100.00		
SkylogistiX GmbH, Neu-Isenburg	51.00	51.00		
Spiriant Asia Pacific Limited, Hong Kong, China	100.00	100.00		
Spiriant Bahrain Limited W.L.L., Manama, Bahrain	60.00	60.00		
Spiriant GmbH, Neu-Isenburg	100.00	100.00		
Supply Chain S.à.r.l., Contern, Luxembourg	100.00	100.00		
Western Aire Chef, Inc., Wilmington, USA	100.00	100.00		
ZAO AeroMEAL, Yemelyanovo, Russia	100.00	100.00		

T200 MAJOR SUBSIDIARIES AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Additional Businesses and Group Functions			
AirPlus Air Travel Card Vertriebsgesellschaft mbH i.L., Vienna, Austria	100.00	100.00	
AirPlus Holding GmbH i.L., Vienna, Austria	100.00	100.00	
AirPlus International AG, Zurich, Switzerland	100.00	100.00	
AirPlus International, Inc., Alexandria, USA	100.00	100.00	
AirPlus International Limited, London, UK	100.00	100.00	
AirPlus International NV/SA, Brussels, Belgium	100.00	100.00	
AirPlus International S.r.l., Bologna, Italy	100.00	100.00	
AirPlus Payment Management Co. Ltd., Shanghai, China	100.00	100.00	
Crane Strategic Investment S.C.S., Grevenmacher, Luxembourg	100.00	100.00	
LCH Grundstücksgesellschaft Berlin mbH, Frankfurt/Main	100.00	100.00	
LHAMI LEASING LIMITED, Dublin, Ireland	100.00	100.00	
LHAMIH LIMITED, Dublin, Ireland	100.00	100.00	
LSG Sky Chefs Bremen GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Hamburg GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Leipzig GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs RPC West GmbH, Neu-Isenburg	100.00	100.00	
LSY GmbH, Norderstedt	100.00	100.00	
Lufthansa AirPlus Servicekarten GmbH, Neu-Isenburg	100.00	100.00	
Lufthansa Asset Management GmbH, Frankfurt/Main	100.00	100.00	
Lufthansa Aviation Training Berlin GmbH, Berlin	100.00	100.00	
Lufthansa Aviation Training Germany GmbH, Frankfurt/Main	100.00	100.00	
Lufthansa Aviation Training GmbH, Hallbergmoos	100.00	100.00	
Lufthansa Aviation Training Switzerland AG, Kloten, Switzerland	100.00	100.00	
Lufthansa Commercial Holding GmbH, Frankfurt/Main	100.00	100.00	
Lufthansa Global Business Services GmbH, Frankfurt/Main	100.00	100.00	
Lufthansa Leasing Austria 1. Beteiligungs GmbH, Salzburg, Austria	100.00	100.00	
Lufthansa Malta Blues LP, St. Julians, Malta	99.99	99.99	
Lufthansa Malta Corporate Finance Limited, St. Julians, Malta	100.00	100.00	
Lufthansa Malta Finance Holding Limited, St. Julians, Malta	100.00	100.00	
Lufthansa Malta Treasury Services Limited, St. Julians, Malta	100.00	100.00	
Lufthansa Seeheim GmbH, Seeheim-Jugenheim	100.00	100.00	
Lufthansa Systems Americas, Inc., Irving, USA	100.00	100.00	
Lufthansa Systems GmbH & Co. KG, Raunheim	100.00	100.00	
MARDU Grundstücks-Verwaltungsgesellschaft mbH & Co. oHG, Grünwald	100.00	50.00 [1]	
MUSA Grundstücks-Verwaltungsgesellschaft mbH & Co. oHG, Grünwald	100.00	50.00 [1]	
Quinto Grundstücksgesellschaft mbH & Co. oHG, Grünwald	100.00	49.75 [1]	
TGV DLH, Dusseldorf	100.00	100.00	

[1] Fully consolidated structured entity in accordance with IFRS 10.
[2] The Companies House registration number is: 06939137.
[3] 50.20% of the equity stakes and voting rights are attributed via ÖLP.
[4] Management responsibility for the company lies with the Group.
[5] 28.75% equity shares and voting rights are attributed via a call option.
[6] 33.34% of the equity stakes and 50.01% voting rights are attributed via a call option.

T201 MAJOR JOINT VENTURES AS OF 31 DEC 2019[1)]

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Network Airlines business segment			
Terminal 2 Gesellschaft mbH & Co oHG, Munich Airport	40.00	40.00	
Eurowings business segment			
Günes Ekspres Havacilik Anonim Sirketi (Sun Express), Antalya, Turkey	50.00	50.00	
Logistics business segment			
Shanghai Pudong International Airport Cargo Terminal Co. Ltd., Shanghai, China	29.00	22.22	
MRO business segment			
EME Aero Sp. z o.o., Jasionka, Poland	50.00	50.00	
LG-LHT Aircraft Solutions GmbH, Hamburg	51.00	50.00	
LG-LHT Passenger Solutions GmbH, Hamburg	51.00	50.00	
Lufthansa Bombardier Aviation Services GmbH, Schönefeld	51.00	51.00	
N3 Engine Overhaul Services GmbH & Co. KG, Arnstadt	50.00	50.00	
Spairliners GmbH, Hamburg	50.00	50.00	
XEOS Sp. z o.o., Warsaw, Poland	51.00	50.00	
Additional Businesses and Group Functions			
Diners Club Spain S.A., Madrid, Spain	25.00	25.00	

T202 JOINT OPERATIONS AS OF 31 DEC 2019[2)]

Aerologic GmbH, Leipzig	50.00	50.00	

T203 MAJOR ASSOCIATED COMPANIES AS OF 31 DEC 2019[1)]

MRO business segment			
Aircraft Maintenance and Engineering Corp., Beijing, China	25.00	28.57	
HEICO Aerospace Holdings Corp., Florida, USA	20.00	20.00	October
Catering business segment			
CateringPor – Catering de Portugal, S.A., Lisbon, Portugal	49.00	49.00	
Cosmo Enterprise Co. Ltd., Narita City, Japan	20.00	20.00	March
Gansu HNA LSG Sky Chefs Co., Ltd., Lanzhou, China	49.00	40.00	
Hongkong Beijing Air Catering Ltd., Hong Kong, China	45.00	40.00	
Hongkong Shanghai Air Catering Ltd., Hong Kong, China	45.00	40.00	
Inflite Holdings (Cayman) Ltd., Grand Cayman, Cayman Islands	49.00	49.00	September
Inflite Holdings (St. Lucia) Ltd., Castries, St. Lucia	49.00	49.00	September
Nanjing Lukou International Airport LSG Catering Co. Ltd., Nanjing City, China	40.00	40.00	
Tolmachevo Catering OOO, Novosibirsk, Russia	26.00	26.00	
Wenzhou Longwan International Airport LSG Sky Chefs Co. Ltd., Wenzhou City, China	40.00	40.00	
Xian Eastern Air Catering Co. Ltd., Xian, China	30.00	28.57	
Yunnan Eastern Air Catering Co. Ltd., Kunming, China	24.90	28.57	
ZAO Aeromar, Moscow region, Russia	49.00	49.00	

1) Accounted for using the equity method.
2) Included on a pro rata basis in accordance with IFRS 11.

Miscellaneous equity investments

T204 MISCELLANEOUS EQUITY INVESTMENTS AS OF 31 DEC 2019

Name, registered office	Equity stake in %	Voting share in %
Subsidiaries, not consolidated		
26. INCORPORATION, Inc., Princeton, USA	100.00	100.00
ACS Aircontainer Services Gesellschaft m.b.H., Fischamend, Austria	100.00	100.00
Air Dolomiti Deutschland GmbH, Munich	100.00	100.00
AIRBEL N.V./S.A., Brussels, Belgium	50.50	50.50
Airline Marketing Services India Private Limited, Mumbai, India	100.00	100.00
AirPlus International Soluções de Pagamento Limitada, São Paulo, Brazil	100.00	100.00
Airport Services Dresden GmbH, Dresden	100.00	100.00
Airport Services Friedrichshafen GmbH, Friedrichshafen	100.00	100.00
Airport Services Leipzig GmbH, Schkeudiz	100.00	100.00
Albatros Service Center GmbH, Cologne	100.00	100.00
Albatros Versicherungsdienste GmbH, Cologne	100.00	100.00
Austrian Airlines Technik-Bratislava, s.r.o., Bratislava, Slovakia	100.00	100.00
Austrian Airlines Tele Sales Service GmbH, Innsbruck, Austria	100.00	100.00
AVIATION Data Hub GmbH, Hamburg	100.00	100.00
Aviation Quality Services GmbH, Frankfurt/Main	100.00	100.00
Avionic Design GmbH, Hamburg	100.00	49.00
Cargo Future Communications (CFC) GmbH, Büchenbeuren	65.00	65.00
Caterair Portugal – Assistencia A Bordo, Lda., Sacavém, Portugal	100.00	100.00
CB Customs Broker GmbH, Kelsterbach	100.00	100.00
Delvag Versicherungs-AG, Cologne	100.00	100.00
Deutsche Lufthansa Unterstützungswerk GmbH, Frankfurt/Main	100.00	100.00
DLH Fuel Company mbH, Hamburg	100.00	100.00
DLH Malta Pension Ltd., St. Julians, Malta	100.00	100.00
DLH Malta Transition Limited, St. Julians, Malta	100.00	100.00
EW Beteiligungs- und Verwaltungsgesellschaft mbH, Dusseldorf	100.00	100.00
FLYdocs Inc. (Delaware Corp.), City of Wilmington, New Castle, USA	100.00	100.00
FLYdocs Systems India Private Ltd., Vadoora, India	100.00	100.00
FLYdocs Systems Limited, Tamworth, Staffordshire, UK	100.00	100.00
FLYdocs Systems (MIDCO) Limited, Tamworth, Staffordshire, UK	100.00	100.00
Flydocs Systems (TOPCO) Limited, Staffordshire, UK	100.00	100.00
Gen2 Systems Limited, Tamworth, UK	100.00	100.00
Global Load Control (PTY) LTD, Cape Town, South Africa	100.00	100.00
Global Tele Sales (PTY) Ltd., Cape Town, South Africa	100.00	100.00
Global Tele Sales Brno s.r.o., Brno, Czech Republic	100.00	100.00
Global Tele Sales Ltd., Contaf, Dublin, Ireland	100.00	100.00
Global Telesales of Canada, Inc., Peterborough, Canada	100.00	100.00
handling counts GmbH, Frankfurt/Main	100.00	100.00
help alliance gGmbH, Frankfurt/Main	100.00	100.00
heyworld GmbH, Frankfurt/Main	100.00	100.00
Hinduja Lufthansa Cargo Holding B.V., Amsterdam, Netherlands	100.00	100.00
Idair GmbH, Hamburg	100.00	100.00
In-Flight Management Solutions Latin America, S.A. de C.V., Mexico City, Mexico	100.00	100.00
IND Beteiligungs GmbH, Raunheim	100.00	100.00
LCAG Malta Pension Ltd., St. Julians, Malta	100.00	100.00
LCAG Malta Transition Limited, St. Julians, Malta	100.00	100.00
LGSP Lufthansa Ground Service Portugal, Unipessoal Lda., Maia/Oporto, Portugal	100.00	100.00
LHT Malta Pension Ltd., St. Julians, Malta	100.00	100.00
LSG Malta Pension Ltd., St.Julians, Malta	100.00	100.00
LSI Malta Pension Ltd., St. Julians, Malta	100.00	100.00

T204 MISCELLANEOUS EQUITY INVESTMENTS AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %
Lufthansa Aviation Training Austria GmbH, Vienna Airport, Austria	100.00	100.00
Lufthansa Aviation Training Crew Academy GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Aviation Training Operations Germany GmbH, Berlin	100.00	100.00
Lufthansa Aviation Training Pilot Academy GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Aviation Training USA Inc., Goodyear, USA	100.00	100.00
Lufthansa Blues Beteiligungs GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Cagri Merkezi ve Müsteri Hizmetleri A.S., Istanbul, Turkey	100.00	100.00
Lufthansa Cargo India (Priv) Ltd., Neu-Delhi, India	100.00	100.00
Lufthansa Cargo Servicios Logisticos de Mexico, S.A. de C.V., Mexico City, Mexico	100.00	100.00
Lufthansa City Center International GmbH, Frankfurt/Main	50.00	50.00
Lufthansa Consulting Brasil Ldta., Rio de Janeiro, Brazil	99.90	99.90
Lufthansa Consulting GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Engineering and Operational Services GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Global Business Services Hamburg GmbH, Hamburg	100.00	100.00
Lufthansa Global Business Services Ltd., Bangkok, Thailand	100.00	100.00
Lufthansa Global Business Services S.A. de C.V., Mexico City, Mexico	100.00	100.00
Lufthansa Global Business Services Sp. z o.o., Krakow, Poland	100.00	100.00
Lufthansa Global Tele Sales GmbH, Berlin	100.00	100.00
Lufthansa Group Business Services Hong Kong Limited, Hong Kong, China	100.00	100.00
Lufthansa Group Business Services Johannesburg (pty) Ltd., Gauteng, South Afrika	100.00	100.00
Lufthansa Group Business Services New York LLC, Wilmington, Delaware, USA	100.00	100.00
Lufthansa Group Business Services Wien GmbH, Vienna, Austria	100.00	100.00
Lufthansa Group Security Operations GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Industry Solutions SHPK, Tirana, Albania	100.00	100.00
Lufthansa Industry Solutions TS GmbH, Oldenburg	100.00	100.00
Lufthansa Innovation Hub GmbH, Berlin	100.00	100.00
Lufthansa International Finance (Netherlands) N. V., Amsterdam, Netherlands	100.00	100.00
Lufthansa Job Services Norderstedt GmbH, Norderstedt	100.00	100.00
Lufthansa Malta Blues General Partner GmbH & Co. KG, Frankfurt/Main	100.00	100.00
Lufthansa Malta Pension Holding Ltd., St. Julians, Malta	100.00	100.00
Lufthansa Pension Beteiligungs GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Pension GmbH & Co. KG, Frankfurt/Main	100.00	100.00
Lufthansa Services Philippines, Inc., Manila, Philippines	100.00	100.00
Lufthansa Services (Thailand) Ltd., Bangkok, Thailand	100.00	100.00
Lufthansa Super Star gemeinnützige Gesellschaft mit beschränkter Haftung, Berlin	100.00	100.00
Lufthansa Systems 25. GmbH, Raunheim	100.00	100.00
Lufthansa Systems Asia Pacific Pte. Ltd., Singapore, Singapore	100.00	100.00
Lufthansa Systems FlightNav AG, Opfikon, Switzerland	100.00	100.00
Lufthansa Systems Hungaria Kft, Budapest, Hungary	100.00	100.00
Lufthansa Systems Poland sp. z o.o., Danzig, Poland	100.00	100.00
Lufthansa Systems Verwaltungs GmbH, Raunheim	100.00	100.00
Lufthansa Technical Training GmbH, Hamburg	100.00	100.00
Lufthansa Technik Brussels N.V., Steenokkerzeel-Melsbroek, Belgium	100.00	100.00
Lufthansa Technik Component Services Asia Pacific Limited, Hong Kong, China	100.00	100.00
Lufthansa Technik Intercoat GmbH, Kaltenkirchen	51.00	51.00
Lufthansa Technik Middle East FZE, Dubai, United Arab Emirates	100.00	100.00
Lufthansa Technik Milan s.r.l., Somma Lombardo (VA), Italy	100.00	100.00
Lufthansa Technik Miskolc Kft., Budapest, Hungary	100.00	100.00
Lufthansa Technik Services India Private Limited, Neu-Delhi, India	100.00	100.00
Lufthansa Technik Shenzhen Co. Ltd., Shenzhen, China	80.00	80.00
Lufthansa Technik Turbine Shannon Limited, Shannon, Ireland	100.00	100.00

T204 MISCELLANEOUS EQUITY INVESTMENTS AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %
Lufthansa Technik Vostok Services OOO, Moscow, Russia	100.00	100.00
Lufthansa UK Pension Trustee Limited, West Drayton, Middlesex, UK	100.00	100.00
LZ-Catering GmbH, Hamburg	100.00	100.00
Malta Pension Investments, St. Julians, Malta	0.00	100.00
Marriott Export Services, C.A., Caracas, Venezuela	99.99	100.00
Marriott International Trade Services, C.A., Caracas, Venezuela	99.99	100.00
Quinto Grundstücks-Verwaltungsgesellschaft mbH, Grünwald	94.80	94.80
Reservation Data Maintenance India Private Ltd., New-Delhi, India	51.00	51.00
Retail inMotion Asia Pacific Limited, San Po Kong, Kowloon, China	100.00	100.00
Shared Services International India Private Limited, New-Delhi, India	100.00	100.00
Shared Services International, Singapore PTE. LTD, Singapore, Singapore	100.00	100.00
Skeyos GmbH, Hamburg	100.00	100.00
Star Risk Services Inc., Southlake, USA	100.00	100.00
Swiss WorldCargo (India) Private Limited, Mumbai, India	100.00	100.00
TATS – Travel Agency Technologies & Services GmbH, Frankfurt/Main	100.00	100.00
time:matters Asia Pacific Pte. Ltd., Singapore, Singapore	100.00	100.00
time:matters Austria GmbH, Vienna Airport, Austria	100.00	100.00
time:matters Belgium BVBA, Mechelen, Belgium	100.00	100.00
time:matters Courier Terminals GmbH, Frankfurt/Main	100.00	100.00
time: matters GmbH, Zurich, Switzerland	100.00	100.00
time:matters Netherlands B.V., Schiphol, Netherlands	100.00	100.00
time:matters (Shanghai) International Freight Forwarding Ltd., Shanghai, China	100.00	100.00
VPF Malta Pension Ltd., St. Julians, Malta	100.00	100.00
Yilu Travel Services GmbH, Berlin	100.00	100.00
ZeroG GmbH, Raunheim	100.00	100.00
Other equity investments		
3D.aero GmbH, Hamburg	50.00	50.00
Aeroxchange Ltd., Wilmington, USA	9.46	9.46
AFS Aviation Fuel Services GmbH, Hamburg	33.00	50.00
Airfoil Services Sdn. Bhd., Kuala Lumpur, Malaysia	50.00	50.00
Airline Tariff Publishing Co., Dulles, USA	9.77	9.77
Airmail Center Frankfurt GmbH, Frankfurt/Main	40.00	40.00
Alpha LSG Limited, Manchester, UK	50.00	50.00
ATLECON Fuel LLC, Atlanta, USA	14.30	14.30
AviationPower GmbH, Hamburg	49.00	49.00
Beijing Lufthansa Center Co. Ltd., Beijing, China	11.23	12.50
Berlin Fuelling Services GbR, Berlin	12.50	12.50
Cargo One GmbH, Berlin	15.69	15.69
Charlotte Fuel Facilities LLC, Wilmington, USA	11.11	11.11
Chelyabinsk Catering Service OOO, Chelyabinsk, Russia	26.00	26.00
Düsseldorf Fuelling Services (DFS) GbR, Dusseldorf	33.33	33.33
EFM – Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH, Freising	51.00	51.00
Egyptian Aviation Services Company (S.A.E.), Cairo, Egypt	5.83	5.83
Entebbe Handling Services Limited (ENHAS), Entebbe, Uganda	5.00	5.00
FFS Frankfurt Fuelling Services (GmbH & Co.) OHG, Hamburg	33.33	33.33
Finairport Service S.r.l. i.L., Turin, Italy	36.00	36.00
Fleet Logistics Inc., Wilmington, USA	18.33	18.33
Flight Training Alliance GmbH, Frankfurt/Main	50.00	50.00
Flughafen Düsseldorf Tanklager GmbH, Dusseldorf	20.00	20.00
Flughafen München Baugesellschaft mbH, Munich Airport	40.00	40.00
FraCareServices GmbH, Frankfurt/Main	49.00	49.00

T204 MISCELLANEOUS EQUITY INVESTMENTS AS OF 31 DEC 2019 (continued)

Name, registered office	Equity stake in %	Voting share in %
FSH Flughafen Schwechat-Hydranten-Gesellschaft GmbH & Co OG, Vienna Airport, Austria	14.29	14.29
GOAL German Operating Aircraft Leasing GmbH, Munich	40.00	40.00
GOAL German Operating Aircraft Leasing GmbH & Co. KG, Grünwald	40.00	39.99
Guangzhou Baiyun International Airport LSG Sky Chefs Co. Ltd., Guangzhou, China	30.00	28.57
Gulf International Caterers, W.L.L., Bahrain, Bahrain	49.00	49.00
Hamburg Fuelling Services GbR, Hamburg	25.00	25.00
Hamburg Tank Service GbR, Hamburg	33.30	33.30
Hangzhou Xiaoshan Airport LSG Air Catering Co. Ltd., Hangzhou, China	25.00	28.57
Hookers Point Fuel Facilities LLC., Orlando, USA	9.09	9.09
Hydranten-Betriebs OHG, Frankfurt/Main	49.00	20.00
INAIRVATION GmbH, Edlitz-Thomasberg, Austria	50.00	50.00
Jade Cargo International Company Limited i.L., Shenzhen, China	25.00	28.57
LSG Sky Chefs Catering Egypt S.A.E., Cairo, Egypt	15.00	15.00
Luftfahrzeugverwaltungsgesellschaft GOAL mbH, Grünwald	40.00	40.00
Lufthansa HNA Technical Training Co. Ltd., Meilan Airport, Hainan, China	50.00	1.00
Lufthansa Leasing GmbH, Grünwald	49.00	49.00
Lumics GmbH & Co. KG, Hamburg	50.00	50.00
Lumics Verwaltungs GmbH, Hamburg	50.00	0.00
Montreal International Fuel Facilities Corporation, Dorval, Canada	8.10	8.10
N3 Engine Overhaul Services Verwaltungsgesellschaft mbH, Hamburg	50.00	50.00
ORD Fuel Company, LLC, Wilmington, USA	6.67	6.67
Orlando Fuel Facilities LLC, Wilmington, USA	5.88	5.88
PHL Fuel Facilities LLC, Pittsburgh, USA	10.00	10.00
S.A.E.M.S. Verwaltungs-GmbH, Hamburg	40.00	40.00
S.T.A.R.S. Verwaltungs-GmbH, Hamburg	49.00	49.00
SAEMS Special Airport Equipment and Maintenance Services GmbH & Co. KG, Hamburg	40.00	40.00
Sanya LSG Air Catering Co. Ltd., Sanya, China	45.00	40.00
SCA Schedule Coordination Austria GmbH, Vienna Airport, Austria	25.00	25.00
Shenzhen Airport International Cargo Terminal Company Limited, Shenzhen, China	50.00	50.00
Sichuan Airlines LSG Air Catering Co. Ltd., Chengdu, China	40.00	40.00
Sky Chefs for Airlines Catering Company, Tripolis, Lybia	44.50	44.50
STARS Special Transport and Ramp Services GmbH & Co. KG, Hamburg	49.00	49.00
Tanklager-Gesellschaft Tegel GbR, Tegel	12.50	12.50
Terminal One Group Association, L.P., New York, USA	24.75	0.00
Terminal One Management Inc., New York, USA	25.00	25.00
THBG BBI GmbH, Schönefeld	46.45	46.45
Turbo Fuel Services Sachsen (TFSS) GbR, Hamburg	20.00	20.00
UBAG Unterflurbetankungsanlage Flughafen Zürich AG, Rümlang, Switzerland	12.00	12.00
Universal Air Travel Plan, Inc., Washington, USA	5.26	5.26
Vancouver Airport Fuel Facilities Corporation, Dorval, Canada	5.71	5.71
Verimi GmbH, Frankfurt/Main	5.91	5.91
Xinjiang HNA LSG Sky Chefs Co. Ltd., Urumqi, China	49.00	40.00
Zentrum für Angewandte Luftfahrtforschung GmbH, Hamburg	20.00	20.00

FURTHER INFORMATION

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Independent Practitioner's Report on a Limited Assurance Engagement on Non-Financial Reporting[1]

To Deutsche Lufthansa AG, Cologne

We have performed a limited assurance engagement on the disclosures in the section "Combined Non-financial Statement" of the combined Non-financial Statement (hereinafter the "Non-financial Statement") included in the combined management report pursuant to §§ (Articles) 289b Abs. (paragraph) 1 and 315b Abs. 1 HGB ("Handelsgesetzbuch": "German Commercial Code") of Deutsche Lufthansa AG, Frankfurt am Main, (hereinafter the "Company") for the period from 1 January to 31 December 2019.

Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Non-financial Statement in accordance with §§ 315c in conjunction with 289c to 289e HGB.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of non-financial reporting as well as making assumptions and estimates related to individual non-financial disclosures which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of a Non-financial Statement that is free from material misstatement whether due to fraud or error.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis – IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's Responsibility

Our responsibility is to express a limited assurance conclusion on the Non-financial Statement based on the assurance engagement we have performed.

Within the scope of our engagement, we did not perform an audit on external sources of information or expert opinions, referred to in the Non-financial Statement.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the Company's Non-financial Statement for the period from 1 January to 31 December 2019 has not been prepared, in all material aspects, in accordance with §§ 315c in conjunction with 289c to 289e HGB. In a limited assurance engagement, the assurance procedures are less in extent than for a reasonable assurance engagement, and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

[1] PricewaterhouseCoopers GmbH WPG has performed a limited assurance engagement on the German version of the combined Non-financial Statement and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the Non-financial Statement regarding the preparation process, the internal control system relating to this process and selected disclosures in the Non-financial Statement
- Identification of the likely risks of material misstatement of the Non-financial Statement
- Analytical evaluation of selected disclosures in the Non-financial Statement
- Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the group management report
- Evaluation of the presentation of the non-financial information

Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the Company's Non-financial Statement for the period from 1 January to 31 December 2019 has not been prepared, in all material aspects, in accordance with §§ 315c in conjunction with 289c to 289e HGB.

Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company about the results of the limited assurance engagement.

The report is not intended for any third parties to base any (financial) decision thereon. Our responsibility lies only with the Company. We do not assume any responsibility towards third parties.

Frankfurt am Main, 13 March 2020

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Nicolette Behncke	ppa. Urata Biqkaj
Wirtschaftsprüfer	Wirtschaftsprüferin
[German public auditor]	[German public auditor]

Ten-year overview

T205 TEN-YEAR OVERVIEW

		2019	2018[7]	2017[6]
Income statement Lufthansa Group				
Revenue	€m	36,424	35,542	35,579
Result				
Adjusted EBIT (since 2014)/Operating result (until 2013)	€m	2,026	2,836	2,969
Adjusted EBIT margin (since 2014)/Operating margin (until 2013)	%	5.6	8.0	8.3
Profit/loss from operating activities	€m	1,689	2,800	3,140
Profit/loss before income taxes	€m	1,860	2,784	3,158
Income taxes	€m	-615	-588	-784
Net profit/loss attributable to shareholders of Deutsche Lufthansa AG	€m	1,213	2,163	2,340
Main cost items				
Staff costs	€m	9,121	8,811	8,172
Fees and charges	€m	4,523	4,457	6,357
Fuel for aircraft	€m	6,715	6,087	5,232
Depreciation, amortisation and impairment	€m	2,776	2,205	2,383
Net interest	€m	-315	-144	-195
Balance sheet Lufthansa Group				
Asset structure				
Non-current assets	€m	31,374	27,559	24,749
Current assets	€m	11,285	10,654	11,029
of which liquid assets	€m	3,385	3,235	3,948
Capital structure				
Shareholders' equity	€m	10,256	9,573	9,110
of which issued capital	€m	1,224	1,217	1,206
of which reserves	€m	7,710	6,083	5,461
Liabilities	€m	32,403	28,640	26,668
of which pension provisions	€m	6,659	5,865	5,116
of which borrowing	€m	10,030	6,685	6,814
Total assets	€m	42,659	38,213	35,778
Other financial data Lufthansa Group				
Capital expenditure	€m	3,666	3,805	3,529
of which on tangible and intangible assets	€m	3,486	3,709	3,338
of which on financial investments	€m	180	96	191
Cash flow from operating activities	€m	4,030	4,109	5,368
Free cash flow	€m	582	250	2,117
Indebtedness				
gross	€m	10,047	6,724	6,832
net	€m	6,662	3,489	2,884
Deutsche Lufthansa AG				
Net profit/loss for the year	€m	595	339	2,455
Transfer to/from reserves	€m	-595	-41	2,078
Dividends proposed/paid	€m	–	380	377
Dividend per share proposed/paid	€	–	0.80	0.80

2016	2015	2014[5]	2013[4]	2012[3]	2011	2010[2]
31,660	32,056	30,011	30,027	30,135	28,734	26,459
1,752	1,817	1,171	699	839	820	1,020
5.5	5.7	3.9	2.3	2.8	2.9	3.9
2,190	1,555	879	851	1,622	773	1,386
2,248	2,026	180	546	1,296	446	1,134
–445	–304	–105	–220	–91	–157	–161
1,776	1,698	55	313	1,228	–13	1,131
7,354	8,075	7,335	7,356	6,741	6,678	6,491
5,736	5,651	5,265	5,167	5,167	5,000	4,318
4,885	5,784	6,751	7,115	7,392	6,276	4,964
1,769	1,715	1,528	1,767	1,839	1,722	1,654
–218	–170	–256	–346	–372	–288	–346
24,504	23,526	22,227	19,419	18,782	18,627	18,963
10,193	8,936	8,247	9,689	9,777	9,454	10,357
3,937	3,093	2,738	4,698	4,966	3,998	5,380
7,149	5,845	4,031	6,108	4,839	8,044	8,340
1,200	1,189	1,185	1,180	1,177	1,172	1,172
4,084	2,881	2,728	4,563	2,374	6,790	5,939
27,548	26,617	26,443	23,000	23,720	20,037	20,980
8,364	6,626	7,231	4,718	5,844	2,165	2,571
6,575	6,370	5,958	6,337	6,910	6,424	7,184
34,697	32,462	30,474	29,108	28,559	28,081	29,320
2,231	2,568	2,773	2,499	2,358	2,560	2,271
2,160	2,454	2,699	2,444	2,291	2,445	2,222
71	114	74	55	67	115	49
3,246	3,393	1,977	3,290	2,842	2,356	2,992
1,138	834	–297	1,307	1,397	713	1,542
6,638	6,440	6,156	6,393	6,919	6,440	7,207
2,701	3,347	3,418	1,695	1,953	2,328	1,596
1,169	1,034	–732	407	592	–116	483
–935	–802	732	–200	–592	230	–208
234	232	–	207	–	114	275
0.50	0.50	–	0.45	–	0.25	0.60

T205 TEN-YEAR OVERVIEW (continued)

		2019	2018[7]	2017[6]
Operational ratios Lufthansa Group				
Return on sales (Profit/loss before income taxes/revenue)	%	5.1	7.8	8.9
Return on capital employed (Profit/loss before income taxes plus interest on liabilities/total assets)	%	5.3	7.8	9.9
Return on equity (Profit/loss after income taxes/shareholders' equity)	%	12.1	22.9	26.1
Return on equity (Profit/loss before income taxes/shareholders' equity)	%	18.1	29.1	34.7
Equity ratio (Shareholders' equity/total assets)	%	24.0	25.1	25.5
Gearing (Net indebtedness plus pension provisions/shareholders' equity)	%	129.9	97.7	87.8
Leverage (Net indebtedness/total assets)	%	15.6	9.1	8.1
Internal financing ratio (Cash flow/capital expenditure)	%	109.9	108.0	152.1
Adjusted net debt/Adjusted EBITDA (since 2017) Debt repayment ratio (until 2016)	%	2.8	1.8	1.5
Revenue efficiency (Cash flow/revenue)	%	11.1	11.6	15.1
Net working capital (Current assets less current liabilities)	€bn	– 4.7	– 5.6	1.6
Non-current asset ratio (Non-current assets/total assets)	%	73.5	72.1	69.2
Depreciation ratio for aircraft/reserve engines (Accumulated depreciation/accumulated acquisition costs)	%	50.7	51.7	52.5
Staff ratios				
Average number of employees	number	137,784	134,330	128,856
Revenue/employee	€	264,356	264,587	276,114
Staff costs/revenue	%	25.0	24.8	23.0
Traffic figures Lufthansa Group[1]				
Passengers	millions	145.2	141.9	129.3
Available seat-kilometres	millions	359,567	349,391	322,875
Revenue seat-kilometres	millions	296,511	284,639	261,149
Passenger load factor	%	82.5	81.5	80.9
Available cargo tonne-kilometres	millions	17,378	16,349	15,754
Revenue cargo tonne-kilometres	millions	10,664	10,896	10,819
Cargo load factor	%	61.4	66.6	68.7
Number of flights	number	1,177,315	1,163,565	1,128,745
Aircraft in service	number	763	763	728

[1] Lufthansa German Airlines, SWISS, Austrian Airlines and Lufthansa Cargo.
[2] The income statement for the financial year 2010 has been adjusted in line with IFRS 5 (Discontinued operations) because of the planned disposal of bmi.
[3] The figures for the financial year 2012 were adjusted retrospectively due to the application of the revised IAS 19.
[4] The figures for the financial year 2013 were adjusted retrospectively due to IFRS 11.
[5] The figures for the financial year 2014 were adjusted retrospectively due to the new reporting method.
[6] The figures for the financial year 2017 were adjusted retrospectively to reflect the restated capitalisation of engine maintenance events and IFRS 9.
[7] The figures for the financial year 2018 were adjusted retrospectively to reflect the restated compensation payments for flight cancellations and delays.

2016	2015	2014[5]	2013[4]	2012[3]	2011	2010[2]
7.1	6.3	0.6	1.8	4.3	1.6	4.3
7.3	7.3	2.0	3.6	6.4	3.3	5.7
25.2	29.5	1.9	5.3	25.6	0.0	13.7
31.4	34.7	4.5	8.9	26.8	5.5	13.6
20.6	18.0	13.2	21.0	16.9	28.6	28.4
154.8	170.6	264.2	105.0	161.1	55.9	50.0
7.8	10.3	11.2	5.8	6.8	8.3	5.4
145.5	132.1	71.3	131.7	120.5	92.0	131.7
28.7	30.7	20.8	37.0	34.4	49.7	59.7
10.3	10.6	6.6	11.0	9.7	8.8	11.9
– 0.8	– 3.5	– 2.7	– 1.3	0.0	– 0.3	0.5
70.6	72.5	72.9	66.7	65.8	66.3	64.7
49.7	51.6	51.4	52.6	54.2	54.4	53.9
123,287	119,559	118,973	117,414	118,368	119,084	117,066
256,799	268,119	252,251	255,736	254,587	241,292	226,018
23.2	25.2	24.4	24.5	22.4	23.2	24.5
109.7	107.7	106	104.6	103.6	100.6	92.7
286,555	273,975	268,104	262,682	260,169	258,263	234,377
226,639	220,396	214,643	209,649	205,015	200,376	186,452
79.1	80.4	80.1	79.8	78.8	77.6	79.6
15,117	14,971	14,659	14,893	14,749	16,260	15,298
10,071	9,930	10,249	10,285	10,240	10,861	10,429
66.6	66.3	69.9	69.1	69.4	66.8	68.2
1,021,919	1,003,660	1,001,961	1,028,260	1,067,362	1,050,728	1,008,988
617	600	615	622	627	696	710

Glossary

Aviation terminology

Hub In air traffic a hub refers to an airline's transfer airport, a central connecting point for different routes. Passengers and goods are transported from the original starting point to the airport's hub. From there they are carried to their destination by a second flight alongside passengers and goods from other departure points.

IATA International Air Transport Association – the international trade association for the airline industry.

Low-cost carrier Low-cost carrier are airlines which offer largely low ticket prices but with reduced service levels and sometimes additional charges on board and on the ground. Flights are mostly from secondary airports outside the major cities (e.g. Hahn in the Hunsrück area outside Frankfurt).

MRO Short for maintenance, repair and overhaul of aircraft.

Network Airlines In contrast to low-cost carriers these airlines offer a wide-ranging, normally global route network via one or more hubs, with synchronised connecting flights.

Passenger-kilometre/tonne-kilometre Standard output units for air transport. An available seat-kilometre (ASK) denotes one seat offered flown for one kilometre; a revenue passenger-kilometre (RPK) denotes one paying passenger transported for one kilometre. An offered tonne-kilometre (TKO) denotes the offered capacity equivalent of one tonne of load (passengers and/or cargo) for one kilometre; a revenue tonne-kilometre (RTK) denotes one tonne of load (passengers and/or cargo) transported one kilometre.

Passenger load factor/cargo load factor Measure of capacity utilisation in per cent. The cargo load factor expresses the ratio of capacity sold to available capacity. The passenger load factor refers to passenger transportation and the cargo load factor to freight transport or total traffic.

Unit costs/unit revenues Key performance indicator for air transport. Unit costs (CASK) denote the operating expenses divided by offered seat kilometres. Unit revenue (RASK) denotes the revenue divided by offered seat kilometres.

Yields Average traffic revenue earned per unit of output; normally based on total passenger-kilometres or tonne-kilometres sold, but they can also be calculated per unit of traffic volume, e.g. per passenger carried or per kilometre flown.

Financial terminology

Adjusted EBIT Main earnings metric for the Company's forecast. This relates to EBIT adjusted for asset valuations and disposals and for the measurement of pension provisions. ↗ p. 32ff.

Adjusted net debt/Adjusted EBITDA Measure of the Group's debt-servicing capacity. By using adjusted net debt, it also includes pension provisions as well as classic net indebtedness.

Call option The right to purchase a specific underlying security within a specified period of time at an agreed price.

Cash flow Measure of a company's financial and earnings potential. It is calculated as the difference between the inflow and outflow of cash and cash equivalents generated from ongoing business activities during the financial year. ↗ T075 Consolidated cash flow statement, p. 143.

Compliance Institutionalised arrangements for ensuring that a company's management and staff duly comply with all statutory provisions and prohibitions.

Deferred taxes A balance sheet item used to show taxable and deductible temporary differences. Deferred taxes reflect the temporary differences between assets and liabilities recognised for financial reporting purposes and such amounts recognised for income tax purposes.

Directors' dealings Transactions by members of a company's supervisory, executive or divisional boards, or their family members, involving shares in "their" company.

Dividend yield Indicator for assessing the profitability of an investment in shares. It is determined by dividing the dividend by the share price at the close of the reporting year and then multiplying it by 100.

EBIT Financial indicator denoting earnings before interest and taxes. From financial year 2015 main earnings indicator. This is calculated from total operating income less operating expenses plus the result from equity investments.

EBITDA Financial indicator denoting earnings before interest, taxes, depreciation and amortisation. Depreciation relates to items of property, plant and equipment and amortisation to intangible assets – both terms apply equally to non-current and current assets. The figure also includes impairment losses on equity investments accounted for under the equity method and on assets held for sale.

Equity method Accounting method for measuring income derived from a company's investments in associated companies and joint ventures. Under this method, investment income equals a share of net income proportional to the size of the equity investment.

Equity ratio Financial indicator expressing the ratio of shareholders' equity to total assets.

Free cash flow Financial indicator expressing the cash flow from operating activities remaining in the reporting period after deducting net cash used for investing activities.

Group of consolidated companies Group of subsidiaries included in a company's consolidated financial statements.

Impairment Losses recognised on the carrying amount of assets. Impairment charges are recognised when an asset's "recoverable value" (the higher of fair value less costs to sell and value in use) is below its carrying amount. By contrast, depreciation or amortisation is the systematic allocation of the depreciable amount of an asset over its useful life.

Jet fuel crack Price difference between crude oil and kerosene.

Net indebtedness/net liquidity Financial indicator denoting non-current borrowing less cash, cash equivalents and current securities.

Rating A standardised measure used on international financial markets to judge and categorise a company's creditworthiness. A rating can enable conclusions to be drawn about whether an issuer is capable of meeting in full its obligations under the terms of the issue.

Registered shares with transfer restrictions Registered shares that may only be transferred with the approval of the company.

Return On Capital Employed – ROCE Indicator of value creation. EBIT, to which interest income on liquidity has been added and taxes of 25% subtracted, is divided by the average capital employed. The resulting value reflects the relative return on the capital employed.

Return on sales Financial indicator expressing the net profit before taxes in relation to sales revenue.

Total shareholder return Financial indicator expressing the overall return that an investor earns from the increase in the market capitalisation or share price, plus the dividend payment. The total shareholder return is calculated from the share price at the close of the reporting year plus the dividend paid in respect of the previous year, multiplied by 100 and divided by the share price at the close of the previous year.

Trade working capital Financial indicator for assessing a company's liquidity, measured as the difference between its current assets and its current liabilities.

Traffic revenue Revenue generated solely from flight operations. It comprises revenue from transporting passengers and cargo as well as related ancillary services.

Weighted Average Cost of Capital – WACC The average return required on the capital employed at a company. The return on capital is calculated using the weighted average return required for both debt and equity.

Wet lease Lease of an aircraft from another airline, including its cockpit and cabin crew as well as maintenance and insurance.

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6 Aug	Release of Interim Report January – June 2020
5 Nov	Release of Interim Report January – September 2020

Note
Unless stated otherwise, all change figures refer to the corresponding period from the previous year. Due to rounding, some of the figures may not add up precisely to the stated totals, and percentages may not precisely reflect the absolute figures.

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