



Lufthansa Group



Annual Report 2016

Lufthansa Group

The Lufthansa Group is the world's leading aviation group. Its portfolio of companies consists of network airlines, point-to-point airlines and aviation service companies. Its combination of business segments makes the Lufthansa Group a globally unique aviation group.

T001 Key figures Lufthansa Group		2016	2015	Change in %
Revenue and result				
Total revenue	€m	31,660	32,056	-1.2
of which traffic revenue ¹⁾	€m	24,661	25,506	-3.3
EBIT	€m	2,275	1,676	35.7
Adjusted EBIT	€m	1,752	1,817	-3.6
EBITDA	€m	4,065	3,395	19.7
Net profit/loss	€m	1,776	1,698	4.6
Key balance sheet and cash flow statement figures				
Total assets	€m	34,697	32,462	6.9
Equity ratio	%	20.6	18.0	2.6 pts
Net indebtedness	€m	2,701	3,347	-19.3
Cash flow from operating activities	€m	3,246	3,393	-4.3
Capital expenditure (gross)	€m	2,236	2,569	-13.0
Key profitability and value creation figures				
EBIT margin	%	7.2	5.2	2.0 pts
Adjusted EBIT margin	%	5.5	5.7	-0.2 pts
EBITDA margin	%	12.8	10.6	2.2 pts
EACC	€m	817	323	152.9
ROCE	%	9.0	7.7	1.3 pts
Lufthansa share				
Share price at year-end	€	12.27	14.57	-15.8
Earnings per share	€	3.81	3.67	3.8
Proposed dividend per share	€	0.50	0.50	0.0
Traffic figures²⁾				
Passengers	thousands	109,670	107,679	1.8
Available seat-kilometres	millions	286,555	273,975	4.6
Revenue seat-kilometres	millions	226,633	220,396	2.8
Passenger load factor	%	79.1	80.4	-1.4 pts
Available cargo tonne-kilometres	millions	15,117	14,971	1.0
Revenue cargo tonne-kilometres	millions	10,071	9,930	1.4
Cargo load factor	%	66.6	66.3	0.3 pts
Total available tonne-kilometres	millions	43,607	40,421	7.9
Total revenue tonne-kilometres	millions	32,300	29,928	7.9
Overall load factor	%	74.1	74.0	0.1 pts
Flights	number	1,021,919	1,003,660	1.8
Employees				
Average number of employees	number	123,287	119,559	3.1
Employees as of 31.12.	number	124,306	120,652	3.0

¹⁾ Previous year's figures have been adjusted due to the new reporting method.

²⁾ Previous year's figures have been adjusted.

Business segments

Passenger Airline Group

Passenger transport is the largest business segment in the Lufthansa Group. The Passenger Airline Group includes the airlines Lufthansa Passenger Airlines, SWISS, Austrian Airlines and Eurowings. Equity interests in Brussels Airlines and SunExpress are strategic additions to the portfolio. Brussels Airlines was fully acquired at the beginning of the 2017 financial year.

Logistics

Lufthansa Cargo is the logistics specialist within the Lufthansa Group and Europe's leading cargo airline. As well as marketing the freight capacities of Lufthansa Passenger Airlines', Eurowings' and Austrian Airlines' passenger aircraft, the company operates its fleet of cargo aircraft, comprising 14 Boeing MD11Fs and five B777Fs.

MRO

Lufthansa Technik is the world's leading independent provider of maintenance, repair and overhaul services (MRO) for civilian commercial aircraft. The portfolio consists of a variety of different products and product combinations, from the repair of individual components to consultancy services and the fully integrated supply of entire fleets.

Catering

The LSG group is the world's leading provider of integrated 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. In addition, the company has managed to enter adjacent markets, such as services for rail operators and supplying the retail sector.

2016 figures

31.7

Revenue
in EUR bn

1,752

Adjusted EBIT
in EUR m

3,246

Operating cash flow
in EUR m

2,236

Capital expenditure
in EUR m

817

EACC
in EUR m

T002 Passenger Airline Group		2016	Change in %
Revenue	€m	23,891	-2.5
of which traffic revenue	€m	22,256	-2.4
EBIT	€m	2,095	43.0
Adjusted EBIT	€m	1,527	1.5
EBITDA*	€m	3,616	30.7
Adjusted EBIT margin	%	6.4	0.3 pts
EACC	€m	1,004	142.5
ROCE	%	13.3	3.8 pts
Segment capital expenditure	€m	1,866	-15.2
Employees as of 31.12.	number	54,308	-1.7

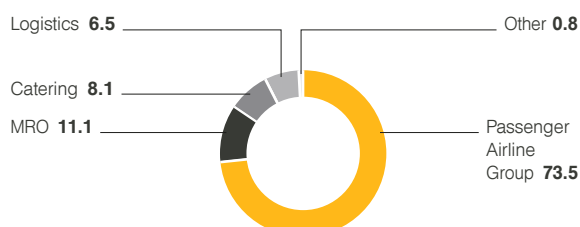
T003 Logistics		2016	Change in %
Revenue	€m	2,084	-11.5
of which traffic revenue	€m	1,986	-12.7
EBIT	€m	-64	
Adjusted EBIT	€m	-50	
EBITDA*	€m	44	-71.6
Adjusted EBIT margin	%	-2.4	-5.5 pts
EACC	€m	-105	-45.8
ROCE	%	-4.3	-4.5 pts
Segment capital expenditure	€m	29	-75.0
Employees as of 31.12.	number	4,568	-0.8

T004 MRO		2016	Change in %
Revenue	€m	5,144	0.9
of which external revenue	€m	3,517	8.0
EBIT	€m	410	-8.5
Adjusted EBIT	€m	411	-9.5
EBITDA*	€m	517	-6.2
Adjusted EBIT margin	%	8.0	-0.9 pts
EACC	€m	142	-10.1
ROCE	%	8.5	-2.1 pts
Segment capital expenditure	€m	216	40.3
Employees as of 31.12.	number	20,839	0.9

T005 Catering		2016	Change in %
Revenue	€m	3,194	5.7
of which external revenue	€m	2,550	6.9
EBIT	€m	60	-29.4
Adjusted EBIT	€m	104	5.1
EBITDA*	€m	166	0.0
Adjusted EBIT margin	%	3.3	0.0 pts
EACC	€m	-15	-87.5
ROCE	%	3.5	-1.5 pts
Segment capital expenditure	€m	73	-50.7
Employees as of 31.12.	number	35,530	3.6

* Without Group-internal profit and loss transfer / investment income.

C01 Business segments' share of Group revenue in %



Key figures
Lufthansa Group
overview

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To our shareholders

Letter from the Executive Board

Ladies and gentlemen,

Despite numerous challenges, the Lufthansa Group achieved a good result in 2016. In an environment marked by great uncertainty, we met our financial targets and made great progress in implementing our strategic agenda.

Our company is in a better position at the close of the financial year than it was at the beginning: our equity ratio increased by 2.6 percentage points, we improved free cash flow by 36.5 per cent and reduced the Lufthansa Group's total costs excluding fuel costs by 3.2 per cent; in the course of our fleet renewal, our flight operations successfully integrated a new, state-of-the-art aircraft into the Group fleet almost every week and we have stabilised the yield development by means of targeted capacity and steering measures. We have continued to improve the travel experience for our customers by enhancing and increasingly personalising the products and services. And not least, the wet-lease agreement with Air Berlin and the complete takeover of Brussels Airlines have contributed significantly to consolidating Eurowings' market position as the biggest point-to-point airline in our home markets. With the successful signing of the commercial joint venture agreements with Air China and Singapore Airlines, we are also sustainably strengthening our market position on routes between Europe and Asia. Around 70 per cent of our long-haul revenues is now secured for the long term through leading commercial partnerships.

The Lufthansa Group's service companies showed a stable development in 2016. They also operate in a market environment that is characterised by change and consolidation. All of the operating segments are implementing targeted efficiency programmes and profitable growth initiatives. Lufthansa Technik agreed on competitive conditions with the ver.di trade union, which has made it possible to safeguard jobs in engine overhaul at the Hamburg site. The LSG group is redesigning its business model, changing its portfolio and transforming its European business comprehensively. Lufthansa Cargo is addressing the massive over-capacities in the market by restructuring the company.

At the passenger airlines, Lufthansa Passenger Airlines performed particularly well – both in terms of earnings and by signing a long-term collective agreement with the UFO flight attendants' union, which also comprises the transition to a modernised pension system for its cabin crew. SWISS successfully overcame the particular challenges of the Swiss market and began to renew its fleet and cabin layouts. Austrian Airlines also continued the modernisation of its fleet and improved its competitiveness. Eurowings achieved rapid growth and successfully started its long-haul operations. Through the transactions aforementioned, Eurowings will actively contribute to the consolidation in the market and to the reduction of capacities as a key player in the European airline industry.

We are pleased that the Lufthansa Group was able to generate an overall stable Adjusted EBIT margin in the reporting year. With Adjusted EBIT of EUR 1.8bn, we were the only major European airline group to meet our original targets for the year, and thereby again added value for our shareholders. In view of this, the Supervisory Board and Executive Board of the Lufthansa Group propose the distribution of a dividend of EUR 0.50 per share for the financial year 2016, in line with the current dividend policy. With a distribution of 4.1 per cent based on the closing share price for the year, the Lufthansa Group is again one of the companies with the most attractive dividend yields in the DAX.

Two experienced external managers will join the Executive Board of the Lufthansa Group in 2017. Ulrik Svensson started work as Chief Financial Officer on 1 January. Thorsten Dirks will assume responsibility for Eurowings and Aviation Services as of 1 May. In this new formation, we continue to pursue the unchanged goal of being the first choice for our customers, employees and shareholders.

A challenge in the year ahead remains to convince all those employees of the Lufthansa Group who have not yet made an active contribution to the required evolution that change is required. This is because after the safety of our passengers, securing our future viability is our most important task.

Given the significant increase in fuel costs, we currently do not expect that we will be able to maintain the earnings level of the past two years in 2017. However, our successful cost-cutting measures will at least help to offset some of the ongoing decline in unit revenues at the airlines and rising fuel costs.

Thank you for your continued trust and your support!

Frankfurt, March 2017



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



Harry Hohmeister

Member of the Executive Board Hub Management

Born in 1964, diploma in commercial air transport, Executive Board member since 2013, with the Lufthansa Group since 1985

Dr Bettina Volkens

Member of the Executive Board Corporate Human Resources and Legal Affairs

Born in 1963, lawyer, Executive Board member since 2013, with the Lufthansa Group since 2012

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 and Chief Financial Officer

Born in 1961, B.Sc. in Economics, Executive Board member since 2017, with the Lufthansa Group since 2017

Karl Ulrich Garnadt

Member of the Executive Board Eurowings and Aviation Services

Born in 1957, diploma in commercial air transport, Executive Board member since 2014, with the Lufthansa Group since 1979

To our shareholders

Report of the Supervisory Board



Wolfgang Mayrhuber,
Chairman of the Supervisory Board

Ladies and gentlemen,

In the financial year 2016, the Supervisory Board again carried out the duties conferred on it by statute, the Company's Articles of Association and its internal regulations: to appoint the members of the Executive Board, to supervise their work and to advise them. The Executive Board's reporting obligations and the requirement to draw up a list of transactions requiring authorisation are defined by law and have been codified in internal regulations.

The Executive Board provided us with full, timely information on the competitive environment, planned Company policy as well as all significant strategic and operating decisions. Larger items of projected capital expenditure and equity investments as well as planned Group financing activities were coordinated with us. As Chairman of the Supervisory Board, I read the minutes of the Executive Board meetings and discussed the current course of business with the Chief Executive Officer on an ongoing basis.

In 2016, the Supervisory Board held a total of six meetings, on 16 March, 27 April, 9 June, 1 July, 28 September and 7 December. In December, we carried out the regular review of the efficiency of our working practices and together with the Executive Board issued an updated declaration of compliance with the German Corporate Governance Code, which can be found on the Lufthansa Group website at www.lufthansa-group.com/declaration-of-compliance.

Our meetings focused on the economic development of Deutsche Lufthansa AG and its associated companies and on the strategy of the Lufthansa Group. Particular attention was paid to the burden put on the business by repeated pilot strikes at Lufthansa Passenger Airlines, the status of the "7to1 – Our Way Forward" strategic programme, as well as capacity increases and the various possibilities for exploiting growth options at Eurowings.

We approved the acquisition and lease of one Boeing 777 aircraft each for Swiss International Air Lines and Austrian Airlines respectively and the procurement by Lufthansa Technik of up to eleven PW1100G reserve engines. Approval was also given to exercise the call option for the purchase of the remaining 55 per cent of shares in SN Airholding SA/NV, to wet-lease agreements for a total of 38 aircraft with Air Berlin PLC & Co. KG and to a joint venture between Lufthansa Technik AG and MTU Aero Engines AG.

For formal reasons, Ms Christine Behle notified us of a conflict of interest in connection with the strike by public sector workers organised by the ver.di trade union in April 2016 and the associated disruptions to the Lufthansa Group's flight operations at various German airports. The conflict of interest was not permanent, however, and had no further consequences. No other potential conflicts of interest were disclosed in 2016.

No member of the Supervisory Board was present at only half or fewer of the meetings of the Supervisory Board or the Supervisory Board committees. The attendance of members at the meetings of the Supervisory Board and its committees was 99 per cent overall.

The Executive Board 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. The disclosures required by takeover law made in the combined management report by the Executive Board in accordance with Sections 289 Paragraph 4 and 315 Paragraph 4 of the German Commercial Code require no further comment.

In an extraordinary meeting held on 1 July 2016, the Supervisory Board adopted the corresponding proposal from the Steering Committee and appointed Mr Ulrik Svensson as a member of the Executive Board and CFO with effect from 1 January 2017. Mr Svensson succeeds Ms Simone Menne, who left the Company at the end of August 2016 at her own request. At the recommendation of the Steering Committee, the Supervisory Board agreed to this request in an extraordinary meeting on 9 June 2016. In her four years at the Company, Ms Menne secured the financial backing for the Lufthansa Group's growth with great commitment and expertise, thereby making a crucial contribution to the development of our Company.

Also at the recommendation of the Steering Committee, at its meeting on 7 December 2016, the Supervisory Board appointed Mr Thorsten Dirks as a member of the Executive Board with responsibility for Eurowings and Aviation Services with effect from 1 May 2017. Mr Dirks succeeds Mr Karl Ulrich Garnadt, who will no longer be available to extend his contract, which ends on 30 April 2017, for reasons of age. Mr Garnadt looks back on a successful and varied career at Lufthansa of a total of 38 years. In his three years as a member of the Executive Board of Deutsche Lufthansa AG, he was primarily responsible for pushing forward the development of Eurowings and its integration into the Lufthansa Group, thereby making a crucial contribution to the development of our Company.

Last year, the Supervisory Board established a target quota for female members of the Executive Board of 30 per cent, and set a first deadline for achieving this target of 31 December 2016. Due to the vacant CFO position, the quota of women on the Executive Board came to 25 per cent as of 31 December 2016; when Mr Svensson joined on 1 January 2017, it came to 20 per cent. As of the reporting date, it was therefore no longer possible to meet the target quota, which, at 40 per cent, had been achieved until Ms Menne left. In the search for successors to Ms Menne and Mr Garnadt, particular attention was paid to female candidates, and indeed a woman was on the shortlist of the four most suitable candidates for each post. However, considering the requirements of each position and the personalities, professional experience, successes and skills of the candidates, Mr Svensson and Mr Dirks proved to be the best choice for the Company.

For the period from 1 January 2017, the Supervisory Board has confirmed the basic target of 30 per cent for the proportion of women on the Executive Board and has set 31 December 2021 as a deadline for meeting this target.

The Arbitration Committee did not have to be convened in the reporting period. The Steering Committee met seven times in 2016 and the Nomination Committee once.

The Audit Committee met seven times in 2016, with four of the meetings in the presence of the auditors. The Audit Committee discussed the interim reports 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. The members received regular reports on risk management, compliance and the work of the Group's audit department. Also discussed in detail were the difficult economic situation in the Logistics segment, the effects of the low discount rate on the balance sheet structure and the investment grade rating, the Group operational planning for 2017 to 2019, the financial consequences of exercising the call option for the remaining 55 per cent of the shares in SN Airholding SA/NV, the opportunities and risks of signing wet-lease agreements for a total of 38 aircraft with Air Berlin PLC & Co. KG and the issue of "cybersecurity".

Information on the committees' work was provided at the beginning of the following Supervisory Board meeting.

Dr Nicola Leibinger-Kammüller resigned her seat on the Supervisory Board at the close of the Annual General Meeting on 28 April 2016. She was a member of the Supervisory Board for eight years and, as the managing partner of a leading global family company in the prestigious German mechanical engineering industry, she brought much of her personal experience to her contributions to discussions in the Supervisory Board, always representing the interests of the Company, the shareholders and the employees. The Supervisory Board thanks her for her advice and her loyal support. Martina Merz was elected to succeed her on the Supervisory Board.

We appointed PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Dusseldorf, who were elected as auditors for the parent company and the Group at the Annual General Meeting 2016, 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.

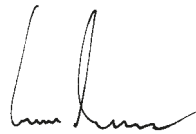
The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), taking account of interpretations by the IFRS Interpretations Committee as applicable in the European Union (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 2016 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 in contradiction with the declaration of compliance.

In early March 2017, 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 the auditors reported on their audit findings and answered questions. We examined in detail the financial statements and the consolidated financial statements of Deutsche Lufthansa AG as well as the combined management report and

had no objections to make. The financial statements and the consolidated financial statements were approved. The 2016 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.

Despite the difficult environment, the Group was able to close the financial year 2016 with a good result from a long-term perspective. The Supervisory Board thanks the Executive Board and all of the employees of the Lufthansa Group for their work and their great personal commitment.

Frankfurt, 15 March 2017



For the Supervisory Board
Wolfgang Mayrhofer, Chairman

Lufthansa share

✂ Lufthansa share performs better than most competitors, but underperforms against the DAX. / Total shareholder return of –12.3 per cent. / Dividend may again be paid out as scrip dividend. / Transparent communication and intensive dialogue with the capital markets is continued.

Share recovers in the fourth quarter after a difficult year for stock markets

The performance of the Lufthansa share was largely influenced by geopolitical developments in 2016. These included political events such as Brexit as well as several terrorist attacks in various European cities. In the second and third quarters especially, these resulted in weak demand from leisure travellers, particularly on long-haul connections from Asia and America to Europe. At the end of the first half of 2016, the Lufthansa share was down 27.7 per cent on year-end 2015. The DAX index fell by 9.9 per cent over the same period.

On 20 July 2016, the difficult environment prompted a reduction in the earnings forecast, although the results for the first half-year were up on the previous year. This again weighed heavily on the share price in the third quarter (–5.9 per cent). However, the steering and capacity measures taken in the meantime were able to improve business performance by more than had initially been expected. Accordingly, on 19 October 2016 the forecast was raised again. The share price then recovered in the fourth quarter (+23.9 per cent).

The Lufthansa share reached its peak for the year on 16 March 2016 at EUR 15.29. The low for the year was EUR 9.30 on 7 October 2016. As of year-end, the Lufthansa share traded at EUR 12.27.

Hence it fell by a total of 15.8 per cent in 2016. The total shareholder return, which includes the dividend distribution, was –12.3 per cent. Although the performance of the Lufthansa share was weaker than that of the DAX index (+6.9 per cent), it still significantly outperformed its main European competitors.

Executive Board and Supervisory Board propose dividend of EUR 0.50 per share

At the Annual General Meeting for 2016, the Executive Board and Supervisory Board of Deutsche Lufthansa AG will propose the distribution of a dividend of EUR 0.50 per share, in line with the current dividend policy. This represents a dividend yield of 4.1 per cent based on the Lufthansa share's closing price for the year, making the Lufthansa Group one of the companies with the highest dividend yield in the DAX.

The dividend ratio is 10.3 per cent of EBIT and 13.4 per cent of Adjusted EBIT. The proposed dividend is therefore on a par with last year, given that the operating result, without adjustment for non-recurring and, in particular, non-cash effects, is also at a similar level.

As was the case last year, shareholders will have the option of receiving this dividend in the form of shares as a scrip dividend.

T006 The Lufthansa share: key figures

		2016	2015	2014	2013	2012
Year-end share price	€	12.27	14.57	13.83	15.42	14.24
Highest share price	€	15.29	15.35	20.26	17.10	14.47
Lowest share price	€	9.30	10.48	10.88	12.93	8.02
Number of shares	millions	468.8	464.5	462.8	461.1	459.9
Market capitalisation (at year-end)	€bn	5.8	6.7	6.4	7.1	6.5
Earnings per share	€	4.46	3.67	0.12	0.68	2.68
Cash flow from operating activities per share	€	6.92	7.30	4.27	7.15	6.20
Dividend per share	€	0.50	0.50	–	0.45	–
Dividend yield (gross)	%	4.1	3.4	–	2.9	–
Dividend	€m	234.4	232.3	–	207.5	–
Total shareholder return	%	–12.3	5.3	–7.4	8.3	57.7

To our shareholders

Lufthansa share

Majority of analysts see Lufthansa share as a sell

At year-end, three analysts recommended buying the Lufthansa share and eight to hold it. Sixteen out of 27 analysts advised selling the share. The average target price was EUR 10.50.

C02 Analysts' recommendations* as of 31.12.2016



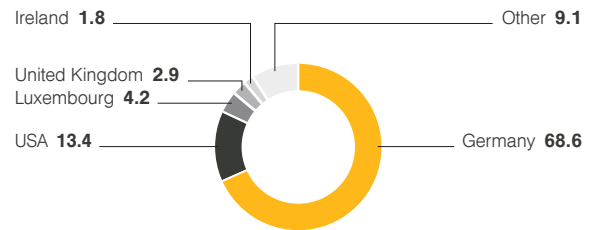
* Average target price: EUR 10.50, average of 24 analysts.
Range: EUR 8.10 up to EUR 15.00.

Foreign share ownership and structure of major shareholders remain stable

In order to protect international air traffic rights and its operating licence, the German Aviation Compliance Documentation Act (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 2016, the shareholders' register showed that German investors held 68.6 per cent of the shares (previous year: 74.9 per cent). The second largest group, with 13.4 per cent, were shareholders from the USA. Investors from Luxembourg accounted for 4.2 per cent, followed by the United Kingdom and Ireland, with 2.9 per cent and 1.8 per cent respectively. This ensures continued compliance with the provisions of the German Aviation Compliance Documentation Act (LuftNaSiG).

C04 Shareholder structure by nationality as of 31.12.2016 in %



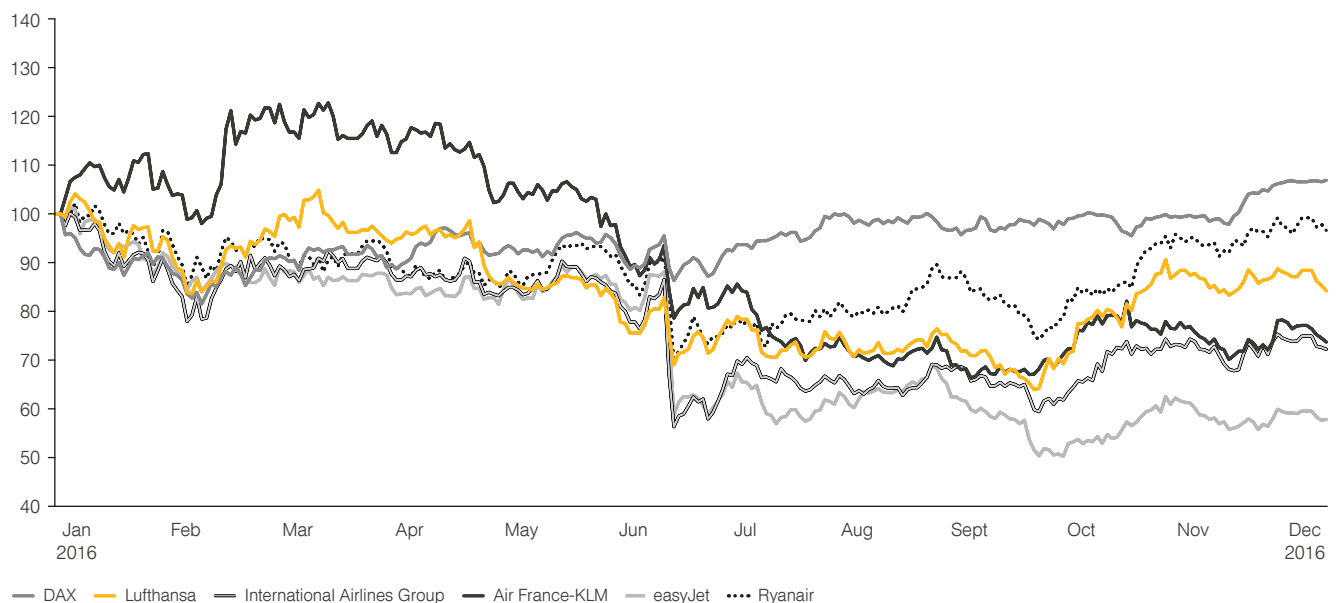
Free float: 100%

The free float for Lufthansa shares is 100 per cent, as per the definition of Deutsche Börse. As of the reporting date, 54.5 per cent (previous year: 53.9 per cent) of the shares were held by institutional investors and 45.5 per cent (previous year: 46.1 per cent) by private individuals.

Templeton Global Advisors remained unchanged the largest shareholder in the Lufthansa Group at year-end 2016, with its holding at 9.95 per cent (year-end 2015: 5.00 per cent).

All the transactions requiring disclosure and published during the financial year 2016, as well as the quarterly updates on the shareholder structure, can be viewed on our website at www.lufthansagroup.com/investor-relations.

C03 Performance of the Lufthansa share, indexed as of 31.12.2015, compared with the DAX and competitors, in %



T007 The Lufthansa share: data

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

Lufthansa share 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 0.61 per cent. With a market capitalisation of EUR 5.8bn at year-end, the Lufthansa Group came in at number 37 (previous year: 34) in the ranking of DAX companies by market capitalisation. In terms of stock market turnover, the Lufthansa share remained at number 20. The transaction volume came to EUR 15.8bn (previous year: EUR 20.9bn).

The Lufthansa share is listed internationally in many stock market indices as well as in the MSCI Global Sustainability, FTSE4Good and ECPI sustainability indices.

In addition to its stock market listings in Germany, investors can also gain exposure to the Lufthansa Group via the Sponsored American Depository Receipt Program (ADR). Since late 2011, the Lufthansa ADRs have been registered on the standardised trading and information platform OTCQX.

Lufthansa Group pursues intensive dialogue with investors

As in prior years, the Lufthansa Group again provided its investors with comprehensive information about the main elements of the Company's performance in 2016. In the reporting year and in addition to the quarterly meetings, the Executive Board and Investor Relations team presented institutional investors with information about current developments at the Group at 38 roadshows, 21 investor conferences and one "Expert Session" about Eurowings. This involved more than 350 one-on-one and group meetings. Our investor relations representatives were regularly available to answer questions at four forums organised especially for retail investors. The service for private shareholders also includes the shareholder information letter, which was again published twice in 2016 and can be retrieved on the Investor Relations website. The site also contains the financial calendar and the dates of all the conferences and shareholder events that the Lufthansa Group will be attending.

In addition to the annual and interim reports, the capital markets are provided with monthly information on the traffic figures for the Lufthansa Group's airlines. All the publications, financial reports, presentations, background information, speeches and the latest news can also be found at www.lufthansagroup.com/investor-relations.

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Principles of the Group

Business activities and Group structure

✂ The Lufthansa Group is one of the world’s leading aviation companies.

/ Business segments hold leading market positions in their sectors. /

Vacancies on the Executive Board have been filled.

Lufthansa Group is a leading aviation group

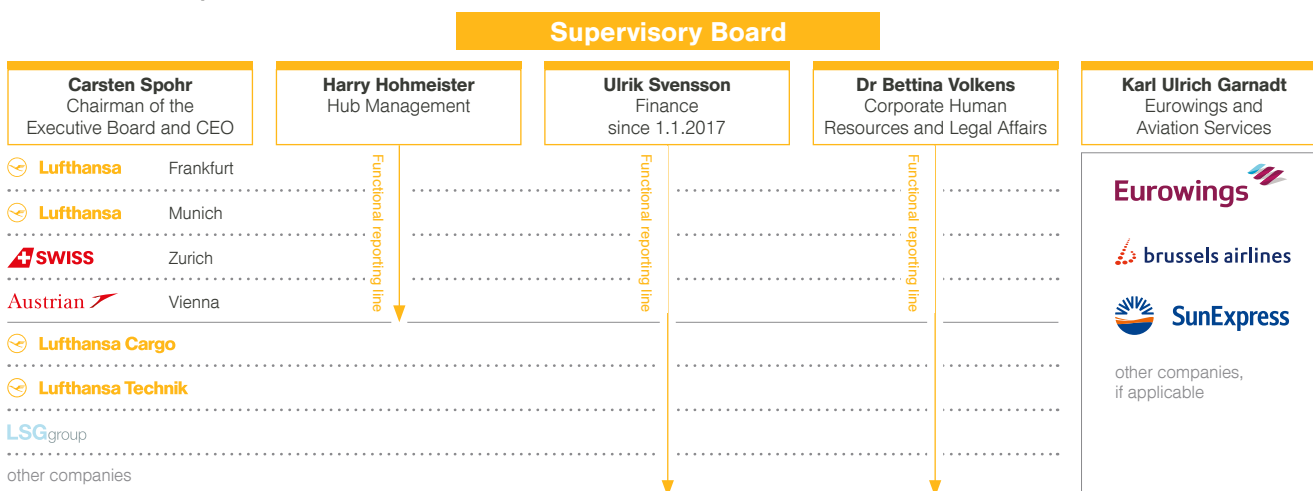
The Lufthansa Group is a global aviation group with a total of more than 550 subsidiaries and equity investments. In the financial year 2016, they were structured into the Passenger Airline Group, Logistics, MRO, Catering and Other segments. All segments occupy a leading position in their respective markets. In 2016, the Lufthansa Group generated revenue of EUR 31.7bn and employed an average of 123,287 employees.

Division of responsibilities in the Executive Board remains unchanged

The division of responsibilities in the Executive Board remains largely unchanged. Carsten Spohr chairs the Executive Board.

Harry Hohmeister is responsible for the commercial management of the network airlines Lufthansa Passenger Airlines, SWISS and Austrian Airlines. The Finance function was headed by Simone Menne until 31 August 2016. She was succeeded by Ulrik Svensson on 1 January 2017. Responsibility for the Corporate Human Resources and Legal Affairs function remains with Dr Bettina Volkens. In the Eurowings and Aviation Services function, Karl Ulrich Garnadt’s responsibilities include point-to-point traffic in the Eurowings group as well as Brussels Airlines and SunExpress. Once his appointment comes to an end on 30 April 2017, Karl Ulrich Garnadt will step down from the Executive Board. He will be succeeded in the same role by Thorsten Dirks, as of 1 May 2017.

C05 Lufthansa Group structure



Legal and regulatory factors

Lufthansa Group subject to a variety of influencing factors

The Lufthansa Group and its business segments are subject to numerous, complex legal and regulatory standards. The formal demands made of the Company are constantly increasing all the time. This applies to legislation from various areas, such as that relating to financial law, consumer protection and corporate governance, as well as to general requirements for avoiding

liability risks. Of particular relevance for the Lufthansa Group in this matter are the night-flight ban at Frankfurt Airport, consumer protection regulations, EU emissions trading, national air traffic taxes, 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 in other industries.

Goals and strategies

- ✈ Corporate strategy is based on three synergetic pillars: network airlines, point-to-point airlines and aviation services. / Focus on expanding premium positioning and increasing profitability. / Innovation and digitalisation along the value chain are important drivers. / “7to1 – Our Way Forward” strategic programme contributes to profitable growth. / Financial stability ensures independence and room to manoeuvre.

Group strategy

Extending position as a leading aviation group

The goal of the Lufthansa Group is to be the first choice in aviation for customers, employees, shareholders and partners. Going forward, the Lufthansa Group therefore intends to continue playing a significant role in shaping the global aviation market. In this context, the strategy aims to systematically develop the Group based on the three pillars of network airlines, point-to-point airlines and aviation services.

The three pillars benefit from mutual synergies and economies of scale across business segments. Lufthansa Cargo, for example, transports a large proportion of its freight in the belly capacities of the Lufthansa Group’s passenger aircraft. Lufthansa Technik, in turn, has access to maintenance licences for modern aircraft, which are negotiated with the OEMs when the Group airlines order new aircraft.

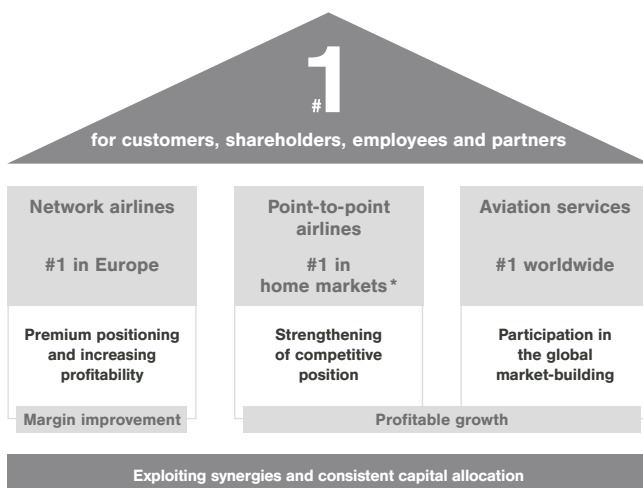
The development of new products and business models in line with the increasing digitalisation of the entire aviation value chain forms a key aspect of Group strategy and is being driven forward across all business segments.

On this basis, the aim is to safeguard the Lufthansa Group’s position as a leading aviation company in a dynamic market environment and to ensure its profitable growth.

To reach this target, the successful “7to1 – Our Way Forward” strategic programme is being continued. It addresses both external trends – such as changing value chains, increasing digitalisation and differentiated customer expectations – as well as internal challenges. The programme’s seven action areas are being implemented both within the individual segments and across them. At the same time, some of the operating segments have set up individual programmes to increase efficiency and cut costs.

Adapting their products and services in line with ever changing customer needs is a core task for all the companies in the Lufthansa Group. In doing so, it is vitally important to maintain their premium positioning. Certain local cost disadvantages compared with competitors from other markets are therefore to be offset by a strategy that aims for the highest quality.

C06 The setup of the Lufthansa Group: three strong pillars



* Germany, Austria, Switzerland and Belgium.

C07 “7to1 – Our Way Forward”



Network airlines expand their premium positioning and optimise costs

The quality strategy is especially relevant for the positioning of the network airlines and addresses the needs of high-quality potential customers in their home markets. The focus is therefore on further improving the travel experience, optimising the route network and fleet and reducing costs.

The travel experience for the customer will be improved, especially through greater personalisation of the products and services along the entire travel chain. This also enables the Lufthansa Group to open up new revenue potential for the airlines. In addition, the service at all points of customer contact will be enhanced and continuously improved. In order to keep offering leading product quality, the Lufthansa Group will continue to invest in its fleet. The network airlines are growing largely by replacing older aircraft with more recent models with higher seating capacities and greater fuel efficiency, without significantly increasing the total number of aircraft. That also reduces unit costs. Strategic cooperations and partnerships are intended to supplement the flight plans, which delivers a greater added value for customers. Today, the network airlines in the Lufthansa Group already have commercial joint ventures with the most attractive partners for them in the five largest long-haul markets.

Comprehensive cost-cutting is continuing, especially in areas that have no effect on customers' perceptions of quality. They include pooling the organisational structures of the network airlines and systematically harmonising their commercial management and system landscape, cutting supplier costs and those for infrastructure providers as well as restructuring wage agreements.

Eurowings plans profitable growth in point-to-point traffic

With Eurowings, the Lufthansa Group has an innovative and competitive offering in point-to-point traffic, which addresses both price-sensitive and service-oriented customers with low-cost basic fares and additional service options that can be booked flexibly. In addition to its greater efficiency and competitive costs, the Eurowings concept is based on a scalable company structure that enables the flexible integration of new partners with a variety of cooperation models. To do so, the Eurowings group uses different production platforms. More platforms will be added in 2017, with additional capacities on the wet lease from Air Berlin and with the complete takeover of Brussels Airlines. Significant cost savings are to be achieved in the years ahead, especially by consolidating the different platforms. Further key drivers of cost reductions include standardising and streamlining processes. This ensures the company's sustained and successful development, especially in a market dominated by intense cost competition.

The aim is to grow profitably, through organic growth and via partnerships and acquisitions, and to become the third largest provider of direct flights in Europe and the leader in this market segment in the Lufthansa Group's home markets. Eurowings deliberately occupies markets in which it already has a particularly

strong competitive position, in order to offer local customers the broadest network as possible, with high-frequency connections to primary destinations.

Eurowings is an integral part of the Lufthansa Group and is managed largely separately from the Group's network airlines, in order not to dilute the structural cost advantages of the point-to-point model. At the same time, it benefits from belonging to the world's largest aviation group, with its wide range of aviation services. Eurowings can therefore establish a successful position in its highly competitive market environment.

Leading position in aviation services to be secured and profitable growth generated

With the aviation services companies, the Lufthansa Group has several global leaders in their respective markets. These companies can exploit further growth opportunities – organic, via partnerships or through acquisitions – in a targeted way in order to secure the Lufthansa Group's leading position in their respective markets. The diversification of its portfolio of airlines and aviation services constitutes a key strength of the Lufthansa Group. It enables synergies within the Group to be exploited and provides a buffer to offset the cyclical airline business.

Customer focus and quality are also the watchwords in aviation services. Customers of Lufthansa Cargo, for example, benefit from innovative logistics services in an expanded route network. Lufthansa Technik is extending its range by refining its products and services and further expanding its global presence. In the highly competitive airline business, the customers of the LSG group benefit from flexible and individual catering offers that provide effective support for their own services and brands.

To continue delivering profitable growth, the aviation services in the Lufthansa Group continually adapt their business models to changes in value chains and competitive conditions. Extensive individual efficiency programmes secure commercial success at the same time.

Synergies between the three pillars of the Lufthansa Group are exploited systematically. This enables the Lufthansa Group to move faster, more efficiently and more profitably and to further sharpen its focus on customers.

Financial strategy

Financial strength creates sustainable competitive advantages and trust

The core of the financial strategy is to safeguard the Lufthansa Group's strong financial profile, credit rating and thereby its financial stability. The financial strategy aims to support and promote the strategic and operating performance of the Company and to ensure access to capital and to favourable financing conditions at all times.

Combined management report

Principles of the Group
Goals and strategies
Fleet and route network

To achieve this, the Group systematically pursues the following strategic targets:

- **Maintain a good credit rating:** The aim is to maintain the existing investment grade rating, by aiming for a debt repayment ratio of between 35 per cent and 45 per cent, as a rule. The debt repayment ratio is derived from the requirements of the rating agencies for an investment grade rating and is a measure of the Group's ability to service its debt. The debt repayment ratio also considers the Group's pension provisions, among other things. Because of the way that the pension obligations are measured as of the reporting date in accordance with IFRS, the debt repayment ratio is also dependent on external factors (interest rate), which may cause this figure to fluctuate heavily.
- **Ensure adequate liquidity:** The aim is to have liquidity of at least EUR 2.3bn at all times. This enables liquidity and refinancing risks to be reduced in volatile customer and financial markets. All of the Group companies' cash flows are collected, centrally managed and optimised via an integrated financial management function.
- **Maintain a stable capital structure:** The aim is to achieve an equity ratio of 25 per cent in the medium term. The intention is to achieve this target by retaining appropriate profits and continuing the successive funding of pension obligations. Measuring pension obligations as of the reporting date and measuring hedging transactions also affects the equity ratio, which is therefore likewise subject to great volatility.
- **Maintain a largely unencumbered fleet:** The aim is to ensure a high degree of financial and operating flexibility for the Lufthansa Group. The vast majority of the aircraft fleet should remain unencumbered and wholly owned by the Lufthansa Group.
- **Hedge against external financial risks:** The aim is to minimise the Lufthansa Group's financial risks by means of integrated risk management procedures based, in particular, on hedging fuel, foreign exchange rate and interest rate risks. Rule-based procedures enable price fluctuations to be smoothed.
- **Shareholders participate in the Company's success:** The dividend policy aims to maintain a regular dividend payout ratio of 10 to 25 per cent of consolidated EBIT. One condition is that a distribution of this amount is covered by the net profit for the year as shown in the individual financial statements of Deutsche Lufthansa AG as drawn up under German commercial law and that there are no other reasons not to pay a dividend. In addition to the regular dividend payment, the dividend policy also allows for shareholders to participate in a particularly positive performance by the Company by means of a special dividend or share buy-back.
- **Secure favourable conditions by means of diversified funding sources:** By optimising the financing mix, the aim is to reduce the cost of funding and to maintain a balanced term structure and a diversified portfolio of investors and lenders. Key financing instruments include aircraft financing vehicles and unsecured funding, such as borrower's note loans and traded bonds. Furthermore, the Lufthansa Group has credit lines with a large number of banks, which serve as an additional liquidity reserve.

Fleet and route network

✂ Fleet can be adapted flexibly to fluctuations in demand. / Aircraft orders for delivery by 2025 optimise the fleet structure. / Extensive route network optimised continuously.

Fleet

Fleet structure is optimised continuously

At year-end 2016, the Lufthansa Group fleet consisted of 617 aircraft with an average age of 11.3 years. This is 17 aircraft more than the previous year, following a decline of 15 aircraft in 2015. Aircraft from Airbus and Boeing make up the majority of the fleet. Aircraft from Bombardier, Embraer, Fokker and BAE Systems are also

deployed on short and medium-haul routes. In recent years, the number of aircraft types in operation has been continuously reduced through a corresponding fleet strategy and will continue to go down further in the years ahead.

T008 Fleet orders Lufthansa Group

		Deliveries
Long-haul fleet		
34	Boeing 777X	2020 to 2025
4	Boeing 777-300ER	2017 to 2018
24	Airbus A350	2017 to 2023
Short-haul fleet		
7	Airbus A320 family	2017
111	Airbus A320neo family	2017 to 2025
25	Bombardier C Series	2017 to 2018

A total of 47 new aircraft, including eight long-haul aircraft, were delivered to the Lufthansa Group in 2016. One Airbus A350-900 went to Lufthansa Passenger Airlines, while six Boeing 777-300ERs and one A330-300 went to SWISS. Deutsche Lufthansa AG also took out operating leases on four A330 aircraft currently flying for Eurowings. Five Bombardier CS100s and 34 aircraft from the A320 family, including five A320neo, were delivered to the airlines in the Lufthansa Group for the short and medium-haul fleets.

At year-end 2016, the Lufthansa Group's order list contains 205 aircraft for delivery by 2025. In 2017, the Lufthansa Group is expecting to take delivery of up to 38 aircraft. Eurowings will also

deploy 33 aircraft in 2017, and Austrian Airlines five aircraft on wet leases from Air Berlin. The complete takeover of Brussels Airlines added another 47 aircraft to the Lufthansa Group fleet at the beginning of 2017.

The majority of the fleet is owned by the Lufthansa Group, and is supplemented by a small proportion of leased aircraft. The vast majority of the fleet is unencumbered. New as well as used aircraft are considered for future purchases. This enables the Company to respond flexibly to fluctuations in demand and to increase or reduce its capacity at short notice.

Route network

Lufthansa Group offers extensive route network

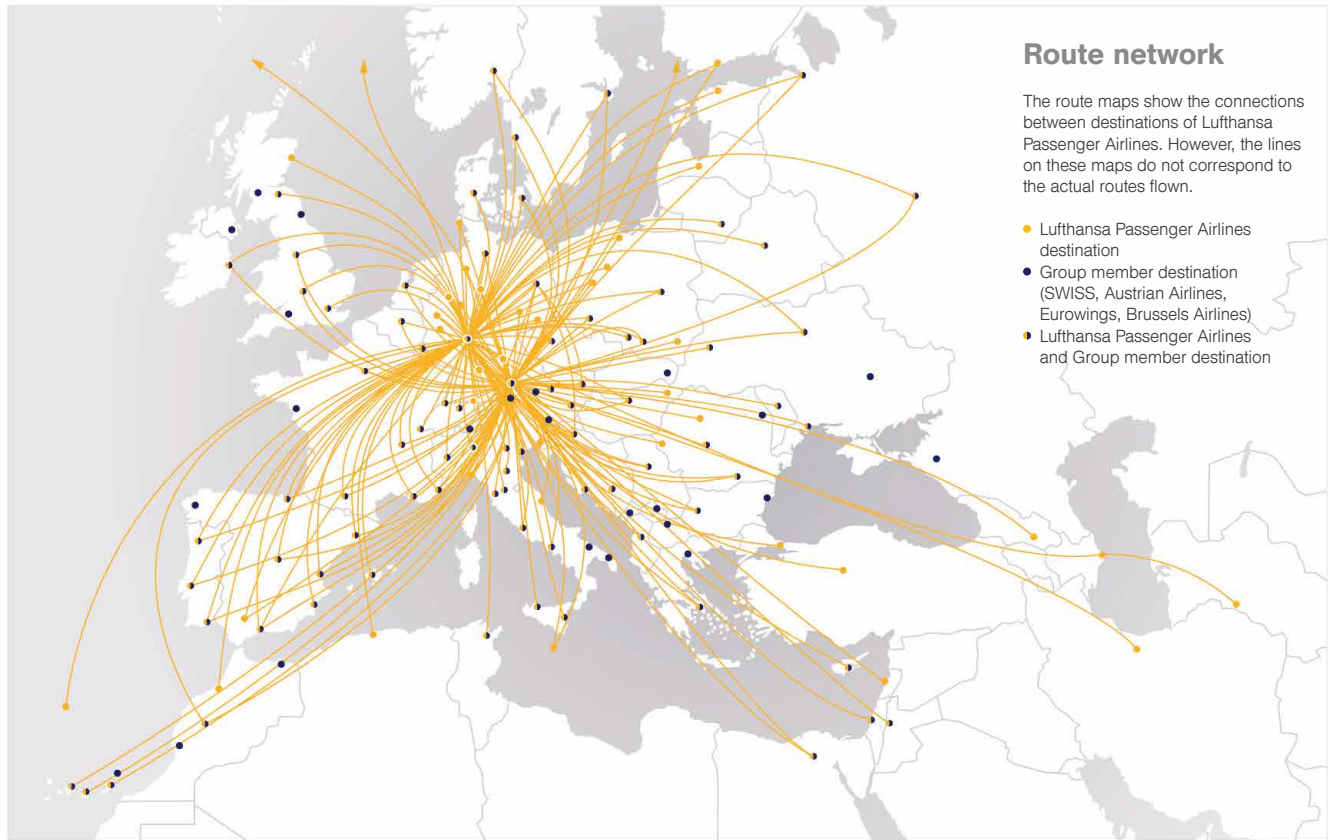
As part of the multi-hub strategy, the network airlines Lufthansa Passenger Airlines, SWISS and Austrian Airlines offer a broad range of flights from their hubs in Frankfurt, Munich, Zurich and Vienna. It is complemented by the networks of the alliance and joint venture partners, which offer extensive transfer connections. Eurowings provides a comprehensive range of point-to-point connections, particularly from German-speaking countries. In the 2016 summer flight timetable, the Lufthansa Group airlines operated a route network comprising 301 destinations in 100 countries overall.

T009 Group fleet – Number of commercial aircraft and fleet orders

Lufthansa Passenger Airlines inclusive regional airlines (LH), SWISS inclusive Edelweiss (LX), Austrian Airlines (OS), Eurowings (EW) inklusive Germanwings and Lufthansa Cargo (LCAG) as of 31.12.2016

Manufacturer / type	LH	LX	OS	EW	LCAG	Group fleet	of which finance lease	of which operating lease	Change compared with 31.12.2015	Additions 2017 to 2025	Additional options
Airbus A319	30	5	7	43		85	12	4	–		
Airbus A320	73*	28	18	35		154	17	3	33	73	50
Airbus A321	64	9	6			79	2		1	45	
Airbus A330	25*	17				42	1	6	5		
Airbus A340	42	11				53	1	1	–4		
Airbus A350	1					1			1	24	30
Airbus A380	14					14			–		
Boeing 737	1					1			–13		
Boeing 747	32					32			–		
Boeing 767			6			6	2		–		
Boeing 777		6	5		5	16	1		6	38	20
Boeing MD-11F					14	14			–		
Bombardier CRJ	35*					35			–		
Bombardier C Series		5				5			5	25	30
Bombardier Q Series			18			18			–		
Avro RJ		8				8		3	–8		
Embraer	33		10			43			–		
Fokker F70			3			3			–3		
Fokker F100			8			8			–6		
Total aircraft	350	89	81	78	19	617	36	17	17	205	130

* Partly leased to Eurowings (EW).



Route network




The route maps show the connections between destinations of Lufthansa Passenger Airlines. However, the lines on these maps do not correspond to the actual routes flown.

- Lufthansa Passenger Airlines destination
- Group member destination (SWISS, Austrian Airlines, Eurowings, Brussels Airlines)
- Lufthansa Passenger Airlines and Group member destination






As of December 2016

Group fleet

Lufthansa and regional partners

Airbus A380-800		LH: 14 aircraft 509 seats 12,400 km range
Boeing 747-8		LH: 19 aircraft 364 seats 13,000 km range
Boeing 747-400		LH: 13 aircraft 371 seats 11,850 km range
Airbus A350-900		LH: 1 aircraft 293 seats 12,650 km range
Airbus A340-600		LH: 24 aircraft 297 seats 12,900 km range
Airbus A340-300		LH: 12 aircraft 283 seats 11,800 km range CL: 6 aircraft 300 seats 11,500 km range
Airbus A330-300		LH: 19 aircraft 236 seats 9,850 km range
Airbus A321-100/200		LH: 64 aircraft 200 seats 4,150 km range
Airbus A320-200		LH: 62 aircraft 168 seats 3,200 km range
Airbus A320neo		LH: 5 aircraft 180 seats 3,000 km range

Lufthansa and regional partners

Airbus A319-100		LH: 30 aircraft 138 seats 3,350 km range
Boeing 737-300		LH: 1 aircraft 140 seats 2,000 km range CL: 14 aircraft 120 seats 2,300 km range
Embraer 195		EN: 10 aircraft 120 seats 2,300 km range
Embraer 190		CL: 9 aircraft 100 seats 3,500 km range
Bombardier CRJ900		CL: 29 aircraft 90 seats 2,100 km range

Eurowings and Germanwings

Airbus A330-200		EW: 6 aircraft 310 seats 10,100 km range
Airbus A320-200		EW/4U: 41 aircraft 180 seats 4,000 km range
Airbus A319-100		EW/4U: 43 aircraft 150 seats 2,900 km range
Bombardier CRJ900		EW: 6 aircraft 90 seats 2,100 km range












Lufthansa Cargo

Boeing MD-11F		LH: 14 aircraft 579 m ³ /89,4 t 6,700 km range
Boeing 777F		LH: 5 aircraft 657 m ³ /103 t 8,900 km range









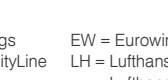


As of December 2016

SWISS and Edelweiss Air

Boeing 777-300ER		LX: 6 aircraft 340 seats 13,650 km range
Airbus A340-300		LX: 10 aircraft 219 seats 13,000 km range
Airbus A330-300		LX: 14 aircraft 236 seats 9,850 km range
Airbus A321-100/200		LX: 9 aircraft 219 seats 2,100 km range
Airbus A320-200		LX: 22 aircraft 180 seats 2,700 km range
Airbus A319-100		LX: 5 aircraft 138 seats 3,350 km range
Bombardier C Series		LX: 5 aircraft 125 seats 2,750 km range
Avro RJ100		LX: 8 aircraft 97 seats 2,150 km range
Airbus A340-300		WK: 1 aircraft 314 seats 11,850 km range
Airbus A330-300		WK: 2 aircraft 315 seats 10,000 km range
Airbus A330-200		WK: 1 aircraft 275 seats 10,800 km range
Airbus A320-200		WK: 6 aircraft 174 seats 4,050 km range

Austrian Airlines

Boeing 777-200ER		OS: 5 aircraft 308 seats 12,100 km range
Boeing 767-300ER		OS: 6 aircraft 214 seats 10,250 km range
Airbus A321-100/200		OS: 6 aircraft 200 seats 4,150 km range
Airbus A320-200		OS: 18 aircraft 168 seats 4,100 km range
Airbus A319-100		OS: 7 aircraft 138 seats 3,350 km range
Embraer 195		OS: 10 aircraft 120 seats 2,300 km range
Fokker 100		OS: 8 aircraft 100 seats 2,100 km range
Fokker 70		OS: 3 aircraft 80 seats 2,250 km range
Bombardier Q Series		OS: 18 aircraft 76 seats 1,350 km range

Range indicated in general with maximum number of passengers or payload, respectively. In part, different versions are in operation.

Legend
 4U = Germanwings EW = Eurowings LX = SWISS
 CL = Lufthansa CityLine LH = Lufthansa Passenger Airlines, Lufthansa Cargo OS = Austrian Airlines
 EN = Air Dolomiti Lufthansa Cargo WK = Edelweiss Air

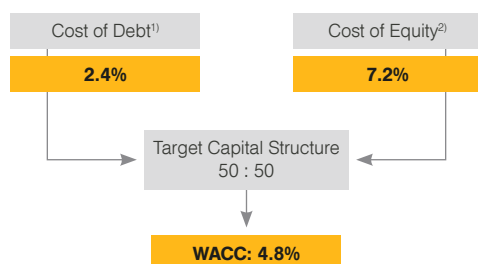
Management system and supervision

- ✂ The Lufthansa Group's ultimate objective is the sustainable increase in company value. / Value-based management is firmly established within the Company. / The Lufthansa Group achieves earnings after cost of capital of EUR 817m in 2016.

Sustainable increase in company value remains ultimate objective

The management of the Lufthansa Group has followed a value-based approach since 1999. Company value is to be increased continuously across business cycles. Value-based management is an integral part of all planning, management and controlling processes. The performance-related pay for managers is also directly linked to the Company's economic performance.

C08 Weighted Average Cost of Capital 2016



¹⁾ Consideration of tax shield.

²⁾ Cost of Equity = Risk-free market interest rate of 1.7% + (Market risk premium of 5.0% x Beta factor of 1.1).

The value creation of the Lufthansa Group and the individual companies is measured using earnings after cost of capital (EACC). The basis for calculating EACC is EBIT (earnings before interest and taxes). EBIT has to be sufficient to cover the taxes due on earnings and the return expected by investors and lenders.

T010 Value creation (EACC) of the Lufthansa Group and the business segments

in €m	2016	2015	2014	2013	2012
Group	817	323	-223	-338	63
Passenger Airline Group	1,004	414	-94	-153	-293
Logistics	-105	-72	20	5	53
MRO	142	158	168	204	128
Catering	-15	-8	-14	10	25

In addition to the absolute contributory value EACC, the return on capital employed (ROCE) is also calculated as a percentage. If ROCE exceeds the weighted average cost of capital (WACC), the Company creates value.

T011 Cost of capital (WACC) for the Group and the business segments

in %	2016	2015	2014	2013	2012
Group	4.8	5.9	5.9	6.2	7.0
Passenger Airline Group	4.8	5.9	5.9	6.2	7.0
Logistics	5.1	6.2	6.2	6.5	7.2
MRO	4.6	5.6	5.6	6.0	6.7
Catering	4.6	5.6	5.9	6.2	7.0

Lufthansa Group creates value

The Lufthansa Group closed the financial year 2016 with a positive EACC of EUR 817m, thereby creating significant value. In a long-term comparison, this represents a positive performance.

T012 Calculation of EACC, ROCE and cost of capital

in €m	2016	2015	Change in %
Revenue	31,660	32,056	-1.2
Other operating income	2,279	3,035	-24.9
Operating income	33,939	35,091	-3.3
Operating expenses	31,749	33,536	-5.3
Result from equity investments	85	121	-29.8
EBIT	2,275	1,676	35.7
Adjusted EBIT	1,752	1,817	-3.6
Interest on liquidity	64	186	-65.6
Taxes (assumption 25% of EBIT + Interest on liquidity)	-585	-466	25.7
Cost of capital ¹⁾	-937	-1,073	-12.7
EACC	817	323	152.9
ROCE²⁾ in %	9.0	7.7	1.3 pts
Balance sheet total	34,697	32,462	6.9
Non-interest bearing liabilities			
of which liabilities from unused flight documents	3,040	2,901	4.8
of which trade payables, other financial liabilities, other provisions	5,464	5,605	-2.5
of which advance payments, deferred income, other non-financial liabilities	2,121	2,141	-0.9
of which others	3,811	3,010	26.6
Capital employed	20,261	18,805	7.7
Average capital employed	19,533	18,195	7.4
WACC in %	4.8	5.9	-1.1 pts
Cost of capital¹⁾	937	1,073	-12.7

¹⁾ WACC x Average capital employed.

²⁾ (EBIT + Interest on liquidity - 25% taxes) / Average capital employed.

Employees

✂ With more than 124,000 employees around the world, the Lufthansa Group is one of the largest German employers. / Promotion of diversity strengthens competitiveness. / Hierarchies within the Lufthansa Group are being reduced. / Development of corporate and leadership culture are key issues. / Modernisation of wage agreements remains paramount.

More employees in the Lufthansa Group

At year-end 2016, the Lufthansa Group had a total of 124,306 employees worldwide (previous year: 120,652), of which 68,181 were employed in Germany (previous year: 66,920). This means that the Lufthansa Group is still one of the biggest employers in Germany. At the same time, it is a global company, with 56,125 employees in 85 countries outside Germany (previous year: 53,732).

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, 1,178 apprentices were employed in the Lufthansa Group's 27 occupations.

T013 Employees as of 31.12.2016

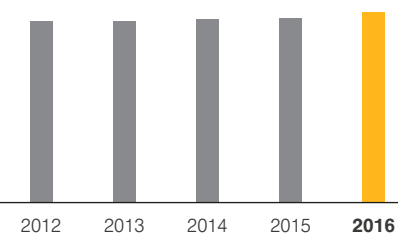
		2016	2015	Change in %
Group employees	number	124,306	120,652	3.0
of which Passenger Airline Group	number	54,308	55,255	-1.7
of which Logistics	number	4,568	4,607	-0.8
of which MRO	number	20,839	20,661	0.9
of which Catering	number	35,530	34,310	3.6
of which Other	number	9,061	5,819	55.7
Revenue per employee ¹⁾	€ thousands	255	266	-4.1
Revenue per full-time equivalence	€ thousands	297	309	-4.0

¹⁾ Previous year's figures have been adjusted.

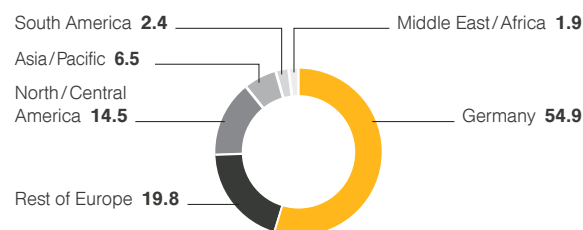
As of the reporting date, the average age of the workforce was 42.2 years (previous year: 42.3) and average seniority was 14.7 years (previous year: 14.9). 27.4 per cent of staff worked part-time in 2016. Personnel turnover climbed by 1.1 percentage points to 13.7 per cent.

C09 Employees average number

117,443 117,414 118,973 119,559 **123,287**



C10 Employees by region in %



Promotion of diversity continues

The Lufthansa Group takes a comprehensive approach to diversity and believes that diversity of gender, demography and nationality contribute to broadening perspectives and to making the Company more competitive.

In accordance with the law on the equal involvement of women and men in management positions in the private and public sectors, the Lufthansa Group defined target quotas in 2015. As of year-end 2016, the proportion of women on the Group's first management level came to 9.7 per cent (target: 10.5 per cent), and on the second management level to 17.3 per cent (target: 17.9 per cent).

As of 31 December 2016, women made up 10.1 per cent of the first management level (target: 11.4 per cent) and 25.5 per cent of the second management level (target: 23.7 per cent) of Deutsche Lufthansa AG. Wide-ranging reorganisational measures throughout the entire Lufthansa Group have led to a shift of management positions between the two management levels. At the same time, a large proportion of management positions have been newly filled, during the process of which women were specifically addressed and considered for selection. Although the targets set for the first management level have not been achieved at present, the commitment to increase the proportion of women at all management levels remains in focus.

Combined management report

Principles of the Group
Employees

Due to the vacant CFO position, the quota of women on the Executive Board of Deutsche Lufthansa AG came to 25 per cent as of 31 December 2016 (target: 30 per cent); when Ulrik Svensson joined on 1 January 2017, it came to 20 per cent. → [Report of the Supervisory Board, p. 4ff.](#)

Deutsche Lufthansa AG meets the criteria for the composition of the Supervisory Board, which provide for a respective proportion of women and men of at least 30 per cent.

Targets for the proportion of women have again been adopted for Deutsche Lufthansa AG for a time limit of five years until 31 December 2021. The target of 30 per cent has been set for the Executive Board, and for management levels 1 and 2 below the Executive Board, targets of 20 and 30 per cent respectively have been set.

Culture and leadership remain core elements, also in the scope of reorganisation

Since 2012, the Lufthansa Group has launched targeted initiatives to change the corporate and leadership culture throughout the Group. In the reporting year, for example, the performance-related variable remuneration was separated from the individual assessment process. Instead, the economic performance of the Group and of the respective business segment has been defined as the sole relevant performance indicator, in order to put greater emphasis on the value of teamwork.

New opportunities for individual further training were created at the Lufthansa Group Campus in the reporting year, specifically for developing managers. A system is in place to accompany managers when they take on their new roles and they are supported by means of specific team development activities.

The Lufthansa Group is being reorganised along process lines, with responsibilities being pooled and hierarchies reduced. Three Leadership Circles have been introduced successively since 1 January 2016 to replace the four management levels beneath the Executive Board. In the reporting year, the number of management positions across the Group was reduced.

Development of collective bargaining structures pushed forward

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.

In July 2016, a long-term agreement with terms until the end of 2023, among others, was signed with the German flight attendants' union UFO. It includes an agreement on a new system of retirement and transitional benefits, an employment guarantee for cabin crew and innovative cost monitoring for sustainable reductions in unit costs. A new pay structure dependent on qualifications was also drawn up for cabin crew. The finalisation of individual elements of the agreements is to be concluded in 2017. → [Lufthansa Passenger Airlines, p. 43f.](#)

Negotiations continued in the reporting period on new terms for the outstanding collective agreements on pay and benefits for the about 5,400 cockpit staff at Lufthansa Passenger Airlines, Lufthansa Cargo and Germanwings. In particular, the Lufthansa Group wants to modernise the system of benefits for cockpit staff together with the trade union and to reach an agreement on this basis in 2017. On 15 February 2017, the Lufthansa Group and the Vereinigung Cockpit pilots' union (VC) initially accepted the arbitration proposal concerning the wage agreement. → [Lufthansa Passenger Airlines, p. 43f.](#)

The Lufthansa Group's operating margin, which still formed the basis for paying cockpit staff's variable remuneration in the 2016 financial year, was 4.5 per cent in 2016, as in the previous year.

Corporate responsibility

✂ Practising corporate responsibility is a key concern for the Lufthansa Group. / Comprehensive sustainability agenda sets priorities for action. / Sustainable business is an integral part of Group management. / Lufthansa Group is committed to the principles of the UN Global Compact. / Focus on improving the environmental impact.

Sustainable business forms the basis for commercial success

The Lufthansa Group aims to act sustainably and responsibly in all areas of its business. To achieve this, it has drawn up a comprehensive sustainability agenda comprising the following topics:

C11 Corporate responsibility at the Lufthansa Group



The principles of sustainable business form an integral part of Group management

The Lufthansa Group applies a value-based management system to lead and manage the Company. This approach is an integral part of all planning, management and controlling processes. The demands made of the Company by shareholders in terms of an appropriate return on capital and sustainable capital appreciation are firmly embedded in the system of corporate management. The objective is to create sustainable value across economic cycles. → [Management system and supervision, p. 18](#). To safeguard its economic success, the Lufthansa Group also identifies and manages the main opportunities and risks for the Company as part of a structured opportunity and risk management system. → [Opportunities and risk report, p. 57ff.](#)

Corporate governance and compliance programmes established for sound company management

The Lufthansa Group is committed to the principles of the UN Global Compact, the world's largest initiative for responsible company management, as well as to the recommendations of the German Corporate Governance Code. Aspects of corporate responsibility, among other things, are integrated into the Group's purchasing policy: When selecting its suppliers, the Lufthansa Group pays attention to sustainability and calls on suppliers to comply with the ten principles of the UN Global Compact, for example, and to acknowledge the Lufthansa Group's environmental guidelines. The Lufthansa Group's corporate social responsibility is also reflected in its corporate compliance policy.

→ [Corporate Governance, p. 75ff.](#)

Target of improving the environmental impact

The Lufthansa Group pursues a strategic environmental programme. Its main fields of action are the improvement of fuel efficiency, the reduction of emissions, active noise abatement, energy and resource management and investment in research. Figures for noise emissions as well as the consumption of energy and kerosene are systematically gathered and regularly analysed in order to devise and implement concrete measures for further improvement.

The Lufthansa Group's commitment to active noise abatement is based on five main points:

- investment in modern and therefore quieter aircraft,
- retrofitting the existing fleet to reduce noise,
- noise research generally,
- developing take-off and approach procedures to reduce noise together with system partners and
- dialogue with residents near airports and other interest groups.

Fuel economy in flight operations is a key success factor for the Lufthansa Group, both from an economic and an ecological perspective, and it is an area that is being continuously invested in. Also relevant is support for research into alternative fuels, as well as their testing and use.

Combined management report

Principles of the Group
Corporate responsibility
Research and development

For more than twenty years, the Lufthansa Group has been involved in climate research and has supported research projects to observe the earth's atmosphere. The projects provide more precise information on changes in the composition of the atmosphere and so enable more accurate weather and climate forecasts. The Lufthansa Group currently has three aircraft that collect global data on atmospheric trace elements and cloud particles at cruising altitude.

Social responsibility is practised comprehensively

Committed and qualified staff are indispensable in the service industry. So for the Lufthansa Group, it is vital to reinforce the commitment of its employees, to have a modern human resources strategy, to offer tailor-made training courses and to take steps to make it even more attractive as an employer. Among other things, the Lufthansa Group has continued to make it easier to strike a balance between work and family life by creating individual part-time working models. When steps to adjust staff capacities become necessary, the Lufthansa Group ensures that its actions are socially responsible.

Lufthansa Group assumes complete responsibility for product portfolio

For the commercial success of the Lufthansa Group, it is of fundamental importance to offer a premium product. To achieve this, it is vital to keep increasing customer satisfaction and, above all, to implement measures that provide for the comfort and safety of passengers, crew and staff. This includes the protection of personal data. Concrete customer satisfaction targets are incorporated into managers' remuneration via a system of key performance indicators.

Lufthansa Group is committed to social issues

The Lufthansa Group stands for responsible mobility, networking and global connections. Many activities in the field of social responsibility aim to help less privileged people and to have a direct impact on society. In 2016, the Lufthansa Group took a long, hard look at how to keep developing its social commitment. A prerequisite for this was the transformation of the Help Alliance e.V. employee initiative into a non-profit GmbH (limited liability company) at the beginning of 2017.

In situations of acute crisis, the Lufthansa Group helps by providing emergency relief that corresponds to real needs. The Group continued its work to support refugees in various projects and initiated aid projects abroad in addition to its long-term integration projects in Germany. Via the partnerships with the "Aktion Deutschland Hilft" emergency aid alliance and the German Red Cross, Lufthansa Cargo is also a partner to renowned aid organisations, who can deploy Lufthansa Cargo's logistics expertise directly when providing emergency aid. Cargo Human Care is a humanitarian and medical aid project in Kenya operated by the staff of Lufthansa Cargo in cooperation with doctors.

Cultural sponsorship at the Lufthansa Group involves support for selected orchestras and concerts. In terms of sports sponsorship, the focus is on the partnership with the Deutsche Sporthilfe foundation, the German Olympic Sports Confederation and the National Paralympic Committee Germany. In the environmental area, the Lufthansa Group supports the protection of cranes, and has been a partner of Crane Conservation Germany for 25 years. Further information on the topic corporate responsibility can be found on our website www.lufthansagroup.com/responsibility and in our "Balance" sustainability report.

Research and development

The Lufthansa Group and its companies work continuously – both individually and across business segments – on innovative products and research and development projects. In some cases these activities are coordinated centrally. However, most are run separately in the individual segments, as they focus on different areas.

The activities to develop new services and products are described in the chapter → [Corporate responsibility, p.21f.](#), and in the chapters on the individual → [Business segments, p.40ff.](#)

Economic report

Macroeconomic situation

- ✂ Global economic growth weaker than in the previous year, at 2.5 per cent.
 - / German economy expands by 1.8 per cent, in line with Europe as a whole. /
- No clear trend in the euro's performance against other relevant currencies.
 - / Interest rates remain at a low level. / Oil prices increase again at the end of 2016.

Global economic growth slower than the previous year

Global economic growth in 2016 fell year on year from 2.8 to 2.5 per cent, due to numerous political conflicts and crises. The only region to break this trend, with virtually unchanged growth, was Asia/Pacific. It grew by 4.7 per cent in 2016 (previous year: 4.8 per cent), despite the fact that, at 6.7 per cent, economic growth in China was down on the previous year's 6.9 per cent. In Europe, the economy expanded by 1.8 per cent (previous year: 2.3 per cent). With growth of 1.8 per cent (previous year: 1.5 per cent), the economic performance in Germany was on a par with the growth rate for Europe as a whole. Economic growth in North America fell to 1.6 per cent (previous year: 2.5 per cent). In South America, the economy shrank by 1.1 per cent (previous year: -0.2 per cent).

T014 GDP development

in %	2016*	2015	2014	2013	2012
World	2.5	2.8	2.8	2.6	2.6
Europe	1.8	2.3	1.8	0.7	-0.1
Germany	1.8	1.5	1.6	0.6	0.7
North America	1.6	2.5	2.4	1.8	2.2
South America	-1.1	-0.2	1.0	2.9	2.7
Asia/Pacific	4.7	4.8	4.7	5.1	4.8
China	6.7	6.9	7.3	7.8	7.8
Middle East	2.5	2.3	2.4	2.4	2.7
Africa	1.8	3.2	2.6	1.9	5.4

Source: Global Insight World Overview as of 15.1.2017.

* Forecast.

No clear trend in exchange rate developments

Compared with the average rates in the previous year, the performance of the euro against various other currencies was mixed in 2016. The average exchange rate against the US dollar was 0.3 per cent down on the previous year. Following the UK's referendum on leaving the EU, the euro appreciated by an average of 12.5 per cent against the British pound in the second half of the year. The euro likewise gained in value against the Chinese renminbi and the Swiss franc, by 5.4 and 2.1 per cent respectively. Against the Japanese yen, the euro fell by 10.6 per cent.

T015 Currency development EUR 1 in foreign currency

	2016	2015	2014	2013	2012
USD	1.1062	1.1093	1.3263	1.3279	1.2851
JPY	120.05	134.25	140.33	129.41	102.49
CHF	1.0899	1.0675	1.2145	1.2306	1.2052
CNY	7.3491	6.9697	8.1742	8.1632	8.1111
GBP	0.8168	0.7259	0.8059	0.8489	0.8109

Source: Bloomberg, annual average daily price.

Short and long-term interest rates continue to fall

Short-term interest rates in the euro area fell even further in 2016 compared with the previous year. The average 6-month Euribor was -0.17 per cent (previous year: 0.05 per cent). For long-term funding, the average 10-year euro swap fell year on year from an average of 0.88 per cent to 0.53 per cent. 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 rated corporate bonds, fell from 2.8 to 2.1 per cent in the financial year 2016.

T016 Interest rate development in %

Instrument	2016	2015	2014	2013	2012
6-month Euribor	-0.17	0.05	0.31	0.34	0.83
6-month Euribor Year-end level	-0.22	-0.04	0.17	0.39	0.32
10-year euro swap	0.53	0.88	1.46	1.91	1.96
10-year euro swap Year-end level	0.66	1.00	0.81	2.16	1.57

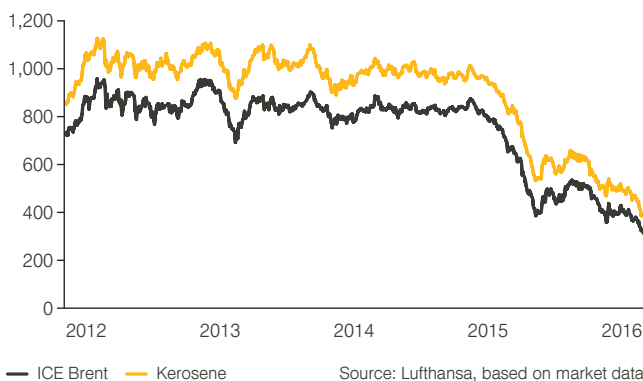
Source: Bloomberg.

Oil prices increased again at the end of 2016

In the first half of 2016, the average price for a barrel of Brent Crude was USD 41.20, which represents a drop of 30.5 per cent on the price for the same period in 2015. The price then climbed in the second half of the year, when a barrel of Brent Crude cost an average of USD 49.04. The average price over 2016 as a whole was USD 45.15/barrel, or around 15.9 per cent less than in the previous year. On 31 December 2016, a barrel of Brent Crude cost USD 56.82 (year-end 2015: USD 37.28).

The jet fuel crack, the price difference between crude oil and kerosene, moved between USD 5.18/barrel and USD 12.12/barrel in 2016. On average over the year, it traded at USD 8.46/barrel and thus 32.8 per cent lower than in the previous year. The price at year-end was USD 10.06/barrel (year-end 2015: USD 6.47/barrel).

C12 Price development of crude oil and kerosene in USD/t



Sector developments

- ✈ Air transport remains a growth industry. / Revenue passenger-kilometres up worldwide by 6.3 per cent. / Modest increase in profitability of global airline industry.
- / Airfreight performs less well than passenger traffic. / The demand for services in the aviation industry increases.

The development of the airline industry affects the performance of all the segments in the Lufthansa Group: directly, in the case of the airlines in the Passenger Airline Group, and indirectly, via the impact on demand from key customer groups for the service companies.

Global airline industry anticipates slight increase in earnings

The International Air Transport Association (IATA) recently reduced its forecast for 2016 and now expects a net profit for the global airline industry of USD 35.6bn (previous year: USD 35.3bn). European airlines are forecast to generate a net profit on par with last year of USD 7.5bn. The highest net profit of all regions is again expected for North American carriers, with a total of USD 20.3bn (previous year: USD 21.5bn).

Continued growth in passenger traffic

Ongoing global economic growth had a positive impact on worldwide demand for air travel. According to figures from the IATA, revenue passenger-kilometres went up year on year by 6.3 per cent in 2016. Air transport remains a growth industry, with an average growth rate in revenue passenger-kilometres of around 6.0 per cent between 2012 and 2016.

Regional differences persisted last year. Airlines from the Middle East continued to record the fastest growth in revenue passenger-kilometres, at 11.2 per cent, followed by carriers from Asia/Pacific, with 9.2 per cent, and Africa, with 6.5 per cent. European airlines

sold 4.6 per cent more passenger-kilometres. This slower growth is largely due to lower demand from private travellers from Asia and North America on routes to Europe, as well as to the political situation, which is generally perceived to be uncertain. Latin American airlines reported sales growth of 3.6 per cent. Airlines from North America expanded by 3.2 per cent. According to the Federal Association of the German Aviation Industry (BDL), sales for airlines in Germany rose overall by 1.4 per cent.

Decline in yields

Global yields in passenger traffic continue to decline. IATA estimates put the drop at 8.0 per cent for 2016, partly because airlines passed on their much lower fuel costs to their customers.

T017 Sales performance in the airline industry 2016

in % compared with previous year	Revenue passenger-kilometres	Cargo tonne-kilometres
Europe	4.6	7.6
North America	3.2	2.0
Central and South America	3.6	-4.2
Asia/Pacific	9.2	2.1
Middle East	11.2	6.9
Africa	6.5	3.1
Industry	6.3	3.8

Source: IATA Air Passenger/Air Freight Market Analysis 12/2016.

Global markets vary

The European market for air travel 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 46 per cent.

Low-cost airlines are still pushing into the higher-value business travel segment, both by offering flights to primary and secondary airports and by adapting their products and distribution channels to specific target groups. Ryanair recently announced that it would start flying to Lufthansa Passenger Airlines' home airport in Frankfurt. The growth of the low-cost carriers and competition in this segment is increasingly to the detriment of transfer traffic at the hubs. This puts severe structural pressure on the airlines in the Passenger Airline Group, which have a relatively high proportion of transfer passengers for the industry.

In North America, the market consolidation and the capacity discipline of the remaining players continues to pay off. On long-haul routes between Europe and North America, the three large, commercial joint ventures, including the leading A++ commercial joint venture of which the Passenger Airline Group is a member, have a market share of around 81 per cent. New competitors are expected to grow particularly strongly in future.

Long-haul connections between Europe and Asia are still highly competitive. This traffic region is characterised by overcapacities, caused partly by the unremitting growth of the state-owned carriers from the Gulf region. Most recently, these carriers announced plans to reduce their capacity growth. Furthermore, there is an increasing number of commercial joint ventures between leading European and Asian airlines, which have a controlling effect on capacity development in line with experience. From this perspective, an improvement in the competitive situation certainly feels possible. These developments will not be enough in the short term, however, to considerably reduce the existing overcapacities. This puts a burden on yields for the Passenger Airline Group and limits growth opportunities, especially in south-east Asia.

Airfreight performs less well than passenger traffic

Global cargo tonnage rose by 3.8 per cent in 2016. This meant that growth in the global freight business lagged behind that of the passenger business. Regional developments varied. Cargo airlines from Europe reported the fastest growth, at 7.6 per cent, followed by providers from the Middle East, at 6.9 per cent. Cargo airlines from Africa grew by 3.1 per cent, airlines from Asia/Pacific by 2.1 per cent and North American airlines by 2.0 per cent. Providers from Latin America saw business decline by 4.2 per cent. Yields continued to decline in global airfreight traffic as a result of structural overcapacities and the below-average development of global trade – IATA puts the decline at 12.5 per cent in 2016.

Competition in the global airfreight market remains intense. Lufthansa Cargo's competitors are other airlines with significant freight capacities in their long-haul passenger fleets, as well as airlines with a mix of cargo and passenger aircraft and pure freighter operators. Carriers from the Middle East and the Gulf region, in particular, increased their freight capacities significantly in connection with the growth of their passenger fleets.

MRO industry benefits from growth in air traffic

Growth in global air traffic also increases demand for other aviation services. The aircraft maintenance, repair and overhaul (MRO) business performed well in 2016. The market is expected to grow by 4 per cent a year until 2026 to reach a total volume of USD 99bn. In terms of MRO demand, the Asia/Pacific region is forecast to grow the fastest. Despite this, North America will remain the largest single market. Continued low oil prices could also have a positive effect on demand for MRO services, because airlines may increase the size of their fleets or use less fuel-efficient aircraft for longer than planned. Increasing MRO capacities, the tense financial situation of many airlines and the rising number of low-cost providers mean that pricing pressure in the MRO business remains high, however.

Lufthansa Technik's main competitors are aircraft, engine and component manufacturers, original equipment manufacturers (OEMs), the MRO operations of other airlines as well as independent providers. The OEMs in particular want to expand their share in the maintenance business due to the higher development costs and lower share of profit from aircraft sales. They try to make it difficult for independent MRO providers to gain access to intellectual property and pursue highly restrictive licensing policies.

Growth in airline catering market weaker than in passenger traffic

LSG group's market and competitive environment is still defined by consolidation among customers and competitors as well as by the rapid growth of airlines from Asia and the Middle East. Increases in passenger numbers are only partly reflected in higher demand for in-flight service concepts. This is largely due to the particularly strong growth of low-cost airlines and to the increasing trend among network airlines to switch their service concepts to in-flight sales programmes.

Furthermore, the airlines are increasingly outsourcing individual service packages – such as production, packaging and delivery – to different suppliers. This significantly reduces the barriers to entry for those providers, especially food producers and logistics companies, and puts the LSG group under high competitive pressure. Severe pricing pressure results from these overcapacities, primarily in the mature European catering markets, and from competition between airlines.

Course of business

✂ Lufthansa Group achieves a good result. / Successful capacity and management measures as well as falling costs secure the result in a difficult environment. / Strategic agenda is successfully implemented through commercial joint venture agreements and the exploitation of external growth opportunities, among others. / The Company is in a better position than a year ago. / All operating segments are profitable, with the exception of Logistics.

Overview of the course of business

Lufthansa Group again achieves a good result in a very demanding environment

The Lufthansa Group's earnings performance in 2016 was satisfactory. At the end of the year, the Company was in a better economic position than twelve months before, which is reflected in particular in a stronger balance sheet and lower costs, forward-looking commercial joint venture agreements and the exploitation of external growth opportunities by means of wet leases from Air Berlin and the acquisition of Brussels Airlines.

Lower fuel costs and continuing cost reductions at the airlines have all helped to offset the poor performance of unit revenues in this segment. The environment was dominated by great geopolitical uncertainty, caused by the Brexit vote in June 2016, for example, as well as several terrorist attacks in Europe over the course of the year.

Under these circumstances, the Lufthansa Group once again proved that it has a very robust business model thanks to its broad positioning and its ability to manage traffic flows flexibly across the airlines' global network. The margin was therefore maintained at roughly the previous year's record level, despite the adverse effects on demand. However, the ongoing and significant decline in currency-adjusted unit revenues at the airlines shows that to stabilise this level of earnings requires continual action, also at a structural level if necessary.

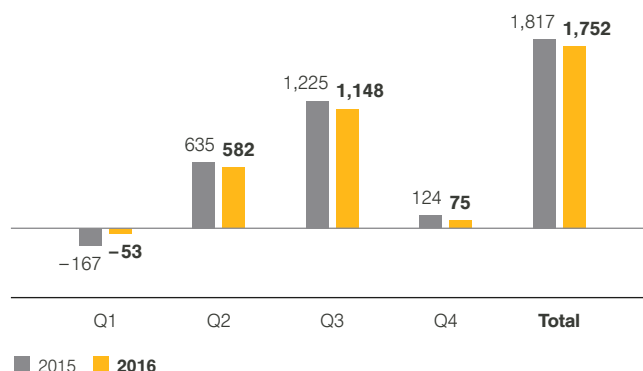
Seasonal business varies significantly

In the first quarter of the 2016 financial year, all of the segments performed robustly and in line with forecasts, apart from the Logistics segment. The earnings increase at the Passenger Airline Group was largely influenced by lower fuel costs and the absence of non-recurring expenses from the previous year. Unit costs fell significantly. Lufthansa Passenger Airlines, Austrian Airlines and the Other segment reported a positive earnings development. Free cash flow and Adjusted EBIT were both up on the previous year. The equity ratio declined due to a lower discount rate, which increased pension liabilities.

Lufthansa Passenger Airlines and the Other segment increased their earnings again in the second quarter. Earnings at the other companies and operating segments were down. Repeated terrorist attacks in Europe and the Brexit vote caused uncertainty at the passenger airlines and led to a significant fall in tourist demand on long-haul connections from Asia and North America to Europe. In view of this, the Lufthansa Group reduced its forecast for the year when it published its quarterly figures. Free cash flow was again up on the year in the second quarter. The equity ratio declined again due to a lower discount rate.

In the third quarter, the Logistics, MRO and Other segments reported a positive earnings performance. Among the passenger airlines, SWISS and Austrian Airlines were able to increase their earnings. Lufthansa Passenger Airlines was unable to match its record result in the same quarter of the previous year. Nonetheless, business performed much better than had previously been expected. The management and capacity measures taken before the summer had an effect. Unit costs were also successfully reduced once more, and it was possible to raise the earnings forecast again. Free cash flow was still up on the previous year. Although the discount rate fell slightly, the equity ratio improved thanks to the successful agreement on principle with the flight attendants at Lufthansa Passenger Airlines.

C13 Adjusted EBIT development by quarter in €m



In the fourth quarter, the operating segments did not materially improve their results. Among the passenger airlines, Lufthansa Passenger Airlines and SWISS increased their earnings. After adjusting for exchange rates and fuel prices, unit costs fell at all of the airlines. This effect was particularly strong at Lufthansa Passenger Airlines, which benefited from lower MRO expenses and staff costs, and at Eurowings, which recorded strong capacity growth. Despite the decline, Lufthansa Cargo was again able to record a positive result, which was partly due to greater demand. Lufthansa Technik reported a fall in earnings. Lower income from business with Group companies could not be made up for by higher revenue with external companies. The result was also adversely affected by restructuring costs in the fourth quarter. The LSG group improved its earnings, despite expenses for severance payments that were recognised in the fourth quarter. Free cash flow improved. The equity ratio climbed significantly, largely due to the higher discount rate.

Significant events

“7to1 – Our Way Forward” – two successful years

The “7to1 – Our Way Forward” strategic programme initiated in 2014 covers seven action areas aimed at making “Lufthansa – First choice for customers, employees, shareholders and partners”. Two years after the programme was launched, a large number of measures have already been put into practice in the individual areas of action and key targets have been reached.

Wet lease signed between Eurowings, Austrian Airlines and Air Berlin

On 16 December 2016, the Lufthansa Group and Air Berlin PLC signed an agreement for the use by the Group companies Eurowings and Austrian Airlines of 38 aircraft managed by the Air Berlin group on a wet-lease basis. In connection with this, a code-share agreement was also signed with the Etihad Aviation group. → Business segment Passenger Airline Group, p. 40ff.

Lufthansa Group acquires entirety of Brussels Airlines

Deutsche Lufthansa AG exercised its call option to acquire the remaining 55 per cent of the shares in SN Airholding, the parent company of Brussels Airlines, in December 2016. The transaction was completed in early January 2017. The acquisition of Brussels Airlines and the wet-lease agreement with Air Berlin significantly strengthen Eurowings’ position as a leading point-to-point airline in its home markets and make it the number three in European point-to-point traffic. → Business segment Passenger Airline Group, p. 40ff.

Commercial joint venture agreed with Air China

The Lufthansa Group and Air China signed a wide-ranging partnership agreement on 20 September 2016. It forms the basis for the two airline groups to offer connections between Europe and China as part of a commercial joint venture. → Business segment Passenger Airline Group, p. 40ff.

Lufthansa Group receives new aircraft

The airlines in the Passenger Airline Group integrated new aircraft into their fleets last year. Lufthansa Passenger Airlines became the first airline in the world to put an Airbus A320neo into service.

At the end of the year, Lufthansa Passenger Airlines took delivery of its first A350. Deliveries of the Bombardier C Series and the replacement of the A340 by the Boeing 777 began at SWISS. As in 2015, Austrian Airlines continued to integrate the new Embraer jets into its fleet. → Business segment Passenger Airline Group, p. 40ff.

Successful arbitration with the flight attendants’ union

Lufthansa Passenger Airlines and the UFO flight attendants’ union settled their collective bargaining dispute in early July 2016. This made it possible to move cabin crew at Lufthansa Passenger Airlines from a defined-benefit to a defined-contribution pension system and to establish a long-term collective agreement. → Lufthansa Passenger Airlines, p. 43f.

Arbitration with Vereinigung Cockpit pilots’ union reaches agreement on pay

On 15 February 2017, the Lufthansa Group and the Vereinigung Cockpit pilots’ union (VC) accepted the arbitration proposal concerning the wage agreement. Last year, strikes in the course of collective bargaining caused 4,581 flight cancellations, affecting some 389,000 passengers. Overall, strike action cut earnings for the Passenger Airline Group by around EUR 100m in 2016.

→ Lufthansa Passenger Airlines, p. 43f.

Aviation services companies expand their portfolios and implement efficiency measures

Lufthansa Technik and the LSG group built on their market positions in the reporting year. Lufthansa Technik acquired the English company FlyDocs and signed an agreement with GE Aviation to establish a cutting-edge overhaul facility for the new GENx-2B and GE9X engine models. The joint venture is due to start operations in 2018. → Business segment MRO, p. 51ff. The LSG group completed the full acquisition of the companies Retail inMotion and Media inMotion, which specialise in in-flight sales and entertainment programmes, as of 1 February 2016. The LSG group had held stakes in the two companies since 2013. → Business segment Catering, p. 54f.

At the same time, the aviation services companies are implementing individual efficiency measures. In view of the persistently difficult market environment, Lufthansa Cargo intends to cut its annual staff costs by at least EUR 80m by 2018 as part of a strategic cost-cutting programme. Lufthansa Technik will discontinue the overhaul of commercial aircraft at the plant in Hamburg in the course of 2017 and move the work abroad. The LSG group will adjust its network of plants in Europe due to changing demand.

New Executive Board members appointed

As of 1 January 2017, Ulrik Svensson, former CEO of Swedish company Melker Schörling AB and former CFO of SWISS International Airlines, was appointed to the Executive Board as Chief Financial Officer until 31 December 2019. He succeeds Simone Menne, who left the Company at her own request as of 31 August 2016.

As of 1 May 2017, Thorsten Dirks, former CEO of Telefónica Deutschland AG, was appointed to the Executive Board of Deutsche Lufthansa AG for three years, with responsibility for Eurowings and Aviation Services. He succeeds Karl Ulrich Garnadt, who will step down from the Executive Board when he reaches retirement age and once his appointment comes to an end on 30 April 2017.

Combined management report

Economic report
Course of business
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Events after the balance sheet date

Deutsche Lufthansa AG becomes sole shareholder of the Brussels Airlines group

Deutsche Lufthansa AG acquired the remaining 55 per cent of the shares in SN Airholding SA/NV with effect from 9 January 2017, and is therefore the sole shareholder of the Brussels Airlines group. The acquisition is based on the purchase and option agreement dating from 2008. The option was exercised on the basis of a new agreement between the previous shareholders and Lufthansa, dated 15 December 2016, which set the strike price for the remaining shares at EUR 2.6m. Brussels Airlines will be fully consolidated in the new Point-to-Point segment. → Notes to the consolidated financial statements, Note 45, p. 162ff.

Wet-lease agreement with Air Berlin approved

On 30 January 2017, the German Federal Cartel Office unconditionally approved the wet lease of 38 aircraft agreed between the Lufthansa Group and Air Berlin. In the course of the transaction, the Lufthansa Group will acquire or lease up to 25 A320s from Air Berlin's lessors and will, in turn, itself lease them to Air Berlin for operation at market prices. This is intended to achieve sustainable cost reductions as part of the agreement.

Lufthansa Group and Vereinigung Cockpit pilots' union reach agreement in arbitration

On 15 February 2017, the Lufthansa Group and Vereinigung Cockpit accepted the arbitration proposal concerning the wage agreement. This includes a pay increase of around 8.7 per cent for the 5,400 pilots in the Group wage agreement as well as a one-off payment totalling some EUR 30m. The wage agreements shall run from May 2012 until the end of 2019. The outcome of the arbitration means an increase in remuneration costs for cockpit crew of around EUR 85m per year. Talks with the trade union are to be continued in order to make alternative cost reductions as part of an overall solution. Should a solution not be reached, 40 new aircraft will be staffed by crew not included in the Group wage agreement – contrary to current fleet planning – in order to compensate for the additional costs.

Lufthansa Group and UFO make further progress on benefits system

Up until the end of February 2017, further details on the new system of benefits were set out in the course of concluding collective bargaining for the Lufthansa Passenger Airlines cabin crew and in subsequent talks. It is thereby still assumed that the finalisation of the new regulations will be completed by the end of the first quarter of 2017.

Earnings, assets and financial position

✂ Revenue falls to EUR 31.7bn. / Adjusted EBIT on a par with the previous year at EUR 1.8bn. / Net profit for the period rises to EUR 1.8bn due to non-recurring effects. / Lufthansa Group invests EUR 2.2bn. / Free cash flow climbs to EUR 1.1bn. / Equity ratio improves to 20.6 per cent.

Earnings position

Revenue and income

T018 Revenue and income

	2016 in €m	2015 in €m	Change in %
Traffic revenue*	24,661	25,506	-3.3
Other revenue*	6,999	6,550	6.9
Total revenue	31,660	32,056	-1.2
Changes in inventories and work performed by the entity and capitalised	95	203	-53.2
Other operating income	2,184	2,832	-22.9
Total operating income	33,939	35,091	-3.3

* The figures for the previous year have been adjusted due to the new reporting method.

Operating income in the financial year 2016 came to EUR 33.9bn, a year-on-year decline of 3.3 per cent. Revenue fell by 1.2 per cent to EUR 31.7bn.

Traffic revenue down by 3.3 per cent

Traffic revenue fell by 3.3 per cent overall to EUR 24.7bn. The decline stemmed from lower prices (-5.1 per cent) and negative exchange rate effects (-0.9 per cent), offset by higher sales (2.7 per cent). The Passenger Airline Group segment accounted for the bulk of traffic revenue, contributing 90.2 per cent. Revenue here was 2.4 per cent down on the previous year, at EUR 22.3bn. Revenue increases from higher sales volumes (+2.8 per cent) were more than offset by lower prices (-4.3 per cent) and negative exchange rate effects (-0.9 per cent). The number of passengers climbed by 1.8 per cent to 110 million, while capacity grew by 4.6 per cent. Traffic revenue in the Logistics segment was down

significantly, by 12.7 per cent year on year to EUR 2.0bn. This decline resulted from a steep fall in prices (–11.6 per cent) and negative exchange rate effects (–1.4 per cent), although slightly higher volumes (+0.3 per cent) increased income. Further information on regional distribution of traffic revenue for the Passenger Airline Group and Logistics segments can be found in the chapters → [Business segments, p.40ff. and p.48ff.](#)

Other revenue up by 6.9 per cent

Other revenue went up by 6.9 per cent in total to EUR 7.0bn. Of this, the MRO segment generated EUR 3.5bn (+8.0 per cent), Catering EUR 2.6bn (+6.9 per cent) and Other EUR 271m (+3.4 per cent). The airborne companies in the Passenger Airline Group and Logistics segments contributed a total of EUR 661m (2.3 per cent) to other revenue.

Revenue down by 1.2 per cent

Revenue declined by 1.2 per cent to EUR 31.7bn. The Passenger Airline Group segment's share of total revenue fell to 73.5 per cent (previous year: 74.3 per cent). The Logistics segment contributed 6.5 per cent of total revenue (previous year: 7.3 per cent), the MRO segment 11.1 per cent (previous year: 10.2 per cent), the Catering segment 8.1 per cent (previous year: 7.4 per cent) and Other 0.8 per cent (previous year: 0.8 per cent). Further information on regional distribution of revenue can be found in the → [Segment reporting, p.143ff.](#)

Other operating income down by 22.9 per cent

Other operating income fell by EUR 648m to EUR 2.2bn. This stems mainly from lower exchange rate gains (EUR –636m), offset by correspondingly lower exchange rate losses in other operating expenses. Also notable were lower commission income (EUR –35m) and higher income from compensation for damages (EUR +20m). The other individual items did not vary significantly compared with the previous year. → [Notes to the consolidated financial statements, Note 6, p.110.](#)

Expenses

Operating expenses declined year on year by 5.3 per cent to EUR 31.7bn.

Cost of materials and services down by 3.0 per cent

The cost of materials and services fell by 3.0 per cent to EUR 17.1bn. Within the cost of materials and services, fuel costs declined by 15.5 per cent to EUR 4.9bn. The average price for kerosene, including fuel hedging, was USD 578.41/tonne in 2016. Fuel prices declined by 18.2 per cent (after hedging), but this was partly offset by the rise in the US dollar (+0.6 per cent) and higher volumes (+2.1 per cent). Fuel costs included a negative result of price hedging of EUR 905m (previous year: EUR 988m). Expenses for other raw materials, consumables and supplies were up by 3.8 per cent at EUR 3.3bn.

Fees and charges went up by 1.5 per cent overall to EUR 5.7bn. Specifically, handling charges rose by 3.4 per cent, security fees by 10.6 per cent and passenger fees by 1.9 per cent. Air traffic control charges, which depend on the number of flights, as well as take-off and landing fees fell by 2.7 and 0.7 per cent respectively, however. Expenses for the air traffic tax rose by 3.6 per cent to EUR 379m. Other purchased services were up by 5.4 per cent overall at EUR 3.1bn, in particular due to higher charter expenses (+46.0 per cent).

Staff costs down by 8.9 per cent

Staff costs fell by 8.9 per cent to EUR 7.4bn. While the average number of employees increased by 3.1 per cent (mainly in the Catering segment) to 123,287, the decline is mainly due to a reduction of EUR 652m in past service costs as a result of the adjustments made to the retirement and transitional benefits for cabin crew at Lufthansa Passenger Airlines. Expenses were also reduced by positive exchange rate effects and lower additions to pension provisions as a result of the increase in the discount rate to 2.8 per cent, from 2.6 per cent at the beginning of the year.

T019 Expenses

	2016	2015	Change	Share of operating expenses
	in €m	in €m	in %	in %
Cost of materials and services	17,109	17,640	–3.0	53.9
of which fuel	4,885	5,784	–15.5	15.4
of which fees and charges	5,736	5,651	1.5	18.1
of which operating lease	58	50	16.0	0.2
Staff costs	7,354	8,075	–8.9	23.2
Depreciation	1,769	1,715	3.1	5.6
Other operating expenses	5,517	6,106	–9.6	17.3
of which sales commissions paid to agencies	316	332	–4.8	1.0
of which indirect staff costs and external staff	1,078	1,041	3.6	3.4
of which rental and maintenance expenses	888	878	1.1	2.8
Total operating expenses	31,749	33,536	–5.3	100.0

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Depreciation and amortisation up by 3.1 per cent

Depreciation and amortisation climbed by 3.1 per cent to EUR 1.8bn. Depreciation of aircraft increased by 1.4 per cent to EUR 1.3bn. Impairment losses of EUR 183m in total were also recognised as of 31 December 2016 (previous year: EUR 159m).

Impairment losses on aircraft of EUR 127m related to seven Airbus A340-600s, seven Boeing 737-300s, two CRJ 900s and three Boeing MD-11Fs held for sale. Impairment losses of EUR 37m in total were also recognised on other items of property, plant and equipment due to weaker performance at some business units in the Catering segment (especially catering plants at Frankfurt Airport and in Turkey). A loan to Lufthansa Super Star GmbH was also written down by EUR 14m.

Other operating expenses included a further EUR 21m in impairment losses on assets held for sale. These related to four of the seven A340-600s and the seven B737-300s mentioned above.

Other operating expenses down by 9.6 per cent

Other operating expenses fell by 9.6 per cent to EUR 5.5bn. The main reason for the decline was much lower exchange rate losses (EUR –696m), offset by lower exchange rate gains in other operating income. Including exchange rate effects in the primary items of income and expense, exchange rate movements had a negative impact on EBIT of EUR 103m overall. Also notable were higher costs for computerised distribution systems (EUR +38m), higher indirect staff costs (EUR +37m) and higher expenses for advertising and sales promotion (EUR +29m). The individual other items did not vary significantly compared with last year.

Earnings development

EBIT up to EUR 2.3bn

The result from operating activities improved year on year by EUR 635m to EUR 2.2bn. Including the result from equity investments of EUR 85m, EBIT came to EUR 2.3bn.

T020 Reconciliation of results

in €m	2016		2015	
	Income statement	Reconciliation with Adjusted EBIT	Income statement	Reconciliation with Adjusted EBIT
Total revenue	31,660	–	32,056	–
Changes in inventories	95	–	203	–
Other operating income	2,184	–	2,832	–
of which book gains et al.	–	–64	–	–53
of which write-ups on capital assets	–	–10	–	–8
of which badwill	–	–2	–	–
Total operating income	33,939	–76	35,091	–61
Cost of materials and services	–17,109	–	–17,640	–
Staff costs	–7,354	–	–8,075	–
of which past service costs/settlements	–	–678	–	25
Depreciation	–1,769	–	–1,715	–
of which impairment losses	–	183	–	159
Other operating expenses	–5,517	–	–6,106	–
of which impairment losses on assets held for sale	–	22	–	4
of which expenses incurred from book losses	–	26	–	14
Total operating expenses	–31,749	–447	–33,536	202
Profit/ loss from operating activities	2,190	–	1,555	–
Result from equity investments	85	–	121	–
EBIT	2,275	–	1,676	–
Total from reconciliation with Adjusted EBIT	–	–523	–	141
Adjusted EBIT	–	1,752	–	1,817
Write-downs (included in profit from operating activities)	1,769	–	1,715	–
Write-downs on financial investments (including at equity)	21	–	4	–
EBITDA	4,065	–	3,395	–

Adjusted EBIT roughly on a par with the previous year at EUR 1.8bn

To calculate Adjusted EBIT, EBIT was adjusted for book gains and losses from the disposal of non-current assets, impairment losses and write-ups, as well as the measurement of pension obligations totalling EUR –523m (previous year: EUR 141m). This produced an Adjusted EBIT of EUR 1,752m (previous year: EUR 1,817m). The Adjusted EBIT margin was 5.5 per cent (previous year: 5.7 per cent). → T020 Reconciliation of results.

The Passenger Airline Group increased its Adjusted EBIT by EUR 22m, or 1.5 per cent, to EUR 1.5bn. Adjusted EBIT for the Logistics segment fell by EUR 124m to EUR –50m. The MRO segment reported a fall in earnings of EUR 43m to EUR 411m. The Catering segment generated Adjusted EBIT of EUR 104m, an increase of EUR 5m. 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 236m (previous year: EUR –370m).

Earnings varied significantly over the year in line with the seasonality of the business. The results of the individual business segments in the Group also have their own variations and ranges of fluctuation. The service companies again generated a stable, positive earnings contribution. As in the previous year, the much more volatile earnings of the airlines in a long-term comparison were largely responsible for the good earnings level.

Financial result down to EUR 58m

The financial result fell by EUR 413m to EUR 58m. In addition to a decline of EUR 36m in the result from equity investments to EUR 85m, net interest also fell by EUR 48m to EUR –218m. However, the main driver of the significantly lower financial result overall was the fall in earnings from other financial items (EUR –330m). EUR 503m from the sale of JetBlue shares was recognised here in the previous year. Changes in the market value of financial instruments, considered as trading transactions under IAS 39, resulted in income of EUR 251m in the reporting year (previous year: EUR 161m), offset by expenses of EUR 60m from the measurement of financial liabilities in foreign currencies (previous year: EUR 144m).

Net profit for the period up to EUR 1.8bn

Adding depreciation and amortisation to EBIT of EUR 2.3bn produced EBITDA of EUR 4.1bn (previous year: EUR 3.4bn). The profit from operating activities and the financial result added up to a profit before income taxes of EUR 2.2bn, compared with EUR 2.0bn in the previous year. Deducting income taxes of EUR 445m (previous year: EUR 304m) and earnings attributable to minority interests of EUR 27m (previous year: EUR 24m), the net profit for the period attributable to the shareholders of Deutsche Lufthansa AG was EUR 1.8bn (previous year: EUR 1.7bn).

Earnings per share amount to EUR 3.81 (previous year: EUR 3.67).

→ Notes to the consolidated financial statements, Note 15, p.113.

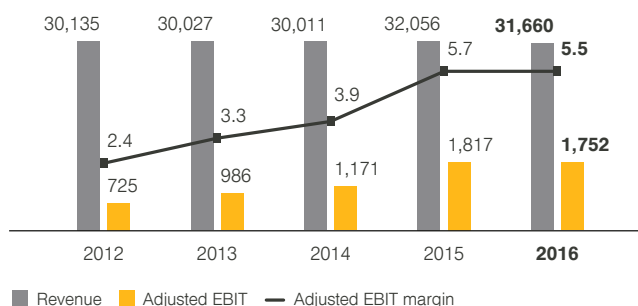
T021 Profit breakdown of the Lufthansa Group

	2016 in €m	2015 in €m	Change in %
Operating income	33,939	35,091	-3.3
Operating expenses	-31,749	-33,536	-5.3
Profit from operating activities	2,190	1,555	40.8
Financial result	58	471	-87.7
Profit/loss before income taxes	2,248	2,026	11.0
Income taxes	-445	-304	-46.4
Profit/loss from continuing operations	1,803	1,722	4.7
Profit/loss attributable to minority interests	-27	-24	-12.5
Net profit/loss attributable to shareholders of Deutsche Lufthansa AG	1,776	1,698	4.6

Long-term overview of earnings is volatile

The Lufthansa Group and its business segments operate in a volatile environment, which is severely exposed to economic cycles and other external factors. Despite this, the Company is confident of its ability to generate stable income, even during times of crisis, and to benefit disproportionately from economic upswings. Even in the particularly weak economic phase of 2012, it was able to generate a positive operating result in spite of the difficulties. Earnings for 2013 and 2014 were deflated by many non-recurring factors, which in some cases were necessary to improve productivity for more demanding economic times. In 2015, the Lufthansa Group benefited from much lower fuel costs, among other factors. In 2016, the greater profitability was maintained at the previous year’s good level, even in a very demanding environment. This shows the significant progress made by the Company in successfully implementing its strategic agenda in recent years, and above all the successful cost reductions throughout the Group.

C14 Development of revenue, Adjusted EBIT in €m and of the Adjusted EBIT margin in %



Dividend

Executive Board and Supervisory Board propose dividend of EUR 0.50 per share

The Lufthansa Group's dividend policy provides for a dividend ratio of between 10 and 25 per cent of EBIT, as long as a dividend payment is covered by the net profit for the year as shown in the individual financial statements for Deutsche Lufthansa AG drawn up according to the commercial law provisions. They present a net profit for the financial year 2016 of EUR 1.2bn. Following the transfer of EUR 935m to retained earnings, distributable profit comes to EUR 234m. → [Financial strategy, p. 13f.](#)

In line with this dividend policy, the Executive Board and Supervisory Board will therefore table a proposal at the Annual General Meeting on 5 May 2017 to distribute this profit to shareholders by paying a dividend of EUR 0.50 per share.

T022 Development of earnings and dividends

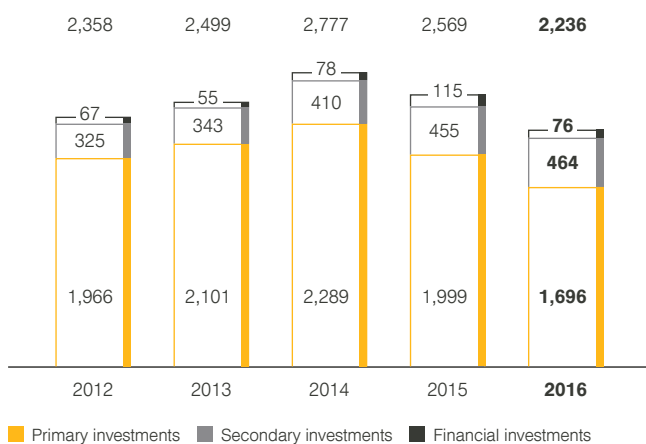
		2016	2015	2014	2013	2012
EBIT	€m	2,275	1,676	1,000	936	1,645
Net profit/loss (Group)	€m	1,776	1,698	55	313	1,228
Net profit/loss (HGB)	€m	1,169	1,034	-732	407	592
Dividend per share	€	0.50	0.50	-	0.45	-
Dividend ratio (based on EBIT)	%	10.3	13.9	-	22.1	-

Financial position

Capital expenditure

Capital expenditure in 2016 was 13.0 per cent lower than the previous year at EUR 2.2bn.

C15 Primary, secondary and financial investments in €m*



* Excluding acquired net assets from changes in group of consolidated companies.

Investment volume

Primary investment in down payments and final payments for aircraft, aircraft overhauls and equipment fell by 15.2 per cent to EUR 1.7bn. Capital expenditure for other items of property, plant and equipment and for intangible assets, known collectively as secondary investment, rose by 2.0 per cent to EUR 464m. Property, plant and equipment, such as technical equipment and machinery, or operating and office equipment, accounted for EUR 345m of the total (previous year: EUR 344m). EUR 119m (previous year: EUR 111m) was invested in intangible assets such as licences and IT software. Financial investments of EUR 76m (previous year: EUR 115m) related mainly to share purchases, loans and investments in fixed-term deposits.

The Passenger Airline Group accounted for the bulk of capital expenditure at EUR 1.9bn (previous year: EUR 2.2bn). Expenses were primarily on new aircraft and down payments for aircraft.

→ [Fleet, p. 14f.](#) This capital expenditure also includes aircraft overhauls and down payments.

Capital expenditure of EUR 29m (previous year: EUR 116m) in the Logistics segment related partly to intangible assets and other items of property, plant and equipment. Capital expenditure of EUR 216m (previous year: EUR 154m) in the MRO segment was partly for the purchase of reserve engines, operating and office equipment, and shares, as well as for the granting of loans. Capital expenditure of EUR 73m (previous year: EUR 148m) in the Catering segment consisted of maintaining existing production facilities and purchasing shares in companies.

Cash flow

Cash flow from operating activities shrank by 4.3 per cent to EUR 3.2bn. Free cash flow increased to EUR 1.1bn due to lower capital expenditure (previous year: EUR 834m).

Cash flow from operating activities down to EUR 3.2bn

The Group's cash flow from operating activities came to EUR 3.2bn, which is EUR 147m, or 4.3 per cent, lower than the previous year's figure. An improvement of EUR 222m was seen initially in the profit before income taxes. This includes positive, non-cash earnings effects of around EUR 1.0bn (previous year: EUR 691m), which led to a year-on-year decline in the result recognised in the cash flow statement of EUR 346m. This primarily related to savings from the restructuring of retirement and transitional benefits for the cabin crew at Lufthansa Passenger Airlines (EUR -652m), lower expenses from the measurement of financial liabilities as of the reporting date (EUR -95m), offset by lower income from the measurement of financial derivatives (EUR +414m). A further reduction in the cash flow from operating activities totalling EUR 295m was the result of changes in trade working capital and in other assets/liabilities. Settling hedging transactions accounted for EUR 150m, and as yet uncleared sales tax assets for EUR 90m. By contrast, cash outflows from income tax payments fell, which benefited the cash flow from operating activities

to the amount of EUR 143m. This was the result of back payments for previous years made in 2015. Negative earnings effects of EUR 129m in total were attributable to investing or financing activities.

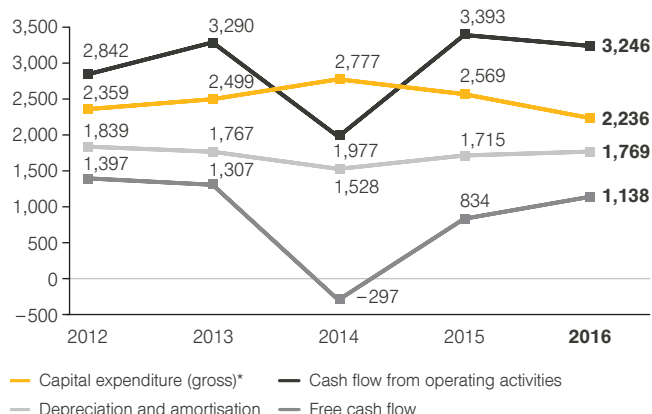
Free cash flow up to EUR 1.1bn

Gross capital expenditure for the Lufthansa Group came to EUR 2.5bn. This included the primary, secondary and financial investment described beforehand as well as repairable spare parts for aircraft. Asset disposals gave rise to income of EUR 94m (previous year: EUR 138m).

Aircraft disposals accounted for EUR 35m, and repayments received for loans for EUR 37m. Interest and dividend income went down by 16.8 per cent to EUR 272m. This brought total net cash used for investing activities to EUR 2.1bn (previous year: EUR 2.6bn).

After deducting this net cash used for investing activities, free cash flow for the financial year 2016 was positive at EUR 1.1bn (previous year: EUR 834m). The internal financing ratio, that is the proportion of capital expenditure financed from cash flow, came to 145.2 per cent (previous year: 132.1 per cent).

C16 Capital expenditure, cash flow from operating activities, depreciation and amortisation and free cash flow in €m



* Capital expenditure shown without pro rata profit/loss from the equity valuation.

T023 Abbreviated cash flow statement of the Lufthansa Group

	2016 in €m	2015* in €m	Change in %
Profit/loss before income taxes	2,248	2,026	11.0
Depreciation and amortisation/reversals	1,820	1,790	1.7
Net proceeds on disposal of non-current assets	-38	-53	-28.3
Net interest/result from equity investments	133	49	-171.4
Income tax payments	-54	-197	-72.6
Significant non-cash expenses/income	-1,037	-691	50.1
Change in trade working capital	-140	-251	-44.2
Change in other assets and liabilities	314	720	-56.4
Cash flow from operating activities	3,246	3,393	-4.3
Investments and additions to repairable spare parts	-2,500	-2,936	-14.9
Purchase/disposal of shares/non-current assets	120	50	140.0
Dividends and interest received	272	327	-16.8
Net cash from/used in investing activities	-2,108	-2,559	-17.6
Free cash flow	1,138	834	36.5
Purchase/disposal of securities/fund investments	-721	-714	1.0
Capital increase	-	-	-
Transactions with minority interests	1	2	-50.0
Non-current borrowing and repayment of non-current borrowing	202	304	-33.6
Dividends paid	-233	-14	1,564.3
Interest paid	-242	-266	-9.0
Net cash from/used in financing activities	-272	26	
Changes due to currency translation differences	-3	22	
Cash and cash equivalents 1.1.	996	828	20.3
Cash and cash equivalents 31.12.	1,138	996	14.3

* Previous year's figures have been adjusted.

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Financing activities result in net cash outflow

The purchase of securities for EUR 1.3bn and the sale of securities for EUR 581m resulted in a net cash outflow of EUR 721m (previous year: EUR 714m).

The balance of financing activities was a net cash outflow of EUR 272m (previous year: inflow of EUR 26m). New borrowing of EUR 1.7bn, partly from two borrower's note loan issues (EUR 1.2bn in total) and several aircraft financing transactions, was offset by cash outflows of EUR 1.5bn in total for scheduled capital repayments and the redemption of a Eurobond (EUR 750m in total). Other cash outflows were for interest payments (EUR 242m) and dividend distributions to the shareholders of Deutsche Lufthansa AG and minority shareholders (EUR 233m).

Liquidity up to EUR 3.8bn

Cash and cash equivalents increased by EUR 142m in the reporting period to EUR 1.1bn at year-end. This includes a decrease of EUR 3m in cash and cash equivalents due to exchange rate movements. In total, cash and cash equivalents plus current securities came to EUR 3.8bn (previous year: EUR 3.0bn). The increase at year-end was in part due to the addition of EUR 1.6bn to the defined-contribution pension system for flight attendants at Lufthansa Passenger Airlines, which was scheduled to take place at the beginning of 2017.

Financing

Several aircraft financing deals and borrower's note loans concluded

In 2016, a total of 13 Japanese operating lease (JOL) transactions were concluded for ten Airbus A320s, two A321s and one A380. This enabled funds totalling EUR 625m to be raised on favourable terms. These JOL deals are repaid continuously over the approximately eleven-year term of the respective contracts.

In 2016, Deutsche Lufthansa AG issued borrower's note loans for a total of EUR 1.7bn, of which EUR 0.5bn was issued in April 2016 and EUR 1.2bn in December 2016. EUR 541m from the second issue of EUR 1.2bn was received in December 2016. The remainder of EUR 659m was remitted to Deutsche Lufthansa AG in January 2017. The borrower's note loans have different maturities, as well as fixed and floating-rate tranches.

In September 2016, the Lufthansa Group relaunched its Euro Medium Term Note (EMTN) programme, a form of debt issuance programme. The programme enables the Group to issue bonds on the capital market at very short notice. It is listed on the Luxembourg stock exchange.

An unsecured loan with a volume of EUR 79m and a maturity of seven years was arranged with a Japanese lender on attractive terms.

There was no significant off-balance-sheet financing in the reporting year. However, various Lufthansa Group companies did enter into rental and/or operating lease contracts. These mainly relate to leases for aircraft and property. → Notes to the consolidated financial statements, Note 20, [p. 121f.](#)

Ongoing funding of pension obligations continues

Contributions, including employee contributions, of EUR 39m were made in Germany in 2016. The contribution of EUR 600m that was made annually in the past to fund German pension liabilities was suspended in 2016 and is to be used to implement new wage agreements in 2017. Altogether, contributions to the German defined-contribution programme of EUR 1.9bn are planned for 2017. This will cover all of the liabilities resulting from this programme.

Ratings confirmed

The two rating agencies Standard & Poor's and Moody's confirmed their ratings for the Lufthansa Group. Lufthansa has an investment grade rating of BBB- from Standard & Poor's and a non-investment-grade rating of Ba1 from Moody's. The current ratings primarily reflect the sound financial profile from the perspective of the rating agencies and the diversification across a broad route network and various business segments. As a result of adjusting the Lufthansa Group's EBIT forecast for the full year 2016 on 20 July 2016, Standard & Poor's nonetheless reduced its outlook from "stable" to "negative" on 15 September 2016, with Moody's following on 8 November 2016 with a shift from "positive" to "stable". Since 4 November 2016, Lufthansa has had an initial investment grade rating of BBB- with a stable outlook from the Scope Ratings agency.

T024 Development of ratings

Rating/outlook	2016	2015	2014	2013	2012
Standard & Poor's	BBB-/negative	BBB-/stable	BBB-/stable	BBB-/stable	BBB-/stable
Moody's	Ba1/stable	Ba1/positive	Ba1/positive	Ba1/stable	Ba1/stable
Scope Ratings	BBB-/stable				

T025 Lufthansa's credit ratings

Standard & Poor's (September 2016)*	Long-term: BBB– Short-term: A-3 Outlook: Negative	Moody's Investors Service (November 2016)*	Long-term: Ba1 Short-term: Not Prime Outlook: Stable	Scope Ratings (November 2016)*	Long-term: BBB– Short-term: S-2 Outlook: Stable
Strengths		Strengths		Strengths	
<ul style="list-style-type: none"> + 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 + Balanced exposure to high-yielding, premium long-haul traffic across its route portfolio; leading domestic market position in Germany; regional brands are well established + 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's earnings + Strong liquidity position 		<ul style="list-style-type: none"> + One of the largest airlines in the world and a leading position in the European airline sector with a strong diversified route network; Eurowings strategy of point-to-point traffic addresses cost competitiveness + Robust business profile with diversified business segments reduces its exposure to volatility in passenger and cargo business + Diversity of business segments; maintenance, repair and overhaul (MRO) and airline catering business segments deliver stable profit contribution + Solid liquidity position 		<ul style="list-style-type: none"> + 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 long-haul traffic across its route portfolio; leading domestic market position in Germany + Diversified operations (maintenance, repair and overhaul (MRO) and airline catering) with strong market positions mitigating cyclical risks in passenger and cargo traffic + Solid liquidity position 	
Weaknesses		Weaknesses		Weaknesses	
<ul style="list-style-type: none"> - Cost position as a competitive disadvantage; difficulties in reducing staff costs - Significant and volatile pension obligations due to a fluctuating discount rate 		<ul style="list-style-type: none"> - Profitability of the Passenger Airline Group depends on external factors including uncertain fuel prices and economic development in Europe - Market position is challenged by Middle-Eastern airlines in the long-haul segment and low-cost carriers in the short-haul segment 		<ul style="list-style-type: none"> - Cyclical nature of the airline industry; Lufthansa Group's profitability below its peers' - Cost advantages could erode by competitive pressure 	

* Latest report.

Assets

The Group's total assets rose by EUR 2.2bn to EUR 34.7bn as of 31 December 2016. Non-current assets were up by EUR 1.0bn, while current assets increased by EUR 1.3bn. Shareholders' equity climbed by EUR 1.3bn to EUR 7.1bn.

Assets

Non-current assets up by EUR 1.0bn

Within non-current assets, the item aircraft and reserve engines rose by EUR 207m to EUR 14.8bn. Repairable spare parts for aircraft increased by EUR 216m to EUR 1.6bn. The increase of EUR 240m in derivative financial instruments relates mostly to exchange rate and fuel price hedges. Claims related to deferred tax assets grew by EUR 213m, primarily due to a rise in pension provisions, which in turn was mainly the result of a decrease in the discount rate from 2.8 per cent to 2.1 per cent.

Current assets up by EUR 1.3bn

Within current assets, receivables rose by EUR 181m to EUR 4.6bn. The increase of EUR 94m in derivative financial instruments to EUR 534m related mainly to higher market values of fuel hedges, which were offset by lower market values of exchange rate hedges. Cash and cash equivalents, consisting of current securities, bank balances and cash-in-hand, went up by EUR 844m to EUR 3.9bn. Assets held for sale as of 31 December 2016 included seven Airbus A340-600s, two CRJ 9000s, seven Boeing 737-300s and three Boeing MD-11Fs.

Shareholders' equity and liabilities

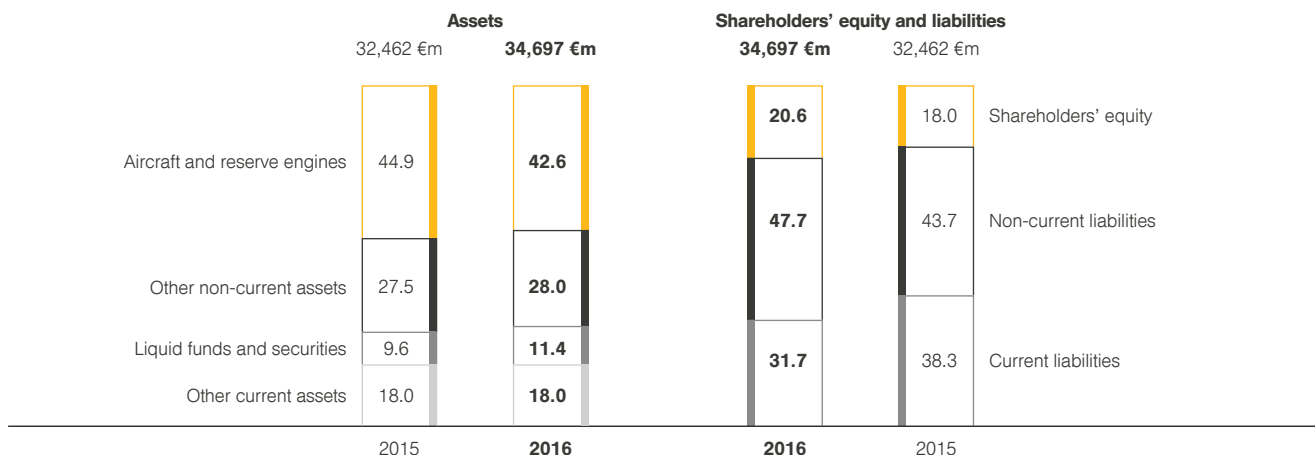
Shareholders' equity increases by EUR 1.3bn

Equity (including minority interests) went up year on year by EUR 1.3bn, or 22.3 per cent, to EUR 7.1bn. Starting from a positive after-tax result of EUR 1.8bn, dividend payments of EUR 0.2bn as well as the increase in provisions for pensions recognised directly in equity (EUR 1.5bn) caused shareholders' equity to go down by EUR 1.7bn in total. However, a significant increase of EUR 1.2bn in total was reported in the market value reserve for financial instruments – due, in particular, to the higher market values of fuel hedges.

Combined management report

Economic report
Earnings, assets and financial position

C17 Balance sheet structure in %



Non-current liabilities and provisions up by EUR 2.4bn

While current liabilities fell by EUR 1.4bn to EUR 11.0bn, non-current liabilities and provisions rose by EUR 2.4bn to EUR 16.6bn. Within non-current liabilities, the pension obligations went up by EUR 1.7bn to EUR 8.4bn, largely due to the fall in the discount rate from 2.8 per cent to 2.1 per cent. Financial liabilities increased by EUR 780m in total to EUR 5.8bn. The issue of two borrower's note loans with a total volume of EUR 1.2bn was offset mainly by reclassifications to current financial liabilities due to maturities. The reduction in derivative financial instruments (EUR –253m) was due almost entirely to lower negative market values for fuel hedges.

Current liabilities and provisions down by EUR 1.4bn

Within current liabilities and provisions, financial liabilities fell by EUR 575m to EUR 764m, partly due to the redemption of a euro bond (for a nominal value of EUR 750m). Trade payables and other financial liabilities went down overall by EUR 158m to EUR 4.7bn. Liabilities from unused flight documents went up by EUR 139m to EUR 3.0bn. Fuel hedges accounted for EUR 895m of the significant reduction of EUR 1.0bn in the negative market value of derivative financial instruments.

Capital structure

T026 Development of earnings, equity and equity ratio

		2016	2015	2014	2013	2012
Result*	€m	1,803	1,722	75	326	1,241
Equity*	€m	7,149	5,845	4,031	6,108	4,839
Equity ratio*	%	20.6	18.0	13.2	21.0	16.9
Equity rendite	%	25.2	29.5	1.9	5.3	25.6

* Including minority interests.

Equity ratio up to 20.6 per cent

With a year-on-year increase of 6.9 per cent in total assets, the equity ratio went up from 18.0 per cent at year-end 2015 to 20.6 per cent.

Net indebtedness down to EUR 2.7bn

Non-current funding accounted for 68.3 per cent of the balance sheet total (previous year: 61.7 per cent). Non-current financing now covers 96.7 per cent of non-current assets (previous year: 85.1 per cent).

Net indebtedness fell by 19.3 per cent to EUR 2.7bn (previous year: EUR 3.3bn). This is the balance of gross financial debt and available financial assets.

T027 Calculation of net indebtedness

	2016 in €m	2015 in €m	Change in %
Liabilities to banks	1,775	1,079	64.5
Bonds	1,009	1,749	-42.3
Other non-current borrowing	3,791	3,542	7.0
	6,575	6,370	3.2
Other bank borrowing	63	70	-10.0
Group indebtedness	6,638	6,440	3.1
Cash and cash equivalents	1,256	1,099	14.3
Securities	2,681	1,994	34.5
Net indebtedness	2,701	3,347	-19.3
Pension provisions	8,364	6,626	26.2
Net indebtedness and pensions	11,065	9,973	10.9

Debt repayment ratio down to 28.7 per cent

The debt repayment ratio fell by 2.0 percentage points to 28.7 per cent.

T028 Debt repayment ratio

in €m	2016	2015
Cash flow from operating activities	3,246	3,393
Change in trade working capital/ other assets and liabilities	-174	-469
Interest income	192	271
Interest paid ¹⁾	-236	-266
Dividends received	80	56
Adjusted cash flow from operating activities	3,108	2,985
Net indebtedness and pensions²⁾	10,818	9,726
Debt repayment ratio in %	28.7	30.7

¹⁾ For the calculation of the debt repayment ratio 50 per cent of the interest payments of the hybrid bond issued in 2015 (2016: EUR 6m) have been deducted from the net indebtedness.

²⁾ For the calculation of the debt repayment ratio 50 per cent of the hybrid bond issued in 2015 (EUR 247m) have been deducted from the net indebtedness.

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

✂ Lufthansa Group achieves earnings and financial targets.

Target achievement

Lufthansa Group achieves overall forecast

In July 2016, the Lufthansa Group revised its full-year forecast for Adjusted EBIT from “slightly above previous year” to “below previous year”, due, in particular, to repeated terrorist attacks in Europe, greater political and economic uncertainty and the resulting decline in advance bookings, especially on long-haul connections to Europe. The revenue forecast was revised from “slightly above previous year” to “below previous year”.

Compared with the revised forecast, hard-to-predict short-term bookings made by business travellers then performed better than expected in September 2016. The capacity and management measures taken in response to the shortfall in long-term bookings were successful. Political and economic uncertainty nonetheless continued to place a significant burden on long-term bookings, especially for long-haul connections to Europe. On the basis of its experience in this environment to date, the Lufthansa Group raised its Adjusted EBIT forecast for the full year from “below previous year” to “approximately on previous year’s level”.

This forecast was achieved, with Adjusted EBIT 3.6 per cent lower, at EUR 1,752m, and revenue 1.2 per cent lower, at EUR 31.7bn. After adjusting for the strike costs of around EUR 100m, which were explicitly excluded from the original forecast for the year, the original earnings forecast was therefore met.

The Lufthansa Group expected a year-on-year decline in net profit, but it came to EUR 1,776m, which was 4.6 per cent up on the previous year. The main reason for the better-than-expected performance were positive one-off effects from the agreement with the flight attendants at Lufthansa Passenger Airlines.

For 2016, the Lufthansa Group expected EACC to be higher than the previous year. At EUR 817m, it was 152.9 per cent above the previous year. The main reasons for this were lower costs of capital and, above all, the significant year-on-year increase in EBIT.

Combined management report

Economic report

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

T029 Target achievement revenue and result

	Revenue			Adjusted EBIT		
	Revenue 2015 in €m	Forecast for 2016*	Revenue 2016 in €m	Adjusted EBIT 2015 in €m	Forecast for 2016*	Adjusted EBIT 2016 in €m
Lufthansa Passenger Airlines	16,066		15,409	881	slightly above previous year	1,135
SWISS	4,542		4,471	429	slightly below previous year	414
Austrian Airlines	2,102		2,153	52	significantly above previous year	58
Eurowings	1,909		2,060	38	slightly negative result	-91
Reconciliation	-120		-202	105		11
Passenger Airline Group	24,499	slightly above previous year	23,891	1,505	slightly above previous year	1,527
Logistics	2,355	slightly below previous year	2,084	74	slightly above previous year	-50
MRO	5,099	slightly above previous year	5,144	454	significantly below previous year	411
Catering	3,022	slightly above previous year	3,194	99	slightly below previous year	104
Other	484		437	-370	significantly above previous year	-236
Internal revenue/Reconciliation	-3,403		-3,090	55		-4
Lufthansa Group reported	32,056	slightly above previous year	31,660	1,817	slightly above previous year	1,752

* As stated in the Annual Report 2015.

Segment targets and balance sheet targets achieved with few exceptions

The majority of the operating segments achieved their revenue and earnings targets.

Revenue fell in both the Passenger Airline Group and the Lufthansa Group, contrary to expectations of a figure slightly higher than that of the previous year. The main reason was that demand was weaker than originally predicted, planned capacity growth was reduced as a result and unit revenues were lower.

The Logistics segment did not achieve its target of Adjusted EBIT slightly above the previous year. This was because demand was weaker than expected and the market suffered from significant overcapacities as a result, thereby severely eroding yields.

The Catering segment reported better Adjusted EBIT than expected. Lower restructuring expenses than originally planned were the main reason for this.

The operating indicators for the Passenger Airline Group largely performed as expected. Only capacity growth and load factors were lower than anticipated due to geopolitical developments.

T030 Target achievement financial profile

	Result 2015	Forecast for 2016	Result 2016
Equity ratio	18.0%	increase	20.6%
Debt repayment ratio	30.7%	stable	28.7%
Liquidity	€ 3.1bn	stable	€ 3.9bn

T031 Target achievement traffic figures Passenger Airline Group

		Result 2015	Forecast for 2016 ¹⁾	Result 2016
Flights	number	994,243	+2.3%	+1.9%
Capacity (ASK)	millions	273,973	+6.6%	+4.6%
Sales (RPK)	millions	220,395	in line with capacity	+2.8%
Passenger load factor (SLF)	%	80.4	stable	-1.4 pts
Pricing (Average yields)	€ cent	10.3	significantly negative ²⁾	9.8 ²⁾
Unit revenue (RASK)	€ cent	8.3	significantly negative ²⁾	7.8 ²⁾
Unit costs (CASK excluding fuel)	€ cent	8.9	negative ²⁾	8.0 ²⁾

¹⁾ As stated in the Annual Report 2015.

²⁾ At constant currency.

Overall statement by the Executive Board on the economic position

In the opinion of the Executive Board, the Lufthansa Group performed well in 2016. In a particularly difficult market, achieving a margin at roughly the same, record level as in the previous year is not a matter of course. The Lufthansa Group has therefore shown that its business model is balanced and robust. Even in a challenging market situation, important entrepreneurial decisions continued to be taken to improve the Company's current and future performance.

The Lufthansa Group's profitability and balance sheet were affected by many volatile external factors over the course of the year. They included, in particular, the oil price, the exchange rate between the euro and the US dollar, and widely fluctuating interest rates. Ultimately, the significantly lower fuel expenses in the industry led to a particularly steep fall in yields. However, they also helped to make up for at least part of the revenue lost as a result of the fall in demand relating to geopolitical developments. Of particular significance is the fact that we were able to sustainably reduce unit costs at the passenger airlines.

Great progress was made overall with the implementation of the "7to1 – Our Way Forward" strategic programme. This included the successful joint venture agreements with Air China and Singapore Airlines. Some 70 per cent of all of the network airlines' revenue is now generated in leading joint ventures.

Initial success was also achieved in implementing the distribution strategy. The proportion of direct bookings continues to go up steadily. The appeal of increasingly individualised products and the trial application of a new revenue management system show great revenue potential.

Over the course of the year, many aircraft were replaced by more modern models, with some 20 per cent greater fuel efficiency on average. Particularly important was the introduction of the Airbus A320neo at Lufthansa Passenger Airlines and the Bombardier C Series at SWISS. The Lufthansa Group was the global launch customer for both aircraft types. New additions to the fleet also included the Boeing 777 at SWISS and the Embraer 190 at Austrian Airlines.

Commercial functions at the network airlines were increasingly merged as part of the ongoing reorganisation. Over the course of the year, all processes were revised and leadership structures adapted. For the administrative processes in financial and human resources functions, the conditions were also created for cutting a significant number of management positions in the new financial year.

A comprehensive modernisation of retirement and transitional benefits and a long-term settlement were agreed with the flight attendants at Lufthansa Passenger Airlines. This will deliver sustainable cost reductions, a stronger balance sheet and long-term planning security. Arbitration on pay was agreed in talks with the pilots at Lufthansa Passenger Airlines.

Individual growth programmes and comprehensive efficiency initiatives were launched at all of the service companies.

As profitability is currently relatively high by long-term standards, a decision was taken for all of the operating segments to accept short-term earnings impairments, due to strikes or restructuring, for example, where this will strengthen the future performance of the Lufthansa Group. The Lufthansa Group again achieved one of the best results in its history. The cost of capital was covered and additional value was created for shareholders. A proposal will be made to distribute a dividend in line with the dividend policy.

An extensive wet-lease agreement with Air Berlin and the complete takeover of Brussels Airlines will particularly benefit Eurowings in 2017. Both transactions result in a direct reduction in unit costs. Furthermore, they strengthen Eurowings' market position in its home markets and actively advance the consolidation that is important for the airline industry. By wet-leasing aircraft from Air Berlin, Eurowings will reduce joint capacity in Europe by more than 30 per cent, thereby reducing pressure on yields.

In the new financial year, the integration of this new capacity will play a vital role. Another priority will be to finalise the wage agreements with the pilots at Lufthansa Passenger Airlines, Germanwings and Lufthansa Cargo. Various digitalisation initiatives will be pursued alongside continuous cost reductions, in order to put the Lufthansa Group in an even stronger position for the future.

Business segments

Business segment Passenger Airline Group

✂ Passenger Airline Group is at the heart of the Lufthansa Group's value creation.

/ Network airlines expand route networks and premium positioning. /

Eurowings successfully develops point-to-point traffic. / Earnings increase

despite lower revenue. / Passenger numbers set new record.

23.9

€bn Revenue

1,527

€m Adjusted EBIT

T032 Key figures Passenger Airline Group

		2016	2015	Change in %
Revenue	€m	23,891	24,499	-2.5
of which with companies of the Lufthansa Group	€m	628	678	-7.4
EBIT	€m	2,095	1,465	43.0
Adjusted EBIT	€m	1,527	1,505	1.5
EBITDA ¹⁾	€m	3,616	2,767	30.7
Adjusted EBIT margin	%	6.4	6.1	0.3 pts
EACC	€m	1,004	414	142.5
ROCE	%	13.3	9.5	3.8 pts
Segment capital expenditure ²⁾	€m	1,866	2,201	-15.2
Employees as of 31.12.	number	54,308	55,255	-1.7
Average number of employees	number	55,201	55,169	0.1
Passengers ²⁾	thousands	109,670	107,679	1.8
Flights ²⁾	number	1,012,714	994,243	1.9
Available seat-kilometres ²⁾	millions	286,555	273,973	4.6
Revenue seat-kilometres ²⁾	millions	226,633	220,395	2.8
Passenger load factor	%	79.1	80.4	-1.4 pts
Average yields	€ cent	9.8	10.3	-5.0
Unit revenue (RASK)	€ cent	7.8	8.3	-6.6
Unit cost (CASK)	€ cent	8.0	8.9	-10.6

¹⁾ Before profit/loss transfer from other companies.

²⁾ Previous year's figures have been adjusted.

Business activities

Passenger Airline Group is at the heart of value creation

Passenger transportation is the Lufthansa Group's largest business segment. The airlines Lufthansa Passenger Airlines, SWISS, Austrian Airlines and Eurowings make up the Passenger Airline Group. The portfolio is supplemented by further strategic equity investments in SunExpress and Brussels Airlines, which was acquired in full by the Lufthansa Group at the start of 2017. Eurowings has reported separately as an independent business entity within the Passenger Airline Group since 2016. The figures for the previous year have been adjusted accordingly.

Intensive coordination among the airlines creates significant synergies for the airline group. All of the airlines share the common objective of meeting customers' demands in terms of safety, quality, punctuality, reliability and professional service. With its multi-hub strategy, the Passenger Airline Group can offer its passengers a comprehensive route network combined with the highest level of travel flexibility. In the 2016 summer flight timetable, the route network comprised 301 destinations in 100 countries, served via the international hubs in Frankfurt, Munich, Zurich, Vienna and Brussels.

Network airlines focus on strengthening market position and on customers' requirements

The Lufthansa Group's network airlines concentrate on securing their leading competitive positions at the major hubs, and on profitably expanding the corresponding European and long-haul route networks and developing their premium positioning by continually improving their products and services for customers. The route network is also increasingly being expanded to include short and long-haul tourist destinations.

Commercial joint ventures to support unit revenues cover the most important long-haul markets and thereby around 70 per cent of the network airlines' long-haul revenue. They also provide additional destinations and connections for the network airlines. Important partnerships exist with United Airlines and Air Canada on routes between Europe and North America, and with All Nippon Airways (ANA) and Singapore Airlines on routes between Europe and Japan and Singapore respectively.

In September 2016, a wide-ranging partnership agreement was also signed between the Lufthansa Group and Air China, on the basis of which the two airline groups will jointly offer all connections between Europe and China as part of a commercial joint venture. The joint venture aims to significantly expand their mutual code-sharing connections and enhance their commercial partnership.

Eurowings grows in point-to-point traffic

With the Eurowings brand, the Lufthansa Group intends to step into additional markets in point-to-point traffic and safeguard its profitable leading position, especially in its home markets of Germany, Austria, Switzerland and Belgium. Here, Eurowings is playing an active role in consolidation in Europe. In addition, the focus will be on further expanding Eurowings' long-haul connections to tourist destinations.

Course of business and operating performance

Wet lease signed between Eurowings, Austrian Airlines and Air Berlin

The Lufthansa Group and Air Berlin PLC have signed an agreement for the use by the Group companies Eurowings and Austrian Airlines of a total of 38 aircraft managed by the Air Berlin group on a wet-lease basis. The agreement is to run for six years and will begin when the first aircraft is delivered at the start of February 2017. Under the agreement, Air Berlin will lease 33 aircraft to Eurowings, which are to fly in the Eurowings livery in future. Another five aircraft will be leased by Austrian Airlines. The leases have been agreed at competitive rates. Eurowings and Austrian Airlines will not only lease the aircraft from Air Berlin, but also all flight operations for these aircraft, i.e. including cockpit and cabin crew, and maintenance.

The aircraft are to have their home base at seven German airports as well as in Vienna and Palma de Mallorca. The competition authorities responsible have approved the agreement. In addition, the Lufthansa Group has signed a code-share agreement with Etihad Aviation Group for a total of four routes.

Lufthansa Group acquires entirety of Brussels Airlines

The Lufthansa Group has exercised its call option to acquire the remaining 55 per cent of the shares in SN Airholding, the parent of Brussels Airlines. The transaction was completed in early January 2017. The purchase price for the remaining shares was roughly EUR 2.6m. Brussels Airlines is to be fully integrated into the Lufthansa Group from 2018 and will fly under the umbrella of the Eurowings group. Synergies from the full integration are expected to add up to a mid double-digit million euro amount per year. The integration costs may adversely affect earnings in the short term, however. The acquisition of Brussels Airlines and the wet-lease agreement with Air Berlin will make Eurowings the number three in European point-to-point traffic.

Passenger Airline Group cuts costs

Efforts to cut costs at the Passenger Airline Group are paying off. Unit costs were down year on year in all relevant areas. Viewed in absolute terms, total costs are down by more than fuel costs. This is a vital success compared with cost developments in previous years. The efforts to reduce costs are to be continued in order to reinforce the Lufthansa Group's future viability.

Progress made in implementing the distribution strategy

The new sales strategy defined in 2015 is starting to pay off. The Distribution Cost Charge (DCC) levied on bookings made via a global reservation system has become established in the market. At the same time, the share of direct bookings at the network airlines, particularly in their home markets, has continually increased. Negotiations on direct bookings with customers, tour operators, travel agencies and technology providers are delivering a steady stream of successes. Demand has also increased for complementary services such as upgrades, baggage services, hotels, rental cars and insurance.

The new distribution strategy makes it possible to provide attractive and varied offers that meet the ever more individual and dynamic requirements of sales partners and corporate customers, while also enabling improved yield management.

T033 Trends in traffic regions

Passenger Airline Group

	Net traffic revenue in €m external revenue		Number of passengers in thousands		Available seat- kilometres in millions		Revenue seat- kilometres in millions		Passenger load factor in %	
	2016	Change in %	2016	Change in %	2016	Change in %	2016	Change in %	2016	Change in pts
Europe	10,247	-0.2	87,522	1.7	94,939	3.2	71,353	1.4	75.2	-1.3
America	6,720	-2.3	11,184	6.6	103,384	10.0	84,585	7.2	81.8	-2.1
Asia/Pacific	3,770	-5.9	6,546	-0.9	65,100	1.5	52,926	-0.1	81.3	-1.3
Middle East/Africa	1,519	-7.7	4,418	-2.4	23,132	-3.3	17,769	-2.3	76.8	0.8
Total	22,256	-2.4	109,670	1.8	286,555	4.6	226,633	2.8	79.1	-1.4

Combined management report

Business segments

Business segment Passenger Airline Group

Passenger numbers at record level

The Passenger Airline Group carried a total of 109.7 million passengers in 2016. This represents a year-on-year increase of 1.8 per cent and sets a new record for passenger numbers. The number of flights went up by 1.9 per cent. Capacity increased by 4.6 per cent, mainly by deploying larger aircraft. Sales rose by 2.8 per cent. The passenger load factor fell by 1.4 percentage points to 79.1 per cent. Yields contracted by 5.0 per cent, and traffic revenue was down by 2.4 per cent.

Capacity growth was particularly strong in the Americas traffic region. The Middle East/Africa traffic region shrank, however. In Europe and Asia, capacity growth was in line with the average. The load factor declined in all regions aside from the Middle East/Africa. Yields developed differently in the individual traffic regions, falling only slightly in Europe. The region was least affected by uncertainties caused by geopolitical events. Strong positioning in the home markets continued to support growth. Yields declined most strongly in America, due in particular to the challenging economic and political development of countries in South America. Yields also fell significantly in the Asia and Middle East/Africa regions. Similar to the situation in America, demand in Asia for travel to Europe during the summer months was weak. Overcapacities in the market and the passing on of lower fuel costs to customers put pressure on the price development in most traffic regions.

Revenue and earnings development

Revenue down by 2.5 per cent

Despite an increase in traffic, traffic revenue for the segment was down by 2.4 per cent overall to EUR 22.3bn. While sales volumes were up by 2.8 per cent, lower prices (–4.3 per cent) and negative exchange rate effects (–0.9 per cent) resulted in lost revenue.

Revenue declined by 2.5 per cent to EUR 23.9bn. Other operating income was also down, by 21.1 per cent to EUR 1.1bn. The decline stemmed mainly from lower exchange rate gains (EUR –383m) and lower income from the write-back of provisions (EUR –11m). As a result, total operating income fell by 3.5 per cent to EUR 25.0bn. The fall in traffic revenue, primarily due to pricing, was the main reason why the forecast of slightly higher revenue, made the year before, did not materialise in the past financial year.

T034 Expenses Passenger Airline Group

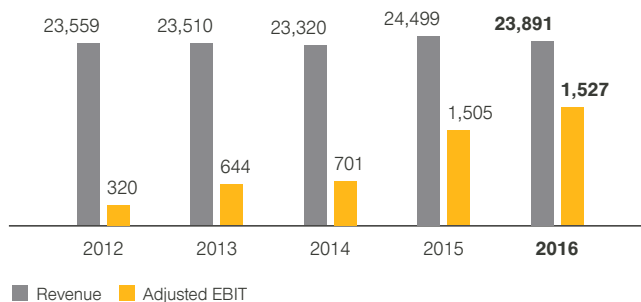
	2016 in €m	2015 in €m	Change in %
Cost of materials and services	14,361	15,146	–5.2
of which fuel	4,625	5,464	–15.4
of which fees	5,469	5,375	1.7
of which operating lease	36	28	28.6
of which MRO services	1,929	2,098	–8.1
Staff costs	3,828	4,675	–18.1
Depreciation and amortisation	1,401	1,301	7.7
Other operating expenses	3,314	3,386	–2.1
of which agency commissions	302	317	–4.7
of which external staff	630	612	2.9
Total operating expenses	22,904	24,508	–6.5

Expenses down by 6.5 per cent

Operating expenses fell by 6.5 per cent to EUR 22.9bn. The cost of materials and services was 5.2 per cent down on last year at EUR 14.4bn in total. Lower fuel costs (–15.4 per cent) reduced expenses significantly. Fuel prices declined by 18.3 per cent (after hedging), but this was partly offset by higher volumes (+2.3 per cent) and the change in the US dollar (+0.6 per cent). Fees and charges went up by a total of 1.7 per cent to EUR 5.5bn. Other purchased services were down by 1.3 per cent overall to EUR 4.0bn, in particular due to lower MRO services (–8.1 per cent) and purchased IT services (–11.9 per cent), offset by higher charter expenses (+68.2 per cent).

With virtually no change in the average number of employees, at 55,201 (+0.1 per cent), staff costs were down significantly by 18.1 per cent to EUR 3.8bn. The main reason for this decline was the past service expense of EUR 652m, saved as a result of the restructuring of retirement and transitional benefits for the cabin crew at Lufthansa Passenger Airlines. Expenses were also reduced by positive exchange rate effects and lower additions to pension provisions as a result of the increase in the discount rate to 2.8 per cent, from 2.6 per cent at the beginning of the year.

C18 Revenue and Adjusted EBIT Passenger Airline Group in €m



Depreciation of aircraft increased by 1.4 per cent to EUR 1.2bn. Other operating expenses fell by 2.1 per cent to EUR 3.3bn. The main reason for this was lower exchange rate losses (EUR –362m), offset by higher expenses for advertising and sales promotion (EUR +45m) as well as higher costs for computerised distribution systems (EUR +37m). In the new Group structure, key processes for the network airlines Lufthansa Passenger Airlines, SWISS and Austrian Airlines have been pooled in the Group functions and charged to the airlines. This internal billing resulted in expenses of EUR 95m for the Passenger Airline Group segment in the reporting period.

EBIT up to EUR 2.1bn, Adjusted EBIT up 1.5 per cent on the year at EUR 1.5bn

Including the approximate results from equity investments of EUR –2m (previous year: EUR 47m), EBIT came to EUR 2.1bn (+43.0 per cent). Adjusted EBIT for the Passenger Airline Group rose year on year by 1.5 per cent to EUR 1.5bn. This represents an Adjusted EBIT margin of 6.4 per cent (previous year: 6.1 per cent). Strikes and their effects reduced earnings by around EUR 100m. Comments on the earnings of the individual airlines can be found in the following sections.

Net income of EUR 568m overall was eliminated in the reconciliation from EBIT to Adjusted EBIT. It includes savings from the valuation of pension provisions (EUR 670m), which relate almost entirely to the restructuring of retirement and transitional benefits for the cabin crew at Lufthansa Passenger Airlines, as mentioned above. In addition, impairment losses of EUR 120m on seven Airbus A340-600s in particular, seven Boeing 737-300s and two Bombardier CRJ 900s held for sale, as well as positive net income from book gains and losses on the disposal of assets (EUR 18m), were eliminated in the reconciliation to Adjusted EBIT.

Segment capital expenditure down to EUR 1.9bn

Segment capital expenditure declined by 15.2 per cent to EUR 1.9bn. It comprised the purchase of 47 aircraft, the renewal of three aircraft finance leases as well as aircraft overhauls and advance payments. → [Financial position, p. 32ff.](#)

Lufthansa Passenger Airlines



T035 Lufthansa Passenger Airlines¹⁾

		2016	2015	Change in %
Revenue ²⁾	€m	15,409	16,066	-4.1
EBIT ²⁾	€m	1,723	813	111.9
Adjusted EBIT ²⁾	€m	1,135	881	28.8
EBITDA ^{2) 3)}	€m	2,700	1,707	58.2
Employees as of 31.12. ²⁾	number	34,654	37,076	-6.5
Average number of employees ²⁾	number	36,049	37,176	-3.0
Passengers ²⁾	thousands	62,418	62,372	0.1
Flights ²⁾	number	544,422	535,554	1.7
Available seat-kilometres ²⁾	millions	184,428	182,337	1.1
Revenue seat-kilometres ²⁾	millions	145,878	146,297	-0.3
Passenger load factor	%	79.1	80.2	-1.1 pts

¹⁾ Including regional partners.
²⁾ Previous year's figures have been adjusted.
³⁾ Without Group-internal profit and loss transfer/investment income.

Lufthansa Passenger 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 Passenger Airlines. Overall, the Lufthansa Passenger Airlines carriers operate a fleet of 350 aircraft and serve a route network comprising 203 destinations in 74 countries.

Premium positioning strengthened by fleet renewal and customer focus

Lufthansa Passenger 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. The introduction of the high-quality Signature Service in Business Class on the entire Lufthansa Passenger Airlines long-haul fleet was completed in spring 2016.

Lufthansa Passenger Airlines continued its fleet renewal programme in 2016. The fundamental modernisation of the fleet enables more efficient and quieter flights as well as further cuts to be made to unit costs. On average, the new generation of aircraft is 15 to 25 per cent more fuel-efficient than the models it replaces.

Lufthansa Passenger Airlines was the first customer in the world to take delivery of the Airbus A320neo. A total of five A320neos were delivered in 2016 and are stationed in Frankfurt. Compared with its predecessor, the A320neo uses much less fuel and has reduced noise emissions. In late 2016, the first A350-900 aircraft was stationed in Munich. Lufthansa Passenger Airlines has ordered 25 aircraft of this type in total, of which one had already been received by the end of the financial year. The A350-900 is the most efficient aircraft in its class and has a 30-per-cent reduction in noise emissions.

Combined management report

Business segments

Business segment Passenger Airline Group

In the short and medium-haul fleet, the first A320 aircraft were fitted with broadband internet. By mid 2018, the entire A320 fleet is to be equipped with the innovative technology. For a fee, passengers can then access the internet with their own mobile devices using on-board Wi-Fi. All long-haul aircraft at Lufthansa Passenger Airlines already have internet on board.

Long-term collective agreement reached with UFO

In early July 2016, Lufthansa Passenger Airlines and the UFO flight attendants' union agreed on the principles for a long-term wage settlement. The settlement runs until 30 June 2019. Also agreed were the key points of a new defined-contribution pension scheme to replace the defined-benefit commitments for retirement and transitional benefits. The wording of the new regulations is to be finalised in the first quarter of 2017. In addition, the collective bargaining partners have agreed to apply by a number of conflict resolution mechanisms until 2023 in the event of any future disputes. This means that if an all-out strike is announced, for example, the company can call an arbitrator and divert potential industrial action into a mandatory arbitration procedure. Other elements of the arbitration agreement relate to moderate pay increases, the switch to a new pay structure dependent on qualifications, increased long-term competitiveness by means of cost monitoring as well as an employment guarantee for all cabin crew at Lufthansa Passenger Airlines until 2021. Individual elements of the agreement will be finalised in 2017.

Arbitration with Vereinigung Cockpit pilots' union reaches agreement on pay

On 15 February 2017, the Lufthansa Group and the Vereinigung Cockpit pilots' union (VC) accepted the arbitration proposal concerning the wage agreement. This includes a pay increase of around 8.7 per cent for the roughly 5,400 pilots in the Group wage agreement as well as a one-off payment totalling some EUR 30m. The wage agreements shall run until the end of 2019. The outcome of the arbitration means an increase in remuneration costs for cockpit crew of around EUR 85m per year. Talks with the trade union are to be continued in order to make alternative cost reductions as part of an overall solution. Should a solution not be reached, 40 new aircraft will be staffed by crew not included in the Group wage agreement – contrary to current fleet planning – in order to compensate for the additional costs. Last year, strikes in the course of collective bargaining caused 4,581 flight cancellations, affecting some 389,000 passengers. The threat of strikes has a negative impact on passenger bookings and thereby adversely affects revenue above and beyond the direct costs of the strike.

→ Employees, [p. 19f.](#)

Ongoing activities to increase efficiency

Steps are constantly developed and implemented to bring about continual improvements and increases in efficiency. In particular, the ongoing fleet renewal, the introduction of Premium Economy Class in 2015 and the generation of additional revenue by means of greater customer focus and personalised offers are having a positive impact on earnings. Furthermore, Lufthansa Passenger Airlines, in particular, is also benefiting from lower fees for German air traffic control. Considerable savings were made in 2016 and further significant savings are expected for the year 2017.

Yields contract despite stable passenger numbers

Lufthansa Passenger Airlines carried some 62.4 million passengers in 2016, an increase of 0.1 per cent on the previous year. The number of flights rose by 1.7 per cent, and available seat-kilometres by 1.1 per cent. Revenue seat-kilometres were down year on year by 0.3 per cent. The passenger load factor was down 1.1 percentage points at 79.1 per cent. In conjunction with 3.7 per cent lower yields, traffic revenue fell by 4.0 per cent.

Earnings improvement due to lower operating expenses and one-off effect

Lufthansa Passenger Airlines generated revenue of EUR 15.4bn in 2016. This represents a fall of 4.1 per cent compared with the previous year. Adjusted EBIT rose by EUR 28.8 per cent to EUR 1.1bn. This represents an Adjusted EBIT margin of 7.4 per cent (previous year: 5.5 per cent). EBIT was up by EUR 111.9 per cent at EUR 1.7bn. Operating expenses were 11.3 per cent down on the year at EUR 14.5bn. Staff costs, in particular, fell year on year by 28.4 per cent to EUR 2.3bn, mainly driven by the one-off impact of EUR 661m from the restructuring of retirement and transitional benefits in the new wage agreement with the UFO flight attendants' union. Other key drivers were a decline in fuel costs, largely due to pricing, and much lower MRO expenses as a result of the cabin work successfully completed in the previous year. Depreciation and amortisation was higher, however.

SWISS



T036 SWISS¹⁾

		2016	2015	Change in %
Revenue	€m	4,471	4,542	-1.6
EBIT	€m	412	462	-10.8
Adjusted EBIT	€m	414	429	-3.5
EBITDA ²⁾	€m	681	715	-4.8
Employees as of 31.12.	number	9,711	9,009	7.8
Average number of employees	number	9,453	8,819	7.2
Passengers	thousands	17,972	17,536	2.5
Flights	number	169,016	166,038	1.8
Available seat-kilometres	millions	52,731	48,345	9.1
Revenue seat-kilometres	millions	42,290	40,038	5.6
Passenger load factor	%	80.2	82.8	-2.6 pts

¹⁾ Including Edelweiss Air.

Further information on SWISS can be found at www.swiss.com.

²⁾ Without Group-internal profit and loss transfer / investment income.

SWISS is the biggest airline in Switzerland. Together with its sister company Edelweiss Air and from airports in Zurich and Geneva, it serves a global route network of 136 destinations in 53 countries with a fleet of 89 aircraft. The separately managed Swiss WorldCargo division uses the belly capacities of SWISS aircraft to offer a comprehensive range of airport-to-airport services for high-value goods and sensitive freight to 130 destinations in more than 80 countries.

Further progress with fleet renewal

SWISS has systematically put its planned fleet modernisation into practice. Altogether, it replaced six Airbus A340-300 long-haul aircraft with Boeing 777-300 ER models in 2016. One A340-300 aircraft was transferred to Edelweiss Air in a roll-over for an A330-300 and has been in service there since December 2016. By the end of 2018, another four B777-300ER aircraft are to be integrated into the SWISS fleet. With the B777-300ER, SWISS can offer its passengers in-flight telephony and internet for the first time.

SWISS will also fit the remaining five A340-300s in the fleet with a completely new cabin, a new in-flight entertainment system and internet access. By the end of 2018, the entire SWISS long-haul fleet will thereby have an up-to-date product in all three travel classes as well as wireless internet for greater customer comfort.

Five Bombardier CS100s were also put into service in 2016. SWISS is the launch customer and first operator of this short and medium-haul aircraft, which has been redeveloped from the ground up and sets new standards with regard to cost-effectiveness, environmental impact and comfort. SWISS will also deploy the new aircraft from Geneva as of April 2017. Thirty Bombardier C Series are to be added to the fleet by the end of 2018. They will mostly replace the Avro RJ-100 aircraft.

New services for passengers

SWISS has also extended its range of services. À-la-carte menus have been introduced in Economy Class on long-haul flights from Switzerland. In addition to the range of food currently available on board, passengers now also have the choice of various exclusive menus that can be ordered in advance for a fee.

The new SWISS Holidays travel portal was also launched. It allows SWISS customers to book individual holiday packages including flights and hotel. The portal offers numerous holidays at very attractive prices in interesting tourist destinations around the world.

With the opening of the new First Class, Business Class and Senator Lounges at Zurich Airport, passengers also benefit from new offers on the ground to make their travel experience even more comfortable. For its Economy Class passengers, SWISS has also introduced the option of purchasing access to the SWISS Business Lounges before they travel.

SWISS has new brand image

In order to bring its distinctive customer focus even more to the fore, SWISS has created a new brand identity with the slogan “Made of Switzerland” and the creative concept entitled “The little big differences”. The new slogan comprises the main characteristics that define SWISS as a brand: “Swissness”, emotionality and a strong customer focus.

Steps to increase efficiency have been implemented

SWISS has worked consistently to improve its efficiency. In addition to ongoing efforts to make fuel management more efficient, they focused primarily on integrating the new aircraft into the fleet and on the reduced fees and charges agreed with Zurich Airport.

SWISS sets new passenger record

SWISS set another new record for passenger numbers in 2016, carrying a total of 18.0 million passengers. This represents an increase of 2.5 per cent compared with the previous year. Capacity increased by 9.1 per cent, while sales grew by 5.6 per cent. The passenger load factor fell by 2.6 percentage points to 80.2 per cent. Yields declined by 7.1 per cent, while traffic revenue fell by 1.9 per cent.

Revenue and earnings down

Both revenue and earnings at SWISS declined in 2016. Revenue fell by 1.6 per cent to EUR 4.5bn, burdened by the steep fall in yields. Adjusted EBIT was 3.5 per cent down on the previous year at EUR 414m. This represents an Adjusted EBIT margin of 9.3 per cent (previous year: 9.5 per cent). Reasons for this included lower revenue in both the passenger and freight business, higher staff costs due to greater capacity, higher depreciation and amortisation and the absence of the previous year’s positive one-off factors, among other due to exchange rates. EBIT was down by EUR 10.8 per cent at EUR 412m.

Combined management report

Business segments

Business segment Passenger Airline Group

Austrian Airlines



T037 Austrian Airlines¹⁾

		2016	2015	Change in %
Revenue	€m	2,153	2,102	2.4
EBIT	€m	64	54	18.5
Adjusted EBIT	€m	58	52	11.5
EBITDA ²⁾	€m	177	162	9.3
Employees as of 31.12.	number	6,450	5,984	7.8
Average number of employees	number	6,289	5,986	5.1
Passengers	thousands	11,385	10,838	5.1
Flights	number	136,112	126,827	7.3
Available seat-kilometres	millions	24,451	23,316	4.9
Revenue seat-kilometres ³⁾	millions	18,609	18,185	2.3
Passenger load factor	%	76.1	78.0	-1.9 pts

¹⁾ Further information on Austrian Airlines can be found at www.austrian.com.

²⁾ Without Group-internal profit and loss transfer / investment income.

³⁾ Previous year's figures have been adjusted.

Austrian Airlines is Austria's largest airline, operating a global route network to 115 destinations in 46 countries with its own fleet of 81 aircraft.

Innovation and service are key factors in a difficult environment

Austrian Airlines remains subject to increasing competitive pressure. The crises in Ukraine, Russia and the Middle East also continue to represent a challenge for its current business. Capacity to several destinations has therefore had to be reduced and some routes have been suspended. Austrian Airlines is addressing the persistently tense competitive situation at the hub in Vienna with cost-cutting initiatives, continuous capacity management and steps to increase revenue quality, such as further service and product improvements.

Austrian Airlines introduces Premium Economy Class

Premium Economy Class is to be introduced on all long-haul routes from late 2017. It will give passengers seats with a greater reclining angle, a bigger seat pitch, a broader seat area and a larger screen for on-demand entertainment, as well as providing higher-quality catering than in Economy Class. The move is based on the successful introduction of the Premium Economy Class at Lufthansa Passenger Airlines.

Airbus fleet to be fitted with on-board Wi-Fi

The first two A320 aircraft were equipped with in-flight connectivity in late 2016. Wi-Fi will be installed in the remainder of the Airbus fleet in 2017. "myAustrian Flynet" enables passengers to go online on board with their own mobile devices using Wi-Fi. The next step will be to extend this service to wireless in-flight entertainment, with which films, documentaries and TV series, among others, can be streamed to passengers' own mobile devices. The launch is scheduled for mid-2017.

Fleet modernisation continues

The replacement of Fokker aircraft by Embraer short-haul jets that began in 2015 was continued in the past financial year. By the end of 2016, ten Embraer jets had already been integrated into the fleet. Another seven aircraft are expected to follow by the end of 2017. Fluctuations arising as a result of the switch were levelled out by leasing external capacities.

The Supervisory Board of Deutsche Lufthansa AG approved the lease of three aircraft for Austrian Airlines in September 2016. Two Airbus A320s had already been integrated into the fleet by the end of 2016. Another B777 is due to go into service with the 2018 summer flight timetable. And from mid 2017, a further five A320s on wet lease from Air Berlin are planned to operate from the hub in Vienna.

Focus remains on expanding tourist destinations

Austrian Airlines continues to develop its network. In 2016, it added destinations including Havana, Hong Kong, Bari, Jerez, Shanghai and Isfahan. Flights to Los Angeles are set to start from spring 2017, and to the Seychelles from autumn 2017.

Passenger numbers up

With 11.4 million passengers, Austrian Airlines transported 5.1 per cent more customers than in 2015. Capacity was increased by 4.9 per cent and sales were up by 2.3 per cent. The load factor was 1.9 percentage points down year on year, at 76.1 per cent. Yields declined by 2.9 per cent, while traffic revenue fell by 0.7 per cent.

Positive revenue and earnings performance

At EUR 2.2bn, Austrian Airlines' revenue in 2016 was up by 2.4 per cent on the previous year. Adjusted EBIT rose by 11.5 per cent to EUR 58m. This represents an Adjusted EBIT margin of 2.7 per cent (previous year: 2.5 per cent). Lower fuel costs, the systematic implementation of restructuring measures and a significant positive one-off effect from signing a long-term rental agreement with Vienna Airport all contributed to the result. At EUR 64m, EBIT also improved significantly year on year (+ 18.5 per cent).

Eurowings



T038 Eurowings¹⁾

		2016	2015	Change in %
Revenue	€m	2,060	1,909	7.9
EBIT	€m	-90	39	
Adjusted EBIT	€m	-91	38	
EBITDA ²⁾	€m	177	162	9.3
Employees as of 31.12.	number	3,493	3,186	9.6
Average number of employees	number	3,410	3,188	7.0
Passengers	thousands	18,430	16,933	8.8
Flights	number	170,732	165,850	2.9
Available seat-kilometres	millions	25,264	19,976	26.5
Revenue seat-kilometres	millions	20,107	15,876	26.7
Passenger load factor	%	79.6	79.5	0.1 pts

¹⁾ Further information on Eurowings can be found at www.eurowings.com.

²⁾ Without Group-internal profit and loss transfer / investment income.

With Eurowings, the Lufthansa Group provides an innovative and competitive offering for price-sensitive and service-oriented customers in the growing point-to-point traffic segment. Eurowings is to be developed into a leading European player in point-to-point traffic in the years ahead. It will thereby also secure the Lufthansa Group's leading position in European traffic, particularly in its home markets of Germany, Austria, Switzerland and Belgium. Eurowings continues to systematically develop its point-to-point connections in Europe outside of the hubs under its own brand.

Vienna Airport successfully introduced as an additional station

As of year-end 2016, the Eurowings group has a short and medium-haul fleet of 78 aircraft in total, of which 59 are at Germanwings and 19 at Eurowings. Another twelve leased aircraft are also in service for the company. In addition to Germanwings and Eurowings Germany, Eurowings Europe was established in August 2015 at Vienna Airport and serves as an additional low-cost platform for further growth in the future. The company successfully commenced flight operations in June 2016 and offers direct flights in Europe from Vienna Airport, initially with three Airbus A320 aircraft.

Altogether, Eurowings' flight operations in short and medium-haul traffic serve a pan-European network of more than 123 destinations in 36 countries.

In the 2017 financial year, the Eurowings fleet will grow to more than 150 aircraft thanks to the wet lease from Air Berlin and the consolidation of Brussels Airlines.

Joint venture secures long-haul routes

Eurowings uses the German-Turkish airline SunExpress Deutschland to serve long-haul connections. SunExpress Deutschland is a commercial subsidiary of SunExpress, a joint venture between the Lufthansa Group and Turkish Airlines. The company operates the long-haul aircraft for Eurowings with its own cockpit and cabin crew on competitive terms.

After a demanding operational start at year-end 2015 with only two aircraft, long-haul flight operations have quickly stabilised. Six A330s now fly for Eurowings from Cologne/Bonn Airport. The fleet is to be increased to seven long-haul aircraft in 2017. Initial experiences in this segment have been positive. The new offering has been well received by customers and is set to make a positive earnings contribution to the Eurowings group.

Eurowings carries more than 18 million passengers

Eurowings carried 18.4 million passengers in 2016. This is an increase of 8.8 per cent over last year. Capacity grew particularly strongly by 26.5 per cent due to the expansion of the long-haul network and thereby significantly longer routes. Sales went up by 26.7 per cent. The load factor improved year on year by 0.1 percentage points to 79.6 per cent. Yields fell by 14.9 per cent as a result of the significant growth and intense competition in European traffic. Traffic revenue rose by 7.8 per cent, primarily as a result of greater volumes.

Earnings adversely affected by project costs

Eurowings' revenue came to EUR 2.1bn, which was 7.9 per cent up on the previous year. Adjusted EBIT fell by EUR 129m to EUR -91m. This represents an Adjusted EBIT margin of -4.4 per cent (previous year: 2.0 per cent). EBIT was down by EUR 129m to EUR -90m. Alongside the intense competition in European traffic, this was due, in particular, to project costs for developing the new Eurowings, higher costs for flight irregularities and expenses from exchange rate movements.

Business segment Logistics

✂ Lufthansa Cargo is Europe's leading freight airline. / Leading position to be extended through quality improvements and global partnerships. / Increasing simplification and automation of airfreight processes. / Strategic cost-cutting programme underway since autumn 2016. / Revenue and earnings down significantly due to lower load factor and steep fall in yields.

2.1

€bn Revenue

-50

€m Adjusted EBIT

T039 Key figures Logistics

		2016	2015	Change in %
Revenue	€m	2,084	2,355	-11.5
of which with companies of the Lufthansa Group	€m	25	24	4.2
EBIT	€m	-64	3	
Adjusted EBIT	€m	-50	74	
EBITDA ¹⁾	€m	44	155	-71.6
Adjusted EBIT margin	%	-2.4	3.1	-5.5 pts
EACC	€m	-105	-72	-45.8
ROCE	%	-4.3	0.2	-4.5 pts
Segment capital expenditure	€m	29	116	-75.0
Employees as of 31.12.	number	4,568	4,607	-0.8
Average number of employees	number	4,559	4,643	-1.8
Available cargo tonne-kilometres	millions	12,548	12,606	-0.5
Revenue cargo tonne-kilometres	millions	8,385	8,364	0.3
Cargo load factor	%	66.8	66.3	0.5 pts

¹⁾ Before profit/loss transfer from other companies.

Business activities

Lufthansa Cargo is Europe's leading freight airline

Lufthansa Cargo is the logistics specialist within the Lufthansa Group. As of the end of the financial year, the company's own fleet consisted of five Boeing 777F and 14 Boeing MD-11F cargo aircraft, of which two have been temporarily put out of service.

In addition to Lufthansa Cargo AG, 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 GmbH. AeroLogic is based in Leipzig and operates its eight B777 freighters to 20 destinations around the world on behalf of its two shareholders, Lufthansa Cargo and DHL Express. Lufthansa Cargo also has equity investments in various handling companies. The repurchase of 51 per cent of the shares in time:matters Holding GmbH strengthens Lufthansa Cargo's profitable express products business.

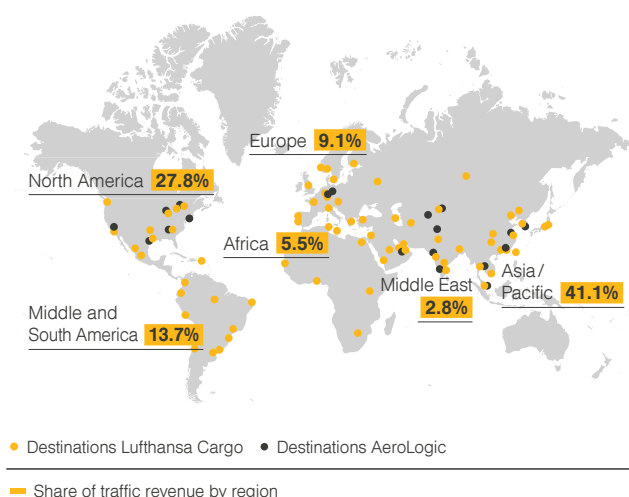
Lufthansa Cargo markets capacities on its own freighters and chartered cargo aircraft, along with belly capacities on passenger aircraft operated by Lufthansa Passenger Airlines, Austrian Airlines and on Eurowings long-haul flights. Freighters and passenger aircraft each carried about half of the total cargo. Altogether, Lufthansa Cargo offers connections to more than 300 destinations in around 100 countries.

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 live animals, valuable cargo, mail and dangerous goods, as well as the growing sector of temperature-sensitive goods. The company has specialised infrastructure at Frankfurt Airport to handle these sensitive goods, such as the Frankfurt Animal Lounge or the Lufthansa Cargo Cool Centre.

Leading position to be further extended

Lufthansa Cargo aims to further simplify and automate airfreight processes and to sustainably reduce unit costs. This requires a modern aircraft fleet, an efficient ground infrastructure and process digitalisation. Similarly, further quality enhancements and global partnerships should help the company to build on its leading position in the airfreight industry.

C19 Destinations Lufthansa Cargo Freighters fleet



International partnerships to continue

The new partnership with All Nippon Airways (ANA) from Japan, which has been in place since December 2014, continues to operate successfully. In May 2016, a joint business agreement was also signed with Cathay Pacific Cargo, based in Hong Kong. Freight handling for imports and exports to and from Hong Kong were transferred to the Cathay Pacific Cargo Terminal in October 2016. From January 2017 on freight handling is proceeded from Lufthansa Cargo Centre in Frankfurt. The first joint consignments have been shipped in February 2017. Lufthansa Cargo also intends to cooperate with the US airline United Cargo in future. Customers should benefit here from a larger network and standardised processes.

Course of business and operating performance

Lufthansa Cargo responds to difficult market conditions with efficiency measures

Structural overcapacities in the market are eroding yields for airfreight. This adversely affects earnings at Lufthansa Cargo,

particularly outside the high season, and will probably continue to do so in future. Under these circumstances, Lufthansa Cargo intends to cut its annual staff costs and staff-related expenses by at least EUR 80m by 2018. A strategic cost-cutting programme was drawn up and has been underway since autumn 2016. It will have the effect of streamlining sales and other areas as of the beginning of 2017. In late 2016, an agreement was reached with the works council to shed around 800 jobs, for which restructuring provisions of EUR 32m were made in the reporting year.

Renewal of fleet, IT and ground infrastructure continues

Lufthansa Cargo has successfully completed the integration of five B777Fs. The aircraft stand out for their lower fuel consumption, great range and outstanding reliability. The size of the MD-11F fleet was reduced by two, to twelve active aircraft, in view of market developments. Further capacity adjustments are planned for 2017.

The freight centre in Frankfurt is being continually modernised. This involves expanding capacities and further improving the entire infrastructure of the cool centre. A concept is also being developed for a modular renewal of the logistics centre.

In the years ahead, the company intends to digitalise its relationships with all the players in the transport chain, from bookings to deliveries. In the long run, customers will benefit from greater transparency, higher speeds, better quality and more flexibility as well as greater efficiency.

Product range is continually expanded

Lufthansa Cargo introduced two new products in 2016 that can only be booked online. Since August 2016, Lufthansa Cargo has offered the “myAirCargo” product, which gives private customers a simple way to send bulky goods internationally by air. The company organises the complete, door-to-door transport, and together with its partners also takes care of customs formalities, for example. Since September 2016, the “td.Basic” airfreight rate has provided Lufthansa Cargo’s high quality at a particularly attractive price. This is made possible by simpler background processes, which require all bookings to be made via the cargo airline’s online channels, and by extending the total transport time slightly. The new basic product is therefore suitable for all consignments that can take an average of three days longer than with the usual “td.Pro” standard product, which remains on offer.

T040 Trends in traffic regions
Lufthansa Cargo

	Net traffic revenue in €m external revenue		Freight/mail in millions		Revenue cargo tonne- kilometres in millions		Cargo load factor in %	
	2016	Change in %	2016	Change in %	2016	Change in %	2016	Change in pts
Europe	178	-10.1	713	3.7	341	3.8	47.8	0.0
America	824	-14.0	5,800	0.6	3,615	-1.7	62.3	-1.5
Asia/Pacific	820	-10.8	4,897	-2.0	3,861	3.3	78.8	4.0
Middle East/Africa	164	-18.0	1,138	-1.6	569	-7.9	50.0	-3.4
Total	1,986	-12.7	12,548	-0.5	8,385	0.3	66.8	0.5

Lufthansa Cargo receives CEIV certification

Lufthansa Cargo was awarded CEIV validation from the IATA airline association in 2016. In a comprehensive procedure, independent experts audited the airline's processes for pharmaceutical shipments and confirmed its utmost reliability and expertise. This makes Lufthansa Cargo one of just seven airlines in the world to have received this certification for the processes in its global route network.

Slight decline in freight volumes

Sales at Lufthansa Cargo rose by 0.3 per cent. The cargo load factor increased by 0.5 percentage points to 66.8 per cent. Freighter capacity fell by 1.9 per cent, while in contrast, sales volumes increased by 2.1 per cent. Compared with the previous year, the cargo load factor improved by 2.8 percentage points to 72.9 per cent. Available belly capacity was expanded by 0.9 per cent. Sales fell by 1.4 per cent. The cargo load factor on belly services fell year on year by 1.5 percentage points to 61.6 per cent. Yields contracted by 12.9 per cent, and traffic revenue by 12.7 per cent.

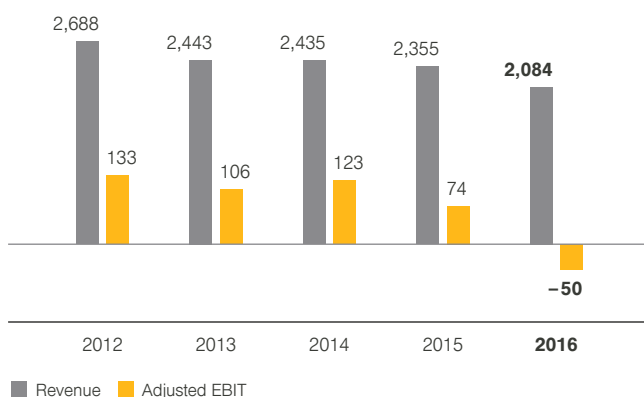
Changes in capacities and load factors across the various traffic regions evened each other out overall. The same applies to changes in traffic revenue and yields.

Revenue and earnings development

Revenue and Adjusted EBIT down

Lufthansa Cargo generated revenue of EUR 2.1bn in 2016 (-11.5 per cent). Other revenue climbed to EUR 84m (+29.2 per cent) following the consolidation of time:matters in the Logistics sub-group in August 2016. At EUR 65m, other operating income was up by 12.1 per cent compared with the previous year. Total operating income dropped to EUR 2.1bn in total (-10.9 per cent).

C20 Revenue and Adjusted EBIT Logistics in €m



Operating expenses declined year on year by 8.1 per cent to EUR 2.2bn. The cost of materials and services fell by 8.4 per cent to EUR 1.4bn. Within this item, the cost of fuel decreased to EUR 259m (-18.8 per cent), primarily as a result of lower prices. Charter expenses fell by 8.6 per cent to EUR 618m.

Staff costs rose year on year by 3.4 per cent to EUR 428m. This increase was mainly due to provisions for restructuring. The companies in the Logistics segment had an average of 4,559 employees in the reporting period (previous year: 4,643).

Depreciation and amortisation was down by 28.9 per cent to EUR 108m. Impairment losses were recognised in the previous year on project costs in connection with the postponement of the planned construction of the new freight terminal in Frankfurt (LCCneo) and on planning costs for the construction of an administrative building.

Other operating expenses fell to EUR 257m (-12.0 per cent), largely due to lower exchange rate losses. The result from equity investments dropped by 4.0 per cent to EUR 24m.

T041 Operating expenses Logistics

	2016 in €m	2015 in €m	Change in %
Cost of materials and services	1,444	1,577	-8.4
of which fuel	259	319	-18.8
of which fees	295	303	-2.6
of which charter expenses	618	676	-8.6
of which MRO services	135	126	7.1
Staff costs	428	414	3.4
Depreciation and amortisation	108	152	-28.9
Other operating expenses	257	292	-12.0
Total operating expenses	2,237	2,435	-8.1

The Logistics segment generated Adjusted EBIT of EUR -50m in 2016 (previous year: EUR +74m). This represents an Adjusted EBIT margin of -2.4 per cent (previous year: 3.1 per cent). Key earnings drivers were the significant decline in yields and non-recurring effects. EBIT, which was also burdened by impairment losses on aircraft held for sale, came to EUR -64m (previous year: EUR +3m). In a long-term comparison, this represents a very weak result for the Logistics segment.

Segment capital expenditure fell by 75.0 per cent to EUR 29m in the reporting period, primarily due to the absence of the previous year's final payments in connection with the purchase of B777F aircraft.

Business segment MRO

✂ Lufthansa Technik is a leading global provider of maintenance, repair and overhaul services for civil, commercial aircraft. / Focus on innovations and strategic partnerships. / Good orders with external customers lead to higher revenue. / Earnings down on the previous year.

5.1

€bn Revenue

411

€m Adjusted EBIT

T042 Key figures MRO

		2016	2015	Change in %
Revenue	€m	5,144	5,099	0.9
of which with companies of the Lufthansa Group	€m	1,627	1,843	-11.7
EBIT	€m	410	448	-8.5
Adjusted EBIT	€m	411	454	-9.5
EBITDA ¹⁾	€m	517	551	-6.2
Adjusted EBIT margin	%	8.0	8.9	-0.9 pts
EACC	€m	142	158	-10.1
ROCE	%	8.5	10.6	-2.1 pts
Segment capital expenditure ²⁾	€m	216	154	40.3
Employees as of 31.12.	number	20,839	20,661	0.9
Average number of employees	number	20,708	20,289	2.1
Fully consolidated companies	number	23	23	0.0

¹⁾ Before profit/loss transfer from other companies.

²⁾ Previous year's figures have been adjusted.

Business activities

Lufthansa Technik is 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 consists of 31 technical maintenance operations around the world. The company also holds direct and indirect stakes in 57 companies. Lufthansa Technik takes care of some 800 customers around the world, mostly airlines and aircraft leasing companies, but also operators of VIP jets and public-sector clients.

Lufthansa Technik's range of services is provided by seven divisions: maintenance, aircraft overhaul, engines, components, aircraft systems, development and manufacture of cabin products, completion and servicing of VIP aircraft. The portfolio covers a variety of different product structures and combinations, from the repair of individual components to consultancy services and the fully integrated supply of entire fleets. In addition to developing new products and services, one of the benefits that Lufthansa Technik offers is to enable airlines to put new aircraft types into scheduled operations safely and to use fuel efficiently.

Innovations still vital for Lufthansa Technik

Since October 2016, Lufthansa Technik has been documenting in electronic form how complaints at all German sites about Lufthansa Passenger Airlines and Lufthansa Cargo aircraft are resolved. Lufthansa Technik wants to advance the digitalisation of the MRO industry and play an active role in shaping it. Alongside the development of its own capacities, this also includes the acquisition of the majority of shares in British software provider FLYdocs, a specialist in the management of aviation-specific data. The partnership began in summer 2016 and has developed very positively since then. This is intended to further advance the digitalisation of paper-based processes. FLYdocs and Lufthansa Technik are planning the joint development of new digital services that will be of great value to the operators and lessors of aircraft worldwide. From next year, Lufthansa Technik will also be offering its customers "Condition Analytics", a solution that combines condition monitoring and forward-looking maintenance on a single platform. In terms of digitalisation, this makes Lufthansa Technik one of the leading companies in the MRO industry.

Lufthansa Technik also addresses the challenging competitive situation with product and technology innovations as well as by developing partnerships. In 2016, for example, a lightweight, space-saving VIP aircraft seat that can be configured in various ways and is known as "chair" was brought to market and an initial customer found.

Combined management report

Business segments

Business segment MRO

Lufthansa Technik put into operation a completely new design of production facility for printing aircraft interior panelling and cabin elements in 2016. Thanks to a development by Lufthansa Technik, it remains possible to install the latest broadband communications in short and medium-haul aircraft in just a few days for each aircraft, even for large fleets.

Lufthansa Technik signs major cooperation agreements

In 2016, Lufthansa Technik and GE Aviation announced the construction of a state-of-the-art engine maintenance centre by their Polish joint venture XEOS. Support for the modern GEnx-2B and GE9X engine models is planned in the company, which should go into operation in mid-2018.

As part of a strategic agreement signed in 2016, Lufthansa Technik will become a key member of the maintenance network for the geared turbofan (GTF) from engine manufacturer Pratt & Whitney. Lufthansa Technik and MTU Aero Engines have also agreed to establish a joint company for the maintenance of geared turbofan engines in the PW1000G series. A corresponding agreement was signed on 20 February 2017. Subject to the approval of the competition authorities, both companies expect to be able to launch the joint venture at a globally competitive location in the second half of 2017.

Course of business and operating performance

Important contracts renewed and signed

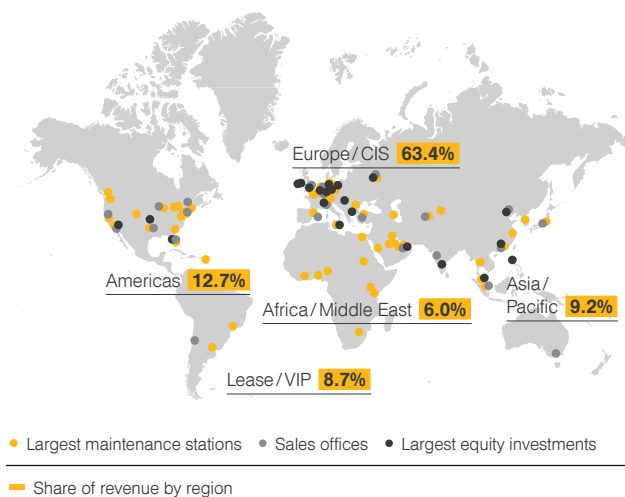
The number of aircraft serviced under exclusive contracts went up by 12.3 per cent to 4,132 in the reporting period. This means that one in seven commercially operated aircraft worldwide is serviced by Lufthansa Technik. In the financial year 2016, the company won 42 new customers and signed 456 contracts with a volume of EUR 5.7bn for 2016 and the following years.

Global capacities to be expanded in line with demand

Capacities are to be continuously expanded to meet increasing demand, particularly in Asia and America. In 2016, for example, Lufthansa Technik opened another overhaul line in Puerto Rico. By 2017, the plant is to be expanded to five lines in total. New component warehouses were opened in Hong Kong and at London Heathrow Airport. This local presence makes the Lufthansa Technik network even more closely meshed and significantly shortens support times for customers.

By extending its warehouse for component support in Munich, Lufthansa Technik Logistik Services (LTLS) has reached a key milestone for supporting the new Airbus A350 in future.

C21 Locations Lufthansa Technik



Lufthansa Technik put the first Cyclean® engine wash service station into operation in Melbourne, Australia, in 2016. It now offers its Cyclean® engine wash globally, from North and South America via Europe and the Middle East to Asia, and now in Australia, too.

Cost-efficient engine overhauls in Hamburg

The management board of Lufthansa Technik, the ver.di trade union and the works council have found a solution for bringing the new LEAP engine model from General Electric to Hamburg. This will secure 1,300 jobs in engine overhaul for the long term, of which 1,100 are in Hamburg. It was not possible, however, to find a joint solution that would have enabled cost-effective maintenance in Hamburg of the geared turbofan engine model from Pratt & Whitney. Lufthansa Technik and MTU have decided to establish a joint company at another location in order to keep this engine model in the alliance.

Aircraft overhaul to close in Hamburg

Lufthansa Technik will cease to overhaul commercial aircraft in Hamburg in the course of 2017. Despite intensive negotiations, the collective bargaining partners could not find a solution that would have enabled cost-effective aircraft overhaul to continue in Hamburg.

Revenue and earnings development

Europe is most important sales market

The company's most important sales market is still the European region, including the former CIS states. This region accounted for 63.4 per cent of revenue in 2016, slightly less than a year ago (–2.6 percentage points). The share of the important Asia/Pacific growth market increased to 9.2 per cent (+2.1 percentage points). The Middle East and Africa region accounted for 6.0 per cent (–0.7 percentage points). The revenue share of the Americas region went up again to 12.7 per cent (+1.6 percentage points). Total revenue with leasing companies and operators of VIP jets was stable at 8.7 per cent (–0.4 percentage points).

Good orders lead to further revenue growth with external customers

Lufthansa Technik increased its revenue by 0.9 per cent to EUR 5.1bn in 2016. Revenue with Group companies declined year on year by 11.7 per cent to EUR 1.6bn, mainly because a large programme of modifications was completed at Lufthansa Passenger Airlines in the previous year. External revenue rose by 8.0 per cent to EUR 3.5bn. Lufthansa Technik AG, whose successful growth strategy more than made up for the fall in prices due to competition, accounted for 86.3 per cent of total revenue. At EUR 222m, other operating income was down by 30.0 per cent compared with the previous year. The MRO segment generated total operating income of EUR 5.4bn (–0.9 per cent).

Total operating expenses were 0.2 per cent higher at EUR 5.0bn. The cost of materials and services increased by 2.3 per cent to EUR 2.7bn due to higher costs and to more services overall in components and engines.

Staff costs came to EUR 1.3bn, or 3.4 per cent less than the previous year. Depreciation and amortisation rose by 3.9 per cent to EUR 107m. Other operating expenses fell by 1.0 per cent to EUR 886m.

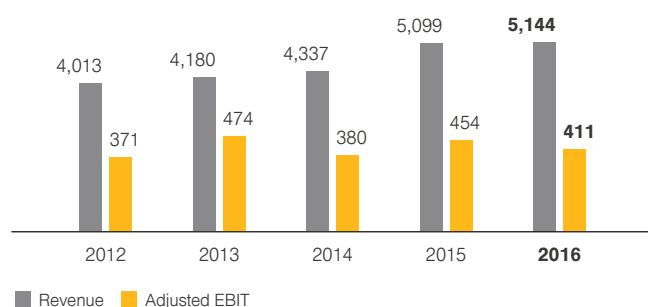
T043 Operating expenses MRO

	2016 in €m	2015 in €m	Change in %
Cost of materials and services	2,718	2,656	2.3
of which raw materials, consumables and supplies	1,760	1,668	5.5
of which external services	762	755	0.9
Staff costs	1,272	1,317	–3.4
Depreciation and amortisation	107	103	3.9
Other operating expenses	886	895	–1.0
Total operating expenses	4,983	4,971	0.2

Segment result again reaches good level

Lufthansa Technik achieved an Adjusted EBIT of EUR 411m in 2016. This was down by 9.5 per cent due to positive non-recurring effects in the previous year. The Adjusted EBIT margin amounted to 8.0 per cent (previous year: 8.9 per cent). EBIT sank by 8.5 per cent to EUR 410m. In a long-term comparison, this nonetheless represents another very good result for Lufthansa Technik.

C22 Revenue and Adjusted EBIT MRO in €m



Segment capital expenditure rose by 40.3 per cent to EUR 216m. Key investments related to projects in the context of digitalisation, the construction of a cutting-edge wheel and brake workshop, the extension of a Lufthansa Technik Logistik Services warehouse as well as the purchase of reserve engines by Lufthansa Technik Airmotive Ireland Leasing, largely due to the expansion of the Group fleets.

Business segment Catering

- ✈ The LSG group is a leading global provider of airline catering. / Transformation of the company and increasing focus on adjacent markets continue.
- / Revenue and earnings up despite negative exchange rate effects and high transformation costs.

3.2

€bn Revenue

104

€m Adjusted EBIT

T044 Key figures Catering

		2016	2015	Change in %
Revenue	€m	3,194	3,022	5.7
of which with companies of the Lufthansa Group	€m	644	636	1.3
EBIT	€m	60	85	-29.4
Adjusted EBIT	€m	104	99	5.1
EBITDA ¹⁾	€m	166	166	0.0
Adjusted EBIT margin	%	3.3	3.3	0.0 pts
EACC	€m	-15	-8	-87.5
ROCE	%	3.5	5.0	-1.5 pts
Segment capital expenditure ²⁾	€m	73	148	-50.7
Employees as of 31.12.	number	35,530	34,310	3.6
Average number of employees	number	35,571	33,543	6.0
Fully consolidated companies	number	121	120	0.8

¹⁾ Before profit/loss transfer from other companies.

²⁾ Previous year's figures have been adjusted.

Business activities

LSG group offers unique service portfolio

The LSG group is the leading provider of a complete portfolio of in-flight products and services and has a worldwide network of 201 catering facilities in 50 countries. It also offers its services at other airports via global partnerships. These activities are managed under the established LSG Sky Chefs brand. In addition, the company offers its airline customers a complete portfolio of in-flight service components. This comprises the development and

implementation of in-flight sales programmes via its Retail inMotion subsidiary, the procurement and design of in-flight service equipment via the SPIRIANT brand, the optimisation of transport logistics through its SkylogistiX subsidiary as well as lounge catering, also under the LSG Sky Chefs brand.

As a result of the expertise that the company has successfully built up in services for rail operators in Europe and in supplies to retailers in recent years, these segments also form part of the LSG group's core business. In the USA, the LSG group also provides security concepts for airlines via SCIS Air Security. In Germany, it operates retail markets at airports under the Ringeltaube brand.

As of year-end 2016, the group comprised 156 companies. The parent company for the group, LSG Lufthansa Service Holding AG, is based in Neu-Isenburg.

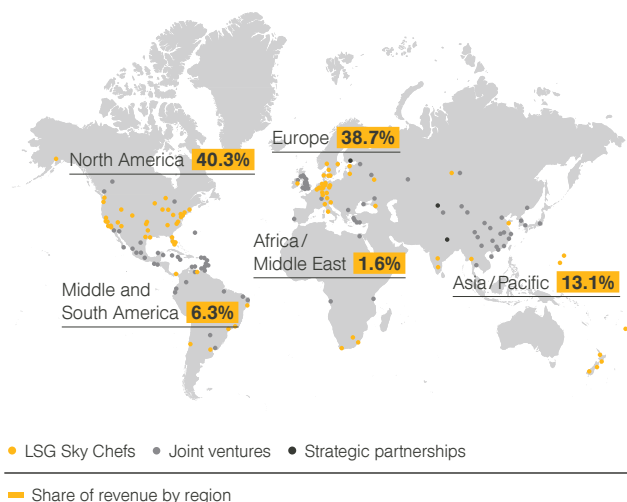
Expertise continues to be expanded

In line with the multifaceted changes in customer requirements, the LSG group is continually expanding its expertise. To meet increasing demand for in-flight sales programmes, Retail inMotion offers an industry-leading IT solution that provides end-to-end support for the entire in-flight sales process, as well as extensive knowledge about the most suitable products and services from a consumer perspective. These range from food and drinks to boutique articles, entertainment programmes and virtual offers. Furthermore, the company has continued to enhance its culinary expertise in order to meet increasing customer demands for differentiated and brand-enhancing service concepts in the premium classes.

Partnerships create expertise

Working from its early involvement in many partnerships and management contracts in Asia, Latin America, Eastern Europe and Africa, the LSG group has developed a leading position with regard to authenticity and expertise in key ethnic cuisines, which goes beyond its geographical presence. This also benefits the retail segment, where the company works closely with its key accounts on product development and opens up new markets. Selected cooperation agreements, such as in equipment logistics, for example, and standardised products defined by the customers also add to the LSG group's market knowledge.

C23 Locations LSG group



Course of business and operating performance

Business model is continually developed

The market for in-flight service concepts is changing significantly, especially in Europe, but in the medium term in other regions, too. The 2016 financial year was therefore dedicated to the transformation of the company’s business model. Existing uncompetitive structures are to be changed and wound up, while expertise and capacities that are vital for the future will be established and strengthened.

Portfolio expanded and customer contracts renewed

With the complete takeover of Retail inMotion in February 2016, the LSG group laid an important foundation for this development. It is now in a position to serve additional customers who are looking to switch their in-flight service from classic catering to in-flight sales or hybrid models. In addition, the company has initiated adjustments to its network of sites in Europe, including taking steps such as outsourcing and the closure of individual plants, as well as the pooling of production.

Important contracts with American Airlines, Eurowings, LATAM, Air China and 7-Eleven were signed or renewed. A new production facility for airline and retail customers commenced operation in Santiago de Chile.

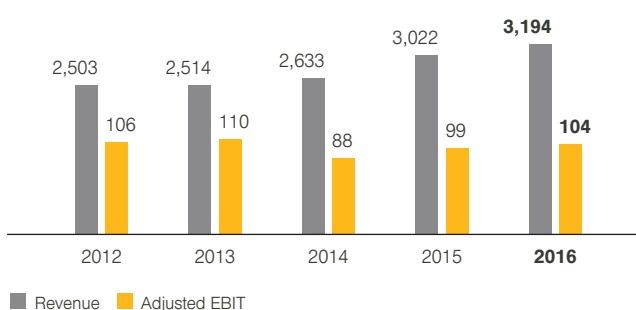
At an administrative and operational level, ongoing programmes to further improve earnings by means of process optimisation and standardisation were successfully continued.

Revenue and earnings development

Revenue and earnings up

Revenue in the Catering segment increased by 5.7 per cent to EUR 3.2bn in 2016, largely due to higher volumes and despite negative exchange rate effects. Changes in the group of consolidated companies contributed EUR 42m to the revenue growth.

C24 Revenue and Adjusted EBIT Catering in €m



External revenue improved by 6.9 per cent to EUR 2.6bn, and internal revenue climbed 1.3 per cent to EUR 644m. Other income was down by 8.2 per cent to EUR 67m. Total income went up altogether by 5.4 per cent to EUR 3.3bn.

Total operating expenses were 6.3 per cent up on the year at EUR 3.2bn. The cost of materials and services rose by 6.5 per cent to EUR 1.4bn, primarily due to higher volumes and to changes in the group of consolidated companies. Staff costs increased by 6.4 per cent to EUR 1.2bn. In addition to an increase in the workforce to cover new orders, higher staff costs were also due to pay rises in North America and to restructuring expenses in Europe. Depreciation and amortisation of EUR 106m was 32.5 per cent above last year’s figure, mainly due to impairment losses on property, plant and equipment in Europe. Other operating expenses climbed by 1.9 per cent to EUR 550m, largely due to volumes.

At EUR 22m, the result from equity investments was on a par with last year. The Catering segment increased its Adjusted EBIT by 5.1 per cent to EUR 104m in 2016, despite significantly higher transformation expenses. At 3.3 per cent, the Adjusted EBIT margin was unchanged from last year’s level. EBIT was also hit by significant impairment losses and fell by 29.4 per cent to EUR 60m.

Without adjustment for the transformation expenses and impairment losses mentioned above, the LSG group reported a good result by long-term standards. Segment capital expenditure was down by 50.7 per cent at EUR 73m.

T045 Operating expenses Catering

	2016 in €m	2015 in €m	Change in %
Cost of materials and services	1,383	1,299	6.5
Staff costs	1,184	1,113	6.4
Depreciation and amortisation	106	80	32.5
Other operating expenses	550	540	1.9
Total operating expenses	3,223	3,032	6.3

Other

✂ AirPlus again increases revenue and result. / IT service companies expand their business. / Adjusted EBIT for the segment improves significantly.

T046 Other

		2016	2015	Change in %
Total operating income	€m	2,090	2,515	-16.9
EBIT	€m	-221	-383	42.3
Adjusted EBIT	€m	-236	-370	36.2
EBITDA ¹⁾	€m	-135	-302	55.3
Segment capital expenditure ²⁾	€m	27	23	17.4
Employees as of 31.12.	number	9,061	5,819	55.7
Average number of employees	number	7,248	5,915	22.5

¹⁾ Before profit/loss transfer from other companies.

²⁾ Previous year's figures have been adjusted.

The Other segment comprises the service and financial companies as well as the Group functions of the Lufthansa Group. Following the dissolution of the IT Services segment, the remaining successor companies and subsidiaries are also included in this segment.

AirPlus expands range of products

AirPlus is one of the leading worldwide providers of solutions for paying for and analysing business travel. Under the AirPlus International brand, the company supplies tailored products and integrated solutions with which companies can make their travel management simpler and more cost-effective. AirPlus enables its customers to achieve company-wide transparency concerning all business travel expenses, and thereby to meet all of the conditions to effectively account for travel expenses. AirPlus provides market-specific solutions in more than 60 countries around the world. The company served almost 49,000 corporate customers in total in the reporting year.

A new regulation to reduce the credit card fee, known as the "interchange fee", has been in effect in the European Union since December 2015. To make up for the reduction in income that this has caused, AirPlus added the transaction-fee-based AirPlus Travel Expense Card to its card portfolio in March 2016.

AirPlus announced in January 2017 that it had signed an agreement to acquire BCC Corporate (BCCC), a Belgium-based issuer of Visa and MasterCard company cards. The acquisition is set to go ahead in the second quarter of 2017 and will enable AirPlus to increase the credit card billing volume to EUR 3.5bn by 2020.

For AirPlus, the 2016 financial year was characterised by moderate growth in international business travel. Companies around the world booked five per cent more business flights. Currency-adjusted

spending on this remained stable, however, which suggests a fall in ticket prices. The company's EBIT increased by 46.2 per cent to EUR 76m. The main reason for this was one-off income from the disposal of non-current financial assets. Adjusted EBIT fell by 21.9 per cent to EUR 40m, due to negative effects from the interchange fee regulation and to positive one-off effects in the previous year.

IT service successor companies develop their business further

The successor companies of what was the IT Services business segment now operate within various different segments. Lufthansa Systems GmbH & Co. KG was able to further increase its share of the airline IT market. In the business with both Lido/Navigation and Lido/Flight, it has a market share of 45 per cent in Europe. A total of more than 300 airlines around the world use solutions from Lufthansa Systems. Lufthansa Industry Solutions continued its course of growth, focusing on the issues of big data, Industry 4.0 and mobile solutions. The IT partner for the digital transformation was able to further expand its business overall and increase its customer base to more than 200 companies from different industries. Including all of their equity investments, the successor companies to Lufthansa Systems AG generated Adjusted EBIT of EUR 31m in the reporting period (previous year: EUR 28m). EBIT came to EUR 24m and was therefore EUR 35m down on the previous year. The change is largely attributable to the recognition of the disposal gain from the sale of the Infrastructure segment of the former Lufthansa Systems AG to the IBM group in 2014, as well as to a purchase price adjustment from the same transaction in 2015.

Group functions report higher result

The results for the Other 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 segment result is therefore heavily exposed to exchange rate movements. Total operating income for the Group functions fell by 27.3 per cent to EUR 973m. Operating expenses declined by 27.7 per cent to EUR 1.3bn. Adjusted EBIT improved by EUR 115m to EUR -345m, and EBIT rose by EUR 145m to EUR -359m. The higher earnings stem mainly from lower exchange rate losses compared with last year as well as lower costs arising from strategic Group projects.

Result for Other segment improves

Total operating income for the Other segment fell by 16.9 per cent to EUR 2.1bn. Operating expenses declined by 19.9 per cent to EUR 2.3bn. This decline is largely due to exchange rate losses, which were lower. Adjusted EBIT improved by 36.2 per cent to EUR -236m. EBIT went up by 42.3 per cent to EUR -221m.

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. / The Lufthansa Group exploits specific opportunities. / The continued existence of the Lufthansa Group is not in danger.

As an international aviation company, the Lufthansa Group is exposed to macroeconomic, sector-specific, financial and company-specific opportunities and risks. Opportunities and risks are ever present elements of doing business. The companies in the Lufthansa Group manage them deliberately and proactively. To underline the close connection between opportunities and risks, the Lufthansa Group defines them as the possible positive or negative deviation from a forecast figure or a defined objective for possible future developments or events. The operational management of opportunities and risks is integrated into the business processes.

Opportunity and risk management

Opportunity management process

Opportunities are defined as possible future developments or events which may lead to a positive deviation from plans, forecasts or targets, and which therefore represent an effective earnings improvement or which generate potential competitive advantages. For the highly dynamic global airline industry, such opportunities can arise both externally – from new customer wishes, market structures or the regulatory environment, for instance – and internally – from new products, innovations, quality improvements and competitive differentiation.

For the purpose of identifying and managing opportunities in a more structured way, particularly in connection with changes in the industry and digitalisation trends, the “Innovation Hub” was set up as a Group-wide unit in 2014. Its aim is to keep developing the Lufthansa Group’s highly innovative culture and capacity for innovation, and to make targeted use of opportunities.

The identification of opportunities by staff and management in the Lufthansa Group takes place as part of everyday processes and market observations. It is supported by a regular strategy and planning process, which is managed by the strategy and controlling departments. 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, and so for the interests of shareholders, are pursued and implemented by means of defined steps. They are managed by the established planning and forecasting processes as well as by projects.

Objectives and strategy of the risk management system

Risk management in the Lufthansa Group always takes place as a logical system of rules that cover all relevant Company activities. Risk management aims to ensure that commercial opportunities are realised throughout the Group and that all relevant, regulatory requirements for risk management systems are met in full.

The Lufthansa Group’s risk strategy is manifested in the principles of risk management. They are intended to ensure that risks are fully identified, presented transparently to enable comparison, and measured. They oblige the risk managers to proactively manage and monitor risks, as well as defining how risk-relevant information is to be incorporated into planning, management and control processes. The principles of risk management are governed by the risk management guidelines adopted by the Executive Board, which also provide a binding definition of all methodological and organisational standards for dealing with risks.

Structure of the risk management system

The scope of consideration covered by the Lufthansa Group’s risk management system comprises the airlines in the Passenger Airline Group, the MRO, Logistics and Catering segments, as well as Lufthansa Flight Training GmbH, Lufthansa AirPlus Servicekarten GmbH, Miles & More GmbH, Delvag Luftfahrtversicherungs-AG, Lufthansa Global Business Services GmbH and the remaining companies from the former IT Services segment.

The chart → [C25 Risk management in the Lufthansa Group, p. 58](#), shows the different functions involved. Their responsibilities and expertise within the Lufthansa Group’s risk management system are explained below.

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

The Risk Management Committee is to ensure, 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 ensuring that the risk management system is always up to date and for making improvements to its effectiveness and efficiency. The committee is made up of the directors of Risk Management, Corporate Controlling, Legal Affairs, Corporate Finance, Corporate Accounting, Corporate IT, Controlling Lufthansa Passenger Airlines as well as the management of the Delvag Group and the Group safety pilot. The director of Corporate Audit is a permanent member without voting rights.

The "Risk Management, Internal Control System and Data Protection" staff unit has functional responsibility for ensuring that the risk management system is standardised across the Group. It reports directly to the Chief Financial Officer and is responsible for implementing Group-wide standards for the coordination and ongoing development of the risk management process.

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 contact 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).

As risk owners, managers with budget and/or disciplinary responsibility are responsible for implementing risk management at a segment level. The identification, evaluation, management and monitoring of risks are therefore fundamental aspects of every management role.

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.

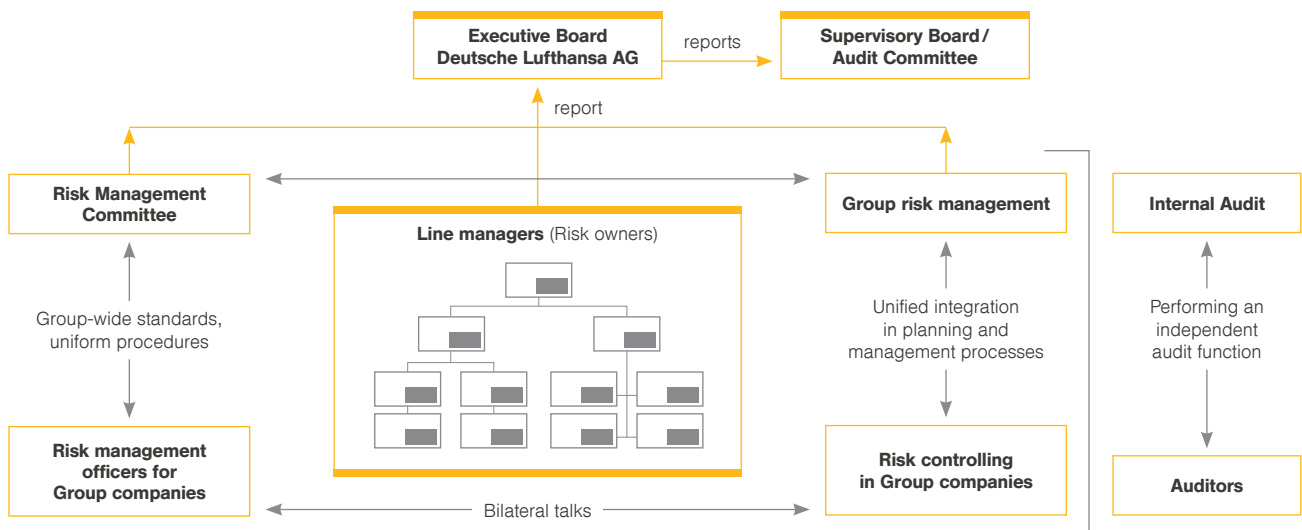
During its annual audit of the financial statements, the auditor examines the system for the early identification of risks in place at Deutsche Lufthansa AG with regard to statutory requirements. The audit concluded that in 2016, it again satisfied all the statutory requirements made of such a system without restriction.

Stages of the risk management process

The risk management process begins with the identification of risks, i.e. the compilation of current and future, existing and potential risks from all material internal and external areas. 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. The period covered is three years, the same as for the Group operational planning.

Risk identification is followed by risk evaluation, which is understood as a targeted qualitative and/or quantitative evaluation of all the individual risks identified after risk limitation activities have been carried out (net basis). The defined evaluation principles, as explained in more detail in the following section, are applied uniformly throughout the Lufthansa Group. Wherever possible, objective criteria or figures derived from past experience are used for the evaluation. Risk evaluation forms the basis for risk consolidation, in which individual risks of the same type are combined to form one aggregated risk, which is then evaluated as a whole.

C25 Risk management in the Lufthansa Group



Suitable instruments for dealing with the identified risks are defined in the course of risk management. The aim of risk management is to limit risk positions proactively. Continuous risk monitoring within the process 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.

Risk owners are obliged at least once a quarter to verify that the risks identified by them are complete and that the evaluation is up to date. On the basis of this, the Executive Board is informed about the current risk situation of the Lufthansa Group and of the operating segments every quarter. The operating segments 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. 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

The methodological evaluation of risks at the Lufthansa Group distinguishes between qualitative and quantitative risks. Risks are evaluated on a net basis, i.e. taking implemented and effective management and monitoring instruments into account.

Qualitative risks are long-term developments and challenges with potentially adverse consequences for the Lufthansa Group and its Group companies. As concrete information is often not available, these risks cannot be quantified precisely or indeed at all. 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 or development on the reputation, the business model or the earnings. The estimate of magnitude has to assess how pronounced or intense the (weak) signals are that indicate a potential risk to the Lufthansa Group and/or to the specific company in the Lufthansa Group. The chart → C26 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. To evaluate quantitative risks, a distinction is made based on the probability of their occurrence, divided into various classes.

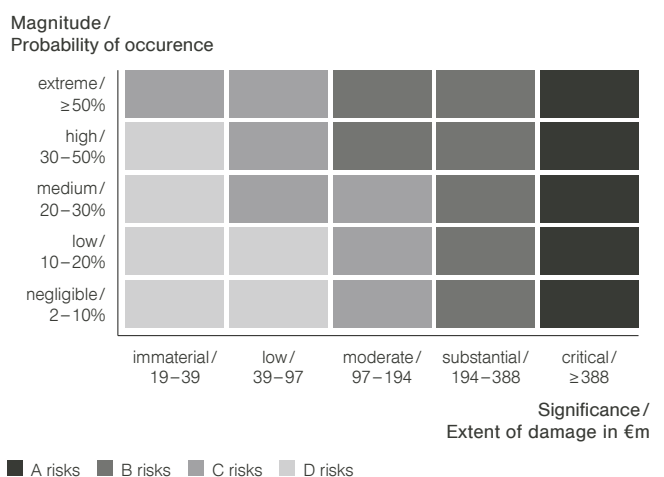
The extent of loss is given as the potential monetary impact on the planned EBIT. Depending on the type of risk being evaluated, this may relate either to relatively infrequent event risks, such as an airspace closure, or to risks from deviations from planned business developments, such as fuel price volatility. Quantitative risks therefore form the basis for the overarching verification of potential deviations from plans and forecasts. The thresholds for classifying the monetary EBIT effect are defined centrally for the Lufthansa Group and the Group companies according to standardised criteria.

The individual qualitative and quantitative risks are divided into classes A, B, C and D to assess their materiality. In accordance with DRS 20, material risks for the Lufthansa Group are 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.

→ C26 Lufthansa risk evaluation for qualitative and quantitative risks.

The qualitative and quantitative 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.60ff., 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 operating segments in the Lufthansa Group are exposed to a greater or lesser degree to the risks described.

C26 Lufthansa risk evaluation for qualitative and quantitative risks



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) and is subject to an independent appraisal by the Internal Audit department.

The effectiveness of the management and monitoring instruments used for selected material risks is reviewed systematically as part of the Lufthansa Group’s ICS. The relevant risks are selected annually.

Centralised target requirements (management controls) are formulated for the ICS for these risks. The existing management and monitoring instruments to cover the target requirements are then documented and updated annually. The structure, functionality and thereby the effectiveness of the instruments are generally also assessed annually, either in a self-assessment by the risk owner responsible or on a revolving basis by the Internal Audit department.

Reporting on the effectiveness of the management and monitoring instruments 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.

Opportunities and risks at an individual level

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

Macroeconomic opportunities and risks

Uncertain economic environment

The Lufthansa Group’s forecast for 2017 is based on the expectation that future macroeconomic conditions and sector developments will correspond to the description given in the → Forecast, p. 70ff. 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.

Risks with potential effects on global economic growth, and thereby for the Lufthansa Group’s sales, primarily arise from increasing uncertainty about political developments. A possible move towards a protectionist economic policy in the USA, surprising election results in France and Germany and unexpected turns in Brexit negotiations could also have an adverse effect on the economic development that is currently expected. At the same time, there remains the risk of a further economic slowdown in China, particularly if the property bubble that is emerging again bursts.

Crises, wars, political unrest or natural disasters

The current deterioration in the 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 losses could result from primary effects, such as not being able to fly to some destinations, but also from significant secondary effects, including a fall in passenger numbers, higher insurance premiums or higher fuel costs due to airspace closures, as well as from more stringent statutory security requirements.

T047 Top risks

	Magnitude	Significance	Trend	Description
Quantitative risks				
Fuel price movements	critical	extreme	→	→ p. 63f.
Exchange rate movements	substantial	extreme	→	→ p. 64
Earnings risks	substantial	extreme	→	→ p. 62
Loss of the investment grade rating	critical	extreme	↑	→ p. 64f.
Breaches of compliance requirements	critical	medium	→	→ p. 67f.
Exchange rate losses on pension fund investments	critical	negligible	→	→ p. 65
Credit risks	substantial	low	→	→ p. 65
Qualitative risks				
Cyber risks	critical	extreme	↑	→ p. 67
Pandemic diseases	critical	high	→	→ p. 61
Flight operations risks	critical	negligible	→	→ p. 66
Human resources	substantial	high	→	→ p. 65f.
Crises, wars, political unrest or natural disasters	substantial	high	↑	→ p. 60f.
Increased noise legislation	substantial	high	↑	→ p. 63
Market entry Original Equipment Manufacturer*	critical	high	→	→ p. 62
Contaminated foods*	critical	low	→	→ p. 66

* Risk evaluation on segment level.

The recent attacks and security incidents in the EU and Turkey, the alleged attack on a Russian charter flight over the northern Sinai in late 2015 and the attacks on airports in Brussels and Istanbul are clear evidence that civilian targets remain a focus of terrorist activities. Because of its strong symbolic effect, civil aviation in particular is still a potential target of terrorist attacks, which have to be evaluated in the context of the wider regional environment. The shooting down of a civilian aircraft over eastern Ukraine on 17 July 2014, threats to civil aviation from complex anti-aircraft systems, especially in the hands of non-state forces, and greater challenges in the use and coordination of airspace as a result of increasing military activity still require comprehensive measures to assess and manage the risks to flights over areas of conflict. Overall, the demands made of the security functions of international companies have risen significantly in view of the political environment and new technical developments. Increasing security regulations due to the greater threat potential, as well as a tightening of entry requirements for air 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 that may affect the Lufthansa Group. This relates both to immediate action and to the anticipation of possible dangers and the implementation of effective protective measures in advance. 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. The necessary security measures depend on the probability and consequences of the event.

In preparing its analyses for the Company, including all flight operations and partners in the airline group, the Lufthansa Group can draw on a wide-ranging network of national and international security services and consultancies specialised in security. To evaluate security-relevant events in the context of the regional environment, the Lufthansa Group uses a comprehensive 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 in certain regions of the world and the profile of the Lufthansa Group compared with other, particularly exposed Western airlines are taken into account when choosing infrastructure and processes abroad.

Pandemic diseases

Potential risks exist around the world from the transmission of pathogens, both from animals to humans, humans to humans and by other means. Epidemics, pandemics or bioterrorism could cause high rates of disease in various countries, regions or continents, which, in the short, medium or long term, could lead to drastic falls in passenger numbers 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 staff may endanger operations.

Even though the Ebola risk has fallen significantly since 2014, new threats have arisen in 2016, such as the increase in Zika infections. Rates of infection with dengue fever have been rising globally for a number of years, and the annual influenza epidemic varies widely in intensity and is virtually impossible to forecast.

Intensive monitoring of information from the World Health Organisation (WHO), the Robert Koch Institute in Germany and other institutions maximises the chances that epidemic or pandemic threats will be detected at an early stage. Staff receive detailed information, risk groups are given personal protective equipment and preventive vaccination campaigns against influenza are offered throughout the Lufthansa Group every year.

Sector-specific opportunities and risks

Market growth and competition

The airline industry remains on a long-term course of growth, which is primarily driven by low-cost carriers and regions with above-average growth rates, such as south-east Asia. Strong capacity growth at the Gulf airlines, low-cost carriers and competitors on North Atlantic routes is increasingly affecting demand and price trends in Europe, often to the detriment of the airlines in the Passenger Airline Group.

The Lufthansa Group is broadly positioned, which enables it to benefit from global growth across all of its business segments. The products and services offered by the Lufthansa Group are continually reviewed and new expansion options examined for their potential to generate additional sustainable growth. At the same time, the ongoing consolidation of the industry, in particular, plays an important role. The Lufthansa Group can strengthen its competitive position 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 Passenger Airline Group to play an active part in global growth and to respond flexibly to changes in the market and competition by making capacity adjustments, even though there are currently repeated delays in the delivery of new aviation technologies.

Converging business models and new customer requirements

In the European market, the business models of low-cost and full-service airlines are increasingly converging. 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 resources. In a price-sensitive, growth-oriented market, the Lufthansa Group is also concentrating on discerning customers in its strong home markets as well as on expanding Eurowings.

Customers are increasingly seeking a personalised travel experience. Here, the Lufthansa Group invests continuously in staff and systems in order to offer every customer the right product at the right time. The Company's clear aim remains fulfilling its premium product promise.

Service companies

With its service companies in the Logistics, MRO and Catering segments, the Lufthansa Group has a broad base from which to participate in the global growth of the airline industry. Lufthansa Technik is concentrating on extending its service and customer portfolio, seizing development opportunities in the growth markets of Asia and America and on expanding partnerships with OEMs. Lufthansa Cargo is pursuing growth opportunities with innovative products, digitalisation and further airfreight joint ventures. The catering specialist, LSG group, is developing new business models in established and new markets. As the earnings profiles of the service companies differ somewhat from the airline business, they can at least partially offset cyclical fluctuations at the Passenger Airline Group.

Earnings risks

Changes in available capacity have a decisive influence on the risk-return profile of the airline industry. Given the many orders for new aircraft within the industry and the forecast growth, the risk of sustained overcapacities has also increased. Pressure on yields therefore remains high and offsets the generally positive developments in demand and load factors. Complex forecasting methods to estimate unpredictable changes in demand, sales management techniques and active capacity management are used to counter this. In view of structural shifts in demand, there is the possibility in the short and medium term of responding by deploying aircraft with different configurations of travel class and flexible compartment sizes in Business and Economy Class.

Price erosion, 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. These risks increased at the service companies over the course of last year and continue to exist. Earnings performance is monitored continuously. Sales, product, capacity and cost-cutting measures are taken as needed. Unit costs and efficiency are systematically and sustainably improved as part of the "7to1 – Our Way Forward" strategic programme, in particular through the "Constantly improving efficiency" action area and as a result of segment-specific restructuring projects.

Market developments and competition in the supply market

Aircraft manufacturers now only want to work with a limited number of systems integrators (known as "risk-sharing partners") on their new aircraft models, which has led to a significant concentration on the supply market. Well-known suppliers have been bought by global companies like Honeywell or UTC. Original equipment manufacturers (OEMs) have always been both suppliers and competitors at the same time, but for a growing number of systems, and especially for new aircraft models, this concentration is also creating monopoly situations and new dependencies for Lufthansa Technik. This leads to corresponding effects in terms of materials supply and access to information.

There is a persistent trend towards an ever smaller number of manufacturers for each aircraft and engine type. This stronger market position for OEMs results in barriers to entry for independent providers of aircraft-related maintenance, repair and overhaul (MRO) services, especially for new aircraft models, and makes it more difficult to gain access to licences and intellectual property. Maintaining their market position in this environment is a key challenge for MRO providers.

Lufthansa Technik works continuously on individual approaches to each OEM and product segment. In the area of engines, in particular, it was able to establish a strategically vital partnership with Pratt & Whitney for the next-generation geared turbofan (GTF), which will play a key role in the engine market going forward.

Opportunities and risks from the regulatory environment

Political decisions at national and European level continue to have a strong influence on the international airline industry. 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.

Increased noise legislation

Stricter noise regulations can affect airlines and airports, leading to greater direct costs for the retrofitting of aircraft or to bans on certain types, for example, as well as to indirect costs in the form of higher fees and charges or to greater expenses for monitoring measures. Of particular note here is the still outstanding revision of the directive on environmental noise at European level. In the short term, legislation is not expected to be tightened at the federal level in Germany. However, the state government of Hesse is considering introducing a cap on noise levels. The Lufthansa Group is interested in a voluntary agreement, but is against any interference with operating licences, however. The European Commission is currently preparing a revision and has asked for initial opinions by way of public consultations.

The limits set in the Aircraft Noise Abatement Act will be reviewed as scheduled in 2017. Although the latest results of noise research do not show any significant change in the health risks, there has been an abrupt shift in the reaction of those concerned to the nuisance. Politicians take this as a call for action, although the (mostly stable) noise situation at airports is increasingly being decoupled from the reaction to the nuisance. Legislative proposals are possibly expected in the next parliament from 2018.

The potential introduction of a cap on noise levels at Frankfurt Airport, which may be well below the levels forecast in the planning approval document, could have an influence on other sites in Germany. To start with, the procedure calls the original planning process into question; it also creates legal uncertainty and further reduces the scope for entrepreneurial decisions.

The Lufthansa Group develops coordinated strategies by means of targeted communications in collaboration with trade associations and other industry stakeholders. In the course of research projects, the Lufthansa Group is involved in active noise abatement measures and closely monitors research into the effects of noise.

Financial opportunities and risks

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

The principally conservative approach towards financial and commodity risks is reflected in systematic financial management. Derivative financial instruments are used exclusively for hedging underlying transactions. The main aim of fuel price and currency hedging is to reduce earnings volatility. This is achieved by forming averaging prices by means of layered hedging. Interest rate hedging aims to reduce interest expenses. As a rule, 85 per cent of financial liabilities are either at floating rates from the outset or are swapped into floating rates using derivatives. This enables the

Lufthansa Group to minimise average long-term interest expense. Foreign currency risks from financing are always hedged to 100 per cent.

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 at any time.

Appropriate management and control systems are used to manage financial and commodity risks, which measure, manage and monitor risks. They cannot be eliminated altogether, however. The functions of trading, settlement and controlling of financial risk are strictly separated at an organisational level, which the Lufthansa Group achieves through the use of internal guidelines that are continuously developed. The Group Financial Risk Controlling and Corporate Audit departments 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. → [Note 41, p. 149ff.](#)

Fuel price movements

In the reporting year, the Lufthansa Group consumed around 9.3 million tonnes of kerosene. At around EUR 4.9bn, fuel expenses constituted a major item of expense for the Lufthansa Group in 2016. Severe fluctuations in fuel prices can therefore have a significant effect on the operating result. A change in the fuel price of +10 per cent (–10 per cent) at year-end 2017 would increase (reduce) fuel costs for the Lufthansa Group by EUR 259m (EUR –266m) after hedging. The Lufthansa Group therefore hedges fuel prices 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.

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 the chart → [C28, p. 64](#), are applied to the airlines of Lufthansa Passenger 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 market instruments in the form of option combinations for its 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 per cent. For Lufthansa Passenger Airlines, for instance, the six months following a given date are hedged to 85 per cent.

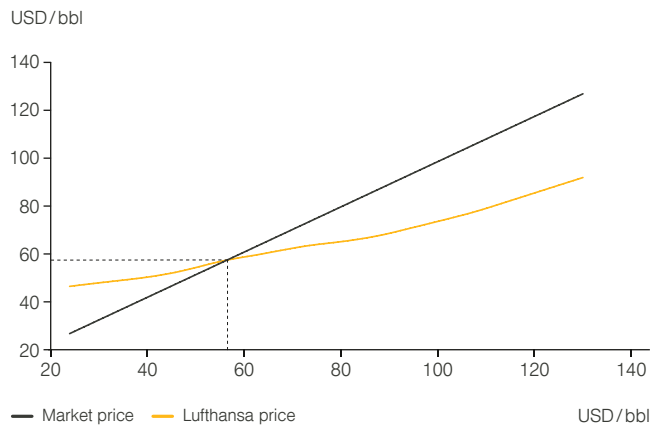
At the beginning of February 2017, there were crude oil and kerosene hedges for around 75 per cent of the forecast fuel requirement for 2017, in the form of futures and options. For 2018, around 29 per cent of the forecast fuel requirement was hedged at that time.

As fuel is priced in US dollars, fluctuations in the euro/US dollar exchange rate can 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 other energy sources. This could have a direct or indirect effect on the Lufthansa Group's kerosene expenses, by reducing both prices and volatility.

Oil prices were unusually low overall in 2016 compared with recent years, however they have been rising again since December 2016. There has been no material, year-on-year change in the risk of price fluctuations.

C27 Oil price scenario for the Lufthansa Group 2017*



* As of 28.2.2017.

Exchange rate movements

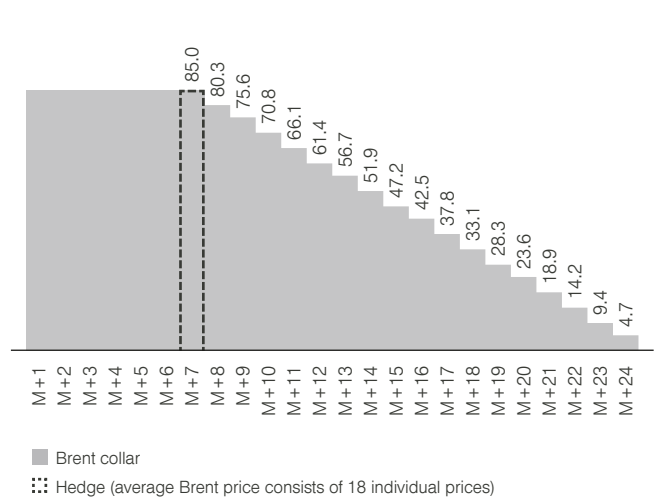
International ticket sales and the purchase of fuel, aircraft and spare parts give rise to foreign currency risks for the Lufthansa Group. All subsidiaries report their planned currency exposure in around 66 foreign currencies to the central financial planning department over a time frame of at least 24 months. At Group level, a net position is aggregated for each currency in order that "natural hedging" can be taken advantage of. Twentythree of the currencies are hedged because their exposure is particularly relevant to the Lufthansa Group. → Note 41, p.149ff.

These financial developments also represent opportunities for the Lufthansa Group. Volatility in fuel prices, exchange rates and interest rates can result in lower costs and/or higher income if the direction taken is better than the assumptions used for planning and forecasting. There were no significant changes to this estimate compared with the previous year.

Loss of the investment grade rating

The credit ratings given to the Lufthansa Group by the rating agencies are particularly important. An investment grade rating enables access to new financing and hedging instruments. The Lufthansa Group is rated by the Standard & Poor's and Scope Ratings agencies as investment grade and by the Moody's agency as non-investment grade. If, in future, a rating agency were to downgrade the credit rating to non-investment grade (e.g. due to the negative outlook from Standard & Poor's since 15 September 2016), this could lead to a distinct deterioration in funding terms and financial risk management and restrict access to new funding and hedging instruments.

C28 Lufthansa's hedging policy Medium-term crude oil hedging in %



■ Brent collar
 :::: Hedge (average Brent price consists of 18 individual prices)

The Lufthansa Group's investment grade rating is still under significant threat due to the high provisions for pensions, which have been caused by a very low discount rate by long-term standards. It is currently not clear how the rating agencies will deal with increasingly volatile interest rates in future and what consequences this will have for the Lufthansa Group's rating. Over and above this, the erosion of profits or the failure of cash flows to materialise also carries a risk that the rating will be downgraded. The measures included in the planning are all aimed at strengthening the financial profile by means of investment discipline and earnings improvement, and provide the opportunity to reduce the Group's debt. The Lufthansa Group is in constant contact with all three rating agencies to discuss with them wherever possible activities that could stabilise or improve the rating. Further information on opportunities from switching retirement benefits → [Human resources, p. 65f.](#)

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 which can be liquidated daily, overnight deposits, fixed-term deposits and short-term securities, especially commercial papers, from credit-worthy issuers.

The investment structure of the strategic minimum liquidity for the Lufthansa Group has been determined using a stochastic allocation study. It was based on the Lufthansa Group's liquidity requirements and conservative investment principles. The majority of these investments are in products related to the money market. The strategic minimum liquidity is divided into various components with different investment horizons. They are managed by several external asset managers with separate mandates. One of the requirements is that the investments must be able to be liquidated 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. An investment manager also monitors and manages risk using a stop-loss system. As the correlation between asset classes is declining; share prices are high and interest rates particularly low, market risk and market fluctuations are generally higher than last year.

→ [Financing, p. 34f.](#) Further information on opportunities from switching retirement benefits → [Human resources, p. 65f.](#)

Credit 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 business segments. Preventive measures are also taken. → [Note 36, p. 140ff.](#)

Company-specific opportunities and risks

New process organisation reinforces continuous improvement

Opportunities to increase efficiency in the course of continuous improvements are being seized as a strategic action area in all of the Lufthansa Group's operating segments. They are reflected in the planning as a counterweight to ongoing cost inflation. This is also the aim of the process-oriented matrix organisation that was introduced at the network airlines, and which is also to be implemented in the administrative areas and other business segments from 2017. Potential opportunities and risks to forecast economic developments, in the form of unforeseen internal and external factors, both positive and negative, must be identified and managed during the course of the year.

Human resources

Evolution of company retirement benefits

As the system of retirement benefits for the employees of the Lufthansa Group in Germany is increasingly moved from a defined-benefit to a defined-contribution system, the Lufthansa Group is reducing its pension provisions. Further wage settlements that have yet to be agreed offer additional opportunities.

Internal and external labour disputes

Given the large number of outstanding wage agreements, there is still a risk of labour disputes involving cockpit staff at Lufthansa Passenger Airlines, Lufthansa Cargo and Germanwings. Industrial action instigated by the UFO flight attendants' union constitutes a risk at Eurowings and Germanwings. Through talks, collective bargaining and arbitration, the Lufthansa Group attempts to achieve its policy objectives through agreements with the trade unions and to ensure a working relationship in the spirit of trust.

External strikes are also a risk, since the Lufthansa Group depends on a large number of companies and public-sector entities (such as the security staff at airports), which all negotiate with their own collective bargaining partners. In the past, the Lufthansa Group has often been affected by third-party strikes in these areas, without any possibility of influencing the situation directly. Here, the Lufthansa Group is working to ensure that its voice is heard in the legislative process.

Reduced employee commitment

Should employees' commitment and their loyalty to the Lufthansa Group waver, it will become harder to implement required structural changes. By developing the pay structure, fringe benefits and non-monetary components, including concessionary flights, in different ways for each group of employees, the Lufthansa Group still endeavours to offer attractive conditions of employment. Change management initiatives are increasingly being implemented and communications activities initiated to increase employees' commitment.

Staff structure

Differences between strategic human resources requirements and existing staff, which are accompanied by a lack of transparency across the Group concerning existing skills, represent a structural human resources 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.

New labour legislation

Depending on the way it is drafted and structured, new labour legislation, such as a new law on agency workers, may affect operating workflows and entrepreneurial freedom of action. Here, too, the Lufthansa Group works to ensure that its interests are taken into account by policymakers.

Overall, human resources risks are 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. If flights do not take off or land on time, due to weather conditions for instance, this may have a negative effect on customer satisfaction and future purchase decisions. Airlines' liability for delays has also been broadened significantly.

Another flight and technical risk is the risk of an accident, with the possibility of damage to people and property. Threats affecting the risk of accidents are divided into four groups: 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 Lufthansa Group airlines and Lufthansa Technik search for these dangers systematically and in a forward-looking way in order to manage the resulting risk by means of suitable counter-measures and to increase the level of flight safety further.

This takes place in the course of safety management 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 Passenger Airline 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 which come to light are also analysed and the results integrated into prevention measures, such as training courses, if relevant. The safety management systems are continuously improved and refined.

Clear responsibilities have been defined as part of the reorganisation of the Lufthansa Group, such as creating positions with overarching, Group-wide functions. One example of this is the "Safety Processes Group Airlines" function, which aims to coordinate the Lufthansa Group's safety management systems as well as possible, to consolidate findings and, on this basis, to define and continuously improve uniform flight safety standards within the Lufthansa Group.

Networking and the ongoing exchange of information between the different airlines in the Lufthansa Group offer the opportunity of consolidating the experience gained in each operating environment and pursuing a Group-wide, evidence-based approach to optimising the existing safety management systems. The aim is an overarching analysis based on a standardised set of data and uniform evaluation criteria.

One project to improve the Lufthansa Group's operational and safety standards was developed further and others were completed. This advances the harmonisation of relevant core processes within the Lufthansa Group. It covers the sub-projects dealing with the recruitment and selection of pilots, flight medicine, training standards for flight crews and the continued development of crisis and irregularity management processes.

Other operating risks

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. Certified 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

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. 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 from 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 dimension of cyber-attacks is 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 cyber-attacks may continue to escalate. It is therefore foreseeable that cyber-risks will become an ever greater potential risk for the Lufthansa Group.

To adequately counter the growing threat to the Lufthansa Group's IT, the Executive Board adopted an extensive programme in 2016 to durably strengthen its cyber-resilience. It comprises investments in technology for the prevention and early identification of cyber-attacks, adapting processes to evolving threats and raising the awareness of employees. In this context, particular attention is also paid to the next generation of avionic IT in aircraft, which is connected to the Internet and so requires a cyber-risk assessment as well as offering the potential for optimisation. Group Security and Information Management have also systematically analysed an initial set of cyber-risks in the Lufthansa Group in the form of a project. This methodology will be devolved to line management from 2017.

IT risk and IT security processes are organised across operating 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. The transition to the new provider is taking place within an independent, wide-ranging programme.

Breaches of compliance requirements

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 its compliance programme is therefore of vital importance to the Lufthansa Group. → [Corporate Governance, p. 75ff.](#)

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 need to take extraterritorial regulations like the US Foreign Corrupt Practices Act (FCPA) or the UK Bribery Act into consideration. 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 operates in highly oligopolistic markets, cooperates with competitors in alliances, may have to deal with changes in the legal parameters for certain flight routes and that in some of its segments, suppliers, competitors and clients are the same legal person. The Competition Compliance function addresses the risks of collusive behaviour and provides staff with extensive training.

Furthermore, the Lufthansa Group is exposed to risks in terms of capital market compliance. Since July 2016, the EU Market Abuse Regulation (MAR) has codified bans on insider trading and market manipulation, the obligation to make ad hoc announcements as well as other obligations relating to capital markets. MAR and many other regulations are directly applicable in Germany. At times, it can be difficult to predict how these new European regulations will be interpreted and administered by the public authorities. The Lufthansa Group has taken many organisational steps to implement the MAR, including adjusting its technical systems, revising its compliance guidelines and training the employees concerned. Despite all these organisational measures, action by national and, in particular, European supervisory authorities against the Lufthansa Group for any future breaches of MAR obligations cannot be ruled out. Possible sanctions range from significant fines to a public "naming and shaming".

Individual infringements, particularly of integrity, competition and capital markets compliance, cannot be ruled out completely, despite the control mechanisms in place and the steps taken to mitigate risks.

Heavy penalties are also possible if emissions reporting is even slightly inaccurate or not submitted on time. Under some circumstances, the airlines in the Lufthansa Group may not be able to rule out these risks altogether, even when the reporting is compiled with the utmost care.

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 future. 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 33, p. 136ff., and Note 40, p. 148.](#)

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 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. This also applies to the lawsuits filed by dependants of two American victims against Germanwings, Eurowings, Lufthansa and United Airlines in Virginia, USA, as well as to the two lawsuits filed against Airline Training Center Arizona, Inc. (ATCA) in Arizona, USA. Claims are being made in all three cases for material and general damages. In the lawsuit against ATCA, the claimants are arguing, among other things, that ATCA doubted the co-pilot's mental stability but still trained him nonetheless. Altogether, the US lawsuits are estimated as having 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 underway. → [Earnings, assets and financial position, p. 28ff.](#)

Expenses for legal defence cannot be ruled out. Costs for investigations and voluntary payments to the victims' families have already been incurred and there is a risk that there are more to come.

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, 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 possible stage and initiates steps to mitigate the risks as necessary.

Overall statement on opportunities and risks

In a volatile environment, the Lufthansa Group relies on its ability to adjust 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.

The SCORE programme that ended in 2015 was moved into line management in the form of continuous improvements to efficiency, in order to establish these gains as a permanent task within the Company. In order to seize opportunities for making lasting, structural improvements to efficiency, productivity and competitiveness, a process-oriented matrix organisation has been implemented for the network airlines. It is also to be introduced in the administrative areas and other business segments from 2017, where it is expected to deliver corresponding efficiency gains. Work is also continuing in other key areas of the "7to1 – Our Way Forward" strategic programme to safeguard the Company's future viability by means of profitable growth, innovation and digitalisation, as well as by focusing on quality and customer orientation.

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

Although individual risks have been assessed differently in some cases in 2016, there has been no material change to the internal risk landscape for the Lufthansa Group compared with the previous year.

The Executive Board of the Lufthansa Group does not currently consider that the continued existence of the Company is at risk. It assumes that the Company will still be able to exploit opportunities as they arise in future without having to incur unreasonably high risks. The Executive Board of the Lufthansa Group aims to achieve a balance between opportunities and risks, and is convinced that the opportunities and risk management system is effective.

Description of the accounting-related Internal Control System and risk management system in accordance with Section 289 Paragraph 5 and Section 315 Paragraph 2 No. 5 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 Group companies 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 conform to regulations, despite the risks identified.

The following preventive 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 packages 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.

Forecast

✂ Continued moderate global economic growth expected for 2017. / IATA projects growth of 5.1 per cent in global revenue passenger-kilometres. / Regional developments still differ. / Lufthansa Group forecasts Adjusted EBIT slightly lower than last year.

Macroeconomic outlook

T048 GDP development

Forecast 2016 to 2020 compared with previous year

in %	2016*	2017*	2018*	2019*	2020*
World	2.5	2.8	3.1	3.1	3.1
Europe	1.8	1.6	1.7	1.7	1.6
Germany	1.8	1.9	1.9	1.6	1.4
North America	1.6	2.2	2.6	2.3	2.2
South America	-1.1	1.3	2.2	2.9	3.2
Asia/Pacific	4.7	4.7	4.7	4.7	4.7
China	6.7	6.5	6.2	6.1	6.1
Middle East	2.5	2.5	3.6	3.8	4.2
Africa	1.8	2.8	3.4	3.8	4.2

Source: Global Insight World Overview as of 15.1.2017.

* Forecast.

Moderate economic growth expected globally

The global economic growth rate of between 2.4 and 3.1 per cent per year that has prevailed since 2011 is expected to continue in 2017. The current forecast for global growth in 2017 is 2.8 per cent. Risks for this expected growth include the dangers of increasing protectionism worldwide, uncertainty concerning the form that Brexit will take and possible changes in US economic policy. At the beginning of 2017, the oil price was low by historical standards, despite the increase in 2016. This alters global capital flows, investment and demand, meaning that oil-importing countries should continue to anticipate negative consequences, too.

Economic growth is expected to be strongest in the Asia/Pacific region, at 4.7 per cent (previous year: 4.7 per cent) in 2017. China remains one of the fastest growing countries in the world, although the pace of its expansion has slowed in recent years. The North America region is expected to expand by 2.2 per cent (previous year: 1.6 per cent). In the USA, the business climate and consumer

confidence currently reflect the expectation that tax cuts and a reversal of recent regulations will stimulate economic growth in 2017. However, the anticipated measures may only take effect much later and have less of an impact than is currently expected. There is also the risk that the US economy suffers from rising interest rates and the current strength of the US dollar.

Growth for Europe in 2017 is forecast to be 1.6 per cent (previous year: 1.8 per cent). A weaker euro, waning sovereign debt crisis, further stabilisation in labour markets and supportive monetary policy should help to sustain this growth track in 2017. Alongside uncertainty about the impending Brexit, however, forthcoming elections in the Netherlands, France and Germany also add to worries about further European growth. Germany's economy is expected to expand by 1.9 per cent in 2017 (previous year: 1.8 per cent).

Interest and exchange rates remain subject to uncertainty

The political events of 2016 will continue to cause significant volatility on the markets in 2017. Further negotiations on Britain's exit from the EU and any additional interest rate increases by the Federal Reserve could weaken the euro. Following the change of political leadership in the USA and the uncertainty it has caused, it is also likely that other currency pairs will be highly volatile.

It seems that the European Central Bank initially intends to pursue its expansionary monetary policy as before. Current interest rates, with negative interest on short-term maturities, should therefore be expected to persist.

Oil prices to remain stable initially

Market players expect oil prices to remain stable on the back of economic forecasts. With prices just below USD 57/barrel as of 2 January 2017, futures contracts for delivery in December 2017 were trading at USD 58.61/barrel, and for December 2018 at USD 57.94/barrel.

Sector outlook

Sector outlook reveals regional disparities

The International Air Transport Association (IATA) forecasts global growth in revenue passenger-kilometres of 5.1 per cent for 2017 (previous year: 5.9 per cent). Growth is expected to vary between the regions. The strongest growth is still expected in the Middle East, at 9.0 per cent, followed by Asia/Pacific at 7.0 per cent and Africa with 4.5 per cent. Growth of 4.0 per cent is projected for both Europe and Latin America. International passenger traffic in North America is forecast to grow more slowly, at 2.5 per cent.

Stable growth rates predicted for airfreight

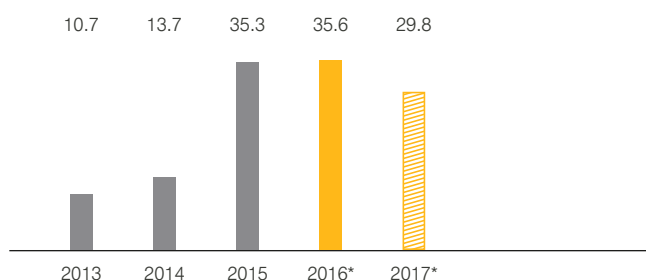
For global airfreight traffic, the IATA forecasts 3.5 per cent growth in revenue cargo tonne-kilometres in 2017, broadly in line with the previous year's level.

Growth and consolidation also expected in the service companies' markets

The MRO market is expected to grow by an average of 4 per cent per year to a total volume of around USD 99bn by 2026. The Asia/Pacific region will see the biggest increase in MRO demand. The North American market will, however, remain the largest single market. Additionally, low oil prices could have a positive effect on demand for MRO services, as airlines may increase the size of their fleets or use less fuel-efficient aircraft for longer than planned.

Demand in the airline catering market is expected to continue to grow in 2017, but increasingly in the area of in-flight sales programmes. Ongoing consolidation has further intensified the competitive situation.

C29 Development of sector net result in USD billion



Source: IATA Airline Industry Economic Performance (12/2016).
* Forecast.

Earnings for the airline industry expected to fall

The global airline industry is expected to report profits of USD 35.6bn in 2016, which the IATA forecasts to fall to USD 29.8bn in 2017. Lower earnings are projected for all regions, albeit to varying degrees. Airlines from North America are again expected to take the largest share of the profits, with forecast earnings of USD 18.1bn. Profits of USD 6.3bn are forecast for airlines in the Asia/Pacific region, and of USD 5.6bn for airlines from Europe. The IATA is projecting earnings of USD 0.3bn and USD 0.2bn respectively for carriers from the Middle East and Latin America. A loss of EUR 0.8bn is expected for airlines from Africa.

Changes in business and organisation

The Lufthansa Group regularly reviews its organisational structure and adapts it to changes in the business environment.

Opportunities to increase efficiency in the course of continuous improvements are being seized as a strategic action area in all of the Lufthansa Group's operating segments. They are reflected in the planning to offset ongoing cost inflation. This is also the aim of the process-oriented matrix organisation that was introduced at the network airlines, and which is also to be implemented in the administrative areas and other business segments from 2017. Potential opportunities and risks to forecast economic developments, in the form of unforeseen internal and external factors, both positive and negative, are identified and managed during the course of the year.

In parallel to introducing the process-oriented matrix organisation, the Lufthansa Group is reworking the structure of its business segments. In accordance with the three strategic pillars, they are to be divided into Network Airlines, Point-to-Point and the separate divisions within Aviation Services: Logistics, MRO, Catering and the Additional Businesses and Group Functions.

In this context, the groups of consolidated companies for the individual segments will be adapted in line with the changes in the internal organisational structure from the financial year 2017. In particular, Eurowings, Brussels Airlines and the equity investment in SunExpress will be removed from the Passenger Airline Group segment and integrated into the independent Point-to-Point segment. Lufthansa Passenger Airlines will be renamed Lufthansa German Airlines. There will be no changes to the segments in Aviation Services. However, Lufthansa Aviation Training, which is currently consolidated in the Passenger Airline Group segment, will be allocated to the Additional Businesses and Group Functions. The figures for the previous year will be adjusted accordingly.

Outlook for the Lufthansa Group

In view of the increasing volatility of the global economy in general and of the airline industry in particular, the Lufthansa Group expects that the course of its business will also be subject to significant fluctuations in 2017. The strong volatility of key variables will require assumptions to be reviewed continuously over the course of the year, in order to be able to respond appropriately and promptly to changes with suitable management measures.

Lufthansa Group expects Adjusted EBIT in 2017 slightly below previous year

Based on the market price for crude oil and the US dollar exchange rate as of 28 February 2017, and without adjustment for the fuel costs of Brussels Airlines, which is being consolidated for the first time, the Lufthansa Group anticipates a year-on-year increase in fuel costs of around EUR 350m.

At the same time, the Lufthansa Group expects currency-adjusted unit revenues in the Network Airlines and Point-to-Point segments to fall again, but not overall as significantly as in 2016. Viewed in isolation, a change in cumulative unit revenues of 1 per cent in these two segments has an earnings impact of more than EUR 200m. However, cumulatively lower unit costs, adjusted for exchange rates and fuel, will help to offset at least part of the increase in fuel costs and lower unit revenues. The other business segments together are not expecting any major changes in earnings. Based on these assumptions and from a current perspective, the Lufthansa Group expects revenue to be significantly higher and Adjusted EBIT to be slightly lower than last year in 2017.

The main influences on earnings remain the oil price, the euro exchange rate, especially against the US dollar and the Swiss franc, unit revenues at the Network Airlines and Point-to-Point segments and the course of collective bargaining for cockpit staff at Lufthansa German Airlines. Overall risks from underlying macroeconomic and from geopolitical developments in particular have increased in recent months and represent a key uncertainty for the development of revenue and earnings, especially for the Network Airlines.

As in the previous year, restructuring activities are likely to adversely affect the earnings of individual segments and the entire Lufthansa Group. At the time of this forecast, costs across all segments are expected to be at a similar high level to the previous year. If progress with the restructuring efforts differs from what was planned at the beginning of the year, this figure may further increase or decrease, improving or reducing earnings accordingly. This earnings forecast does not include negative impacts from possible strikes.

Network Airlines expect slight reduction in earnings

The Network Airlines Lufthansa German Airlines, SWISS and Austrian Airlines will continue to adapt their respective processes in order to optimise the competitiveness of the entire segment in the financial year. Changes will be made to organisational structures and workflows. Varying – possibly also negative – developments in unit revenues and costs are possible at the individual airlines in order to generate overall synergies for the entire Network Airlines segment.

The market environment will remain very challenging as a result of volatile fuel prices, exchange rate fluctuations and increasing competition. Under these circumstances, all of the network airlines assume that pricing pressure will increase in 2017. Key drivers of this trend are high capacities in the market as well as foreseeable price cuts by competitors, who will continue to benefit from lower fuel costs, since they have different hedging profiles.

Lufthansa German Airlines expects Adjusted EBIT for 2017 to be slightly lower than the previous year. The focus will remain on continuous unit cost reductions, which are to be achieved by a broad set of activities. As intense collective bargaining for cockpit crew is still ongoing, the strike risk will persist in the new financial year. The forecast does not, therefore, include any negative effect on earnings from possible strikes at Lufthansa German Airlines.

SWISS expects Adjusted EBIT to be slightly lower than the previous year. Increased capacities from introducing the new and more efficient B777 and Bombardier C Series aircraft and the associated fall in unit costs will be offset by the effects of persistently tough competition and pressure from the strong Swiss franc.

Austrian Airlines expects Adjusted EBIT for 2017 to be slightly lower than the previous year. Ongoing income and cost initiatives as well as strict management of capacities and marketing activities will remain a focus in the new year.

Airlines in Point-to-Point segment expect earnings improvement

The airlines consolidated in the Point-to-Point segment, Eurowings and Brussels Airlines, expect earnings to improve on a cumulative basis. The wet lease of 33 aircraft from Air Berlin will not make a positive earnings contribution in the first year due to one-off integration costs – partly because residual costs from replacing existing capacities will adversely affect earnings at first. After adjustment for integration costs, Eurowings expects to break even in 2017. Brussels Airlines, consolidated in the Point-to-Point segment for the first time from 2017, is expected to deliver a small positive earnings contribution in its first year as a full member of the Group.

Lower currency-adjusted unit revenues are forecast for the Network Airlines and Point-to-Point segments together, but the decline is expected to be less than in the previous year. The fall in unit revenues will be fostered by the fact that the Point-to-Point segment, with its systematically lower revenues, is growing disproportionately strongly. The same applies to the forecast decline in currency and fuel adjusted unit costs.

Other business segments to make stable earnings contributions overall

The Logistics segment is expecting moderately higher revenue for 2017 in a more stable market. Capacity will remain virtually unchanged. In some cases, steps taken in 2016 to improve earnings will only start to have an effect in 2017. Nevertheless, Lufthansa Cargo is expecting a slightly smaller loss in 2017 than in 2016.

T049 Forecast traffic figures Passenger Airline Group

	Values 2016	Forecast for 2017 ¹⁾
Number of flights	+ 1.9%	+2% at Network Airlines 0% at Point-to-Point
Capacity (ASK)		+3% at Network Airlines +19% at Point-to-Point plus 95 pts due to wet lease with Air Berlin and first-time consolidation of Brussels Airlines
Unit revenues (RASK)²⁾	+ 4.6%	less negative than in 2016
Unit costs (CASK, excluding fuel and non-recurring effects from collective agreement with UFO) ²⁾	-5.8%	negative, in line with previous year

¹⁾ Excluding wet lease with Air Berlin and integration of Brussels Airlines.

²⁾ At constant currency.

The MRO segment expects revenue in 2017 to be significantly higher and Adjusted EBIT to be slightly lower than in the previous year. The main reasons for this are non-recurring positive earnings effects in the reporting year, ongoing pricing pressure in the MRO business, which is accompanied by lower margins, costs for growth projects, in particular innovation and technology projects, as well as restructuring costs.

The Catering segment is expecting revenue to be slightly above, and Adjusted EBIT to be significantly below last year in 2017. The forecast decline in earnings is mainly due to the costs of transforming the business model, particularly in Europe. The ongoing programmes to increase efficiency as well as the expansion of activities in adjacent markets will continue to be driven forward.

T050 Forecast revenue and result*

	Revenue		Adjusted EBIT	
	Revenue 2016 in €m	Forecast for 2017	Adjusted EBIT 2016 in €m	Forecast for 2017
Lufthansa German Airlines	15,412	–	1,090	slightly below previous year
SWISS	4,471	–	405	slightly below previous year
Austrian Airlines	2,153	–	58	slightly below previous year
Network Airlines	21,864	slightly above previous year	1,555	slightly below previous year
Point-to-Point	2,060	significantly above previous year	–104	significantly above previous year
Logistics	2,084	slightly above previous year	–50	slightly above previous year
MRO	5,144	significantly above previous year	411	slightly below previous year
Catering	3,194	slightly above previous year	104	significantly below previous year
Other	437	–	–182	slightly above previous year
Internal revenue/ Reconciliation	–3,123	–	18	–
Lufthansa Group	31,660	significantly above previous year	1,752	slightly below previous year

* Figures have been adjusted and reflect the realignment of the business segments from 2017.

Other financial indicators are expected to improve

The Lufthansa Group is planning gross capital expenditure of EUR 2.7bn in 2017. An average of EUR 2.2bn per year in gross capital expenditure is projected for the following years. Positive free cash flow is again expected for 2017. Minimum liquidity of EUR 2.3bn is to be maintained unchanged.

Net profit is expected to be significantly lower than in the previous year. Reasons for this include the forecast of a slightly lower Adjusted EBIT and, above all, the absence of the one-off effect of EUR 652m from the restructuring of retirement and transitional benefits in the new wage agreement with the UFO flight attendants' union. EACC will therefore also be lower than in the previous year.

At stable interest rates, the equity ratio should move closer to the medium-term target of 25 per cent. The debt repayment ratio should remain stable over the course of year.

A dividend payment also for the 2017 financial year can be assumed, as long as the conditions defined in the dividend policy are met.

T051 Forecast financial profile

	Actual 2016	Target	Forecast for 2017
Equity ratio	20.6%	25% medium term	increase
Debt repayment ratio	28.7%	45% (minimum 35%)	stable
Liquidity	€ 3.9bn	minimum liquidity € 2.3bn	lower than previous year

Overall statement by the Executive Board on the expected development of the Lufthansa Group

In spite of the challenging market and the highly volatile operating environment, the Executive Board of Deutsche Lufthansa AG remains optimistic regarding the development of the Lufthansa Group and its companies.

The Executive Board believes that the broad diversification of the Lufthansa Group puts it in a good position to meet the present and future demands of the market. Diversification of the Network Airlines, Point-to-Point Airlines and service companies is just as important in this context as the solid financial profile of the Lufthansa Group. These features enable the airlines and the service companies to initiate, finance and implement the ongoing processes of structural change from a position of strength.

Stabilising the result over the cycle and at least at the good level of the previous two years is vitally important. This is the fundamental condition for the Lufthansa Group's sustainable development, not least due to persistent cost pressure and shifting competitive structures.

The Executive Board assumes that further progress can be made in the new financial year towards achieving this goal. An intensive phase of far-reaching changes still lies ahead of the Company, a phase in which the new organisational structure will be put into practice and the corporate structure and culture will be developed further. The Executive Board is confident that staff and managers together will take and implement the right decisions to add value in equal measure for customers, employees and shareholders.

Corporate Governance

✂ Executive Board and Supervisory Board work together closely to sustainably increase Company value. / Compliance with the recommendations of the German Corporate Governance Code with one exception. / Comprehensive compliance programme established.

Supervisory Board and Executive Board

Supervisory Board

Dr Wolfgang Röller

Former Chairman of the Supervisory Board
Deutsche Lufthansa AG
Honorary Chairman

Dipl.-Ing. Dr-Ing. E.h. Jürgen Weber

Former Chairman of the Supervisory Board
Deutsche Lufthansa AG
Honorary Chairman

Voting members

Wolfgang Mayrhuber

Former Chairman of the Executive Board
Deutsche Lufthansa AG
Chairman

Christine Behle

Member of the National
Executive Board of ver.di
Employee representative
Deputy Chairwoman

Nicoley Baublies

Purser and Member
of the Executive Board
of the trade union UFO e.V.
Employee representative

Dr Werner Brandt

Former Member of the
Executive Board SAP SE

Jörg Cebulla

Flight captain
Employee representative

Herbert Hainer

Former Chairman of the Executive Board
adidas AG

Dr h.c. Robert Kimmitt

Senior International Counsel
Wilmer Cutler Pickering Hale
and Dorr LLP, USA

Dr Karl-Ludwig Kley

Chairman of the Supervisory Board
E.ON SE

Martin Koehler

Independent management consultant and
former head of the Aviation Competence
Center at The Boston Consulting Group

Doris Krüger

Senior Director Future Innovation
Strategy, Lufthansa Group
Employee representative

Dr Nicola Leibinger-Kammüller

Managing partner and
Chair of Management Board
TRUMPF GmbH + Co. KG
(until 28 April 2016)

Eckhard Lieb

Training Coordinator
Employee representative

Jan-Willem Marquardt

Flight captain and member
of the Cockpit pilots' union
Employee representative

Martina Merz

Former CEO Chassis Brakes
International, Netherlands
(since 28 April 2016)

Ralf Müller

State certified technician
Employee representative

Monika Ribar

President of Board of Directors (VRP)
Schweizerische Bundesbahnen SBB AG,
Switzerland

Andreas Strache

Flight manager
Employee representative

Stephan Sturm

Chairman of the Executive Board
Fresenius Management SE

Christina Weber

Administrative staff member
Employee representative

Birgit Weinreich

Flight attendant
Employee representative

Matthias Wissmann

President of the German Automotive
Industry Federation (VDA)

Executive Board

Carsten Spohr

Chairman of the Executive Board and CEO

Karl Ulrich Garnadt

Member of the Executive Board
Eurowings and Aviation Services

Harry Hohmeister

Member of the Executive Board
Hub Management

Simone Menne

Member of the Executive Board
Finances
(until 31 August 2016)

Ulrik Svensson

Member of the Executive Board
Finances
(since 1 January 2017)

Dr Bettina Volkens

Member of the Executive Board
Corporate Human Resources
and Legal Affairs

Mandates

Other mandates of the Supervisory Board members of Deutsche Lufthansa AG

(As of 31 December 2016)

Wolfgang Mayrhuber

- a) Infineon Technologies AG (Chairman)
Münchener Rückversicherungs-
Gesellschaft AG
(until 31 December 2016)
- b) HEICO Corporation, USA

Christine Behle

- a) Bochum-Gelsenkirchener
Straßenbahnen AG
BREMER LAGERHAUS-GESELLSCHAFT
– Aktiengesellschaft von 1877 –
(Deputy Chairwoman)
Hapag Lloyd AG (Deputy Chairwoman)

Dr Werner Brandt

- a) innogy SE (Chairman)
OSRAM Licht AG
ProSiebenSat.1 Media SE (Chairman)
RWE AG (Chairman)

Herbert Hainer

- a) Allianz Deutschland AG
FC Bayern München AG
(Deputy Chairman)
- b) Accenture plc., Ireland

Dr Karl-Ludwig Kley

- a) BMW AG (Deputy Chairman)
E.ON SE (Chairman)
- b) Verizon Communications Inc., USA

Martin Koehler

- a) Delton AG
- b) American Funds Investment-Fonds,
managed by the Capital Group, USA
Enfold Inc., USA
FlixMobility GmbH

Dr Nicola Leibinger-Kammüller

(As of date of departure from
Supervisory Board on 28 April 2016)

- a) Axel Springer SE
Siemens AG
Voith GmbH

Eckhard Lieb

- b) Albatros Versicherungsdienste GmbH

Martina Merz

- (since 28 April 2016)
- b) AB Volvo, Sweden (Board of Directors)
NV Bekaert SA, Belgium
(Board of Directors)
SAF-HOLLAND S.A., Luxembourg
(Board of Directors, Deputy Chairwoman)

Ralf Müller

- a) Lufthansa Cargo AG

Monika Ribar

- b) Chain IQ Group AG, Switzerland
Schweizerische Bundesbahnen SBB AG,
Switzerland (President of the
Board of Directors, VRP)
Sika AG, Switzerland

Stephan Sturm

- a) Fresenius Kabi AG (Chairman)
Fresenius Medical Care
Management AG (Chairman)
- b) VAMED AG, Austria
(Deputy Chairman)

Christina Weber

- a) LSG Lufthansa Service Holding AG

Mandates of the Executive Board members of Deutsche Lufthansa AG

(As of 31 December 2016)

Carsten Spohr

- a) Lufthansa Technik AG* (Chairman)
ThyssenKrupp AG
- b) Dr. August Oetker KG

Karl Ulrich Garnadt

- a) Eurowings GmbH* (Chairman)
Germanwings GmbH* (Chairman)
LSG Lufthansa Service Holding AG*
Lufthansa CityLine GmbH* (Chairman)
Lufthansa Flight Training GmbH*
(Chairman)
- b) Aircraft Maintenance and Engineering
Corp., China
Air Dolomiti S.p.A. Linee Aeree Regionali
Europee, Italy (Board of Directors)
Austrian Airlines AG, Austria
(Deputy Chairman)
Edelweiss Air AG, Switzerland (Chairman)
Günes Ekspres Havacilik A.S.
(SunExpress), Turkey (Deputy Chairman)
Miles & More GmbH*
ÖLH Österreichische Luftverkehrs-Holding
GmbH, Österreich (Deputy Chairman)
SN Airholding SA/NV, Belgium

Harry Hohmeister

- a) Lufthansa Cargo AG* (Chairman)
- b) Austrian Airlines AG, Austria (Chairman)
Günes Ekspres Havacilik A.S.
(SunExpress), Turkey
SN Airholding SA/NV, Belgium
Swiss International Air Lines AG,
Switzerland

Simone Menne

(As of date of departure from
Executive Board on 31 August 2016)

- a) BMW AG
Delvag Luftfahrtversicherungs-AG*
(Chairwoman)
Deutsche Post AG
LSG Lufthansa Service Holding AG*
(Chairwoman)
Lufthansa Cargo AG*
Lufthansa Technik AG*
- b) FWB Frankfurter Wertpapierbörse
(Börsenrat)
Miles & More GmbH (Chairwoman
of the Advisory Board)

Ulrik Svensson

- (As of date of appointment in
Executive Board on 1 January 2017)
- a) LSG Lufthansa Service Holding AG*
Lufthansa Cargo AG*
Lufthansa Technik AG*

Dr Bettina Volkens

- a) LSG Lufthansa Service Holding AG*

a) Membership of supervisory boards required by law.
b) Membership of comparable supervisory bodies at
companies in Germany and abroad.
* Group mandate in accordance with
Section 100 Paragraph 2 Sentence 2 AktG.

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 five 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. At the Supervisory Board meetings, the Executive Board informs the Supervisory Board at least four times a year on business developments at the Group and its affiliated companies, as well as once a year on operational planning and financial planning for the Group. 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 takes decisions by 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, for example, borrowing, capital expenditure, especially for aircraft and other non-current assets above a certain value threshold, long-term leasing of aircraft, establishing companies, acquisitions or disposals of shares, entering new businesses or discontinuing any existing businesses within the scope of the Articles of Association, as well as signing control agreements and signing or suspending strategically important cooperation agreements.

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 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 Paragraph 1 and Paragraph 2 Sentence 1 and 2 of the German Stock Corporation Act (AktG) and on determining targets and deadlines for the ratio of female Executive Board members (Section 111 Paragraph 5 AktG). The Steering Committee is responsible for all other human resources matters involving Executive Board members and authorised Company representatives not reserved for the full Supervisory Board in accordance with Section 107 Paragraph 3 Sentence 3 AktG (e.g. lending in accordance with Section 89 AktG). The Steering Committee represents the Company in dealings with the members of the Executive Board (Section 112 AktG). It is also responsible for contracts with members of the Supervisory Board (Section 114 AktG) and for lending to members of the Supervisory Board (Section 115 AktG). The Committee also rules on other human resources matters which have to be submitted to the Supervisory Board for approval in accordance with the internal regulations for the Executive Board. In the event of equal voting, the Chairman of the Supervisory Board has the casting 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 to discuss accounting, risk management matters, the Internal Control System and compliance, the necessary independence of the external auditors, the appointment of external auditors, the focus of audits and the remuneration agreement, to ensure the quality of the audit and to make recommendations to the Supervisory Board, particularly on the auditors to put forward for election at the Annual General Meeting and on approval of the individual 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 its information.

C30 Supervisory Board Committees

Steering Committee	Audit Committee	Nomination Committee	Arbitration Committee in accordance with Section 27 Paragraph 3 Co-determination Act (MitbestG)
<p>Wolfgang Mayrhuber (Chairman)</p> <p>Christine Behle (Deputy Chairwoman)</p> <p>Dr Karl-Ludwig Kley</p> <p>Birgit Weinreich</p> <p>Seven meetings in 2016</p>	<p>Dr Werner Brandt (Chairman)</p> <p>Martin Koehler</p> <p>Doris Krüger</p> <p>Eckhard Lieb</p> <p>Jan-Willem Marquardt</p> <p>Monika Ribar</p> <p>Seven meetings in 2016</p>	<p>Dr Werner Brandt</p> <p>Dr Karl-Ludwig Kley</p> <p>Wolfgang Mayrhuber</p> <p>One meeting in 2016</p>	<p>Wolfgang Mayrhuber (Chairman)</p> <p>Christine Behle (Deputy Chairwoman)</p> <p>Dr Karl-Ludwig Kley</p> <p>Birgit Weinreich (since 16 March 2016)</p> <p>No meetings in 2016</p>

The Supervisory Board has elected a Nomination Committee from among its shareholder representatives, consisting of three equal members. The Committee's task is to propose to the Supervisory Board suitable candidates to recommend for election to the Supervisory Board at the Annual General Meeting. The Supervisory Board should be composed in such a way that, in aggregate, its members have the necessary knowledge, skills and professional experience required for the proper performance of their duties. At least five shareholder representatives should be independent members of the Supervisory Board. In principle, no one older than the age of 70 should be put forward for election to the Supervisory Board (Section 8 Paragraph 2 of the Articles of Association). As a rule, individual members of the Supervisory Board should not stand for more than three periods of office. Taking the preceding conditions into account, the Supervisory Board should have a reasonably international make-up, for example by including members with several years of professional experience gained outside Germany. The Committee should ascertain that the nominated candidates are able to fulfil the necessary time commitment.

The Arbitration Committee required under Section 27 Paragraph 3 of the Co-determination Act and formed in line with Section 9 Paragraph 2 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.

The Supervisory Board member Dr Robert Kimmitt is Senior International Counsel at the law firm Wilmer Cutler Pickering Hale and Dorr LLP. The Supervisory Board member Matthias Wissmann is a partner at the law firm Wilmer Cutler Pickering Hale and Dorr LLP. In the past, the Lufthansa Group has had advisory contracts with Wilmer Cutler Pickering Hale and Dorr LLP and will probably continue to do so in the future. Neither Dr Robert Kimmitt nor Matthias Wissmann advise the Lufthansa Group as part of these contracts. Furthermore, Wilmer Cutler Pickering Hale and Dorr LLP has confirmed in writing that it has taken organisational steps to ensure that fees from advisory work for the Lufthansa Group are not taken into account either directly or indirectly in determining the remuneration that the aforementioned gentlemen receive from the law firm. The aforementioned Supervisory Board members therefore have no potential conflict of interests and there is no question of their independence, and the Supervisory Board's approval of these advisory contracts is not required.

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 Stock Corporation Act and the German Corporate Governance Code.

Executive Board and Supervisory Board members and their responsibilities, as well as members and duties of committees set up by the Supervisory Board → [p. 75ff.](#)

Compliance with the German Corporate Governance Code with one exception

At their meeting on 7 December 2016, 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 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 exception, been complied with and with the following exception will continue to be complied with in 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."

Shareholders and Annual General Meeting have wide-ranging rights

Lufthansa shares are registered shares with transfer restrictions. Every share has identical voting rights. Registration in the shareholders' register takes place by means of shareholder data provided electronically via banks and the clearing system. A peculiarity at Deutsche Lufthansa AG is that in addition to the German Stock Corporation Act, the registration requirements of the German Aviation Compliance Documentation Act (LuftNaSiG) must also be met. 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 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 to 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 account of 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 Düsseldorf has been appointed to audit the financial statements for 2016. The auditors' fees for the 2016 financial year are summarised in the Notes to the consolidated financial statements.

→ Note 44, p. 161.

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 5,000 is exceeded in the calendar year. This also applies to people and companies closely related to the group mentioned above. As of 31 December 2016, the value of all shares, options or derivatives held by members of the Executive and Supervisory Boards did not exceed that of 1 per cent 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. 7ff.](#), and on the website www.lufthansa.com/investor-relations.

Comprehensive programme helps to ensure compliance

Compliance describes all measures taken to ensure the correct conduct of companies, their management and staff with respect to statutory and the Company's own obligations and prohibitions. The Lufthansa Group Compliance Programme is intended to prevent staff 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 Compliance Programme is made up of the following elements: Competition, Capital Markets, Integrity, Embargo and Corporate Compliance. An ombudsman system gives staff the opportunity to report any suspicion of criminal activity or breaches of the compliance regulations. The central Compliance Office, which reports to the Board member responsible for Human Resources and Legal, the various central and local compliance committees in the Lufthansa Group and the Compliance Officers in Group companies, among others, are to ensure that the Lufthansa Compliance Programme is enforced throughout all companies in the Lufthansa Group by means of regular online training courses and information published on the Intranet. The Audit Committee of the Supervisory Board is notified semi-annually of incidents and progress concerning compliance in a Compliance Report.

<http://investor-relations.lufthansagroup.com/de/corporate-governance.html>

Remuneration report

The complexity of the presentation in this remuneration report of the principles of the remuneration system for the Executive Board and Supervisory Board of Deutsche Lufthansa AG, as well as the structure and amount of benefits, is required to comply with all statutory requirements and the recommendations of the German Corporate Governance Code, with the exception presented in the declaration of compliance. The remuneration report forms part of the combined management report.

Structure of Executive Board remuneration

On the recommendation of the Steering Committee, the Supervisory Board adopted an amendment to the remuneration structure for the Executive Board in December 2015, which applies to all five Executive Board members from the financial year 2016. The change was made because, in line with the new concept of value-based management in the Lufthansa Group, which is also used to calculate the variable remuneration for the Executive Board members, the operating margin and Cash Value Added (CVA) performance indicators have been replaced by EBIT margin and Earnings After Cost of Capital (EACC). In order to use these new performance indicators to determine the variable remuneration for the Executive Board members in future, the corresponding clauses in their service contracts were also amended to replace the previously used performance indicators from the financial year 2016.

Altogether, the new performance indicators are expected to result in an increase of around 10 per cent in the variable remuneration compared with the previous remuneration structure. Given that the variable remuneration at Deutsche Lufthansa AG is way below the benchmark set by other DAX companies, the Supervisory Board sees this increase as a contribution to the adjustment of Executive Board remuneration which has been discussed and repeatedly postponed for years.

Another result of this benchmarking against the DAX was the finding that the difference in total remuneration between the Chairman of the Executive Board and ordinary Executive Board members is very low at Deutsche Lufthansa AG, with a factor of just 1.44, compared with an average of 1.88 for the DAX. In light of this, the Supervisory Board has decided to increase the basic remuneration of the Chairman of the Executive Board by some 14 per cent to a factor of 1.6, and the variable remuneration by some 5 per cent to a factor of 1.5 times the equivalent amount for an ordinary Executive Board member. Overall, this increases the difference in total remuneration from the previous factor of 1.44 to 1.55.

The new remuneration structure was approved at the Annual General Meeting on 28 April 2016 by 89.95 per cent of votes cast.

Executive Board remuneration consists of a basic salary, variable remuneration components, other benefits and a retirement pension. There is a roughly equal balance between the two components “fixed annual salary” and “variable annual bonus and remuneration with a long-term incentive effect and risk characteristics”. Defining a significant minimum performance or outperformance of the Lufthansa share price as a condition ensures that the majority of variable remuneration components are based on performance over several years. These components are described in detail below.

The Executive Board’s remuneration consists of the following components:

- **Fixed annual salary.** Basic remuneration, paid monthly as a salary.
- **Variable annual remuneration.** The variable remuneration is based on the EBIT margin for the Lufthansa Group. 75 per cent of the remuneration is multiplied by an individual performance factor, which varies from 0.8 to 1.2. It is paid the following year and so on an annual basis. The remaining 25 per cent is carried forward for another two years. At the end of the assessment period, which runs for three years in total, the amount carried forward is to be multiplied by a factor of between 0 and 2 (bonus/malus factor). How high the factor is depends to 70 per cent on the EACC achieved over the three-year period and to 30 per cent on sustainability parameters such as environmental protection, customer satisfaction and staff commitment. The total amount of variable annual remuneration that can be paid is capped at 150 per cent of fixed annual salary. In determining the EBIT margin for 2016, all of the members of the Executive Board have asked for the positive earnings effect of EUR 652m from the restructuring of retirement and transitional benefits for the cabin crew at Lufthansa Passenger Airlines not to be taken into account. Had they not done so, the total Executive Board remuneration presented below would have been EUR 1,750,000 higher.
- **Share-based remuneration.** Executive Board members are also required to participate in the share programmes for managers (with their own parameters which are structured differently from those of the general managers’ programme). → [Note 36, p. 140ff.](#) The Act on Appropriate Executive Board Remuneration (VorstAG) defines a vesting period of at least four years for stock option programmes; this period is also given as a general orientation and recommendation for long-term incentive models. The duration of the LH-Performance programme is therefore set at four years, even though it is not a stock option programme within the meaning of the Act.
- **Bonus.** In years with poor results due to extraordinary exogenous factors, the Supervisory Board may award Executive Board members an appropriate individual bonus.

- **Other benefits.** Other benefits include, in particular, the non-cash benefit of using company cars, the discount granted in connection with share programme issues (→ [Note 36, p. 140ff.](#)), benefits from concessionary travel in accordance with the relevant IATA regulations and attendance fees and daily allowances for work on the supervisory boards of subsidiaries.

End-of-service benefits.

- **Retirement benefits.** Since 2006, each Executive Board member has had a personal pension account into which for the duration of their employment Deutsche Lufthansa AG pays contributions amounting to 25 per cent of the annual salary and the bonus. The investment guidelines for the pension account are based on the investment concept for the Lufthansa Pension Trust, which also applies to staff members of Deutsche Lufthansa AG.

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 (65 or early retirement between 60 and 65 or in the event of disability) the account holder will acquire a pension credit equivalent to the balance of the pension account at that 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 or as annuity may also be made, subject to approval by the Company.

The dependant’s pension is 60 per cent of the deceased’s pension entitlement. If the Board member dies while in the Company’s employment, his/her surviving dependants will be paid his/her full salary until the end of the financial year for a period of at least six months.

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 per cent of the last modified salary until the beneficiary reaches the age of 63.

- **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 including ancillary benefits may not exceed annual remuneration for two years (maximum compensation). Maximum compensation is calculated by reference to total remuneration for the last full financial year before departure from the Executive Board, as shown in the remuneration report, and including expected total remuneration for the current financial year.

- **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 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 per cent of the maximum compensation agreed in the contract and described above.

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 2016 came to EUR 10,389,000 (previous year: EUR 9,605,000). EUR 5,044,000 (previous year: EUR 4,650,000) of the total was paid as fixed salary and EUR 5,345,000 (previous year: EUR 4,955,000) as performance-related remuneration. The current service costs for pension commitments came to EUR 2,253,000 (previous year: EUR 1,985,000).

The following remuneration was paid to the individual active members of the Executive Board in 2016:

T052 Total remuneration of the Executive Board (HGB) in 2016

In € thousands	Basic remuneration	Other ¹⁾	One-year variable remuneration	Long-term variable remuneration	Option programme ²⁾	Total remuneration
Carsten Spohr	1,380	117	797	141	685	3,120
Karl Ulrich Garnadt	863	86	532	74	456	2,011
Harry Hohmeister	863	143	532	110	456	2,104
Simone Menne ³⁾	575	16	354	110	–	1,055
Dr Bettina Volkens	863	138	532	110	456	2,099
Total (HGB)	4,544	500	2,747	545	2,053	10,389

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 36, p. 140ff.), benefits from concessionary travel in accordance with the relevant IATA regulations, and attendance fees and daily allowances for work on the supervisory boards of subsidiaries.

²⁾ Fair value of the option programme 2016 at the time the options are granted.

³⁾ Pro rata temporis until 31.8.2016.

The following remuneration was paid to the individual active members of the Executive Board in 2015:

T052 Total remuneration of the Executive Board (HGB) in 2015

In € thousands	Basic remuneration	Other ¹⁾	One-year variable remuneration	Long-term variable remuneration	Option programme ²⁾	Total remuneration
Carsten Spohr	1,207	115	593	133	626	2,674
Karl Ulrich Garnadt	863	86	417	–	417	1,783
Harry Hohmeister ³⁾	432	63	417	67	417	1,396
Simone Menne	863	80	417	133	417	1,910
Dr Bettina Volkens	863	78	417	67	417	1,842
Total (HGB)	4,228	422	2,261	400	2,294	9,605

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 36, p. 140ff.), benefits from concessionary travel in accordance with the relevant IATA regulations, and attendance fees and daily allowances for work on the supervisory boards of subsidiaries.

²⁾ Fair value of the option programme 2015 at the time the options are granted.

³⁾ For his work as Chairman of the Executive Board and CEO of Swiss International Air Lines AG, Harry Hohmeister also received a basic salary paid in CHF equal to EUR 431,000, which was paid directly by Swiss International Air Lines AG.

As of 31 December 2016 (2015), the members of the Executive Board held the following shares and option packages from current share programmes:

T053 Share programmes

Number of shares	2013 programme		2014 programme		2015 programme		2016 programme	
	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	Number of shares purchased from own funds	Number of option packages
Karl Ulrich Garnadt (Executive Board member since 1.5.2014)	– (–)	– (–)	10,170 (10,170)	30 (30)	8,910 (8,910)	30 (30)	10,080 (–)	30 (–)
Harry Hohmeister	8,370 (8,370)	30 (30)	10,170 (10,170)	30 (30)	8,910 (8,910)	30 (30)	10,080 (–)	30 (–)
Simone Menne	– (8,370)	– (30)	– (10,170)	– (30)	– (8,910)	– (30)	– (–)	– (–)
Carsten Spohr	8,370 (8,370)	30 (30)	15,255 (15,255)	45 (45)	13,365 (13,365)	45 (45)	15,120 (–)	45 (–)
Dr Bettina Volkens (Executive Board member since 1.7.2013)	8,370 (8,370)	30 (30)	10,170 (10,170)	30 (30)	8,910 (8,910)	30 (30)	10,080 (–)	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. Simone Menne's claims under the current share programmes expired when she stepped down from the Executive Board on 31 August 2016.

The current share programmes performed as follows in the financial year:

T054 Performance share programmes

in €	Financial year 2016			Financial year 2015		
	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	–	211,982	211,982	–	–73,668	–73,668
Karl Ulrich Garnadt	–	244,361	244,361	–	83,943	83,943
Harry Hohmeister	–	251,848	251,848	–	92,988	92,988
Simone Menne (Executive Board member until 31.8.2016)	–	–345,358	–345,358	–	113,074	113,074
Dr Bettina Volkens	–	251,848	251,848	–	92,988	92,988
	–	614,681	614,681	–	309,325	309,325

More information on payment caps can be found in the Notes to the consolidated financial statements. → [Note 36, p. 140ff.](#)

The total amount of pension entitlements earned by Executive Board members in 2016 was EUR 2.3m (previous year: EUR 2.0m) according to HGB and EUR 2.4m (previous year: EUR 2.1m) according to IFRS and was recognised in staff costs (current service cost). The individual current service cost and present values of pension entitlements are as follows:

T055 Pension entitlements according to HGB and IFRS

in € thousands	HGB		HGB		IFRS		IFRS	
	Current service costs		Settlement amount of pension obligations		Current service costs		Present value of pension obligations	
	2016	2015	31.12.2016	31.12.2015	2016	2015	31.12.2016	31.12.2015
Carsten Spohr	702	521	3,951	3,112	710	543	3,668	2,860
Karl Ulrich Garnadt	424	355	1,004	567	448	385	1,005	554
Harry Hohmeister	434	380	1,385	921	463	391	1,261	797
Simone Menne	263	358	2,326	1,977	302	385	2,328	1,915
Dr Bettina Volkens	430	371	1,336	878	457	386	1,261	797
	2,253	1,985	10,002	7,455	2,380	2,090	9,523	6,923

Other agreements

Simone Menne was appointed as a member of the Executive Board until 30 June 2020. In spring 2016, Simone Menne indicated that she wished to leave the Company. The Supervisory Board agreed to this request in an extraordinary meeting on 9 June 2016 and revoked Simone Menne’s appointment to the Executive Board with effect from 31 August 2016. Simone Menne receives her variable remuneration for the financial year 2016 pro rata temporis for the period from 1 January 2016 to 31 August 2016. If members of the Executive Board receive a discretionary bonus for the financial year 2016, Ms Menne will be paid hers pro rata temporis for the period from 1 January 2016 to 31 August 2016. The agreement also provides for the expiry of all claims to outperformance payments from LH-Performance programmes on Simone Menne’s departure from the Company.

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 5.7m (EUR 5.9m). This includes payments by subsidiaries as well as benefits in kind and concessionary travel. Pension obligations toward former Executive Board members and their surviving dependants amount to EUR 70.4m (previous year: EUR 67.4m).

Recommendations of the German Corporate Governance Code

The following tables show the individual payments, allocations and retirement benefit commitments granted to each individual member of the Executive Board in line with the recommendations of 4.2.5 Paragraph 3 of the German Corporate Governance Code.

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 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 per cent). 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 which 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 2016, the members of the Executive Board received no benefits or promises of benefits from third parties relating to their work on the Executive Board.

T056 Benefits granted

Carsten Spohr, Chairman of the Executive Board
Chairman since 1.5.2014,
Member of the Executive Board since 1.1.2011

Karl Ulrich Garnadt
Member of the Executive Board since 1.5.2014

in € thousands	2016	2015	2016 (min)	2016 (max)	2016	2015	2016 (min)	2016 (max)
Fixed salary	1,380	1,207	1,380	1,380	863	863	863	863
Ancillary benefits	117	115	117	117	86	86	86	86
Total	1,497	1,322	1,497	1,497	949	949	949	949
One-year variable remuneration	636	529	0	1,553	424	373	0	970
Long-term variable remuneration								
Three-year variable remuneration	212	177	0	517	141	124	0	323
Option programme (4 years)	685	626	0	1,800	456	417	0	1,200
Total	1,533	1,332	0	3,870	1,021	914	0	2,493
Service cost	710	543	710	710	448	385	448	448
Total remuneration	3,740	3,197	2,207	6,077	2,418	2,248	1,397	3,890

Harry Hohmeister
Member of the Executive Board since 1.7.2013

Simone Menne
Member of the Executive Board until 31.8.2016

in € thousands	2016	2015*	2016 (min)	2016 (max)	2016	2015	2016 (min)	2016 (max)
Fixed salary	863	432	863	863	575	863	575	575
Ancillary benefits	143	63	143	143	16	80	16	16
Total	1,006	495	1,006	1,006	591	943	591	591
One-year variable remuneration	424	373	0	970	283	373	0	646
Long-term variable remuneration								
Three-year variable remuneration	141	124	0	323	94	124	0	216
Option programme (4 years)	456	417	0	1,200	–	417	–	–
Total	1,021	914	0	2,493	377	914	0	862
Service cost	463	391	463	463	302	385	302	302
Total remuneration	2,490	1,800	1,469	3,962	1,270	2,242	893	1,755

* For his work as Chairman of the Executive Board and CEO of Swiss International Air Lines AG, Harry Hohmeister also received a basic salary paid in CHF equal to EUR 431,000, which was paid directly by Swiss International Air Lines AG.

Dr Bettina Volkens
Member of the Executive Board since 1.7.2013

in € thousands	2016	2015	2016 (min)	2016 (max)
Fixed salary	863	863	863	863
Ancillary benefits	138	78	138	138
Total	1,001	941	1,001	1,001
One-year variable remuneration	424	373	0	970
Long-term variable remuneration				
Three-year variable remuneration	141	124	0	323
Option programme (4 years)	456	417	0	1,200
Total	1,021	914	0	2,493
Service cost	457	386	457	457
Total remuneration	2,479	2,241	1,458	3,951

T057 Allocations

	Carsten Spohr, Chairman of the Executive Board Chairman since 1.5.2014, Member of the Executive Board since 1.1.2011		Karl Ulrich Garnadt Member of the Executive Board since 1.5.2014		Harry Hohmeister Member of the Executive Board since 1.7.2013	
in € thousands	2016	2015	2016	2015	2016	2015*
Fixed salary	1,380	1,207	863	863	863	432
Ancillary benefits	117	115	86	86	143	63
Total	1,497	1,322	949	949	1,006	495
One-year variable remuneration	797	593	532	417	532	417
Long-term variable remuneration						
Three-year variable remuneration	141	133	74	–	110	67
Option programme (4 years)	–	–	–	–	–	–
Total	938	726	606	417	642	484
Service cost	710	543	448	385	463	391
Total remuneration	3,145	2,591	2,003	1,751	2,111	1,370

* For his work as Chairman of the Executive Board and CEO of Swiss International Air Lines AG, Harry Hohmeister also received a basic salary paid in CHF equal to EUR 431,000, which was paid directly by Swiss International Air Lines AG.

	Simone Menne Member of the Executive Board until 31.8.2016		Dr Bettina Volkens Member of the Executive Board since 1.7.2013	
in € thousands	2016	2015	2016	2015
Fixed salary	575	863	863	863
Ancillary benefits	16	80	138	78
Total	591	943	1,001	941
One-year variable remuneration	354	417	532	417
Long-term variable remuneration				
Three-year variable remuneration	110	133	110	67
Option programme (4 years)	–	–	–	–
Total	464	550	642	484
Service cost	302	385	457	386
Total remuneration	1,357	1,878	2,100	1,811

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.

Ordinary Supervisory Board members receive remuneration of EUR 80,000 for each financial year in accordance with Section 13 Paragraph 1 of the Articles of Association. The Chairman receives EUR 240,000 and the Deputy Chairman EUR 120,000. The Chairman of the Audit Committee receives an additional EUR 60,000; other members of the Audit Committee receive an additional EUR 30,000. Chairs of other committees receive an additional EUR 40,000 and other members of other committees receive an additional EUR 20,000. 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 2,170,000 in 2016 (previous year: EUR 2,152,000).

The figures for the individual Supervisory Board members are shown in the following table.

T058 Remuneration Supervisory Board

in € thousands	2016			2015		
	Fixed remuneration	Remuneration for committee work	Total Supervisory Board remuneration	Fixed remuneration	Remuneration for committee work	Total Supervisory Board remuneration
Wolfgang Mayrhuber	240	60	300	240	60	300
Christine Behle	120	20	140	120	20	140
Jacques Aigrain (until 29.4.2015)	–	–	–	26	–	26
Nicoley Baublies (since 1.5.2015)	80	–	80	54	–	54
Dr Werner Brandt	80	80	160	80	80	160
Jörg Cebulla (since 8.11.2015)	80	–	80	12	–	12
Herbert Hainer	80	–	80	80	–	80
Uwe Hien (until 30.4.2015)	–	–	–	26	10	36
Dr h.c. Robert Kimmitt	80	–	80	80	–	80
Dr Karl-Ludwig Kley	80	40	120	80	40	120
Martin Koehler	80	30	110	80	30	110
Doris Krüger	80	30	110	80	9	89
Dr Nicola Leibinger-Kammüller (until 28.4.2016)	26	–	26	80	–	80
Eckhard Lieb	80	30	110	80	30	110
Jan-Willem Marquardt	80	30	110	80	24	104
Martina Merz (since 28.4.2016)	54	–	54	–	–	–
Ralf Müller	80	–	80	80	–	80
Monika Ribar	80	30	110	80	30	110
Andreas Strache	80	–	80	80	–	80
Stephan Sturm (since 29.4.2015)	80	–	80	54	–	54
Christina Weber	80	–	80	80	–	80
Birgit Weinreich	80	20	100	80	2	82
Matthias Wissmann	80	–	80	80	–	80
Stefan Ziegler (until 7.11.2015)	–	–	–	68	17	85
Total	1,800	370	2,170	1,800	352	2,152

Other remuneration, mainly attendance fees, amounted to EUR 111,000 (previous year: EUR 110,000). The Deutsche Lufthansa AG Supervisory Board members were also paid EUR 17,000 (previous year: EUR 59,000) for work on supervisory boards of Group companies.

Disclosures in accordance with Section 289 Paragraph 4 HGB and Section 315 Paragraph 4 HGB

Composition of issued capital, types of shares, rights and duties

Deutsche Lufthansa AG's issued capital amounts to EUR 1,200,174,218.24 and is divided into 468,818,054 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. Each registered share is entitled to one vote. 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.

Voting and share transfer restrictions

For the Company to retain its aviation licence under European law and the air traffic rights required to fly to various international destinations, the proportion of non-European or foreign shareholders may not exceed 50 per cent of the Company's issued capital. If the proportion of foreign shareholders reaches 40 per cent, Deutsche Lufthansa AG is empowered 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 to prevent imminent excessive foreign control. If the proportion of foreign shareholders in the share register reaches 45 per cent, the Company is authorised, subject to Supervisory Board approval, to increase issued capital by up to 10 per cent by issuing new shares for payment in cash without subscription rights for existing shareholders (Section 4 Paragraph 2 and 3 LuftNaSiG together with Section 4 Paragraph 8 of the Articles of Association). If the proportion of foreign shareholders approaches the 50 per cent 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). Should the proportion of foreign investors exceed 50 per cent despite these precautions, Deutsche Lufthansa AG is authorised, 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 (Section 5 LuftNaSiG).

On 31 December 2016, foreign shareholders held 31.4 per cent of the shares in the shareholders' register of Deutsche Lufthansa AG. Detailed information on the German Aviation Compliance Documentation Act (LuftNaSiG) and the quarterly update on our shareholder structure can be found on our website www.lufthansagroup.com/investor-relations.

Employee programmes contain time-based restrictions on trading in shares, in particular lock-up periods of up to four years.

Direct or indirect shareholdings with more than 10 per cent of voting rights

As of 31 December 2016, Deutsche Lufthansa AG had received no notification of direct or indirect shareholdings with more than 10 per cent of voting rights.

Holders of shares with special controlling rights

Deutsche Lufthansa AG has no shares that confer special controlling rights.

Control of voting rights for employee shares when control rights are exercised indirectly

Where Deutsche Lufthansa AG 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 accruing 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 board members there should be. The Supervisory Board can revoke appointments for board 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 5 of the Articles of Association). Furthermore, the Supervisory Board is entitled to amend the Articles of Association in accordance with 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 2016, Deutsche Lufthansa AG has authorised capital totalling EUR 570,337,873.76:

A resolution passed at the Annual General Meeting on 29 April 2015 authorised the Executive Board until 28 April 2020, subject to approval by the Supervisory Board, to increase the Company's issued capital on one or more occasions by up to EUR 561,160,092 by issuing new registered shares on one or more occasions for payment in cash or in kind (Authorised Capital A). Existing shareholders are to be granted subscription rights. To date, EUR 4,120,811.52 of this authorisation has been used to issue 1,609,602 new shares as part of the first-time issue of a share dividend. Authorised Capital A still available under the authorisation therefore now amounts to EUR 557,039,280.48.

A resolution passed by the Annual General Meeting on 29 April 2014 authorised the Executive Board until 28 April 2019, subject to approval by the Supervisory Board, to increase the Company's issued capital on one or more occasions by up to EUR 29,000,000 by issuing new registered shares to employees (Authorised Capital B) for payment in cash. Existing shareholders' subscription rights are excluded. Up until 31 December 2016, the Company had made the following use of this authorisation: EUR 4,345,000.96 in 2014 to issue 1,697,266 new shares to employees; EUR 4,522,199.04 in 2015 to issue 1,766,484 new shares to employees; EUR 6,834,206.72 in 2016 to issue 2,669,612 new shares to employees. Authorised Capital B still available under the authorisation therefore now amounts to EUR 13,298,593.28.

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 29 April 2015 to buy back its own shares until 28 April 2020. The resolutions can be used 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 per cent of issued capital.

Further information on authorised capital, contingent capital and share buy-backs → [Note 30, p. 127f.](#)

Important Company agreements subject to a change-of-control clause in the event of a takeover offer

The EMTN programme operated by Deutsche Lufthansa AG to issue bonds includes a change-of-control clause. It provides for holders of bonds issued under the EMTN programme to 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 is 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 12 September 2019 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. In addition, Deutsche Lufthansa AG issued borrower's note loans for EUR 475m and EUR 1.2bn, with terms of three, five, seven and ten years, in April and December 2016 respectively, which also include a similar change-of-control clause.

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 twelve months of this change of control.

If the contract ends because the special termination right is exercised or the contract is revoked amicably within twelve 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 per cent of the maximum compensation of two annual salaries agreed in the contract. → [Remuneration report, p. 79ff.](#)

Notes to the individual financial statements of Deutsche Lufthansa AG (HGB)

✂ Revenue of Deutsche Lufthansa AG falls to EUR 15.2bn. / Net profit for the year rises to EUR 1.2bn. / Total assets climb to EUR 25.0bn.

The financial statements of Deutsche Lufthansa AG have been prepared in accordance with the German Commercial Code (HGB) and the provisions of the German Accounting Directive Implementation Act (BilRUG) that are applicable for the first time, as well as the supplementary provisions of the German Stock Corporation Act (AktG) and the Articles of Association, and have been audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Düsseldorf. They are published in the electronic Federal Gazette. The financial statements are permanently available online.

<http://investor-relations.lufthansagroup.com/en/finanzberichte.html>

In this annual report, the management report for Deutsche Lufthansa AG has been combined with the Group 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. 23f.](#); [Sector developments, p. 24f.](#); [Course of business, p. 26ff.](#)

Earnings position

Deutsche Lufthansa AG increased its net profit for the year to EUR 1.2bn, which represents a good performance for the financial year 2016. The considerable decline in fuel costs (–10.3 per cent), still primarily due to lower prices, as well as the improved exchange rate result compared to the previous financial year (EUR 373m) more than compensated the significant decline in

traffic revenue (–8.2 per cent). Moreover, the adjustment of the statutory discount interest rates regarding the provisions for pensions had a further significant impact on the net earnings (EUR 1.0bn).

Revenue and income

62 million passengers transported

In 2016, the number of passengers was roughly the same as in the previous year at 62 million (+0.2 per cent). Capacity increased by 1.2 per cent, while sales fell by 0.3 per cent. The load factor dropped by 1.1 percentage points to 79.2 per cent. Yields were 7.9 per cent down on the previous year.

Revenue down by 2.9 per cent

Traffic revenue fell year-on-year by 8.2 per cent to EUR 14.1bn. Other revenue rose to EUR 1.1bn (previous year: EUR 355m), while other operating income fell by 36.1 per cent to EUR 1.6bn. This effect is largely due to the new definition of revenue in the German Act Implementing Accounting Standards (BilRUG), which is applicable for the first time. In total, revenue dropped by 2.9 per cent to EUR 15.2bn.

Expenses

Expenses down by 9.2 per cent

Operating expenses amounted to EUR 16.0bn, EUR 1.6bn lower than in the previous year.

T059 Trends in traffic regions of Deutsche Lufthansa AG

in € thousands	Traffic revenue in €m		Number of passengers in thousands		Available seat-kilometres in millions		Revenue seat-kilometres in millions		Passenger load factor in %	
	2016	Change in %	2016	Change in %	2016	Change in %	2016	Change in %	2016	Change in pts
Europe	5,428	–4.5	46,019	0.4	47,071	0.9	35,166	–0.1	74.7	–0.7
America	4,920	–8.3	8,133	3.0	75,701	6.1	61,990	3.6	81.9	–2.0
Asia/Pacific	2,678	–12.5	4,629	–4.2	45,665	–3.2	36,837	–4.6	80.7	–1.2
Middle East/Africa	1,037	–13.8	2,856	–3.2	15,380	–6.8	11,528	–5.8	75.0	0.8
Total	14,063	–8.2	61,637	0.2	183,817	1.2	145,521	–0.3	79.2	–1.1

**T060 Income statement for Deutsche Lufthansa AG
in accordance with HGB**

in €m	2016	2015
Traffic revenue	14,063	15,314
Other revenue	1,146	355
Total revenue	15,209	15,669
Other operating income	1,649	2,582
Cost of materials and services	-9,780	-10,393
Staff costs	-2,855	-2,827
Depreciation, amortisation and impairment	-428	-458
Other operating expenses	-2,946	-3,959
Result from operating activities	849	614
Result from other equity investments	598	728
Net interest	94	-1,237
Impairment on investments and current securities	-26	-131
Financial result	666	-640
Result from ordinary activities	1,515	-26
Current income taxes	-233	-34
Deferred income taxes	-62	1,139
Other taxes	-51	-45
Net profit/ loss for the year	1,169	1,034
Transfers to retained earnings	-935	-802
Distributable earnings	234	232

The cost of materials and services fell by 5.9 per cent to EUR 9.8bn. The decline stems mainly from the change in fuel expenses and in the costs of purchased services. Fuel expenses dropped by 10.3 per cent to EUR 2.8bn. After adjustment for income from the utilisation of the provision for impending losses and the amortisation of surcharges, which totalled EUR 176m, fuel expenses would have gone down even more significantly (17.3 per cent). The adjusted decline is almost exclusively due to lower prices, whereas marginally lower volumes (0.3 per cent) and the opposing effect of the US dollar exchange rate performance over the course of the year (+0.5 per cent) only played an immaterial role. Fuel expenses would have been significantly lower again without the realised loss of EUR 619m from fuel hedging (without provisions for impending losses and amortisation of surcharges).

The costs of purchased services fell by 4.1 per cent to EUR 6.9bn. Fees and charges, at EUR 2.8bn, still constitute the largest expense item under purchased services. Overall, they were 9.1 per cent down on the year, due to volumes, prices and exchange rates.

Air traffic control charges fell by 5.2 per cent, landing fees by 8.1 per cent, handling charges by 0.4 per cent and passenger fees by 18.4 per cent. In line with the new regulations of BilRUG, the expenses from the air traffic tax are not longer reported as passenger fees, but as other taxes. The costs of external MRO services fell by 8.8 per cent on the year to EUR 1.5bn. This decline stems mainly from the fact, that in the financial year 2016 expenses from previous year's cabin refits did not occur. Charter expenses, which still mostly consist of charter rates payable to the regional partners as part of the Lufthansa Regional concept, went up year-on-year by 13.1 per cent to EUR 547m. The increase is due mainly to the purchase of additional seating capacities from Austrian Airlines on several routes between Germany and Austria. Expenses for operating leases went up by 7.2 per cent to EUR 833m. This increase stems from further contributions of aircraft into the Austrian leasing entities as well as additional aircraft leases on behalf of Eurowings to cover its long-haul flights.

Staff costs increased by 1.0 per cent to EUR 2.9bn. Although the average number of employees rose by 0.5 per cent on the previous year, expenses for wages and salaries fell by 0.4 per cent. Social security contributions dropped by 0.4 per cent accordingly. Expenses for retirement benefits went up by 14.8 per cent to EUR 287m. This increase is primarily due to one-off effects from the restructuring of the Company's transitional pension benefits plan for cabin crew employees.

Depreciation and amortisation fell year on year by 6.6 per cent to EUR 428m. The decline was largely due to the contributions of aircraft into the Austrian leasing entities.

Other operating expenses fell by 25.6 per cent to EUR 2.9bn. This stems mainly from the considerable decline of foreign exchange losses, both realised and unrealised due to valuation at the balance sheet date. Other savings concerned rental expenses, sales commissions for travel agents, payment transactions and travel expenses. In accordance with the new regulations of BilRUG, all rental expenses for properties sublet to Group companies are now to be reported as cost of materials and services (EUR 49m).

Earnings performance

Result from operating activities improves by EUR 235m

The result from operating activities rose by 38.3 per cent to EUR 849m in the financial year 2016. The fall of 7.6 per cent in operating income to EUR 16.9bn due to lower revenue and other income was more than made up for by a significant reduction in operating expenses. Adjusted EBIT, calculated as for the Group, came to EUR 1.4bn in the financial year.

Financial result up by EUR 1.3bn

The financial result increased by EUR 1.3bn to EUR 666m. It was made up of the result from equity investments of EUR 598m (previous year: EUR 728m), net interest of EUR 94m (previous year: EUR –1.2bn) and other financial items of EUR –26m (previous year: EUR –131m).

The result from equity investments includes profit and loss transfers of EUR 107m (previous year: EUR –80m) and other income from investments of EUR 491m (previous year: EUR 808m). The year-on-year decline is attributable to aligning the timing of profit recognition from the Austrian leasing entities in the previous financial year, which meant that in 2015 the result from equity investments included both the dividends paid in 2015 for 2014 and the dividends accrued for 2015. The results from companies with profit and loss transfer agreements improved year-on-year, with the exception of Eurowings GmbH (EUR –33m) and Delvag GmbH (EUR –1m). The biggest positive year-on-year change related to the profit transfer from Lufthansa Technik AG (EUR 85m).

Net interest came to EUR 94m in the financial year (previous year: EUR –1.2bn). The positive net interest was mainly the lower valuation of pension provisions due to the adjustment of the statutory discount interest rate from a 7-year average to a 10-year average. The interest rate used to discount the payment obligations was 4.01 per cent (previous year: 3.89 per cent), which resulted in interest expense of EUR 189m in the reporting period (previous year: EUR 1.2bn). It was offset by the significantly higher year-on-year market valuation of EUR 335m regarding the pension assets used to fund retirement benefit obligations (previous year: EUR 20m).

Impairment losses on investments and current securities came to EUR 26m, EUR 105m lower than in the previous year. The carrying amount of EUR 12m for Lufthansa CityLine GmbH was written down as well as the loan of EUR 14m to Lufthansa Super Star gGmbH.

Net profit up by EUR 135m

Operating result and financial result add up to EUR 1.5bn (previous year: EUR –26m). Income tax expenses in the financial year (including deferred taxes) came to EUR 295m and other tax expenses to EUR 51m. Altogether, net profit of EUR 1.2bn was recognised for the financial year 2016 (previous year: EUR 1.0bn).

Financial position**Cash flow from operating activities****Cash flow from operating activities up to EUR 1.3bn**

Cash flow from operating activities rose by EUR 1.1bn to EUR 1.3bn. In the reporting year 2016, Deutsche Lufthansa AG invested EUR 559m (previous year: EUR 1.2bn) in aircraft and advance payments for aircraft. Of the total, EUR 122m was for advance payments (previous year: EUR 323m). To finance future payment obligations arising from staff pension entitlements, Deutsche Lufthansa AG transferred in 2016 a total of EUR 14m (previous year: EUR 382m) to the Lufthansa Pension Trust on a long-term basis for investment in various fixed income and share funds. There was an overall cash outflow of EUR 1.8bn from investing activities into fixed and financial assets. Cash flow for financing activities came to EUR 509m in the financial year.

Assets

Total assets rose by 12.6 per cent, or EUR 2.8bn, to EUR 25.0bn. Non-current assets account for 80.2 per cent of total assets (previous year: 82.7 per cent).

Assets**Non-current assets up by EUR 1.7bn**

Non-current assets rose by EUR 1.7bn to EUR 20.1bn. The increase is largely due to higher financial assets, up by almost EUR 1.8bn, which is in turn primarily the result of several capital increases at Lufthansa Commercial Holding GmbH (EUR 1.0bn in total). In addition, aircraft were again contributed into the Austrian leasing entities which led to an increase of their carrying amounts (EUR 180m) that were on the other hand offset by capital repayments of EUR 189m from these entities. The balance of additional and new loans to affiliated companies (EUR 2.3bn) and repayments from these companies (EUR 1.7bn) also increased non-current financial assets. Write-ups on the carrying amounts for Air Dolomiti S.p.A. (EUR 26m) and the SICAV-FIS fund (EUR 9m) also increased non-current financial assets, but were offset by write-downs on the carrying amount for Lufthansa CityLine GmbH (EUR 12m) and on the loan to Lufthansa Super Star gGmbH (EUR 14m).

**T061 Balance sheet for Deutsche Lufthansa AG
in accordance with HGB**

in €m	31.12.2016	31.12.2015
Assets		
Intangible assets	339	352
Aircraft	4,933	5,032
Property, plant and other equipment	103	106
Financial investments	14,702	12,911
Non-current assets	20,077	18,401
Inventories	77	88
Trade receivables	448	426
Other receivables	1,384	1,450
Securities	805	250
Cash and cash equivalents	641	402
Current assets	3,355	2,616
Prepaid expenses	51	45
Deferred tax assets	1,077	1,139
Excess of plan assets over provisions for pensions	489	48
Total assets	25,049	22,249
Shareholders' equity and liabilities		
Issued capital	1,200	1,189
Capital reserve	223	187
Retained earnings	3,865	2,931
Distributable earnings	234	232
Shareholders' equity	5,522	4,539
Provisions	7,343	6,861
Bonds	1,000	1,750
Liabilities to banks	1,673	954
Payables to affiliated companies	5,447	4,371
Other liabilities	4,059	3,770
Liabilities	12,179	10,845
Deferred income	5	4
Total shareholders' equity and liabilities	25,049	22,249

Current assets up by EUR 739m

Current assets rose by EUR 739m to EUR 3.4bn. The increase is almost entirely the result of cash and securities, which went up year on year by EUR 794m to EUR 1.4bn. Securities valued at EUR 805m were held at the end of the financial year. Cash balances amounted to EUR 641m (previous year: EUR 402m).

Shareholders' equity and liabilities

Equity up by EUR 983m

Shareholders' equity rose by EUR 983m, primarily as a result of net profit for the year 2016, and totalled EUR 5.5bn as of the reporting date. As a result, the equity ratio, as a proportion of higher total assets, rose to 22.0 per cent (previous year: 20.4 per cent).

Non-current liabilities up by EUR 1.0bn

Non-current liabilities went up by EUR 1.0bn to EUR 8.1bn in the 2016 reporting year, in particular due to higher provisions for pensions and the emission of two borrower's note loans.

As a result of changes in equity and non-current liabilities, long-term funding increased to make up 54.5 per cent of total equity and liabilities (previous year: 52.4 per cent). Long-term funds consequently cover 68.1 per cent (previous year: 63.4 per cent) of non-current assets.

Net debt down by EUR 469m

Net debt was reduced year on year by EUR 469m to EUR 2.7bn, despite new long-term borrowing.

Other disclosures

Declaration on corporate governance in accordance with Section 289a Paragraph 2 HGB and Section 315 Paragraph 5 HGB

The declaration on corporate governance required under Section 289a HGB has been issued and made publicly available on the Company's website at <http://investor-relations.lufthansagroup.com/en/corporate-governance/erklarung-zur-unternehmensfuehrung-289a-hgb.html>.

Risk report

Business at Deutsche Lufthansa AG is subject to essentially the same risks and opportunities as business at the Passenger Airline Group 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. → Business segment Passenger Airline Group, p. 40ff.

Supplementary report

The main events taking place after the reporting date are those described in the consolidated financial statements pertaining to the Passenger Airline Group segment.

Forecast

Future business performance at Deutsche Lufthansa AG is subject to essentially the same factors as the Passenger Airline Group segment as presented in the consolidated financial statements.

Further information on anticipated macroeconomic developments and the performance of the business segments, as well as the assumptions on which the Group forecast is based, can be found in the → Forecast, p. 70ff.

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Consolidated income statement for the financial year 2016

T062 Consolidated income statement

in €m	Notes	2016	2015
Traffic revenue ¹⁾	3	24,661	25,506
Other revenue ¹⁾	4	6,999	6,550
Total revenue		31,660	32,056
Changes in inventories and work performed by entity and capitalised	5	95	203
Other operating income	6	2,184	2,832
Cost of materials and services	7	-17,109	-17,640
Staff costs	8	-7,354	-8,075
Depreciation, amortisation and impairment	9	-1,769	-1,715
Other operating expenses	10	-5,517	-6,106
Profit / loss from operating activities		2,190	1,555
Result of equity investments accounted for using the equity method	11	58	111
Result of other equity investments	11	27	10
Interest income	12	64	186
Interest expenses	12	-282	-356
Other financial items	13	191	520
Financial result		58	471
Profit / loss before income taxes		2,248	2,026
Income taxes	14	-445	-304
Profit / loss after income taxes		1,803	1,722
Profit / loss attributable to minority interests		-27	-24
Net profit / loss attributable to shareholders of Deutsche Lufthansa AG		1,776	1,698
Basic / diluted earnings per share in €	15	3.81	3.67

¹⁾ Previous year's figures have been adjusted due to the new reporting method.

Statement of comprehensive income

for the financial year 2016

T063 Statement of comprehensive income

in €m	2016	2015
Profit/loss after income taxes	1,803	1,722
Other comprehensive income		
Other comprehensive income with subsequent reclassification to the income statement		
Differences from currency translation	66	240
Subsequent measurement of available-for-sale financial assets	-3	-533
Subsequent measurement of cash flow hedges	1,497	77
Other comprehensive income from investments accounted for using the equity method	3	4
Other expenses and income recognised directly in equity	9	3
Income taxes on items in other comprehensive income	-337	-27
Other comprehensive income without subsequent reclassification to the income statement		
Revaluation of defined-benefit pension plans	-2,066	511
Revaluation of defined-benefit pension plans within groups of disposal	0	-19
Other comprehensive income from investments accounted for using the equity method	-17	0
Income taxes on items in other comprehensive income	554	-172
Other comprehensive income after income taxes	-294	84
Total comprehensive income	1,509	1,806
Comprehensive income attributable to minority interests	-33	-29
Comprehensive income attributable to shareholders of Deutsche Lufthansa AG	1,476	1,777

Consolidated balance sheet as of 31 December 2016

T064 Consolidated balance sheet – Assets

in €m	Notes	31.12.2016	31.12.2015
Intangible assets with an indefinite useful life ¹⁾	16	1,265	1,235
Other intangible assets	17	472	422
Aircraft and reserve engines	18 20	14,798	14,591
Repairable spare parts for aircraft		1,604	1,388
Property, plant and other equipment	19 20	2,199	2,173
Investments accounted for using the equity method	21	516	520
Other equity investments	22 41	212	201
Non-current securities	22 41	23	15
Loans and receivables	23 41	513	516
Derivative financial instruments	41	1,474	1,234
Deferred charges and prepaid expenses	26	11	12
Effective income tax receivables		4	19
Deferred tax assets	14	1,413	1,200
Non-current assets		24,504	23,526
Inventories	24	816	761
Trade receivables and other receivables	25 41	4,570	4,389
Derivative financial instruments	41	534	440
Deferred charges and prepaid expenses	26	167	158
Effective income tax receivables		37	85
Securities	27 41	2,681	1,994
Cash and cash equivalents	28 41	1,256	1,099
Assets held for sale	29	132	10
Current assets		10,193	8,936
Total assets		34,697	32,462

¹⁾ Including Goodwill.

T065 Consolidated balance sheet – Shareholders' equity and liabilities

in €m	Notes	31.12.2016	31.12.2015
Issued capital	30	1,200	1,189
Capital reserve	31	222	187
Retained earnings	31	1,549	1,612
Other neutral reserves	31	2,313	1,082
Net profit/loss		1,776	1,698
Equity attributable to shareholders of Deutsche Lufthansa AG		7,060	5,768
Minority interests		89	77
Shareholders' equity		7,149	5,845
Pension provisions	32	8,364	6,626
Other provisions	33	503	526
Borrowings	34 41	5,811	5,031
Other financial liabilities	35	124	121
Advance payments received, deferred income and other non-financial liabilities	36	1,246	1,223
Derivative financial instruments	41	54	307
Deferred tax liabilities	14	437	346
Non-current provisions and liabilities		16,539	14,180
Other provisions	33	1,066	1,075
Borrowings	34 41	764	1,339
Trade payables and other financial liabilities	37 41	4,689	4,847
Liabilities from unused flight documents		3,040	2,901
Advance payments received, deferred income and other non-financial liabilities	38	875	918
Derivative financial instruments	41	185	1,221
Effective income tax obligations		390	136
Liabilities related to assets held for sale		–	–
Current provisions and liabilities		11,009	12,437
Total shareholders' equity and liabilities		34,697	32,462

Consolidated financial statements

Consolidated statement of changes in shareholders' equity

Consolidated statement of changes in shareholders' equity as of 31 December 2016

T066 Consolidated statement of changes in shareholders' equity

	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
in €m												
As of 31.12.2014	1,185	170	407	364	236	314	1,321	1,237	55	3,968	63	4,031
Capital increases/reductions	4	17	-	-	-	-	-	-	-	21	2	23
Reclassifications	-	-	-	-	-	-	-	55	-55	-	-	-
Dividends to Lufthansa shareholders/minority interests	-	-	-	-	-	-	-	-	-	-	-14	-14
Transactions with minority interests	-	-	-	-	-	-	-	-	-	-	-1	-1
Consolidated net profit/loss attributable to Lufthansa shareholders/minority interests	-	-	-	-	-	-	-	-	1,698	1,698	24	1,722
Other expenses and income recognised directly in equity	-	-	-483	240	-	4	-239	320	-	81	3	84
As of 31.12.2015	1,189	187	-76	604	236	318	1,082	1,612	1,698	5,768	77	5,845
Capital increases/reductions	11	35	-	-	-	-	-	-	-	46	1	47
Reclassifications	-	-	-	-	-	2	2	1,466	-1,466	2	-2	-
Dividends to Lufthansa shareholders/minority interests	-	-	-	-	-	-	-	-	-232	-232	-20	-252
Transactions with minority interests	-	-	-	-	-	-	-	-	-	-	-	-
Consolidated net profit/loss attributable to Lufthansa shareholders/minority interests	-	-	-	-	-	-	-	-	1,776	1,776	27	1,803
Other expenses and income recognised directly in equity	-	-	1,157	66	-	6	1,229	-1,529	-	-300	6	-294
As of 31.12.2016	1,200	222	1,081	670	236	326	2,313	1,549	1,776	7,060	89	7,149

Consolidated cash flow statement for the financial year 2016

T067 Consolidated cash flow statement

in €m	Notes	2016	2015 ¹⁾
Cash and cash equivalents 1.1.		996	828
Net profit/loss before income taxes		2,248	2,026
Depreciation, amortisation and impairment losses on non-current assets (net of reversals)	9 13	1,765	1,708
Depreciation, amortisation and impairment losses on current assets (net of reversals)		55	82
Net proceeds on disposal of non-current assets	6	-38	-53
Result of equity investments	11	-85	-121
Net interest	12	218	170
Income tax payments/reimbursements		-54	-197
Significant non-cash-relevant expenses/income		-1,037	-691
Change in trade working capital		-140	-251
Change in other assets/shareholders' equity and liabilities		314	720
Cash flow from operating activities		3,246	3,393
Capital expenditure for property, plant and equipment and intangible assets	17 20	-2,160	-2,454
Capital expenditure for financial investments	22 23	-34	-91
Additions/loss to repairable spare parts for aircraft		-264	-367
Proceeds from disposal of non-consolidated equity investments		26	34
Proceeds from disposal of consolidated equity investments		0*	-122
Cash outflows for acquisitions of non-consolidated equity investments	21 22 41	-36	-23
Cash outflows for acquisitions of consolidated equity investments	45	-6	-1
Proceeds from disposal of intangible assets, property, plant and equipment and other financial investments		94	138
Interest income		192	271
Dividends received		80	56
Net cash from/used in investing activities		-2,108	-2,559
Purchase of securities/fund investments		-1,302	-1,845
Disposal of securities/fund investments		581	1,131
Net cash from/used in investing and cash management activities		-2,829	-3,273
Capital increase	30 31	-	-
Transactions by minority interests		1	2
Non-current borrowing		1,685	986
Repayment of non-current borrowing		-1,483	-682
Dividends paid		-233	-14
Interest paid		-242	-266
Net cash from/used in financing activities		-272	26
Net increase/decrease in cash and cash equivalents		145	146
Changes due to currency translation differences		-3	22
Cash and cash equivalents 31.12.²⁾	28	1,138	996
Securities	27	2,681	1,994
Liquidity		3,819	2,990
Net increase/decrease in liquidity		829	377

* Rounded below EUR 1m.

¹⁾ Previous year's figures have been adjusted.

²⁾ Excluding fixed-term deposit with terms of three to twelve months (2016: EUR 118m, 2015: EUR 103m).

Further details can be found in the section → [Notes to the consolidated cash flow statement, p.148.](#)

Notes to the consolidated financial statements of Deutsche Lufthansa AG for 2016

General remarks

1 Company information

The Lufthansa Group is a global aviation group whose subsidiaries and equity investments were organised into four operating segments in the financial year 2016: Passenger Airline Group, 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/entsprechenserklaerung.

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 315a Paragraph 1 of the German Commercial Code (HGB) have also been applied. All IFRSs issued by the IASB and 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, denominated in EUR millions, therefore comply with the IFRSs as applicable in the EU and with the further commercial law provisions of Section 315a Paragraph 1 HGB. Its financial year is the calendar year.

With the exception of the changes required by new or amended standards, the accounting policies applied in the previous year have been retained.

The consolidated financial statements for 2016 were examined and approved for publication by the Supervisory Board of Deutsche Lufthansa AG in its meeting on 15 March 2017.

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

The first-time application of the following amended accounting standards had no or no material effect on the presentation of the net assets, financial and earnings position or on earnings per share.

T068 IFRS-pronouncement (applicable from financial year 2016)

Amendments to IAS 1, Presentation of Financial Statements
Amendments to IFRS 11, Accounting for Acquisitions of Interests in Joint Operations
Amendments to IAS 16 and IAS 38, Clarification of Acceptable Methods of Depreciation and Amortisation
Amendments to IAS 16 and IAS 41, Agriculture: Bearer Plants
Amendments to IAS 19, Defined Benefit Plans: Employee Contributions
Amendments to IAS 27, Equity Method in Separate Financial Statements
Annual Improvements to IFRS, 2010–2012 Cycle
Annual Improvements to IFRS, 2012–2014 Cycle
Amendments to IFRS 10, IFRS 12 and IAS 28 – Investment Entities – Applying the Consolidation Exception

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 2016:

T069 IFRS-pronouncement (adopted by the EU)

	Mandatory application for financial years beginning on or after
IFRS 9, Financial Instruments	1.1.2018
IFRS 15, Revenue from Contracts with Customers	1.1.2018

IFRS 9, Financial Instruments, includes guidelines for recognition and measurement, derecognition and hedge accounting. The International Accounting Standards Board published the final version of IFRS 9, Financial Instruments, in July 2014. All accounting for financial instruments can now take place in accordance with IFRS 9, which replaces IAS 39, Financial Instruments: Recognition and Measurement. The published version of IFRS 9 supersedes all previous versions. IFRS 9 is applicable for the first time for reporting periods beginning on or after 1 January 2018, whereby early application is allowed. The Group will apply IFRS 9 for the first time as of 1 January 2018.

The Company is currently reviewing the effects of applying IFRS 9 to its consolidated financial statements in a Group-wide project. The recognition in other comprehensive income (OCI) of changes in the time value of options over the term of the hedging relationship in accordance with IFRS 9, rather than in the income statement in accordance with IAS 39, is expected to have a particular effect. New rules on impairment will mean that in some cases, expected losses are recognised earlier in profit or loss. No decisions have yet been taken on the specific models and the underlying data sets to be used. Many new disclosures will also be required in the Notes, particularly on the accounting of hedging transactions, on credit risk and on expected defaults. It is not yet possible to quantify the effects thereof.

The IASB published the standard **IFRS 15, Revenue from Contracts with Customers**, on 28 May 2014. The core principle of IFRS 15 for the recognition of revenue consists of recognising the delivery of goods and services to customers at an amount that corresponds to the consideration the company can expect to receive in exchange for these goods or services. Revenue is recognised when the goods or services have been transferred to the customer. IFRS 15 also includes guidance on the presentation of contract balances, that is, assets and liabilities arising from contract with customers, depending on the relationship between the entity's performance and the customer's payment. Furthermore, the new standard requires a set of quantitative and qualitative disclosures to enable users of the company's consolidated financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. IFRS 15 replaces IAS 11, Construction Contracts, and IAS 18, Revenue, including their respective interpretations. In addition, the Group is following the clarifications published by the IASB in April 2016 and will monitor the further developments in the interpretation of IFRS 15.

The Group completed a preliminary study on the possible effects of applying IFRS 15 to the consolidated financial statements in a Group-wide project over the course of the year. Detailed analyses will be carried out in the months ahead to quantify the need for any adjustments. Working groups were formed for each of the Lufthansa Group's operating segments to carry out corresponding contract analyses and to review them using the five-step model defined in IFRS 15.

The Lufthansa Group is also working with other international airlines in the Industry Accounting Working Group (IAWG) of the IATA (International Air Transport Association) to reach a common understanding for the interpretation of the new standards, especially IFRS 15 and IFRS 16. In connection with this, dialogue was held with the Airlines Revenue Recognition Task Force of the AICPA (American Institute of Certified Public Accountants), which is dealing with specific questions about implementing the largely identical US standard on revenue recognition for American airlines.

For certain types of passenger and transport contracts, the expectation is that there will be changes to the timing of revenue – in particular, certain fees and charges may be recognised later.

A review is also being carried out to determine whether the Group renders certain services as a principal or brokers them as an agent, and whether this may result in changes to the recognition of gross or net revenue. Finally, revenue recognition on unused flight documents is also subject to review.

Differences may also arise in the course of allocating the estimated transaction price to the identified performance obligations in connection with customer loyalty programmes.

More detailed analyses were also carried out for the MRO segment, which provides maintenance, repair and overhaul services. Accounting to date has largely been based on the percentage-of-completion method as defined in IAS 11, which is to be replaced by the recognition of revenue over time. Here, too, changes in the timing of recognition are possible. The new disclosures require additional quantitative and qualitative information in the Notes, such as the opening and closing balances of net contractual assets and liabilities and the cumulative amount of unsatisfied performance obligations from all relevant customer contracts as of the balance sheet date.

The standard is applicable for the first time for financial years beginning on or after 1 January 2018, with early application allowed. The Group will not apply the standard ahead of time.

On the basis of the analyses carried out to date, the application of IFRS 15 is not expected to have any significant effect on the presentation of the Group's net assets, financial and earnings position.

The IASB and the IFRS Interpretations Committee have adopted other standards and interpretations whose application is not mandatory for the financial year 2016:

T070 IFRS pronouncement (not yet endorsed by the EU)	Mandatory application for financial years beginning on or after
IFRS 16, Leases	1.1.2019
Amendments to IAS 12, Income Taxes – Recognition of Deferred Tax Assets for Unrealised Losses	1.1.2017
Amendments to IAS 7, Statement of Cash Flows – Disclosure Initiative	1.1.2017
Annual Improvements to IFRS, 2014–2016 Cycle	1.1.2017/ 1.1.2018
Amendments to IFRS 2, Share-based Payment	1.1.2018
Clarification of IFRS 15, Revenue from Contracts with Customers	1.1.2018
Amendments to IFRS 4, Insurance Contracts	1.1.2018
Amendments to IAS 40, Investment Property	1.1.2018
IFRIC 22, Foreign Currency Transactions and Advance Consideration	1.1.2018
Amendments to IFRS 10 and IAS 28, Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	deferred indefinitely

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On 13 January 2016, the IASB published the new standard **IFRS 16, Leases**. IFRS 16 replaces IAS 17, Leases, and the respective interpretations. The standard is mandatory from 1 January 2019. Early application is permitted, but only if IFRS 15, Revenue from Contracts with Customers, is also applied at the same time. The Group will not apply the standard ahead of time. IFRS 16 introduces a standard lease accounting model for lessees, under which a right-of-use asset and a lease liability at the present value of the contractually agreed lease payments are recognised in the lessee's balance sheet for leases with a term of more than twelve months. Recognition exemptions exist for short-term leases and leases for low-value assets. There are no changes to the rules for lessors.

Here, too, the Lufthansa Group has set up a Group-wide project to implement the new standard. The most important change identified to date is that the Group will recognise new assets and liabilities for its operating leases. As leased aircraft only make up a small proportion of the total fleet, the right-of-use assets will mainly relate to properties and other operating and office equipment. Furthermore, the type of expenses connected with these leases will change, since IFRS 16 replaces linear expenses for operating leases with depreciation and amortisation for right-of-use assets and interest expenses for lease liabilities. This will have corresponding effects on the presentation of results in the income statement, on total assets, debt and the equity ratio. It is still too early to quantify the concrete impact this will have on the consolidated financial statements.

At the present time, the other 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 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 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 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 balance sheet items.

The fundamental valuation method applied in the consolidated financial statements is historical cost. Where IFRSs stipulate that other methods of measurement 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 balance sheet 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 is recognised when the service has been provided or when the risk has passed to the customer. Traffic revenue from the Passenger Airline Group and Logistics segments is recognised once a passenger coupon or airfreight document has been used. The amount recognised is calculated as a percentage of the total amount received for the flight document. Revenue for customer-oriented, longer-term production in the MRO and Other segments with the remaining IT functions of the former IT Services segment is recognised using the percentage of completion method. This involves estimating the proportion of the total contract already completed and the profit on the whole contract.

Operating expenses are recognised when the product or service is used or the expense arises. Provisions for guarantees are made when the corresponding revenue is recognised. 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 minority 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 minority 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 recognised discounted cash flow methods. This is done on the basis of expected future cash flows from the latest management planning, which are extrapolated on the basis of long-term revenue growth rates and are assumptions with regard to margin development, and 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 2016 → [Note 16, p. 114ff.](#)

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.

Currency translation and consolidation methods

The annual financial statements of foreign Group companies are translated into euros in accordance with the functional currency concept. 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. These translation differences are recognised directly in shareholders' equity without effect on profit or loss. 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 entity 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 assets and liabilities based on currency other than the company's functional currency. Any resulting exchange rate differences are included in other operating income as foreign currency transaction gains, or in other operating expenses as foreign exchange losses.

Translation differences for non-monetary items for which changes in fair value are recognised in equity (e.g. available-for-sale equity instruments) are not reflected in profit or loss.

The most important exchange rates used in the consolidated financial statements have developed in relation to the euro as follows:

T071 Exchange rates

	2016		2015	
	Balance sheet exchange rate	Income statement average rate	Balance sheet exchange rate	Income statement average rate
USD	0.94814	0.90466	0.91655	0.90391
JPY	0.00813	0.00834	0.00760	0.00748
GBP	1.17030	1.22157	1.35892	1.38466
CAD	0.70498	0.68244	0.65992	0.70860
HKD	0.12229	0.11656	0.11825	0.11661
THB	0.02648	0.02566	0.02543	0.02645
SEK	0.10435	0.10581	0.10880	0.10671
NOK	0.10997	0.10764	0.10400	0.11211
DKK	0.13450	0.13429	0.13402	0.13406
CHF	0.93203	0.91566	0.92601	0.94188
KRW	0.00079	0.00078	0.00078	0.00080

The effects of intra-Group transactions are completely eliminated in the course of consolidation. Receivables and liabilities between consolidated companies are netted and intra-Group profits and losses in non-current assets and inventories are eliminated. 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 Group expects to derive future benefit and which 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 an indefinite useful life are not amortised but, like goodwill, are subjected to a regular annual impairment test.

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 the indirect costs relating to this process. Borrowing costs in close connection with the financing of the purchase or production of a qualifying asset are also capitalised. The financing rate used was 2.4 per cent (previous year: 3.4 per cent).

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Key components of a tangible asset that have different useful lives are recognised and depreciated separately. If costs are incurred in connection with regular, extensive maintenance work (e.g. overhauling aircraft), 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:

T072 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%
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 lease or over a shorter useful life.

Assets acquired second-hand are depreciated over their expected remaining useful life.

When assets are sold, closed down 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.

Finance leases

In accordance with IAS 17, the economic ownership of leased assets is deemed to be transferred to the lessee if the lessee bears significantly all the risks and rewards associated with ownership of the leased asset. In addition to the duration of the non-terminable initial term of the lease and the present value of the leasing payments as a proportion of the total investment, particular consideration is given to the distribution of risks and rewards relating to the residual value of the asset not amortised over the remaining term of the lease. Insofar as its economic ownership is deemed to be with the Lufthansa Group, the asset is capitalised at the start of the leasing contract at the lower of the present value of the leasing instalments and the asset's fair value, plus any incidental expenses borne by the lessee. Depreciation methods and useful economic lives correspond to those applied to comparable purchased assets.

Operating leases

With an operating lease, the lease payment made by the lessee is recognised as an expense and the payment received by the lessor as income. The leased asset is still recognised in the consolidated balance sheet as a tangible asset.

Impairment losses on intangible assets and property, plant and equipment

In addition to amortisation and depreciation on intangible assets and property, plant and equipment, 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 or 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 reasons 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

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 balance sheet at a discount to their acquisition costs, depending on how common they are.

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. Inter-Group profits and losses from sales between Group companies and companies accounted for using the equity method are eliminated pro rata in relation to the equity stake.

Financial instruments

Financial assets are classified within the Lufthansa Group as “at fair value through profit or loss”, “loans and receivables”, “available-for-sale financial assets” and “derivative financial instruments as an effective part of a hedging relationship”.

The category “at fair value through profit or loss” includes financial assets held for trading purposes, e.g. derivatives which do not qualify as hedging transactions as part of a hedging relationship.

The category “loans and receivables” consists of financial assets with fixed payment schedules which are not traded in an active market. They are classified as non-current or current assets according to their remaining maturity.

“Available-for-sale financial assets” are non-derivative financial assets which are not attributable to one of the other categories. Securities, equity investments and cash and bank balances count as available for sale.

Derivatives which qualify as hedging transactions within a hedging relationship are classified in a separate category.

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.

Trade receivables from production or service contracts not completed at the balance sheet date are recognised at production costs, including borrowing costs in accordance with IAS 23, plus a profit margin, if the result of the production contract can be reliably estimated. For other incomplete customer contracts, the production costs are capitalised if they are likely to be covered by revenue.

Assets classified as “**at fair value through profit or loss**” are always recognised at fair value. Changes in fair value are recognised in profit or loss and included in the financial result.

Subsequent measurement of **loans and receivables** is at amortised cost using the effective interest method.

If there are doubts as to the recoverability of receivables they are recognised at the lower recoverable amount. Subsequent reversals (write-backs) are recognised in profit or loss.

Receivables denominated in foreign currencies are measured at the balance sheet date rate.

Available-for-sale financial assets are recognised at fair value in subsequent periods to the extent that this can be reliably measured.

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.

Fluctuations in fair value between balance sheet dates are recognised in equity without effect on profit or loss. The cumulative amount is removed from equity and recognised in profit or loss either on disposal or if fair value falls below the carrying amount on a permanent basis. If an impairment loss recognised in previous years due to fair value falling below the carrying amount no longer exists, it is reversed – without effect on profit or loss for securities classified as equity instruments, through profit or loss for debt securities.

By contrast, subsequent measurement is at cost for **equity investments for which no quoted price exists on an active market and for which fair value cannot be reliably measured**. If the recoverable amount falls below the carrying amount, an impairment loss is recognised. Such losses are not reversed.

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 which independent, knowledgeable market participants would consider in arriving at a price and which 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. In some cases, the counterparties for interest and exchange rate hedges are also non-consolidated Group companies.

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.

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The Lufthansa Group uses currency futures and currency options to hedge exchange rate expense. This involves the use of spread options that combine the purchase and simultaneous sale of currency options in the same currency. Spread options are concluded as zero-cost options, i.e. the option premium to be paid is equal to the premium resulting from the sale of the option.

Fuel price hedging takes the form of spread options and other hedging combinations, primarily for crude oil. To a limited extent, hedging is also undertaken for other products, such as 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 IAS 39, 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 reserve. According to IAS 39, Financial Instruments: Recognition and Measurement, it is not possible to recognise the change in total market value of an option used as a hedge (full fair value method) in equity as part of hedge accounting, but only the change in the "intrinsic value" of the option. The change in the time value of the option is recognised in the financial result.

If the hedged cash flow is an investment, the result of the hedging transaction which has previously been recognised in equity is set off against the cost of the investment 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, 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 which do not or no longer meet the documentation or effectiveness requirements for hedge accounting or for which the hedged item no longer exists are shown in the category "at fair value through profit or loss". Changes in fair value are then recognised directly in profit or loss.

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.

The Group's hedging policy is to use only effective derivatives for the purpose of hedging interest rate, exchange rate and fuel price risks. → [Note 41, p. 149ff.](#)

Hedging transactions with non-consolidated Group companies and interest/currency swaps generally do not satisfy the strict criteria for effectiveness as defined in IAS 39, however. Changes in the fair value of these transactions are therefore recognised directly in profit or loss.

Financial guarantees given to third parties are recognised for the first time at fair value. If a claim becomes likely, subsequent measurement is made at the higher of initial measurement and best estimate of the expenditure required to settle the obligation on the balance sheet date.

Emissions certificates

CO₂ emissions certificates are recognised as intangible assets and presented under other receivables. Rights, both those purchased and allocated free of charge, are measured at cost and not amortised.

Inventories

This item includes non-repairable spare parts, raw materials, consumables and supplies, and purchased merchandise. 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 98 per cent is assumed in determining the costs of production. 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 which 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. These assets are no longer depreciated.

Cash and cash equivalents

Cash and cash equivalents comprise cash-in-hand, cheques received and credit balances at banks and other companies. 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

Pension provisions relate to defined-benefit and defined-contribution plans. The pension provisions for defined-benefit plans correspond to the present value of the defined-benefit obligation (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 balance sheet is based on a number of actuarial assumptions.

Capital account plans are measured using the assets of the capital accounts as of the reporting date. The present value of the minimum benefit payable when the beneficiary becomes entitled to the benefit must be 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 and 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 or 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.

Defined-contribution retirement benefit schemes also exist within the Group, funded entirely by contributions paid to an external pension provider. Lufthansa runs no financial or actuarial risks from these obligations. Contributions are recognised in staff costs as they fall due.

Other provisions and provisions for taxes

Other provisions are recognised for present legal and constructive obligations arising from past events that will probably give rise to a future outflow of resources, provide that a reliable estimate can be made of the amount of the obligations.

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 and 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, the costs of the court and proceedings, 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 the probability of an unfavourable outcome and the chance of making a sufficiently accurate estimate of the amount of the obligation into account. The commencement of legal proceedings or 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.

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Obligations towards tax authorities which are uncertain with a view to occurrence, probability and amount are recorded as **tax provisions** on the basis of reasonable estimates. Existing contingent liabilities in connection with this are addressed separately.

Liabilities

Liabilities arising from finance leases are recognised at the present value of the lease payments at inception of the lease term. Other financial liabilities are recognised at fair value. Liabilities for which interest is not payable at a market rate are recognised at present values.

Measurement in subsequent periods is at amortised cost using the effective interest rate method.

Liabilities in foreign currencies are measured at the spot rate on the balance sheet date.

Obligations from share programmes were measured at fair value in accordance with IFRS 2, Cash-settled Share-based Payment Transactions. Fair value was measured using a Monte Carlo simulation.

The liability is recognised on the basis of the resulting fair value, taking the 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 36, p. 140ff.](#)

Liabilities from unused flight documents

Until they are used, sold flight documents are recognised as an obligation from unused flight documents. Once a passenger coupon or an airfreight document has been used, the amount carried as a liability is recognised as traffic revenue in the income statement. Coupons that are unlikely to be used anymore are also recognised as traffic revenue in the income statement at their estimated value at the end of the year. The estimate is based on historical statistical data.

Obligations under bonus mile programmes

The calculation of the obligations arising from bonus miles programmes is based on several estimates and assumptions.

In accordance with IFRIC 13, Customer Loyalty Programmes, accumulated but unused bonus miles are deferred using the deferred revenue method to the extent that they are likely to be used on flights by airlines in the Lufthansa Group. Bonus entitlements are measured at fair value. The fair value of the air

miles is determined as the value for which the miles could be sold separately, i.e. the average revenue, taking booking class and traffic region into account.

Miles that are likely to be used on flights with partner airlines are valued at the price per mile to be paid to the partners in question.

No provisions are recognised for miles that are expected to lapse. The quota of miles that have lapsed in the past is used to estimate the number of miles that will probably lapse subject to current expiry rules.

The fair value of miles accumulated on the Group's own flights is recognised under deferred revenue and the points collected from third parties are shown under other non-financial liabilities.

Deferred tax items

In accordance with IAS 12, deferred taxes are recognised for all temporary differences between the balance sheets for tax purposes of individual companies and the consolidated financial statements. Tax loss carry-forwards 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.

Deferred foreign tax rates in the 2016 financial year ranged from 3.5 to 41.5 per cent (previous year: 5 to 40 per cent). For measuring deferred taxes, the relevant taxation rules in force or adopted at the balance sheet date are used.

Deferred tax assets and liabilities are netted out if a legal claim exists to do so, and if the deferred tax assets and liabilities relate to the same tax authority.

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

In the course of revising the definition of other revenue in flight operations, certain other revenue that is closely related to flight services has been reclassified within revenue from other revenue to traffic revenue as of 1 January 2016. The previous year's figures, including the information on yields, have been adjusted accordingly; traffic revenue as of 31 December 2015 was shown EUR 184m higher and other revenue as EUR 184m lower.

3 Traffic revenue

T073 Traffic revenue by sector

in €m	2016	2015*
Passenger	22,256	22,795
Freight and mail	2,405	2,711
	24,661	25,506

* Previous year's figures have been adjusted due to the new reporting method.

EUR 1,986m of freight and mail revenue (previous year: EUR 2,274m) was generated in the Logistics segment. Other freight and mail revenue of EUR 419m (previous year: EUR 437m) stems mainly from marketing belly capacities on SWISS passenger flights and is included under other revenue in the segment reporting for the Passenger Airline Group.

4 Other revenue

T074 Revenue by sector

in €m	2016	2015*
MRO services	3,184	3,025
Catering services	2,240	2,128
Travel services (commissions)	60	74
IT services	297	287
Ground services	121	123
Other services	1,097	913
	6,999	6,550

* Previous year's figures have been adjusted due to the new reporting method.

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. Spiriant GmbH and LSG Sky Chefs Lounge GmbH in particular also earn revenue in the Catering segment, which does not relate to catering services and is shown under other services.

Other revenue includes revenue of EUR 317m (previous year: EUR 286m) from work in progress in connection with long-term production and service contracts. This revenue has been recognised in accordance with the percentage of completion method. If earnings from the whole contract could not be estimated reliably, the costs incurred for the contract were recognised. If the realisable revenue in these cases was below the costs incurred for the contract, write-downs were made accordingly. The percentage of completion was calculated on the basis of the ratio of contract costs incurred by the balance sheet date to the estimated total costs for the contract.

Accumulated costs for unfinished contracts, i.e. including amounts recognised in previous years, amounted to EUR 341m (previous year: EUR 303m). Profits of EUR 27m were set off against them (previous year: EUR 14m). Advance payments by customers amounted to EUR 191m (previous year: EUR 166m). Unfinished contracts with a net credit balance – less any write-downs – are disclosed in trade receivables. → Note 25, p. 126. Unfinished contracts for which advance payments by customers exceed the costs plus any offset pro rata profit are recognised as advance payments. → Note 38, p. 142. No monies were withheld by customers.

5 Changes in inventories and work performed by entity and capitalised

T075 Changes in inventories and work performed by entity and capitalised

in €m	2016	2015
Increase / decrease in finished goods and work in progress	-3	22
Other internally produced and capitalised assets	98	181
	95	203

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6 Other operating income

T076 Other operating income

in €m	2016	2015
Foreign exchange gains	886	1,522
Income from the reversal of provisions and accruals	255	245
Commission income	250	285
Income from the disposal of non-current available-for-sale financial assets	51	53
Compensation received for damages	45	25
Rental income	31	33
Income from staff secondment	28	33
Reversal of write-downs on receivables	27	32
Income from the disposal of non-current assets	13	14
Income from the reversal of impairment losses on fixed assets	10	8
Income from sub-leasing aircraft	3	6
Miscellaneous other operating income	585	576
	2,184	2,832

Foreign exchange gains (excluding financial liabilities) mainly include gains from differences between the exchange rate on the transaction date (average rate for the month) and at the time of payment (spot exchange rate) along with foreign exchange gains from measurement at the closing date rate. Foreign exchange losses from these transactions are reported under other operating expenses. → Note 10, p. 111. Effects of exchange rates on borrowings are recognised in other financial items.

Income from the release of provisions relate to a number of provisions recognised in previous years which 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.

Income from the disposal of non-current available-for-sale financial assets includes profits of EUR 36m in connection with the exchange of shares held in Visa Europe Limited for shares in Visa International, which is recognised in profit or loss.

Miscellaneous other operating income includes items not attributable to any of the aforementioned categories, such as income from training and other services provided by the Group.

In the previous year, income from the disposal of non-current available-for-sale financial assets included income of EUR 34m from purchase price adjustments in connection with the contract signed in 2014 for the sale of the former Lufthansa Systems AG's IT Infrastructure unit.

7 Cost of materials and services

T077 Cost of materials and services

in €m	2016	2015
Aircraft fuel and lubricants	4,885	5,784
Other raw materials, consumables and supplies	2,896	2,670
Purchased goods	444	549
Total cost of raw materials, consumables and supplies and of purchased goods	8,225	9,003
Fees and charges	5,736	5,651
Charter expenses	343	235
External MRO services	1,335	1,341
In-flight services	343	347
Operating lease payments	58	50
External IT services	281	285
Other services	788	728
Total cost of purchased services	8,884	8,637
	17,109	17,640

8 Staff costs

T078 Staff costs

in €m	2016	2015
Wages and salaries	6,478	6,353
Social security contributions	849	854
Expenses for pension plans and other employee benefits	27	868
	7,354	8,075

The main reason for the significant decline in expenses for retirement and other benefits was the past service expense of EUR 652m, saved as a result of the restructuring of retirement and transitional benefits for the cabin crew at Lufthansa Passenger Airlines.

Expenses for retirement benefits principally consist of additions to the pension provisions. → Note 32, p. 129ff.

T079 Employees

	Average for the year 2016	Average for the year 2015	As of 31.12.2016	As of 31.12.2015
Ground staff	84,735	82,781	84,694	83,415
Flight staff	37,494	35,720	38,434	36,083
Trainees	1,058	1,058	1,178	1,154
	123,287	119,559	124,306	120,652

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 property, plant and other equipment. Total depreciation, amortisation and impairment came to EUR 1,769m (previous year: EUR 1,715m).

Impairment losses of EUR 183m were recognised in the financial year 2016. EUR 127m of the total was recognised on seven Airbus A340-600s, two CRJ 900s, three Boeing MD-11Fs and seven B737-300s held for sale, of which six B737-300s had already been sold as of 31 December 2016. Impairment losses of EUR 38m in total were also recognised on other items of property, plant and equipment due to weaker performance at some business units in the Catering segment (especially catering plants at Frankfurt Airport and in Scandinavia and Turkey). Impairments of EUR 5m were recognised for the business entity in Scandinavia, and further unrecognised impairments of EUR 12m were identified. The recoverable amounts were calculated on the basis of fair values less costs to sell, which are derived from valuation models based on cash flow forecasts. The valuation of the Scandinavian business entities was based on discount rates of between 4.8 per cent and 5.5 per cent. The companies concerned will be closed in the next financial year.

A loan to Lufthansa Super Star gGmbH was also written down by EUR 14m.

Result of the impairment test following an indication of impairment in the Logistics segment

The current negative performance of the Logistics segment constitutes an indication of impairment and an impairment test was carried out accordingly. Cash flow forecasts are based on detailed plans adopted by management for a planning period of three years. The long-term growth rate was assumed to be 1 per cent, based on long-term growth in the relevant industry. The pre-tax discount rate was 7.2 per cent. On the basis of these assumptions, it was determined that the recoverable amount for the Logistics segment exceeded its carrying amount and that there was no need to recognise an impairment for the Logistics segment in financial year 2016.

Other operating expenses included a further EUR 21m in impairment losses on assets held for sale.

Impairment losses of EUR 159m in total had been recognised in the previous 2015 financial year. EUR 62m of the total was recognised on existing investments in connection with the project costs for a possible new freight centre at Frankfurt Airport. Other impairment losses in the previous year were mainly incurred on non-performing loans (EUR 59m), the write-downs of LSG Belgium N.V. and ZAO AeroMEAL (EUR 17m), as well as on two Boeing 747-400s and eleven B737s held for sale (EUR 12m). Capitalised planning costs for an abandoned construction project were also impaired and written down (EUR 7m).

Other operating expenses in the previous year included a further EUR 4m in impairment losses on assets held for sale.

10 Other operating expenses

T080 Other operating expenses

in €m	2016	2015
Staff-related expenses	1,078	1,041
Foreign exchange losses	910	1,606
Rental and maintenance expenses	888	878
Expenses for computerised distribution systems	449	411
Advertising and sales promotions	387	358
Sales commission paid to agencies	316	332
Auditing, consulting and legal expenses	227	207
Other services	135	140
Other taxes	90	83
Write-downs on receivables	88	90
Communications costs	70	59
Insurance premiums for flight operations	51	47
Losses on disposal of non-current assets	26	14
Consultancy fees in connection with financial transactions	2	4
Miscellaneous other operating expenses	800	836
	5,517	6,106

Foreign exchange losses (excluding financial liabilities) mainly consist of losses from differences between the exchange rate on the transaction date (monthly average rate), and the rate at the time of payment (spot rate) as well as translation losses from measurement at the exchange rate on the balance sheet date.

→ Note 6, p. 110. Effects of exchange rates on borrowings are recognised in other financial items.

Staff-related expenses also include travel and training costs for Group employees and the costs of outside staff.

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11 Result from equity investments

T081 Result from equity investments

in €m	2016	2015
Result of joint ventures accounted for using the equity method	26	70
Result of associated companies accounted for using the equity method	32	41
Result of equity investments accounted for using the equity method	58	111
Dividends from other joint ventures	6	10
Dividends from other associated companies	6	5
Income from profit transfer agreements	22	22
Expenses from loss transfer agreements	-19	-37
Dividends from other equity investments	12	10
Result of other equity investments	27	10
	85	121

Income and expenses from profit and loss transfer agreements are shown including tax contributions.

12 Net interest

T082 Net interest

in €m	2016	2015
Income from other securities and non-current financial loans	6	9
Other interest and similar income	58	177
Interest income	64	186
Interest expenses on pensions obligations	-151	-182
Interest expenses on other provisions	-1	-10
Interest and other similar expenses	-130	-164
Interest expenses	-282	-356
	-218	-170

Net interest comprises interest income and expenses – calculated using the effective interest method in accordance with IAS 39 – from financial assets and liabilities not classified as at fair value through profit or loss.

13 Other financial items

T083 Other financial items

in €m	2016	2015
Gains/losses on fair value changes of hedged items	1	7
Gains/losses on fair value changes of derivatives used as fair value hedges	-1	-7
Gains from the disposal of JetBlue shares	-	673
Result of derivatives held for trading classified as at fair value through profit or loss	84	-17
Ineffective portion of derivatives used as cash flow hedges	167	8
Exchange rates effects from financial liabilities	-60	-144
	191	520

14 Income taxes

T084 Income taxes

in €m	2016	2015
Current income taxes	368	144
Deferred income taxes	77	160
	445	304

Current income taxes for 2016 include corporation tax, solidarity surcharge, trade tax and other income taxes paid outside Germany totalling EUR 323m (previous year: EUR 148m). Tax expenses of EUR 45m (previous year: tax income of EUR 4m) was reported for prior years.

The following table reconciles expected and effective tax expenses. Expected tax expense is calculated by multiplying pre-tax profit by a tax rate of 25 per cent for the parent company (previous year: 25 per cent). This is made up of 15 per cent for corporation tax (previous year: 15 per cent) and 10 per cent for trade tax and solidarity surcharge in sum (previous year: 10 per cent).

T085 Tax reconciliation

in €m	2016		2015	
	Basis of assessment	Tax expenses	Basis of assessment	Tax expenses
Expected income tax expenses/refund	2,248	562	2,026	506
Tax-free income, other allowances and permanent differences	–	–68	–	–189
Non-taxable income from equity investments	–	–19	–	–23
Difference between local taxes and the deferred tax rates of the parent company*	–	7	–	–3
Unrecognised tax loss carry-forwards and deferred tax assets on losses	–	–37	–	12
Other	–	–	–	1
Recognised income tax expenses	–	445	–	304

* Including taxes from other periods recognised in effective tax expenses.

Deferred tax liabilities of EUR 6m (previous year: EUR 9m) 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 2016 and 2015 were allocable to the following items in the statement of financial positions:

T086 Deferred tax assets and liabilities

in €m	31.12.2016		31.12.2015	
	Assets	Liabilities	Assets	Liabilities
Tax loss carry-forwards and tax credits	269	–	306	–
Pension provisions	2,150	–	1,767	–
Finance leases aircraft	–	25	1	–
Intangible assets, property, plant and equipment	–	1,059	–	971
Non-current financial assets	–	34	–	161
Fair value measurement of financial instruments	–	427	–	10
Provisions for contingent losses	35	–	29	–
Receivables/liabilities/other provisions	22	–	–	113
Other	45	–	6	–
Offset amounts	–1,108	–1,108	–909	–909
	1,413	437	1,200	346

The deferred tax assets and liabilities in the category receivables/liabilities/other provisions are expected to reverse within twelve months of the reporting date.

A deferred tax receivable of EUR 267m (previous year: EUR 290m) was recognised for companies incurring a net loss in the reporting year or in the previous year, because tax and earnings planning indicated 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 2,792m (previous year: EUR 2,782m) exist for which no deferred tax assets could be recognised. The total amount of deferred tax assets from tax loss carry-forwards that could not be capitalised as of 31 December 2016 was EUR 657m (previous year: EUR 595m).

Of the unrecognised tax loss carry-forwards, EUR 1m can only be used until 2020, EUR 6m until 2021, EUR 23m until 2022, EUR 23m until 2023, EUR 21m until 2024, EUR 7m until 2025 and EUR 2,450m can also be used after 2025.

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.

T087 Earnings per share

		2016	2015
Basic/diluted earnings per share	€	3.81	3.67
Consolidated net profit/loss	€m	1,776	1,698
Weighted average number of shares		465,936,921	463,074,917

As the parent company of the Group, Deutsche Lufthansa AG reported a distributable profit according to HGB of EUR 234m for the 2016 financial year. The Executive Board and Supervisory Board will table a proposal at the Annual General Meeting to be held on 5 May 2017 to pay a dividend of EUR 0.50 per share from this distributable profit.

In 2016, EUR 0.50 per share was distributed as a dividend to shareholders from the net profit for 2015.

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Assets

16 Goodwill and intangible assets with an indefinite useful life

T088 Goodwill and intangible assets with indefinite useful life

in €m	Goodwill from consolidation	Intangible assets with an indefinite useful life	Total
Cost as of 1.1.2015	922	584	1,506
Accumulated impairment losses	-307	-2	-309
Carrying amount 1.1.2015	615	582	1,197
Currency translation differences	4	41	45
Additions due to changes in consolidation	0*	-	0*
Additions	0*	0*	0*
Reclassifications	0*	0*	0*
Disposals due to changes in consolidation	-	-	-
Disposals	-	-	-
Reclassifications to assets held for sale	-	-	-
Impairment losses	-7	-	-7
Reversal of impairment losses	-	-	-
Carrying amount 31.12.2015	612	623	1,235
Cost as of 1.1.2015	924	625	1,549
Accumulated impairment losses	-312	-2	-314
Carrying amount 1.1.2016	612	623	1,235
Currency translation differences	2	3	5
Additions due to changes in consolidation	23	2	25
Additions	0*	-	0*
Reclassifications	-1	1	-
Disposals due to changes in consolidation	-	-	-
Disposals	-	0*	0*
Reclassifications to assets held for sale	-	-	-
Impairment losses	-	0*	0*
Reversal of impairment losses	-	-	-
Carrying amount 31.12.2016	636	629	1,265
Cost as of 31.12.2016	949	631	1,580
Accumulated impairment losses	-313	-2	-315

* Rounded below EUR 1m.

All goodwill and intangible assets with an indefinite useful life were subjected to a regular impairment test in 2016 as required by IAS 36. Furthermore, there remains an obligation to perform an impairment test if there is an indication of impairment. For impairment testing following an indication of impairment → [Note 9, p. 111](#).

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. Goodwill originating from the acquisition of Air Dolomiti S.p.A. and the Eurowings group

(in full up to and including 2015) was tested at the level of Deutsche Lufthansa AG and its regional partners as the smallest independent cash generating unit. As part of the strategic reorganisation of the Group, Eurowings will report separately as an independent business entity within the Passenger Airline Group as of the financial year 2016. The share of goodwill of EUR 11m attributable to this separate business entity from the past acquisition of the Eurowings Group was divided in proportion to the fair values of the companies and, from 2016 onwards, it is accounted for separately and tested for impairment.

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.

T089 Impairment tests of goodwill 2016

Name of the CGU	Deutsche Lufthansa AG and regional partners	SWISS Aviation Training Ltd.	Eurowings Group	LSG Sky Chefs USA Group	LSG Sky Chefs Korea	Retail inMotion	Constance Food Group	LSG Starfood Finland Oy	Various LSG companies ¹⁾
Segment	Passenger Airline Group	Passenger Airline Group	Passenger Airline Group	Catering	Catering	Catering	Catering	Catering	Catering
Carrying amount of goodwill	€ 238m	€ 3m	€ 11m	€ 277m	€ 61m	€ 23m	€ 11m	€ 3m	€ 9m
Impairment losses	–	–	–	–	–	–	–	–	–
Revenue growth p.a. over planning period	0.4% to 0.9%	–0.8% to 4.1%	5.5% to 14.7%	–0.9% to 3.3%	–51.2% to –5.1%	10.0% to 12.1%	1.9% to 3.0%	0.0% to 0.4%	–0.6% to 6.7%
Adjusted EBITDA margin over planning period	10.3% to 11.1%	16.8% to 20.2%	3.6% to 4.1%	5.8% to 6.5%	13.2% to 24.4%	10.7% to 11.6%	6.9% to 7.0%	2.4%	10.2% to 22.9%
Investment ratio over planning period	7.4% to 8.5%	13.1% to 19.8%	0.5% to 5.0%	3.3% to 6.0%	1.6% to 5.0%	0.3% to 0.4%	0.7%	1.4%	0.9% to 5.2%
Duration of planning period	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years
Revenue growth p.a. after end of planning period	2.2%	1.0%	2.2%	2.0%	3.0%	2.0%	3.0%	2.0%	2.0% to 4.0%
Adjusted EBITDA margin after end of planning period	11.1%	20.2%	4.0%	6.5%	13.2%	11.6%	6.9%	2.4%	10.6% to 22.7%
Investment ratio after end of planning period	6.5%	13.1%	3.4%	1.9%	5.9%	3.9%	1.5%	1.4%	1.7% to 6.0%
Discount rate	4.3% ²⁾	4.3% ²⁾	4.3% ²⁾	6.0% ³⁾	6.1% ³⁾	7.2% ³⁾	5.7% ³⁾	6.2% ³⁾	5.5% to 10.9% ³⁾

¹⁾ Goodwill of less than EUR 5m in any individual instance.

²⁾ Pre-tax rate.

³⁾ After-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. Assuming sustained revenue growth of 2.2 per cent at the end of the planning period by Deutsche Lufthansa AG and its regional partners as described in the table, the recoverable amount would exceed the carrying amount by a significant figure. Even if the assumptions for revenue growth and/or the discount rate and the Adjusted EBITDA margin were to be reduced significantly, the recoverable amount would still exceed the carrying amount.

Assuming sustained revenue growth of 2.0 per cent at the end of the planning period by the LSG Sky Chefs USA group as described in the table, the recoverable amount would exceed the carrying

amount by a significant sum. Even if the assumptions for sustained revenue growth, the discount rate, revenue growth in the detailed planning period and the Adjusted EBITDA margin were to be reduced significantly, which is not likely, the recoverable amount would still exceed the carrying amount.

The Adjusted EBITDA 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. The sensitivity analysis examines changes in one assumption at a time, whereby the other assumptions remain unchanged from the original calculation.

Allocation of the costs of Central Group Functions according to a fixed formula gave no indication of impairment.

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The following table shows the assumptions used for the previous year's impairment tests.

T089 Impairment tests of goodwill 2015

Name of the CGU	Deutsche Lufthansa AG and regional partners	SWISS Aviation Training Ltd.	LSG Sky Chefs USA Group	LSG Sky Chefs Korea	LSG Starfood Finland Oy	ZAO AeroMEAL	Constance Food Group	Various LSG companies ¹⁾
Segment	Passenger Airline Group	Passenger Airline Group	Catering	Catering	Catering	Catering	Catering	Catering
Carrying amount of goodwill	€ 249m	€ 3m	€ 277m	€ 60m	€ 3m	€ 0m	€ 11m	€ 8m
Impairment losses	–	–	–	–	–	€ 4m	–	€ 3m
Revenue growth p.a. over planning period	0.4% to 1.7%	–6.8% to 8.2%	1.9% to 4.5%	–0.2% to 2.3%	–0.4% to 0.0%	1.3% to 11.1%	1.0% to 3.0%	–11.3% to 7.4%
Adjusted EBITDA margin over planning period	9.0% to 9.4%	13.3% to 15.9%	7.0%	25.9% to 26.7%	0.7% to 3.6%	6.8% to 8.0%	7.3% to 7.4%	9.6% to 25.2%
Investment ratio over planning period	6.2% to 6.8%	–5.0% to 38.2%	1.5% to 4.4%	2.4%	1.0% to 1.6%	4.2% to 4.3%	0.3% to 1.7%	0.0% to 8.0%
Duration of planning period	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years
Revenue growth p.a. after end of planning period	2.2%	1.0%	2.0%	3.0%	2.0%	2.0%	3.0%	2.0% to 4.0%
Adjusted EBITDA margin after end of planning period	9.0%	18.8%	7.0%	26.7%	3.6%	7.9%	7.3%	9.6% to 25.2%
Investment ratio after end of planning period	5.7%	12.7%	2.5%	1.7%	1.6%	4.2%	1.7%	1.6% to 8.0%
Discount rate	4.9% ²⁾	4.9% ²⁾	5.8% ³⁾	7.1% ³⁾	5.8% ³⁾	11.7% ³⁾	5.5% ³⁾	5.0% to 9.9% ³⁾

¹⁾ Goodwill of less than EUR 5m in any individual instance.

²⁾ Pre-tax rate.

³⁾ After-tax rate.

The intangible assets with indefinite useful lives consist of slots purchased as part of company acquisitions 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.

T090 Impairment tests of slots 2016

Name of the CGU	SWISS	Austrian Airlines
Segment	Passenger Airline Group	Passenger Airline Group
Carrying amount for slots	€ 137m	€ 23m
Impairment losses	–	–
Revenue growth p.a. in planning period	0.8% to 1.9%	2.7% to 5.0%
Adjusted EBITDA margin over planning period	13.2% to 13.8%	7.3% to 7.6%
Investment ratio over planning period	5.2% to 16.8%	0.9% to 8.5%
Duration of planning period	3 years	3 years
Revenue growth p.a. after end of planning period	2.2%	2.2%
Adjusted EBITDA margin after end of planning period	13.7%	7.3%
Investment ratio after end of planning period	9.2%	4.6%
Discount rate	4.3%*	4.3%*

* After-tax rate.

The slots purchased by Deutsche Lufthansa AG with a carrying amount of EUR 112m as of 31 December 2016 were subjected to an impairment test on the same assumptions as those used for impairment testing the goodwill of the CGU Deutsche Lufthansa AG and its regional partners.

Assuming sustained revenue growth by SWISS of 2.2 per cent at the end of the planning period as described in the table, the recoverable amount would be well in excess of the carrying amount. Even if the assumptions for sustained revenue growth, the discount rate, revenue growth in the detailed planning period and the Adjusted EBITDA margin were to be reduced significantly, which is not likely, the recoverable amount would still exceed the carrying amount.

Assuming sustained revenue growth by Austrian Airlines of 2.2 per cent at the end of the planning period as described in the table, the recoverable amount would exceed the carrying amount by a significant sum. Even if the assumptions for sustained revenue growth, the discount rate, revenue growth in the detailed planning period and the Adjusted EBITDA margin were to be reduced significantly, which is not likely, the recoverable amount would still exceed the carrying amount.

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.

T090 Impairment tests of slots 2015

Name of the CGU Segment	SWISS	Austrian Airlines
	Passenger Airline Group	Passenger Airline Group
Carrying amount for slots	€ 136m	€ 23m
Impairment losses	–	–
Revenue growth p.a. in planning period	–1.0% to 1.5%	–0.7% to 4.3%
Adjusted EBITDA margin over planning period	12.3% to 12.7%	8.6% to 9.2%
Investment ratio over planning period	7.5% to 14.8%	1.2% to 9.6%
Duration of planning period	3 years	3 years
Revenue growth p.a. after end of planning period	1.7%	1.3%
Adjusted EBITDA margin after end of planning period	12.7%	9.0%
Investment ratio after end of planning period	8.7%	5.7%
Discount rate	4.9%*	4.9%*

* After-tax rate.

The regular impairment test for the brands acquired was carried out on the basis of the revenue generated from each brand.

The following assumptions were used in the impairment test for the acquired brands:

T091 Impairment tests of brands 2016

Group company	SWISS	Austrian Airlines	Edelweiss
Carrying amount for brand	€ 241m	€ 107m	€ 4m
Impairment losses	0*	–	–
Revenue growth for brand p.a. in planning period	0.8% to 4.6%	2.7% to 5.1%	12.7% to 24.0%
Duration of planning period	3 years	3 years	3 years
Revenue growth p.a. after end of planning period	2.2%	2.2%	2.2%
Savings in hypothetical leasing payments before taxes (royalty rate)	0.63%	0.35%	0.20%
Discount rate	4.3%*	4.3%*	4.3%*

* After-tax rate.

Assuming sustained revenue growth associated with the brand after the end of the planning period of 2.2 per cent, the recoverable amount for the SWISS brand significantly exceeds the carrying amount. Even if the assumptions for sustained brand-related revenue growth were to be reduced significantly, which is not likely, the recoverable amount would exceed the carrying amount.

Assuming sustained revenue growth associated with the brand after the end of the planning period of 2.2 per cent, the recoverable amount for the Austrian Airlines brands significantly exceeds the carrying amount.

The acquisition of Retail inMotion included brand rights with a fair value at the acquisition date of EUR 2m. Having carried out an impairment test using sustainable, brand-related revenue growth after the end of the planning period of 2.0 per cent, the recoverable amount significantly exceeded the carrying amount. Even if the assumptions for sustained brand-related revenue growth were to be reduced significantly, which is not likely, the recoverable amount would exceed the carrying amount.

The sensitivity analysis examines 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.

T091 Impairment tests of brands 2015

Group company	SWISS	Austrian Airlines	Edelweiss
Carrying amount for brand	€ 240m	€ 107m	€ 4m
Impairment losses	–	–	–
Revenue growth for brand p.a. in planning period	1.3% to 2.4%	–0.7% to 3.5%	14.6% to 22.8%
Duration of planning period	3 years	3 years	3 years
Revenue growth p.a. after end of planning period	1.7%	1.3%	1.7%
Savings in hypothetical leasing payments before taxes (royalty rate)	0.63%	0.35%	0.23%
Discount rate	4.9%*	4.9%*	4.9%*

* After-tax rate.

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17 Other intangible assets

T092 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 1.1.2015	939	113	130	1,182
Accumulated amortisation	-673	-104	-15	-792
Carrying amount 1.1.2015	266	9	115	390
Currency translation differences	14	-	2	16
Additions due to changes in consolidation	-	-	-	0*
Additions	60	0*	51	111
Reclassifications	88	0*	-88	0*
Disposals due to changes in consolidation	-	-	-	-
Disposals	0*	-5	-1	-6
Reclassifications to assets held for sale	-	-	0*	0*
Amortisation	-83	-3	-3	-89
Reversal of impairment losses	-	-	-	-
Carrying amount 31.12.2015	345	1	76	422
Cost as of 1.1.2016	1,091	102	93	1,286
Accumulated amortisation	-746	-101	-17	-864
Carrying amount 1.1.2016	345	1	76	422
Currency translation differences	1	1	1	3
Additions due to changes in consolidation	9	14	0*	23
Additions	40	0*	79	119
Reclassifications	18	8	-21	5
Disposals due to changes in consolidation	-	-	-	-
Disposals	-3	-	-3	-6
Reclassifications to assets held for sale	-	-	-	-
Amortisation	-91	-3	-	-94
Reversal of impairment losses	-	-	-	-
Carrying amount 31.12.2016	319	21	132	472
Cost as of 31.12.2016	1,135	124	147	1,406
Accumulated amortisation	-816	-103	-15	-934

* Rounded below EUR 1m.

Non-capitalised research and development expenses for intangible assets of EUR 24m (previous year: EUR 15m) were incurred in the period. Fixed orders have been placed for intangible assets worth EUR 17m (previous year: EUR 12m), but they are not yet at the Group's economic disposal.

18 Aircraft and reserve engines**T093 Aircraft and reserve engines**

in €m	Aircraft and reserve engines	Advance payments for aircraft and reserve engines	Total
Cost as of 1.1.2015	24,881	1,483	26,364
Accumulated amortisation	-12,792	-	-12,792
Carrying amount 1.1.2015	12,089	1,483	13,572
Currency translation differences	267	37	304
Additions due to changes in consolidation	-	-	-
Additions	1,029	970	1,999
Reclassifications	473	-473	0*
Disposals due to changes in consolidation	-	-	-
Disposals	-12	0*	-12
Reclassifications to assets held for sale	-12	-	-12
Depreciation	-1,260	-	-1,260
Reversal of impairment losses	-	-	-
Carrying amount 31.12.2015	12,574	2,017	14,591
Cost as of 1.1.2016	26,006	2,017	28,023
Accumulated amortisation	-13,432	-	-13,432
Carrying amount 1.1.2016	12,574	2,017	14,591
Currency translation differences	70	-4	66
Additions due to changes in consolidation	-	-	-
Additions	1,409	287	1,696
Reclassifications	1,003	-1,003	-
Disposals due to changes in consolidation	-	-	-
Disposals	-14	-3	-17
Reclassifications to assets held for sale	-146	-	-146
Depreciation	-1,392	-	-1,392
Reversal of impairment losses	-	-	-
Carrying amount 31.12.2016	13,504	1,294	14,798
Cost as of 31.12.2016	26,836	1,294	28,130
Accumulated amortisation	-13,332	-	-13,332

* Rounded below EUR 1m.

The item "Aircraft" includes three aircraft (one Boeing MD-11F and two B747-400s) at a carrying amount of EUR 23m (previous year: EUR 70m) which are subject of transactions aimed at realising present value benefits from cross-border leasing constructions. These transactions generally involve entering into a 40 to 50-year head lease agreement with a lessee in the Bermudas. The lease payments paid by the lessee are transferred to the lessor in a single amount. At the same time, the lessor concludes a sub-lease agreement with a shorter duration (15 to 17 years) with the lessee and pays the leasing obligations on this agreement in a single amount to a bank for the benefit of the lessee. Following the transaction, the risks and rewards associated with the aircraft and legal ownership of it remain with the Lufthansa Group, so under SIC-27 the aircraft are treated not as leased assets within the meaning of IAS 17, but in the same way as they would be without the transaction. The transaction does entail some operating constraints, as the aircraft may not be primarily operated in American airspace.

The present value benefit derived from the transaction was recognised through profit or loss pro rata temporis over the duration of the sub-lease agreement up to and including 2015. In the previous year, EUR 3m was recognised in other operating income.

The item also includes 79 aircraft carried at EUR 2,568m (previous year: 79 aircraft carried at EUR 2,489m), which have been sold and leased back to Japanese, French and Irish leasing companies, to leasing companies in the Bermudas and the Cayman Islands, with the aim of obtaining favourable financing terms. The leasing companies were fully consolidated as structured entities. The Group is entitled to buy the aircraft back at a fixed price at a given point in time. In the reporting year, debt capital costs of EUR 32m (previous year: EUR 47m) were capitalised.

Order commitments for aircraft and reserve engines amount to EUR 15.5bn (previous year: EUR 16.4bn).

Aircraft worth EUR 2,740m (previous year: EUR 2,676m) serve as collateral for current financing arrangements and aircraft worth EUR 289m (previous year: EUR 317m) were also acquired under finance leases. → [Note 20, p. 121f.](#)

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19 Property, plant and other equipment

T094 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 1.1.2015	2,497	1,123	1,227	126	4,973
Accumulated depreciation	-1,177	-819	-868	-	-2,864
Carrying amount 1.1.2015	1,320	304	359	126	2,109
Currency translation differences	12	6	2	3	23
Additions due to changes in consolidation	0*	0*	-	-	0*
Additions	22	33	107	182	344
Reclassifications	21	26	16	-63	-
Disposals due to changes in consolidation	-	-	-	-	-
Disposals	0*	-1	-2	-3	-6
Reclassifications to assets held for sale	0*	0*	-2	0*	-2
Depreciation	-97	-49	-91	-62	-299
Reversal of impairment losses	2	2	0*	-	4
Carrying amount 31.12.2015	1,280	321	389	183	2,173
Cost as of 1.1.2016	2,557	1,195	1,288	183	5,223
Accumulated depreciation	-1,277	-874	-899	0*	-3,050
Carrying amount 1.1.2016	1,280	321	389	183	2,173
Currency translation differences	7	2	3	1	13
Additions due to changes in consolidation	-	-	0*	0*	0*
Additions	120	32	100	93	345
Reclassifications	72	47	24	-152	-9
Disposals due to changes in consolidation	-	-	-	-	-
Disposals	-48	-2	-3	-5	-58
Reclassifications to assets held for sale	-	-	-	-	-
Depreciation	-117	-54	-94	-	-265
Reversal of impairment losses	-	-	-	-	-
Carrying amount 31.12.2016	1,314	346	419	120	2,199
Cost as of 31.12.2016	2,680	1,263	1,384	120	5,447
Accumulated depreciation	-1,366	-917	-965	0*	-3,248

* Rounded below EUR 1m.

As in the previous year, charges of EUR 4m exist over land and property. Pre-emption rights are registered for land held at EUR 214m (previous year: EUR 223m). Other property, plant and equipment carried at EUR 18m (previous year: EUR 23m) serves as collateral for existing financing arrangements. Other equipment carried at EUR 152m (previous year: EUR 130m) was acquired by means of finance leases. → Note 20, p. 121f.

The following items of property, plant and equipment have been ordered, but are not yet at the Group's economic disposal:

T095 Orders of property, plant and equipment as of the reporting date

in €m	31.12.2016	31.12.2015
Land and buildings	9	19
Technical equipment and vehicles	32	34
Operating and office equipment	59	41
	100	94

20 Assets for which the Group is lessor or lessee

Property, plant and equipment also includes leased assets which are deemed to be the property of the Group as the underlying contracts are structured as finance leases. The following table shows leased assets for which the Group is either lessor or lessee:

T096 Assets for which the Group is lessor or lessee

in €m	Lessee of aircraft and reserve engines	Lessee of buildings	Lessee of intangible assets and technical equipment	Lessee of other equipment, operating and office equipment
Cost as of 1.1.2015	726	263	1	3
Accumulated depreciation	-366	-127	-1	-2
Carrying amount 1.1.2015	360	136	0*	1
Currency translation differences	16	5	0*	-
Additions due to changes in consolidation	-	-	0*	-
Additions	27	0*	-	0*
Reclassifications	1	0*	-	0*
Disposals due to changes in consolidation	-	-	-	-
Disposals	-	-	-	0*
Reclassifications to assets held for sale	-	-	-	-
Depreciation	-87	-12	0*	0*
Reversal of impairment losses	-	-	-	-
Carrying amount 31.12.2015	317	129	-	1
Cost as of 1.1.2016	805	271	1	3
Accumulated depreciation	-488	-142	-1	-2
Carrying amount 1.1.2016	317	129	-	1
Currency translation differences	1	0*	-	-
Additions due to changes in consolidation	-	-	-	-
Additions	41	89	-	-
Reclassifications	2	9	-	-
Disposals due to changes in consolidation	-	-	-	-
Disposals	-	-43	-	-
Reclassifications to assets held for sale	-	-	-	-
Depreciation	-72	-33	-	-
Reversal of impairment losses	-	-	-	-
Carrying amount 31.12.2016	289	151	-	1
Cost as of 31.12.2016	695	299	1	3
Accumulated depreciation	-406	-148	-1	-2

* Rounded below EUR 1m.

Finance leases

The carrying amount of leased assets attributed to the Group's economic ownership under IAS 17 is EUR 441m (previous year: EUR 447m), of which EUR 289m (previous year: EUR 317m) relates to aircrafts (one Airbus A340, one A330, two A321s, 17 A320s, twelve A319s, one Boeing 777 and two B767s).

As a rule, aircraft finance lease agreements cannot be terminated during a fixed basic lease term of at least four years and they run for a maximum of 20 years.

Once the lease term has expired the lessee is usually entitled to acquire the asset at its residual value. If the lessee does not exercise this option, the lessor will sell the aircraft at the best possible market price. If the sales price is lower than the residual value, the difference has to be paid by the lessee. Some lease agreements provide for variable lease payments to the extent that the interest portion is linked to market interest rates, normally the Euribor or Libor rate.

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In addition, the Group has a variety of finance leases for buildings, fixtures and for operating and office equipment. For buildings and fixtures the leases run for 15 to 30 years. The lease agreements have lease payments based partly on variable and partly on fixed interest rates, and some have purchase options at the end of the lease term. The agreements cannot be terminated. Options for extending the contracts generally rest with the lessee, if at all.

The following lease payments are due for finance leases, whereby the variable lease payments have been extrapolated on the basis of the most recent interest rate:

T097 Lease payments due under finance leases, as of 2016

in €m	2017	2018–2021	from 2022
Lease payments	89	241	98
Discounted amounts	4	28	23
Present values	85	213	75

In the previous year, the following figures were given for finance leases:

T097 Lease payments due under finance leases, as of 2015

in €m	2016	2017–2020	from 2021
Lease payments	102	301	131
Discounted amounts	6	48	44
Present values	96	253	87

Operating leases

In addition to the finance leases, a large number of leases have been signed which, on the basis of their economic parameters, are qualified as operating leases, i.e. the leased asset is deemed to belong to the lessor. As well as 25 aircraft on operating leases, these are tenancy agreements for buildings.

The operating leases for aircraft have a term of between six and eleven years. These agreements generally end automatically after the term has expired, but there is sometimes an option for extending the agreement.

The leases for buildings generally run for up to 25 years. The fixtures at the airports in Frankfurt and Munich are largely leased for periods of up to 30 years.

The following payments are due in the years ahead:

T098 Lease payments due under operating leases, as of 2016

in €m	2017	2018–2021	from 2022
Aircraft	60	158	25 p.a.
Various buildings	286	968	214 p.a.
Other leases	112	390	88 p.a.
	458	1,516	327 p.a.
Payments from sub-leasing (Sublease)	28	111	27 p.a.

In the previous year the following figures were given for operating leases:

T098 Lease payments due under operating leases, as of 2015

in €m	2016	2017–2020	from 2021
Aircraft	56	187	26 p.a.
Various buildings	306	1,089	254 p.a.
Other leases	106	485	148 p.a.
	468	1,761	428 p.a.
Payments from sub-leasing (Sublease)	3	99	28 p.a.

There are non-terminable operating leases to third parties for seven aircraft and reserve engines, legally and economically the property of the Group at the end of 2016. These leases, which have remaining terms of up to six years, result in the following forecast payments:

T099 Forecast payments from operating leases, as of 2016

in €m	2017	2018–2021	from 2022
Payments received from operating leases	6	15	–

Reserve engines and other non-current assets, legally and economically the property of the Group at the end of 2015, have been leased to third parties under non-terminable operating leases. These leases resulted in the following forecast payments:

T099 Forecast payments from operating leases, as of 2015

in €m	2016	2017–2020	from 2021
Payments received from operating leases	3	5	–

21 Investments accounted for using the equity method**T100 Equity investments accounted for using the equity method**

in €m	Investments in joint ventures	Investments in associated companies	Total
Cost as of 1.1.2015	291	159	450
Accumulated impairment losses	–	–5	–5
Carrying amount 1.1.2015	291	154	445
Currency translation differences	9	15	24
Additions due to changes in consolidation	–	–	–
Additions	–	0*	0*
Changes with and without an effect on profit and loss	73	26	98
Reclassifications	–68	68	–
Disposals due to changes in consolidation	–	–	–
Disposals	–	–	–
Dividends paid	–37	–9	–46
Reclassifications to assets held for sale	–	–	–
Impairment losses	–	–1	–1
Reversal of impairment losses	–	–	–
Carrying amount 31.12.2015	269	251	520
Cost as of 1.1.2016	269	256	525
Accumulated impairment losses	–	–5	–5
Carrying amount 1.1.2016	269	251	520
Currency translation differences	–	8	8
Additions due to changes in consolidation	–	–	–
Additions	21	2	23
Changes with and without an effect on profit and loss	20	17	37
Reclassifications	0*	0*	0*
Disposals due to changes in consolidation	–	–	–
Disposals	–	–19	–19
Dividends paid	–36	–17	–53
Reclassifications to assets held for sale	–	–	–
Impairment losses	–	–	–
Reversal of impairment losses	–	–	–
Carrying amount 31.12.2016	274	242	516
Cost as of 31.12.2016	274	247	521
Accumulated impairment losses	–	–5	–5

* Rounded below EUR 1m.

Individual interests in companies accounted for using the equity method

The following tables contain summarised data from the income statements and balance sheet data for the individual material joint ventures accounted for using the equity method.

T101 Balance sheet data Günes Ekspres Havacilik Anonim Sirketi (SunExpress), Antalya, Turkey

in €m	31.12.2016	31.12.2015*
Current assets	270	199
Non-current assets	719	562
Cash and cash equivalents	86	74
Current liabilities	305	267
Non-current liabilities	530	312
Current financial liabilities (except trade and other payables and provisions)	63	32
Non-current financial liabilities (except trade and other payables and provisions)	376	225
Shareholders' equity	154	182
Share of equity	77	91
Other	21	28
Carrying amount	98	119

* Previous year's figures have been adjusted.

T102 Income statement data Günes Ekspres Havacilik Anonim Sirketi (SunExpress), Antalya, Turkey

in €m	2016	2015*
Revenue	991	1,106
Depreciation and amortisation	35	14
Interest income	4	2
Interest expenses	13	3
Income tax expense or income	–	7
Profit or loss from continuing operations	–31	63
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	3	5
Total comprehensive income	–28	68
Share of profit or loss from continuing operations	–16	32
Share of comprehensive income	–14	34

* Previous year's figures have been adjusted.

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T103 Balance sheet data Terminal 2 Gesellschaft mbH & Co. oHG, Munich Airport, Germany

in €m	31.12.2016	31.12.2015
Current assets	60	95
Non-current assets	1,538	1,449
Cash and cash equivalents	–	–
Current liabilities	221	152
Non-current liabilities	1,348	1,410
Current financial liabilities (except trade and other payables and provisions)	84	55
Non-current financial liabilities (except trade and other payables and provisions)	1,311	1,375
Shareholders' equity	29	–18
Share of equity	12	–7
Other	–	7
Carrying amount	12	–

T104 Income statement data Terminal 2 Gesellschaft mbH & Co. oHG, Munich Airport, Germany

in €m	2016	2015
Revenue	285	257
Depreciation and amortisation	74	55
Interest income	–	–
Interest expenses	40	35
Income tax expense or income	5	8
Profit or loss from continuing operations	32	54
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	3	8
Total comprehensive income	35	62
Share of profit or loss from continuing operations	6	22
Share of comprehensive income	7	25
Dividends received	42	53

The following tables contain summarised data from the income statements and balance sheet data for the individual material associated companies accounted for using the equity method.

T105 Balance sheet data SN Airholding SA/NV, Brussels, Belgium

in €m	31.12.2016	31.12.2015*
Current assets	403	429
Non-current assets	109	107
Cash and cash equivalents	211	202
Current liabilities	347	381
Non-current liabilities	187	184
Current financial liabilities (except trade and other payables and provisions)	–	–
Non-current financial liabilities (except trade and other payables and provisions)	95	95
Shareholders' equity	–22	–29
Share of equity	–10	–13
Other	10	13
Carrying amount	–	–

* Previous year's figures have been adjusted.

T106 Income statement data SN Airholding SA/NV, Brussels, Belgium

in €m	2016	2015*
Revenue	1,271	1,281
Depreciation and amortisation	16	14
Interest income	–	2
Interest expenses	2	4
Income tax expense or income	–	–
Profit or loss from continuing operations	7	34
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	–	–
Total comprehensive income	7	34
Share of profit or loss from continuing operations	3	15
Share of comprehensive income	3	15

* Previous year's figures have been adjusted.

The item "Other" in the reconciliation with the carrying amount for SunExpress includes the difference from the first-time consolidation of the company. For SN Airholding, the difference is shown between the negative pro rata equity and the carrying amount, which has not been reduced below zero. At SN Airholding, the negative earnings in previous years were offset against non-current loans to the company, reducing the carrying amount. At Terminal 2 Gesellschaft, the dividend payment in 2015 was higher than the carrying amount, so the excess could no longer be offset against the carrying amount, but rather was recognised in profit or loss. In 2016, the negative difference was offset against the earnings of Terminal 2 Gesellschaft.

The call option to acquire the remaining shares in SN Airholding SA/NV was exercised on 15 December 2016 with effect from 9 January 2017 at a price of EUR 2.6m.

The following table contains summarised aggregated data from the income statements and carrying amounts for the individual immaterial joint ventures accounted for using the equity method.

T107 Income statements data and carrying amounts of joint ventures accounted for using the equity method

in €m	2016	2015
Profit or loss from continuing operations	34	25
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	–	–
Total comprehensive income	34	25
Carrying amount	163	149

The following table contains summarised aggregated data from the income statements and carrying amounts for the individual immaterial associated companies accounted for using the equity method.

T108 Income statements data and carrying amounts of associated companies accounted for using the equity method

in €m	2016	2015
Profit or loss from continuing operations	27	25
Profit or loss after tax from discontinued operations	–	–
Other comprehensive income	–	3
Total comprehensive income	27	28
Carrying amount	242	251

22 Other equity investments and non-current securities

T109 Other equity investments and non-current securities

in €m	31.12.2016	31.12.2015
Investments in affiliated companies	191	158
Investments	21	43
Other investments	212	201
Non-current securities	23	15

Shares in related parties are held at amortised cost.

Equity investments and securities are recognised at fair value if there is an active market for them with publicly available prices. For equity investments carried at EUR 21m (previous year: EUR 18m) and non-current securities carried at EUR 5m (previous year: 7m) there is no active market with publicly available prices. In the reporting year, non-current securities held at EUR 2m (previous year: other equity investments held at EUR 9m) were sold, which had previously not been held at fair value as there was no active market for them. This resulted in a gain of EUR 1m (previous year: EUR 10m). In the previous year, non-current securities not held at fair value were sold for their carrying amount of EUR 10m.

23 Non-current loans and receivables

T110 Non-current loans and receivables

in €m	31.12.2016	31.12.2015
Loans to and receivables from affiliated companies	117	116
Loans to and receivables from other equity investments	0*	0*
Other loans and receivables	369	359
Pre-financed rental property	–	–
Emissions certificates	27	41
	513	516

* Rounded below EUR 1m.

The carrying amount of non-current loans and receivables corresponds to their fair value, as they earn floating rate or market standard interest.

For the impairment test for emissions certificates, we refer to the disclosures on the cash-generating units (CGU) Deutsche Lufthansa AG (including regional partners), SWISS and Austrian Airlines in → [Note 16, p. 114ff.](#)

As in the previous year, other receivables include forecast reimbursements of EUR 4m for obligations for which provisions have been made (previous year: EUR 3m). Non-current receivables of EUR 22m (previous year: EUR 30m) serve as collateral for liabilities.

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24 Inventories

T111 Inventories

in €m	31.12.2016	31.12.2015
Raw materials, consumables and supplies	643	593
Finished goods and work in progress	163	167
Advance payments	10	1
	816	761

Inventories valued at EUR 1m (previous year: EUR 1m) have been pledged as collateral for loans.

The gross value of written-down inventories as of 31 December 2016 was EUR 734m (previous year: EUR 709m). Inventories valued at EUR 518m (previous year: EUR 493m) are held at their net realisable value. Impairments of EUR 201m (previous year EUR 193m) had been made to net realisable value at the beginning of the financial year. In the reporting period, new impairments were made for EUR 32m (previous year: EUR 30m). Impairments of EUR 17m (previous year: EUR 6m) made the previous year were reversed.

25 Trade receivables and other receivables

T112 Trade receivables and other receivables

in €m	31.12.2016	31.12.2015
Trade receivables		
Trade receivables from affiliated companies	118	63
Trade receivables from other equity investments	3	2
Trade receivables from third parties	3,191	3,140
	3,312	3,205
of which: from unfinished orders less advance payments received	(188)	(187)
Other receivables		
Receivables from affiliated companies	66	39
Receivables from other equity investments	0*	0*
Other receivables	1,164	1,116
Emissions certificates	28	29
	1,258	1,184
Total	4,570	4,389

* Rounded below EUR 1m.

The carrying amount of these receivables corresponds to their fair value.

For the impairment test for emissions certificates, we refer to the disclosures on the cash-generating units (CGU) Deutsche Lufthansa AG (including regional partners), SWISS and Austrian Airlines in → [Note 16, p. 114ff.](#)

Collateral received for trade receivables has a fair value of EUR 2m (previous year: EUR 2m).

Other receivables include expected reimbursements for obligations for which provisions have been made amounting to EUR 1m (previous year: EUR 1m). Other receivables include claims of EUR 200m 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 176m for outstanding obligations relating to this accident.

26 Deferred charges and prepaid expenses

Deferred charges and prepaid expenses consist mainly of rents and insurance premiums paid in advance for subsequent periods.

27 Current securities

Current securities are almost exclusively fixed income securities, participation certificates and investments in money market funds.

28 Cash and cash equivalents

The bank balances denominated in euros with various banks mostly earned interest at a rate of 1.0 per cent (previous year: 0.04 to 0.12 per cent). US dollar balances were invested at an average interest rate of 1.42 per cent (previous year: 1.18 per cent) and balances in Swiss francs at an average rate of 0.59 per cent (previous year: 0.25 per cent). This item includes EUR 118m (previous year: EUR 103m) in fixed-term deposits with terms of three to twelve months.

Bank balances in foreign currencies are translated at the exchange rate on the balance sheet date.

29 Assets held for sale

At year-end 2016, the Group intended to sell aircraft, in particular from the Passenger Airline Group segment. These are principally seven Airbus A340-600s, two CRJ 900s and one Boeing 737-300 with a carrying amount of EUR 124m; from the Logistics segment there are three Boeing MD-11Fs with a carrying amount of EUR 3m, as well as a building held at EUR 2m from the Passenger Airline Group segment. Impairment losses of EUR 183m were recognised on these assets, as well as on other aircraft and other assets (→ Note 9, p. 111). Write-downs of EUR 21m were also recognised in other operating expenses (→ Note 9, p. 111).

In the previous year, this item included, in particular, six B737-500s, seven Fokker F100s and three Fokker F70s with a total carrying amount of EUR 5m as well as a building with a carrying amount of EUR 2m from the Passenger Airline Group segment. Impairment losses of EUR 159m in total were recognised on these assets. Write-downs of EUR 4m were also recognised in other operating expenses.

Shareholders' equity and liabilities**30 Issued capital****Issued capital**

Deutsche Lufthansa AG's issued capital totals EUR 1,200.2m. Issued capital is divided into 468,818,054 registered shares, with each share representing EUR 2.56 of issued capital.

Authorised capital

A resolution passed at the Annual General Meeting on 29 April 2015 authorised the Executive Board until 28 April 2020, subject to approval by the Supervisory Board, to increase the Company's issued capital on one or more occasions by up to EUR 561,160,092 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. In order to issue new shares to settle dividend entitlements, 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 29 April 2015 (Authorised Capital A) and increase the Company's issued capital by EUR 4,120,811.52 by issuing 1,609,692 new registered shares with transfer restrictions and profit entitlement from 1 January 2016. The capital increase was entered in the Commercial Register of Cologne District Court (HRB 2168) on 25 May 2016. As of 31 December 2016, Authorised Capital A amounted to EUR 557,039,280.48.

A resolution passed at the Annual General Meeting on 29 April 2014 authorised the Executive Board until 28 April 2019, subject to approval by the Supervisory Board, to increase the issued capital up to EUR 29m, 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 29 April 2014 (Authorised Capital B) and increase the Company's issued capital by EUR 6,834,206.72 excluding shareholders' subscription rights, by issuing 2,669,612 new registered shares with transfer restrictions and profit entitlement from 1 January 2016 for payment in cash. The capital increase was entered in the Commercial Register of Cologne District Court (HRB 2168) on 25 October 2016. As of 31 December 2016, Authorised Capital B amounted to EUR 13,298,593.28.

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 29 April 2015 authorised the Executive Board pursuant to Section 71 Paragraph 1 No. 8 Stock Corporation Act (AktG) to purchase treasury shares until 28 April 2020. The authorisation is limited to 10 per cent 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 28 April 2016, the Executive Board is also authorised to purchase treasury shares by means of derivatives and to conclude corresponding derivative transactions.

In 2016, Deutsche Lufthansa AG bought back 101,499 of its own shares at an average price of EUR 12.10. This is equivalent to 0.02 per cent of issued capital.

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The shares purchased or created by means of the capital increase were used as follows:

- 1,806,974 shares were transferred to the staff of Deutsche Lufthansa AG and 40 other affiliated companies and equity investments as part of the profit-sharing scheme for 2015, at a share price of EUR 10.05.
- 941,136 shares were transferred as part of performance-related variable remuneration in 2016 to managers and non-payscale staff of Deutsche Lufthansa AG and to 46 further affiliated companies and equity investments at a price of EUR 11.87.
- 20,218 shares were transferred to Executive Board members at a price of EUR 11.87 as part of the share programme for 2016.
- 615 shares were transferred for previous years' programmes (performance-related variable remuneration for 2015 to managers, non-payscale staff and other staff of Deutsche Lufthansa AG and to further affiliated companies and equity investments from profit-sharing for 2014) at a price of EUR 12.85.
- 1,609,692 shares were transferred to shareholders to settle dividend entitlements for 2015.

2,168 shares were resold at a price of EUR 12.83.

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 per cent, in order to ensure long-term financial flexibility and stability as a basis for its growth targets. As of 31 December 2016 and 2015, equity and total assets were as follows:

T113 Equity and liabilities

in €m	31.12.2016	31.12.2015
Shareholders' equity	7,149	5,845
in % of total assets	20.6	18.0
Liabilities	27,548	26,617
in % of total assets	79.4	82.0
Total capital	34,697	32,462

In the financial year 2016, the equity ratio improved year on year by 2.6 percentage points to 20.6 per cent. Starting from a positive after-tax result of EUR 1.8bn, the increase resulting from the change in discount rate in provisions for pensions recognised directly in equity caused shareholders' equity to go down by EUR 1.5bn. However, a significant increase of EUR 1.2bn in total was reported in the market value reserve for financial instruments – due, in particular, to the higher market values of fuel hedges.

Lufthansa's Articles of Association do not stipulate any capital requirements.

31 Reserves

Capital reserves only include the share premium paid on capital increases and a convertible bond that was redeemed in full the previous year. 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 2016:

T114 Notes on other comprehensive income

in €m	2016	2015
Other comprehensive income after income taxes		
Currency translation differences		
Profit/loss for the period	66	240
Reclassification adjustments recognised in profit or loss	–	–
Subsequent measurement of available-for-sale financial assets		
Profit/loss for the period	26	198
Reclassification adjustments recognised in profit or loss	–29	–731
Subsequent measurement of cash flow hedges		
Profit/loss for the period	849	–498
Reclassification adjustments recognised in profit or loss	682	669
Transfer to cost of hedged items	–34	–94
Other comprehensive income from investments accounted for using the equity method		
Profit/loss for the period – reclassifiable	3	4
Profit/loss for the period – non-reclassifiable	–17	–
Transfer to cost of hedged items	–	–
Revaluation of defined-benefit pension plans	–2,066	511
Revaluation of defined-benefit pension plans within disposal groups	–	–19
Other expenses and income recognised directly in equity	9	3
Income taxes on items in other comprehensive income	217	–199
Other comprehensive income after income taxes	–294	84

T115 Note on income taxes recognised for other comprehensive income

in €m	2016			2015		
	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	66	–	66	240	–	240
Subsequent measurement of available-for-sale financial assets	–3	–	–3	–533	6	–527
Subsequent measurement of cash flow hedges	1,497	–337	1,160	77	–33	44
Other comprehensive income from investments accounted for using the equity method – reclassifiable	3	–	3	4	–	4
Other comprehensive income from investments accounted for using the equity method – non-reclassifiable	–17	–	–17	–	–	–
Revaluation of defined-benefit pension plans	–2,066	554	–1,512	511	–177	334
Revaluation of defined-benefit pension plans within disposal groups	–	–	–	–19	5	–14
Other expenses and income recognised directly in equity	9	–	9	3	–	3
Other comprehensive income	–511	217	–294	283	–199	84

The overall change in equity is shown in the consolidated statement of changes in → [Lufthansa shareholders' equity, p.98](#).

32 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 Group employees related mostly to pension obligations in Germany, Switzerland, Austria and the USA. Various commitments have been made to different groups of employees.

For most of the employees in Germany and for staff posted abroad by German companies who joined the Group before 1995, the supplementary pension scheme for state employees (VBL) was initially retained as the Company's pension scheme. As part of the wage agreements signed in 2003 and 2004 to replace the VBL scheme and harmonise retirement benefits, the pension scheme for ground, cockpit and flight staff was converted to an average salary plan. Since then, the Company retirement benefit commitment has been equal to that for staff recruited after 1994. One pension component is earned every year based on an employee's pay and age; retirement benefit is defined as the sum of accumulated pension components. The same applies accordingly to commitments for company invalidity and dependant persons' pensions.

Under IAS 19, these pension obligations are regarded as defined-benefit commitments and are therefore taken into account for the amount of obligations and as expenses.

Flight staff are 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.

The relevant pension agreements were terminated by the Group companies as of 31 December 2013 in order to reach a new agreement on Company retirement and transitional benefits with the trade unions.

The Lufthansa collective agreement on benefits for ground staff, dated 2 August 2016, established a new company retirement benefit plan in the form of a defined-contribution benefit commitment for the approximately 30,000 ground staff in Germany, in particular those at Deutsche Lufthansa AG, Lufthansa Cargo AG, the Lufthansa Technik group and the LSG group. The Lufthansa company pension agreement for ground staff dating from 1 July 2003 was terminated as of 31 December 2013, but remains in force until 31 December 2015 (also for new members of staff up to this date) and is replaced as of 1 January 2016. For employees recruited

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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. Employees recruited after 1 January 2016 receive employer contributions of 5.2 per cent (including a risk contribution) of the qualifying salary, paid into a "DC account". All employees make their own contributions of 1.0 per cent of the qualifying salary, paid into a "Supplementary account".

The funds in the Supplementary account and DC account are invested on capital markets with a capital guarantee for the contributions. When the employee reaches retirement age, the entire account balance is converted into an annuity on the basis of the applicable BilMoG interest rate and, where necessary, is paid in addition to any benefits vested as of 31 December 2015. All current benefits are increased by 1.0 per cent per annum.

With effect from 5 July 2016, an agreement has been reached with the UFO flight attendants' union on core elements of future company retirement and transitional benefits for cabin crew at Deutsche Lufthansa AG (DLH). The wage agreements terminated as of 31 December 2013 remain in force until 5 July 2016 (also for new members of staff recruited up until this date) and will be replaced with effect from 6 July 2016.

For employees recruited before 6 July 2016, the pension entitlements vested up until 5 July 2016 are maintained. For service periods starting from 6 July 2016, they will receive employer contributions of 5.2 per cent (including a risk contribution) of the qualifying gross salary for company retirement benefits. Pension entitlements that accrue while transitional benefits are being received are no longer granted. An initial contribution to the transitional benefit scheme will be calculated for the staff concerned as of the change-over date 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 staff concerned under the collective agreement on transitional benefits and will be switched to a contribution commitment with a minimum guaranteed payment. For service periods starting from 6 July 2016, they will receive employer contributions of 16.3 per cent (including a risk contribution) of the qualifying gross salary for company transitional benefits. All employees have the option of making voluntary contributions from their own pocket, plus an additional employer contribution amounting to the social security contributions saved by employee's contributions. The funds are invested on capital markets with a capital guarantee for the contributions. When the employee reaches retirement age, the balance of the accounts is converted into an annuity on the basis of the applicable BilMoG interest rate and, where necessary, is paid in addition to any company retirement benefits vested as of 5 July 2016. In future, the rules on vesting periods defined in the German Company Pensions Act (BetrAVG) will apply to transitional benefit contributions – as they have in the past to retirement benefit contributions. Here, too, all current benefits are increased by 1.0 per cent per annum.

In the new company retirement and transitional benefit scheme, the obligations from the capital market components are recognised at the time value of the corresponding plan assets and are offset against these, insofar as they exceed the minimum guaranteed amount. The employer contributions constitute service expense.

As collective bargaining is still taking place with the Vereinigung Cockpit pilots' union, no reliable information is currently available on whether and to what extent the existing rules on Company retirement and transitional benefits will be altered by a negotiated agreement with this union.

Defined-benefit company pension schemes and transitional pension arrangements for Germany are funded by plan assets and the additional amounts 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. Their contribution-free entitlements are determined by converting plan assets into an annuity. Defined-contribution pension obligations only exist 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 396m in 2016 (previous year: EUR 405m).

In the 2004 financial year, 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 other partners agree on contributions, and if such a contribution is determined, make a payment to Lufthansa Pension Trust e.V. Deutsche Lufthansa AG and its Lufthansa Technik AG and Lufthansa Cargo AG subsidiaries 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. In view of an extraordinary contribution to transitional benefits for cabin crew planned for 2017, contributions to the Lufthansa Pension Trust have been suspended until further notice. EUR 595m was contributed for employees in Germany in the reporting year.

The assets to fund pension obligations in the new Lufthansa Pension Ground capital-market-based benefits system in place since 2016 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 assets 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. EUR 33m was contributed to the new pension system in the reporting year.

Assets to fund pension obligations for other German subsidiaries have also been invested with Deutsche Treuinvest Stiftung.

Amounts shown in the balance sheet for defined-benefit commitments are made up as follows:

T116 Defined-benefit retirement benefit commitments

in €m	31.12.2016				31.12.2015			
	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	13,401	-9,111	-	4,290	11,497	-8,611	-	2,886
Transitional benefits Germany	3,343	-388	-	2,955	3,175	-364	-	2,811
Switzerland	3,600	-2,825	-	775	3,195	-2,603	-	592
Austria	409	-197	-	212	399	-212	-	187
USA	391	-305	-	86	424	-318	-	106
Other countries	298	-266	-	32	289	-258	-	31
Carrying amounts	21,442	-13,092	-	8,350	18,979	-12,366	-	6,613
of which pension provisions	-	-	-	8,364	-	-	-	6,626
of which other assets	-	-	-	14	-	-	-	13

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Reconciliation between the funding status and the amounts shown in the consolidated balance sheet is as follows:

T117 Reconciliation funding status

in €m	2016	2015
Present value of funded pension obligations	20,920	18,508
Plan assets	-13,092	-12,366
Funding status (net)	7,828	6,142
Present value of unfunded pension obligations	522	471
Adjustment for asset ceiling	-	-
Carrying amounts	8,350	6,613
of which pension provisions	8,364	6,626
of which other assets	14	13

During the reporting period, the present value of defined-benefit pension obligations changed as follows:

T118 Change in present value of pension obligations

in €m	2016	2015
Balance on 1.1.	18,979	18,711
Current service costs	626	750
Interest expenses	452	453
Past service cost/effects of curtailments	-670	25
Effects of settlements	-8	-
Revaluations		
Actuarial gains/losses from changes in demographic assumptions	119	-97
Actuarial gains/losses from changes in financial assumptions	2,093	-594
Experience adjustments	235	-115
Currency translation differences	9	368
Changes in the group of consolidated companies	3	-
Plan contributions – employees	42	35
Pension payments	-432	-564
Settlement payments	-32	-
Other*	26	7
As of 31.12.	21,442	18,979

* 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 reduction in the discount rate compared with the previous year. In mid 2016, an agreement was reached with UFO on the core elements of future company retirement and transitional benefits for cabin crew. Allocations were adjusted following the switch to a defined-contribution system, which led to actuarial losses of EUR 2m, thereby increasing the amount of the obligation. This was offset by a reduction in the pension trend from 1.5 per cent to 1.0 per cent for this group of employees, which reduced the amount of provisions by an actuarial gain of EUR 158m.

The following table provides a detailed reconciliation of changes in the fair value of plan assets:

T119 Change in fair value of plan assets

in €m	2016	2015
Balance on 1.1.	12,366	11,484
Interest income	301	271
Revaluations		
Income from plan assets, without amounts included in interest	384	-296
Currency translation differences	-2	314
Changes in the group of consolidated companies	-	-
Plan contributions – employers	153	722
Plan contributions – employees	42	35
Pension payments	-135	-165
Settlement payments	-32	-
Administrative costs related to obligations	-3	-3
Other*	18	4
As of 31.12.	13,092	12,366

* The amounts are partly for benefit obligations which were measured in accordance with IAS 19 for the first time.

In the financial years 2016 and 2015, pension provisions developed as follows:

T120 Pension provisions

in €m	2016	2015
Balance on 1.1.	6,626	7,231
Currency translation differences carried forward	11	54
Changes in the group of consolidated companies	3	–
Pensions payments	–297	–399
Current service costs	626	750
Interest expenses	452	453
Interest income	–301	–271
Effects of amendments incl. curtailments, settlements and administrative costs	–675	28
Revaluations		
Actuarial gains/losses and experience adjustments	2,447	–806
Income from plan assets, without amounts included in interest	–384	296
Net effect of adjustments for asset ceiling	–	–1
Plan contributions/staff changes	–144	–709
As of 31.12.	8,364	6,626

Expenses and income for defined-benefit plans are made up as follows:

T121 Expenses and income for defined-benefit pension plans

in €m	2016	2015
Current service costs	626	750
Past service cost/ effects of curtailments	–670	25
Income from settlements	–8	–
Accrued interest on projected pension obligations	452	453
Interest income on plan assets	–301	–271
Administrative costs related to obligations	3	3
Balance of expenses and income recognised in the income statement	102	960
Income from plan assets, without amounts included in interest	–384	296
Actuarial gains and losses	2,447	–806
Net effect of adjustment for asset ceiling	–	–1
Other comprehensive income	2,063	–511
	2,165	449

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.

Income of EUR 685m was generated from plan assets in the financial year 2016. 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 25m were incurred in the previous year.

There were no significant effects from the asset ceiling defined in IAS 19.64.

Past service expense incurred in the reporting year results mainly from the agreement on core elements of future retirement and transitional benefits for the cabin crew of Deutsche Lufthansa AG.

The main actuarial assumptions used to calculate pension obligations and the corresponding plan assets are shown below:

T122 Main actuarial assumptions for German companies

in %	31.12.2016	31.12.2015
Interest rate		
Retirement benefits	2.1	2.8
Transitional benefits	2.1	2.8
Salary increase		
Retirement benefits	2.5	2.5
Transitional benefits	2.5	2.5
Pension increase		
Retirement benefits	1.0	1.5
Transitional benefits	1.0	2.5

A different annual pension increase of 1.5 per cent for company retirement benefits and of 2.5 per cent for transitional benefits is used for retirement benefit commitments for cockpit staff.

As in the previous year, the "Actuarial Tables 2005 G" compiled by Prof. Dr Klaus Heubeck were used in the biometric calculations for the German companies in the Group.

T123 Main actuarial assumptions for foreign companies

in %	31.12.2016	31.12.2015
Interest rates		
Austria	2.1	2.8
Switzerland	0.6	0.9
USA	4.2	4.5
Salary increase		
Austria	1.9	1.9
Switzerland	1.5	1.5
USA	–	–
Pension increase		
Austria	1.7	1.8
Switzerland	0.25	0.25
USA	–	–

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The BVG 2015 mortality 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:

T124 Change in actuarial assumptions, as of 2016

	Effect on the defined-benefit contribution as of 31.12.2016 in €m	Change in %
Present value of the obligation*	21,442	–
Interest rate		
Increase by 0.5 percentage points	19,590	–8.6
Decrease by 0.5 percentage points	23,605	+10.1
Salary trend		
Increase by 0.5 percentage points	21,662	+1.0
Decrease by 0.5 percentage points	21,235	–1.0
Pension trend		
Increase by 0.5 percentage points	22,132	+3.2
Decrease by 0.5 percentage points	20,817	–2.9

* Present value of the obligation using the assumptions shown in the "Actuarial assumptions" tables.

T124 Change in actuarial assumptions, as of 2015

	Effect on the defined-benefit contribution as of 31.12.2015 in €m	Change in %
Present value of the obligation*	18,979	–
Interest rate		
Increase by 0.5 percentage points	17,345	–8.6
Decrease by 0.5 percentage points	20,870	+10.0
Salary trend		
Increase by 0.5 percentage points	19,302	+1.7
Decrease by 0.5 percentage points	18,677	–1.6
Pension trend		
Increase by 0.5 percentage points	19,633	+3.4
Decrease by 0.5 percentage points	18,421	–2.9

* Present value of the obligation using the assumptions shown in the "Actuarial assumptions" tables.

A reduction of 10 per cent in the mortality rates used to calculate the pension obligations increases the life expectancy of the beneficiaries by a different 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 per cent reduction in the mortality rate would therefore increase the present value of the main benefit obligations in Germany and Switzerland by EUR 372m as of 31 December 2016 (previous year: EUR 325m).

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 or 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, in others (Germany, for example) it takes place on a voluntary basis.

Lufthansa aims to completely cover its German pension obligations by means of capital contributions and positive capital market returns in the medium term. Regular annual contributions to the Lufthansa Pension Trust have been made for this purpose to date. Investment performance plays a crucial role in meeting this target.

In view of an extraordinary contribution to transitional benefits for cabin crew planned for 2017, contributions to the Lufthansa Pension Trust have been suspended until further notice.

Lufthansa 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 Lufthansa. 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 next study will be carried out as of 31 December 2017. 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 which are return-oriented yet conservative and which 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. commodities, private equity) are currently being further developed, for example.

The investment strategy for the capital-market-based pension plans is initially defined by the Company and then regularly (at least every three years) reviewed in the course of an allocation study and, where necessary, adjusted by the Investment Committee to change capital market requirements. This may result in changes to the investment strategy for amounts that have already been invested.

Plan assets are made up as follows:

T125 Composition of plan assets

	31.12.2016				31.12.2015			
	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			3,839	29.3			3,312	26.8
Europe	2,551	–			2,671	–		
Other	1,288	–			641	–		
Fixed-income securities			5,507	42.1			4,682	37.9
Government bonds	2,982	–			1,841	–		
Corporate bonds	2,525	–			2,841	–		
Share funds	274	–	274	2.1	187	–	187	1.5
Fixed-income funds	453	–	453	3.5	472	–	472	3.8
Mixed funds ¹⁾	136	–	136	1.0	158	–	158	1.3
Money market investments	799	–	799	6.1	1,539	–	1,539	12.4
Property			723	5.5			619	5.0
Direct investments	–	8			2	13		
Indirect investments	649	66			565	39		
Insurance contracts	–	52	52	0.4	–	45	45	0.4
Bank balances	240	2	242	1.8	249	–	249	2.0
Other investments ²⁾	162	905	1,067	8.2	126	977	1,103	8.9
Total	12,059	1,033	13,092	100.0	11,292	1,074	12,366	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.

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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 value of the corporate bonds held in plan assets.

Based on current knowledge, an estimated EUR 2.4bn is expected to be transferred to pension plans in 2017 (previous year: EUR 1.0bn). The transfers are made up of planned allocations and benefit payments which are not covered by equivalent reimbursements from plan assets.

The weighted duration of pension obligations was 19 years as of 31 December 2016 (previous year: 20 years).

Over the next ten years, the following pension payments are forecast for the defined-benefit commitments in existence as of the reporting date:

T126 Forecast maturities of undiscounted pension payments, as of 2016

in €m	Forecast pension payments 31.12.2016
2017	462
2018	469
2019	477
2020	497
2021	519
2022–2026	2,898

T126 Forecast maturities of undiscounted pension payments, as of 2015

in €m	Forecast pension payments 31.12.2015
2016	470
2017	477
2018	498
2019	532
2020	534
2021–2025	3,211

33 Other provisions

Other provisions disclosed in the balance sheet as non-current and current provisions are made up as follows:

T127 Non-current and current other provisions

in €m	31.12.2016			31.12.2015		
	Total	Non-current	Current	Total	Non-current	Current
Obligations under partial retirement contracts	21	14	7	23	14	9
Other staff costs	167	125	42	164	120	44
Obligation to return emissions certificates	28	–	28	28	–	28
Onerous contracts	115	56	59	91	47	44
Environmental restoration	28	25	3	29	26	3
Legal proceedings	104	20	84	119	23	96
Restructuring/severance payments	219	82	137	218	113	105
Fixed-price customer maintenance contracts	167	5	162	129	3	126
Maintenance of operating lease aircraft	291	124	167	327	142	185
Warranties	50	–	50	44	–	44
Other provisions	379	52	327	429	38	391
Total	1,569	503	1,066	1,601	526	1,075

Provisions for staff costs mainly relate to staff anniversary bonuses, variable payment portions and other current obligations. Provisions for restructuring and severance pay include expenses from various Group restructuring measures.

A provision for the obligation to submit CO₂ emissions certificates to the relevant authorities is recognised for an amount equivalent to the carrying amount of the capitalised CO₂ 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.

Provision for legal proceedings is based on an assessment of the likely outcome of the proceedings.

The provision for the overhaul of aircraft on operating leases mainly relates to obligations for the maintenance, overhaul and repair of aircraft.

Other provisions of EUR 176m (previous year: EUR 232m) relate to outstanding obligations in connection with the accident involving the Germanwings aircraft on 24 March 2015.

Changes in groups of individual provisions in 2016 were as follows:

T128 Changes in other provisions 2016

in €m	Obligations under partial retirement contracts	Other staff costs	Obligation to return emissions certificates	Onerous contracts	Environmental restoration	Legal proceedings
As of 1.1.2016	23	164	28	91	29	119
Changes in the group of consolidated companies	–	0*	–	–	–	–
Currency translation differences	–	–3	0*	0*	–	1
Utilisation	–48	–30	–27	–16	–2	–37
Increase/addition	45	33	27	69	1	34
Interest added back	–4	3	–	0*	0*	0*
Reversal	–3	–1	0*	–29	0*	–13
Transfers	8	1	–	–	–	0*
As of 31.12.2016	21	167	28	115	28	104

* Rounded below EUR 1m.

T128 Changes in other provisions 2016 (continued)

in €m	Restructuring/severance payments	Fixed-price customer maintenance contracts	Maintenance of operating lease aircraft	Warranties	Other provisions	Total
As of 1.1.2016	218	129	327	44	429	1,601
Changes in the group of consolidated companies	0*	–	–	–	2	2
Currency translation differences	0*	0*	3	0*	–1	0*
Utilisation	–74	–76	–180	–12	–138	–640
Increase/addition	79	114	169	26	97	694
Interest added back	1	1	0*	–	–	1
Reversal	–6	–1	–28	–8	–19	–108
Transfers	1	–	0*	0*	9	19
As of 31.12.2016	219	167	291	50	379	1,569

* Rounded below EUR 1m.

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Changes in groups of individual provisions in the previous year were as follows:

T128 Changes in groups of individual provisions 2015

in €m	Obligations under partial retirement contracts	Other staff costs	Obligation to return emissions certificates	Onerous contracts	Environmental restoration	Legal proceedings
As of 1.1.2015	14	163	59	264	28	119
Changes in the group of consolidated companies	–	0*	–	–	–	–
Currency translation differences	–	2	0*	0*	–	0*
Utilisation	–47	–29	–58	–99	–1	–15
Increase/addition	64	30	28	23	2	39
Interest added back	2	2	–	1	0*	0*
Reversal	–1	–3	–1	–43	–	–24
Transfers	–9	–1	–	–55	–	0*
As of 31.12.2015	23	164	28	91	29	119

* Rounded below EUR 1m.

T128 Changes in groups of individual provisions in 2015 (continued)

in €m	Restructuring/severance payments	Fixed-price customer maintenance contracts	Maintenance of operating lease aircraft	Warranties	Other provisions	Total
As of 1.1.2015	242	122	294	25	224	1,554
Changes in the group of consolidated companies	–	–	–	–	–1	–1
Currency translation differences	1	0*	24	0*	5	32
Utilisation	–86	–89	–140	–10	–80	–654
Increase/addition	68	97	162	30	318	861
Interest added back	2	1	2	–	–	10
Reversal	–10	0*	–15	0*	–36	–133
Transfers	1	–2	0*	–1	–1	–68
As of 31.12.2015	218	129	327	44	429	1,601

* Rounded below EUR 1m.

The funding status for provisions for obligations to staff under partial retirement agreements is as follows:

T129 Funding status

in €m	2016	2015
Present value of funded obligations under partial retirement agreements	166	173
External plan assets	–163	–156
	3	17
of which pension provisions	21	23
of which other assets	18	6

Since 2005, a total of EUR 137m has been transferred to an external trust fund as insolvency insurance for employer's performance arrears as part of phased 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.

Obligations under partial retirement agreements were calculated on the basis of the following interest rate assumptions:

T130 Interest rate for partial retirement agreements

in %	2016	2015	2014	2013	2012
Interest rate	0.15	0.46	0.46	1.46	1.26

The following cash outflows are estimated for the non-current portion of the other groups of provisions:

T131 Cash outflows for non-current provisions, as of 2016

in €m	2018	2019	2020	2021 and thereafter
Onerous contracts	31	16	9	-1
Environmental restoration	3	3	3	17
Restructuring/severance payments	46	5	3	27
Fixed-price customer maintenance contracts	5	-	-	-
Maintenance of aircraft on operating leases	34	38	40	14
Other provisions	20	22	8	31

At the end of 2015, the corresponding cash outflows were estimated as follows:

T131 Cash outflows for non-current provisions, as of 2015

in €m	2017	2018	2019	2020 and thereafter
Onerous contracts	18	15	8	8
Environmental restoration	3	3	3	18
Restructuring/severance payments	46	40	1	26
Fixed-price customer maintenance contracts	1	2	-	-
Maintenance of aircraft on operating leases	64	16	22	44
Other provisions	23	8	8	35

34 Borrowings

Borrowings 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:

T132 Borrowings 31.12.2016

in €m	Total	Non-current	Current
Bonds	1,009	1,009	-
Liabilities to banks	1,775	1,416	359
Leasing liabilities and other loans	3,791	3,386	405
	6,575	5,811	764

T132 Borrowings 31.12.2015

in €m	Total	Non-current	Current
Bonds	1,749	998	751
Liabilities to banks	1,079	949	130
Leasing liabilities and other loans	3,542	3,084	458
	6,370	5,031	1,339

Collateral was provided for EUR 145m of the liabilities to banks (previous year: EUR 179m).

There were no delays or defaults on payment obligations under these loan agreements in either 2016 or 2015.

Leasing liabilities and other loans relate almost exclusively to finance leases described in → Note 20, p. 121f., and to aircraft financing arrangements described in → Note 18, p. 119.

35 Other non-current financial liabilities**T133 Other non-current financial liabilities**

in €m	31.12.2016	31.12.2015
Liabilities due to affiliated companies	0	1
Liabilities due to other equity investments	-	-
Other financial liabilities	124	120
	124	121

The carrying amount for financial liabilities is equivalent to their fair value, as they pay interest at a floating or market standard rate.

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36 Non-current advance payments received, deferred income and other non-financial liabilities

T134 Non-current advance payments received, deferred income and other non-financial liabilities

in €m	31.12.2016	31.12.2015
Advance payments received	4	4
Deferred income	755	734
Other non-financial liabilities	487	485
	1,246	1,223

A total of 212 billion miles from bonus miles programmes (previous year: 211 billion miles) were to be measured as of 31 December 2016. Non-current deferred income includes EUR 743m (previous year: EUR 722m) of deferred income relating to obligations under bonus miles programmes. Other non-current, non-financial liabilities include EUR 473m (previous year: EUR 477m) in obligations under bonus mile programmes.

In addition, deferred income includes EUR 8m (previous year: EUR 8m) for grants and subsidies received for capital expenditure, which are realised over the useful life of the assets.

As in the previous year, other non-financial liabilities include obligations to return material valued at EUR 1m.

The non-current portion of obligations recognised at fair value under share-based remuneration agreements that form part of the variable remuneration of Executive Board members, managers and non-payscale staff was EUR 12m (previous year: EUR 6m). A further EUR 3m (previous year: EUR 5m) is included in current other non-financial liabilities.

As part of the share-based remuneration agreements, Lufthansa and other participating Group companies offer a 50 per cent discount on staff investment in Lufthansa shares to Executive Board members, managers and non-payscale staff. The option packages granted in 2013, 2014, 2015 and 2016 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 fictitious index composed of European competitors' shares, whereas the performance option is linked to the absolute performance of the Lufthansa share. With the outperformance option the holder receives a cash payment for each percentage point of outperformance on exercising the option. The cash payment is capped at an outperformance of 20 per cent.

The performance options for 2013 and 2014 result in a cash payment if the share price goes up by more than 33 per cent. This is capped at a share price increase of more than 50 per cent. The performance option for 2015 results in a cash payment if the share price goes up by more than 29 per cent. This is capped at a share price increase of more than 44 per cent. The performance option for 2016 results in a cash payment if the share price goes up by more than 27 per cent. This is capped at a share price increase of more than 41 per cent.

T135 2013, 2014, 2015 and 2016 programmes outperformance option

	€ per percentage point from 1%	Maximum per tranche in €
Board member	1,000	20,000
Managers	400	8,000
Non-payscale staff (per 5 pts)	200	1,000

T136 2013 and 2014 programmes performance option

	€ per performance unit from 33% performance	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

T137 2015 programme performance option

	€ per performance unit from 29% performance	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

T138 2016 programme performance option

	€ per performance unit from 27% performance	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

The programmes are scheduled to run for four years.

All options can be exercised at a fixed time in the final year. The performance and 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.

No payments were made to Executive Board members, managers and non-payscale staff under the outperformance option for 2012. The same applied to the performance option for 2012, since the hurdle rate of 35 per cent was not achieved.

In the previous year, no payments were made to Executive Board members, managers and non-payscale staff under the outperformance option and the performance option for 2011.

T139 Results of LH-Performance as of 31.12.2016

in %	End of programme	Outperformance as of 31.12.2016	Performance as of 31.12.2016
LH-Performance 2016	2020	13	17
LH-Performance 2015	2019	26	4
LH-Performance 2014	2018	4	2
LH-Performance 2013	2017	-12	-7

T139 Results of LH-Performance as of 31.12.2015

in %	End of programme	Outperformance as of 31.12.2015	Performance as of 31.12.2015
LH-Performance 2015	2019	9	11
LH-Performance 2014	2018	-16	9
LH-Performance 2013	2017	-35	0
LH-Performance 2012	2016	-115	33

Over the financial years 2016 and 2015, the number of options changed as follows:

T140 Change in number of options

	2016		2015	
	Number of options / option packages	Cash settlement in € thousands	Number of options / option packages	Cash settlement in € thousands
Outstanding options on 1.1.	17,146	-	16,914	-
Options issued	5,125	-	4,743	-
Expired or unused options	156	-	361	-
Options exercised	3,838	-	4,150	-
Outstanding options on 31.12.	18,277	-	17,146	-

On 1 January 2016, members of the Executive Board, managers and non-payscale staff held 3,944,026 shares under the various programmes, and on 31 December 2016 they held 4,236,239 shares.

The fair values of the twelve 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:

T141 Fair value of share programmes

in € per option	Own investment	Fair value as of 31.12.2016	Fair value as of 31.12.2015
Board member			
Options 2012	2,000	-	6,823
Options 2013	2,000	3,856	5,175
Options 2014	2,000	10,973	9,353
Options 2015	2,000	16,714	13,903
Options 2016	2,000	15,216	-
Managers			
Options 2012	2,000	-	2,816
Options 2013	2,000	1,540	2,067
Options 2014	2,000	4,386	3,738
Options 2015	2,000	6,683	5,558
Options 2016	2,000	6,084	-
Non-payscale staff			
Options 2012	1,000	-	325
Options 2013	1,000	200	260
Options 2014	1,000	554	470
Options 2015	1,000	839	698
Options 2016	1,000	764	-

The weighted average share prices at the calculation date 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 for the remaining term of the outperformance option were used as interest rates in each case. The maximum term of the programmes was used for measurement purposes.

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The parameters used by the external service provider are shown in the following table:

T142 Reference price

		Options 2013	Options 2014	Options 2015	Options 2016
Lufthansa	EUR	14.09	12.59	12.34	10.55
Air France-KLM	EUR	7.00	7.45	6.32	5.00
IAG	GBP	329.78	363.46	574.73	400.94
Ryanair	EUR	6.32	7.25	13.05	12.40
easyJet	GBP	1,290.46	1,376.98	1,733.22	1,018.21
Air Berlin	EUR	1.79	1.31	1.00	0.68

T143 Projected volatilities

in % für:	Options 2013 as of 31.12.2016	Options 2013 as of 31.12.2015	Options 2014 as of 31.12.2016	Options 2014 as of 31.12.2015
Lufthansa	35.46	31.88	33.07	30.78
Air France-KLM	36.65	38.38	36.15	37.82
IAG	45.58	31.83	39.00	32.15
Ryanair	36.60	30.03	33.64	30.56
easyJet	43.07	30.86	37.19	31.33
Air Berlin	46.31	43.43	40.97	45.62
Risk-free interest rate	-0.80 respectively -0.84% for euro zone; 0.04 respectively 0.11% for UK (previous year: -0.41 respectively -0.42% for euro zone; 0.42 respectively 0.57% for UK)			
Fluctuation	5.1% (previous year: 4.7%)			

T143 Projected volatilities (continued)

in % für:	Options 2015 as of 31.12.2016	Options 2015 as of 31.12.2015	Options 2016 as of 31.12.2016	Options 2016 as of 31.12.2015
Lufthansa	33.10	30.50	32.01	-
Air France-KLM	37.78	41.35	37.51	-
IAG	37.01	32.44	36.03	-
Ryanair	32.39	29.06	32.19	-
easyJet	35.44	30.03	34.70	-
Air Berlin	44.39	43.07	45.78	-
Risk-free interest rate	-0.71 respectively -0.59% for euro zone; 0.27 respectively 0.46% for UK (previous year: -0.38 respectively 0.30% for euro zone; 0.81 respectively 1.03% for UK)			
Fluctuation	5.1% (previous year: 4.7%)			

Staff costs include total expenses of EUR 12m for share programmes (previous year: EUR 5m).

37 Trade payables and other current financial liabilities

T144 Trade payables and other current financial liabilities

in €m	31.12.2016	31.12.2015
Trade payables		
Trade payables to affiliated companies	46	37
Trade payables to other equity investments	0*	1
Trade payables to third parties	3,021	2,910
	3,067	2,948
Other liabilities		
Liabilities to banks	63	70
Other liabilities to affiliated companies	228	247
Other liabilities to equity investments	-	-
Other financial liabilities	1,331	1,582
	1,622	1,899
Total	4,689	4,847

* Rounded below EUR 1m.

The carrying amount of these liabilities corresponds to their fair value.

38 Current advance payments received, deferred income and other non-financial liabilities

T145 Current advance payments received, deferred income and other non-financial liabilities

in €m	31.12.2016	31.12.2015
Advance payments received	39	62
Net debit balance of advance payments received and receivables from unfinished contracts	18	50
Deferred income	325	333
Other non-financial liabilities	493	473
	875	918

Obligations of EUR 284m (previous year: EUR 295m) under bonus miles programmes (→ Note 36, p. 140ff.) are recognised in current deferred income, and obligations of EUR 234m (previous year: EUR 227m) in other current non-financial liabilities.

Other liabilities include deferrals of EUR 249m (previous year: EUR 235m) for outstanding holiday allowance and overtime, and EUR 3m (previous year: EUR 5m) for the current portion of fair value obligations under share-based remuneration agreements (→ Note 36, p. 140ff.).

Notes to the segment reporting

39 Notes to the reportable segments and segment data

Notes to the reportable segments

As of 31 December 2016, the Lufthansa Group operates in four reporting segments, which make up its Group activities. The segments are defined in line with the internal reporting and management structure, and are unchanged compared with the previous year.

The Passenger Airline Group segment comprises the Group's core business segment, passenger transport, and consists of the airlines Lufthansa Passengers Airlines, SWISS, Austrian Airlines and Eurowings. These activities have been combined in one reporting segment, as the economic characteristics of the individual airlines, such as sales structures, customers and services, are similar. Further information about the individual airlines can be found in the Group management report → starting on [p.43](#).

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, represented by the Lufthansa Technik group.

The Catering segment, represented by 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 "Other" 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 Servicekarten GmbH, Lufthansa Systems group and other Group companies.

Notes to segment data and internal management

The accounting policies for the reportable segments correspond to those described in → [Note 2, p.100ff.](#)

The Group measures the performance of its segments using two segment earnings indicators: EBIT and Adjusted EBIT. EBIT corresponds to the operating result as defined by IFRS, plus the result from equity investments. Adjusted EBIT is then obtained by correcting EBIT for gains and losses on the disposal of assets, 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.109](#).

Capital employed largely comprises segment assets, adjusted for derivative financial instruments and deferred tax items, less non-interest-bearing debt.

Segment capital expenditure includes additions to property, plant and equipment and intangible assets, as well as capital expenditure on investments accounted for using the equity method.

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.

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Notes to the segment reporting

T146 Segment information by reportable operating segment 2016

in €m	Passenger Airline Group	Logistics	MRO	Catering	Total reportable operating segments	Other	Reconciliation		Group
							Not allocated	Consoli- dation	
External revenue	23,263	2,059	3,517	2,550	31,389	271	-	-	31,660
of which traffic revenue	22,256	1,986	-	-	24,242	-	419	-	24,661
Inter-segment revenue	628	25	1,627	644	2,924	166	-	-3,090	-
Total revenue	23,891	2,084	5,144	3,194	34,313	437	-	-3,090	31,660
Other operating income	1,110	65	222	67	1,464	1,653	-	-838	2,279
Total operating income	25,001	2,149	5,366	3,261	35,777	2,090	-	-3,928	33,939
Operating expenses	22,904	2,237	4,983	3,223	33,347	2,325	-	-3,923	31,749
of which cost of materials and services	14,361	1,444	2,718	1,383	19,906	141	-	-2,938	17,109
of which staff costs	3,828	428	1,272	1,184	6,712	649	-	-7	7,354
of which depreciation and amortisation	1,401	108	107	106	1,722	48	-	-1	1,769
of which other operating expenses	3,314	257	886	550	5,007	1,487	-	-977	5,517
Results of equity investments	-2	24	27	22	71	14	-	-	85
of which result of investments accounted for using the equity method	-7	22	24	17	56	1	-	1	58
EBIT	2,095	-64	410	60	2,501	-221	-	-5	2,275
of which reconciliation items									
Impairment losses/gains	-120	-18	-	-40	-178	-15	-	-	-193
Effects from pension provisions	670	-	-	8	678	-1	-	1	678
Results of disposal of assets	18	4	-1	-12	9	31	-	-2	38
Adjusted EBIT¹⁾	1,527	-50	411	104	1,992	-236	-	-4	1,752
Total adjustments									523
Other financial result	-	-	-	-	-	-	-	-	-27
Profit/loss before income taxes	-	-	-	-	-	-	-	-	2,248
Capital employed ²⁾	11,851	1,084	3,826	1,317	18,078	2,272	-	-122	20,228
of which from investments accounted for using the equity method	110	51	216	132	509	6	-	-	516
Segment capital expenditure ³⁾	1,866	29	216	73	2,184	27	63	-38	2,236
of which from investments accounted for using the equity method	-	-	-	2	2	-	-	-	2
Number of employees at end of period	54,308	4,568	20,839	35,530	115,245	9,061	-	-	124,306
Average number of employees	55,201	4,559	20,708	35,571	116,039	7,248	-	-	123,287

¹⁾ For reconciliation from Adjusted EBIT to EBIT → T020 p.30 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⁾ Capital expenditure for intangible assets, property, plant and equipment, and investments accounted for using the equity method. Under the heading "Group" all investments (excluding interest from liabilities which has been capitalised) are shown.

T146 Segment information by reportable operating segment 2015

in €m	Passenger Airline Group	Logistics	MRO	Catering	Total reportable operating segments	Other	Reconciliation		Group
							Not allocated	Consoli- dation	
External revenue	23,821	2,331	3,256	2,386	31,794	262	–	–	32,056
of which traffic revenue ⁴⁾	22,794	2,275	–	–	25,069	–	437	–	25,506
Inter-segment revenue	678	24	1,843	636	3,181	222	–	–3,403	–
Total revenue	24,499	2,355	5,099	3,022	34,975	484	–	–3,403	32,056
Other operating income	1,406	58	317	73	1,854	2,031	–	–850	3,035
Total operating income	25,905	2,413	5,416	3,095	36,829	2,515	–	–4,253	35,091
Operating expenses	24,508	2,435	4,971	3,032	34,946	2,901	–	–4,311	33,536
of which cost of materials and services	15,146	1,577	2,656	1,299	20,678	193	–	–3,231	17,640
of which staff costs	4,675	414	1,317	1,113	7,519	563	–	–7	8,075
of which depreciation and amortisation	1,301	152	103	80	1,636	79	–	–	1,715
of which other operating expenses	3,386	292	895	540	5,113	2,066	–	–1,073	6,106
Results of equity investments	68	25	3	22	118	3	–	–	121
of which result of investments accounted for using the equity method	58	21	15	15	109	2	–	–	111
EBIT	1,465	3	448	85	2,001	–383	–	58	1,676
of which reconciliation items									
Impairment losses/gains	–28	–71	1	–12	–110	–45	–	–	–155
Effects from pension provisions	–13	–3	–6	–2	–24	–1	–	–	–25
Results of disposal of assets	1	3	–1	–	3	33	–	3	39
Adjusted EBIT¹⁾	1,505	74	454	99	2,132	–370	–	55	1,817
Total adjustments									–141
Other financial result	–	–	–	–	–	–	–	–	350
Profit/loss before income taxes	–	–	–	–	–	–	–	–	2,026
Capital employed ²⁾	11,788	1,160	3,377	1,290	17,615	1,308	–	–118	18,805
of which from investments accounted for using the equity method	119	57	207	132	515	5	–	–	520
Segment capital expenditure ³⁾	2,201	116	154	148	2,619	23	65	–138	2,569
of which from investments accounted for using the equity method	–	–	–	–	–	–	–	–	–
Number of employees at end of period	55,255	4,607	20,661	34,310	114,833	5,819	–	–	120,652
Average number of employees	55,169	4,643	20,289	33,543	113,644	5,915	–	–	119,559

¹⁾ For reconciliation from Adjusted EBIT to EBIT → T020 p. 30 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⁾ Capital expenditure for intangible assets, property, plant and equipment, and investments accounted for using the equity method. Under the heading "Group" all investments (excluding interest from liabilities which has been capitalised) are shown.

⁴⁾ Previous year's figures have been adjusted due to the new reporting method.

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Notes to the segment reporting

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 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.

Notes on geographical regions in 2016

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.

Lufthansa 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 Passenger Airline Group and Logistics segments by traffic region, rather than by original location of sale, is included in the information on the respective segments in the Group management report.

External revenue, non-current assets and capital expenditure are as follows:

T147 External revenue and non-current assets by region for 2016

in €m	Europe	North America	Central and South America	Asia/Pacific	Middle East	Africa	Group
Traffic revenue ¹⁾	16,234	3,948	609	2,902	650	318	24,661
Other revenue	2,686	2,076	310	1,383	329	215	6,999
Non-current assets ^{2) 3)}	18,167	267	44	219	11	25	18,733
Capital expenditure on non-current assets ³⁾	2,143	27	4	13	–	6	2,193

The figures for the main countries are as follows:

T148 External revenue and non-current assets by countries for 2016

in €m	Germany	USA
Traffic revenue ¹⁾	7,669	3,565
Other revenue	950	1,715
Non-current assets ^{2) 3)}	13,241	254
Capital expenditure on non-current assets ³⁾	1,191	25

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.

Notes on geographical regions in 2015

External revenue, non-current assets and capital expenditure are as follows:

T147 External revenue and non-current assets by region for 2015

in €m	Europe	North America	Central and South America	Asia/Pacific	Middle East	Africa	Group
Traffic revenue ¹⁾²⁾	16,162	4,248	789	3,184	741	382	25,506
Other revenue ²⁾	2,397	1,785	329	1,159	602	278	6,550
Non-current assets ³⁾⁴⁾	17,867	265	42	217	12	18	18,421
Capital expenditure on non-current assets ⁴⁾	2,417	55	10	15	2	4	2,503

The figures for the main countries are as follows:

T148 External revenue and non-current assets by countries for 2015

in €m	Germany	USA
Traffic revenue ¹⁾²⁾	7,449	3,819
Other revenue ²⁾	855	1,431
Non-current assets	13,631	219
Capital expenditure on non-current assets	1,929	51

¹⁾ Traffic revenue is allocated according to the original location of sale.

²⁾ Previous year's figures have been adjusted due to the new reporting method.

³⁾ Non-current assets include property, plant and equipment and intangible assets with the exception of repairable spare parts for aircraft.

⁴⁾ Aircraft are allocated according to their location of registration.

Revenues from transactions with a single customer in no case exceeded 10 per cent of Lufthansa Group sales in 2016.

Segment reporting from 2017

In the course of restructuring the Lufthansa Group, an organisational realignment was decided with the creation of a new segment for point-to-point traffic as of 1 January 2017. It comprises the airlines Eurowings, Germanwings and Brussels Airlines. The former Passenger Airline Group subgroup will be known as Network Airlines in future and consists of the airlines Lufthansa German Airlines, SWISS and Austrian Airlines. In addition, the training activities that previously formed part of the Passenger Airline Group (largely Lufthansa Flight Training and Swiss Aviation Training) will be merged in the Lufthansa Aviation Training group from 2017 and reported in the "Other" segment.

There have been no changes to any of the other segments.

Notes to the consolidated cash flow statement

40 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 flows from operating activities, from investing activities and from financing activities. The cash and cash equivalents shown in the cash flow statement comprise the balance sheet items bank balances and cash-in-hand, without fixed-term deposits with terms of three to twelve months, amounting to EUR 118m (previous year: EUR 103m). The amount of liquidity in the broader sense is reached by adding short-term securities.

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.

In the current financial year, the Group primarily recognised the following non-cash income and expenses:

T149 Significant non-cash income and expenses

in €m	2016	2015
Measurement of financial derivatives	-250	-664
Measurement of financial debts	59	160
Write-downs on receivables	88	90
Reversal of write-downs on receivables	-27	-32
Income from the reversal of provisions and accruals	-255	-245
Restructuring of retirement and transitional benefits for cabin crew	-652	-
Total	-1,037	-691

Trade working capital consists of changes in the carrying amounts of inventories, trade receivables and payables, half-finished goods and down payments, other current assets and other current liabilities, current deferrals and prepaid expenses and obligations from unused flight documents.

Other assets/liabilities mainly include corrections between pension expenses and payments, changes in other provisions 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 is resulted mainly from investments and disinvestments in non-current assets.

Assets capitalised by the Lufthansa Group that meet the criteria for finance leases are categorised as cash flow from investing activities. In the reporting year, they amounted to EUR 130m (previous year: EUR 19m).

The Group contributed EUR 153m to pension assets in 2016 (previous year: EUR 722m). These payments were categorised as cash flow from investing and cash management activities. Pensions paid from fund assets represent cash inflows from investments, which correspond to cash outflows from operating activities.

Cash flow from financing activities

Cash flow from financing activities includes outflows for the repayment of finance lease liabilities. Inflows of EUR 46m from new borrowing (previous year: EUR 19m) are shown corresponding to cash outflows from investing activities for new finance lease transactions. An advance payment of EUR 80m was made for the renewal of the Austrian Airlines financial lease at Vienna Airport. This amount is therefore not shown in cash flow from financing activities, but as a cash inflow for new finance lease transactions from borrowing.

Other disclosures

41 Additional disclosures on financial instruments

Financial assets by measurement category

The financial assets can be divided into measurement categories with the following carrying amounts:

T150 Financial assets in the balance sheet as of 31.12.2016

	Loans and receivables	At fair value through profit or loss	Available for sale	Derivative financial instruments which are an effective part of a hedging relationship
in €m				
Other equity investments	–	–	212	–
Non-current securities	–	–	23	–
Loans	189	–	–	–
Non-current receivables	297	–	–	–
Non-current derivative financial instruments	–	252	–	1,222
Trade receivables and other current receivables	4,542	–	–	–
Current derivative financial instruments	–	89	–	445
Current securities	–	–	2,681	–
Cash and cash equivalents	–	–	1,256	–
Total	5,028	341	4,172	1,667

T150 Financial assets in the balance sheet as of 31.12.2015

	Loans and receivables	At fair value through profit or loss	Available for sale	Derivative financial instruments which are an effective part of a hedging relationship
in €m				
Other equity investments	–	–	201	–
Non-current securities	–	–	15	–
Loans	182	–	–	–
Non-current receivables	293	–	–	–
Non-current derivative financial instruments	–	201	–	1,033
Trade receivables and other current receivables	4,360	–	–	–
Current derivative financial instruments	–	58	–	382
Current securities	–	–	1,994	–
Cash and cash equivalents	–	–	1,099	–
Total	4,835	259	3,309	1,415

The financial assets in the category “at fair value through profit or loss” include assets held for trading and time values of options used for hedging of EUR 87m (previous year: EUR 1m) which are to be recognised in the financial result. Otherwise, no financial assets have been classified as “at fair value through profit or loss”.

The net result of the different categories of financial assets is made up as follows:

T151 Net result 2016

	Other operating income	Depreciation	Other operating expenses	Other financial items	Net result
in €m					
Loans and receivables	30	– 17	– 88	–	– 75
Derivatives held for trading classified as “at fair value through profit or loss”	–	–	–	84	84
Ineffective portion of derivatives used as cash flow hedges	–	–	–	167	167
Available-for-sale financial assets	43	–	–	–	43

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T151 Net result 2015

in €m	Other operating income	Depreciation	Other operating expenses	Other financial items	Net result
Loans and receivables	35	-59	-90	-	-114
Derivatives held for trading classified as "at fair value through profit or loss"	-	-	-	-17	-17
Ineffective portion of derivatives used as cash flow hedges	-	-	-	8	8
Available-for-sale financial assets	53	-	-	673	726

Financial liabilities by measurement category

The financial liabilities can be divided into measurement categories with the following carrying amounts:

T152 Financial liabilities in the balance sheet as of 31.12.2016

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
Financial liabilities	-	-	6,575
Derivative financial instruments	54	185	-
Trade payables	-	-	3,067
Other financial liabilities	-	-	1,746
Total	54	185	11,388

T152 Financial liabilities in the balance sheet as of 31.12.2015

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
Financial liabilities	-	-	6,370
Derivative financial instruments	85	1,443	-
Trade payables	-	-	2,948
Other financial liabilities	-	-	2,020
Total	85	1,443	11,338

The measurement of derivative financial instruments held at fair value was made on the basis of observable market data.

The following table shows the carrying amounts and market values for individual classes of financial liabilities. The market values given for the bonds are their quoted prices. 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 available market information (Reuters).

T153 Financial liabilities

in €m	31.12.2016		31.12.2015	
	Carrying amount	Market value	Carrying amount	Market value
Bonds	1,009	1,037	1,749	1,789
Liabilities to banks	1,775	1,775	1,079	1,095
Leasing liabilities and other loans	3,791	3,820	3,542	3,663
Total	6,575	6,632	6,370	6,547

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.

T154 Assets 31.12.2016

in €m	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit and loss				
Financial derivatives classified as held for trading	–	341	–	341
Current securities	–	–	–	–
Total financial assets through profit and loss	–	341	–	341
Derivative financial instruments which are an effective part of a hedging relationship	–	1,667	–	1,667
Available-for-sale financial assets				
Equity instruments	576	10	–	586
Debt instruments	–	2,113	–	2,113
	576	2,123	0	2,699
Total assets	576	4,131	0	4,707

T155 Liabilities 31.12.2016

in €m	Level 1	Level 2	Level 3	Total
Derivative financial instruments at fair value through profit or loss	–	54	–	54
Derivative financial instruments which are an effective part of a hedging relationship	–	185	–	185
Total liabilities	–	239	–	239

In the financial year 2015, the fair value hierarchy for assets held at fair value was as follows:

T154 Assets 31.12.2015

in €m	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit and loss				
Financial derivatives classified as held for trading	–	259	–	259
Current securities	–	–	–	–
Total financial assets through profit and loss	–	259	–	259
Derivative financial instruments which are an effective part of a hedging relationship	–	1,415	–	1,415
Available-for-sale financial assets				
Equity instruments	238	51	24	313
Debt instruments	–	1,714	–	1,714
	238	1,765	24	2,027
Total assets	238	3,439	24	3,701

T155 Liabilities 31.12.2015

in €m	Level 1	Level 2	Level 3	Total
Derivative financial instruments at fair value through profit or loss	–	85	–	85
Derivative financial instruments which are an effective part of a hedging relationship	–	1,443	–	1,443
Total liabilities	–	1,528	–	1,528

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T156 Additional disclosures on financial assets in Level 3

in €m	1.1.2016	Recognised in result for the period	Change in market value recognised in equity	Additions/ disposals	31.12.2016
Available-for-sale financial assets	24	–	–	–24	0
Total	24	–	–	–24	0

T156 Additional disclosures on financial assets in Level 3

in €m	1.1.2015	Recognised in result for the period	Change in market value recognised in equity	Additions/ disposals	31.12.2015
Available-for-sale financial assets	–	–	24	–	24
Total	–	–	24	–	24

Netting of financial assets and liabilities

The following financial assets and liabilities are subject to global netting agreements and other agreements.

T157 Assets 31.12.2016

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Net amount
Trade receivables and other current receivables	4,439	–103	4,542	–	4,542
Derivative financial instruments – assets	2,008	–	2,008	–52	1,956
Cash and cash equivalents	1,228	–28	1,256	–	1,256
Total assets	7,675	–131	7,806	–52	7,754

T158 Liabilities 31.12.2016

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Net amount
Trade payables and other financial liabilities	4,837	–131	4,968	–52	4,916
Derivative financial instruments – liabilities	239	–	239	–	239
Total liabilities	5,076	–131	5,207	–52	5,155

In the previous year, the net balances were as follows:

T157 Assets 31.12.2015

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Net amount
Trade receivables and other current receivables	4,481	-121	4,360	-	4,360
Derivative financial instruments – assets	1,674	-	1,674	-848	826
Cash and cash equivalents	1,132	-33	1,099	-	1,099
Total assets	7,287	-154	7,133	-848	6,285

T158 Liabilities 31.12.2015

in €m	Gross amount	Netted amounts	Reported net amount	Amounts not netted	Net amount
Trade payables and other financial liabilities	5,122	-154	4,968	-35	4,933
Derivative financial instruments – liabilities	1,528	-	1,528	-813	715
Total liabilities	6,650	-154	6,496	-848	5,648

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. It is Company policy to limit these risks by systematic financial management.

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, Lufthansa is mainly in a net payer position as regards currency risks from its operating business, as fuel payments are dollar-denominated. For other currencies there is always a net surplus. The main risks in this respect stem from the Chinese renminbi, the Swiss franc, the 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. The target hedging level is defined in the Group's internal guidelines.

At the end of 2016, exposure from operations for the next 24 months was as follows:

T159 Currency exposure, as of 2016

in millions	USD	CNY	JPY	GBP	INR
Exposure (currency)	-3,527	9,999	104,277	702	55,006
Exposure (EUR at spot rate)	-3,346	1,366	845	820	768
Hedges (currency)	1,151	-4,013	-43,491	-290	-12,063
Hedging level	33%	40%	42%	41%	22%

50 per cent of the currency risks from capital expenditure 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 semi-annual steps of 10 per cent, to reach 90 per cent at the end. Spread options and futures may be used as hedging instruments.

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From the position at year-end 2016, exposure for capital expenditure was as follows:

T160 Investment exposure, as of 2016

in millions	2017	2018	2019	2020	2021	2022	2023	2024	2025
Exposure from net capital expenditure (USD)	-883	-1,256	-1,396	-1,816	-1,898	-1,858	-1,588	-1,317	-578
Exposure from net capital expenditure (EUR at spot rate)	-837	-1,191	-1,324	-1,721	-1,799	-1,761	-1,505	-1,249	-548
Hedges (USD)	780	988	669	1,111	1,074	1,583	1,386	996	354
Hedging level	88%	79%	48%	61%	57%	85%	87%	76%	61%

The following sensitivity analysis required by IFRS 7 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.

T161 Sensitivity analysis by currency

in €m	Effects on earnings after taxes ¹⁾	Effects on equity ¹⁾
Currency – USD		
+10%	-65	724
-10%	64	-592
Currency – JPY		
+10%	0*	-29
-10%	0*	24
Currency – CHF		
+10%	5	-99
-10%	-2	81
Currency – GBP		
+10%	5	-28
-10%	-4	23
Currency – CNY		
+10%	2	-43
-10%	-2	35
Currency – INR		
+10%	2	-14
-10%	-2	11

* Rounded below EUR 1m.

¹⁾ All amounts after deferred tax effects; +/- signs relate to net profit and/or equity.

Interest rate risk

Lufthansa aims to finance 85 per cent of its financial liabilities at floating rates of interest. This proportion recognises the need to both minimise long-term interest expense and reduce earnings volatility.

At the end of 2016, the ratio of floating to fixed interest rates for long-term borrowing was as follows:

T162 Interest rate exposure

in €m	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Fix	1,270	1,226	1,190	1,085	929	510	542	357	228	134	87
Variabel	4,863	4,786	4,293	3,337	2,841	1,179	924	589	454	361	196
Float/Fix-Ratio	79%	80%	78%	75%	75%	70%	63%	62%	67%	73%	69%

In contrast, foreign currency risks from financial liabilities are always hedged to 100 per cent by means of interest rate/currency swaps. These hedging transactions are treated as trading in accordance with IAS 39.

The following sensitivity analysis required by IFRS 7 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.

T163 Sensitivity analysis by interest rate

in €m	Effects on earnings after taxes ¹⁾	Effects on equity ¹⁾
Interest		
+100 basis points	-18	-37
-50 basis points	12	20

¹⁾ All amounts after deferred tax effects; +/- signs relate to net profit and/or equity.

Fuel price risk

In 2016, fuel costs accounted for 15.4 per cent of the Lufthansa Group's operating expenses (previous year: 17.2 per cent). Significant changes in fuel prices can therefore have a considerable effect on the Group's result.

Fuel price risk is generally 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 per cent 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 per cent.

Deviations from the rule-based hedging policy described above are permitted within the scope of a pre-defined system of limits.

From a year-end perspective, fuel exposure was as follows:

T164 Fuel exposure

		2017	2018
Fuel requirement	in 1,000 tonnes	9,394	9,615
Hedges	in 1,000 tonnes	6,926	2,536
Hedging level	in %	74	26

The following sensitivity analysis required by IFRS 7 shows how net profit and equity would change if the fuel price identified as a risk variable had been different from the perspective of the balance sheet date.

T165 Sensitivity analysis by fuel price

in €m	Effects on earnings after taxes ¹⁾	Effects on equity ¹⁾
Fuel price		
+10%	-20	245
-10%	-17	-211

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

At the balance sheet date, exchange rate, interest and fuel price risks are hedged by means of the following hedging transactions:

T166 Derivative financial instruments used for hedging

in €m	31.12.2016		31.12.2015	
	Positive market value	Negative market value	Positive market value	Negative market value
Fair value hedge				
Interest rate swaps	98	0*	84	-1
Cash flow hedge				
Spread options for fuel hedging	62	-7	0*	-169
Swaps for fuel hedging	20	-	-	-14
Hedging combinations for fuel hedging	190	-30	-	-963
Futures contracts for currency hedging	1,297	-148	1,331	-296
Total	1,667	-185	1,415	-1,443
of which current	445	-146	382	-1,180

* Rounded below EUR 1m.

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.

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Currency futures and swaps are individually discounted to the balance sheet date based on their respective futures rates and the appropriate interest rate curve. The market prices of currency options and the options used to hedge fuel prices are determined using acknowledged option pricing models.

From a current perspective, the fuel price and currency cash flow hedges will have the following effects on the result for the period and/or on the acquisition costs of hedged capital expenditure:

T167 Effects of hedging transactions on earnings and acquisition costs

Financial year	Result for the period in €m	First-time measurement of acquisition costs ¹⁾ in €m	Total in €m
2017	224	68	292
2018	61	99	160
2019	0*	104	104
2020	–	161	161
2021	–	145	145
2022	–	209	209
2023	–	169	169
2024	–	109	109
2025	–	34	34
2026	–	0*	0*
Gesamt	285	1,098	1,383

* Rounded below EUR 1m.

¹⁾ Positive signs mean reduced acquisition costs.

In the 2016 financial year, EUR 760m was transferred for maturing interest rate swaps from equity to fuel expenses, increasing these expenses. For currency hedges, EUR 372m was transferred from equity to other operating income and EUR 293m to other operating expenses. A further EUR 34m was recognised by reducing acquisition costs for aircraft.

Derivative financial instruments measured at fair value through profit or loss are shown in the following table:

T168 Derivative financial instruments trading

in €m	31.12.2016	31.12.2015
Positive market value – non-current	252	201
Positive market value – current	89	58
Negative market value – non-current	–15	–44
Negative market value – current	–39	–41
	287	174

The positive and negative market values shown are from derivatives that do not qualify under IAS 39 as effective hedging instruments within a hedging relationship as well as the time values of options used for hedging. Derivatives that do not qualify as effective hedging instruments within a hedging relationship include cross currency swaps. These instruments are used explicitly for hedging existing hedged items, in particular fixed-interest financial liabilities in foreign currencies. Solely on the basis of the criteria defined in IAS 39, however, these cross currency swaps cannot be presented as effective hedging instruments.

Fair values are all calculated on the basis of recognised financial and mathematical methods, using publicly available market information.

Changes in the market values of derivatives which do not qualify as effective hedging transactions under IAS 39 can be seen in the → T062 Income statement, p.94, and in → Note 13, p.112.

Liquidity risk

Complex financial planning systems enable Lufthansa 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 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.

In principle, Lufthansa holds a liquidity reserve of at least EUR 2.3bn that is available at short notice. In addition, the Lufthansa Group held confirmed unused lines of credit as of 31 December 2016 totalling EUR 0.9bn (previous year: EUR 0.8bn).

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 2016. As a result of the hedges used, there are generally direct connections between the cash inflows and outflows for the derivative financial instruments shown.

T169 Maturity analysis for derivative financial instruments

in €m	Inflows	Outflows	Net
1st quarter	2,328	-2,246	82
Up to 1 year*	4,607	-4,321	286
1 – 5 years	6,099	-4,985	1,114
Later	5,165	-3,829	1,336

* Without payments in 1st quarter.

T170 Maturity analysis for non-derivative financial instruments

in €m	Outflows
1st quarter	-3,793
Up to 1 year*	-1,720
1 – 5 years	-4,401
Later	-1,952

* 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 clearing system responsible. 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 an 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 reviewed daily. To reduce risks even further, a permanent analysis process examines whether to tighten credit terms for some settlement partners.

In addition to the monitoring of receivables at 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 if necessary.

If risks are identified, receivables are impaired accordingly.

As of 31 December 2016, the maximum credit risk from the potential insolvency of debtors for loans and receivables was EUR 5,028m, made up as follows:

T171 Maximum credit risk

in €m	31.12.2016	31.12.2015
Loans	189	182
Non-current receivables	297	293
Trade receivables and other current receivables	4,542	4,360
	5,028	4,835

Impairments on loans and receivables developed as follows:

T172 Impairment on loans and receivables

in €m	1.1.2016	31.12.2016
Gross amount	260	218
Impairment charges	-219	-179
Carrying amount	41	39

A further EUR 174m (previous year: EUR 173m) were overdue but not impaired.

The term structure of overdue receivables is as follows:

T173 Overdue receivables

in €m	
Up to 90 days	116
Between 90 and 180 days	19
Over 180 days	39

There is a credit risk on available-for-sale financial assets in the amount of the securities which do not represent equity instruments.

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Securities classified as non-current and current are made up as follows:

T174 Classification of securities

in €m	31.12.2016
Debt instruments	2,113
Equity instruments	591
Total securities	2,704

Securities representing debt are rated as follows (Standard & Poor's):

T175 Securities ratings – debt

in €m	
AAA	186
AA+	24
AA	124
AA-	92
A+	199
A	329
A-	155
BBB+	106
BBB	67
Below BBB or unrated	831
Total	2,113

The “Below BBB or unrated” category includes EUR 805m in money market funds for which there is no rating.

The credit risk from derivative financial instruments is that of a counterparty's insolvency. The maximum credit risk is the sum of transactions with the business partners in question for which the market values are on balance positive.

As of 31 December 2016, the credit risk from derivative financial instruments, which are an effective part of a hedging relationship, was EUR 1,667m (as of 31 December 2015: EUR 1,415m). 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.

Positive market values on the balance sheet date exist for transactions with business partners rated as follows (Standard & Poor's):

T176 Contractual partner ratings – credit risk from hedging relationships

in €m	
AA-	264
A+	221
A	443
A-	358
BBB+	256
BBB	105
Below BBB or unrated	20
Total	1,667

The credit risk arising from financial derivatives shown at fair value through profit or loss amounted to EUR 341m as of 31 December 2016, and consisted of the total amount of business with contractual partners that on balance showed a positive market value. The contractual partners have the following ratings (Standard & Poor's):

T177 Contractual partner ratings – credit risk recognised in the income statement

in €m	
AA-	45
A+	43
A	48
A-	103
BBB+	82
BBB	15
Below BBB or unrated	5
Total	341

42 Contingencies and events after the balance sheet date

T178 Contingent liabilities

in €m	31.12.2016	31.12.2015
From guarantees, bills of exchange and cheque guarantees	909	843
From warranty contracts	733	872
From providing collateral for third-party liabilities	35	47
	1,677	1,762

Warranty agreements included EUR 420m (previous year: EUR 373m) in contingent liabilities towards creditors of joint ventures. Liabilities under collateral agreements included contingent liabilities of EUR 4m (previous year: EUR 13m) towards creditors of joint ventures. A total of EUR 1,319m (previous year: EUR 1,199m) relates to joint and several guarantees and warranties. These are matched by compensatory claims against the other co-debtors amounting to EUR 1,190m (previous year: EUR 1,085m). Insofar as annual financial statements have yet to be published, these figures are preliminary.

Otherwise, several provisions for other risks could not be made because an outflow of resources was not sufficiently probable. The potential financial effect of these provisions on the result would have been EUR 103m (previous year: EUR 51m).

Signed contracts for the sale of aircraft are expected to yield profits of EUR 7m and cash receipts of EUR 9m in the coming financial year.

Legal risks

The 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 33, p. 136ff.](#)).

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, among other things:

Risk of successful claims for damages in ongoing anti-trust 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 Germany, the United Kingdom, 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.

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. The respondents filed extensive separate replies to the extended suit on 30 November 2016.

At present, it is not possible to give a concrete assessment of the outcome of the lawsuits already pending and 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 plaintiffs in the civil lawsuits refer to, among others, is still not definitive. Following the nullification of this 2010 decision by the European Court of Justice (ECJ) in December 2015, the European Commission announced that it would issue a new decision in the course of 2017.

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 will have to examine whether the plaintiffs did not pass them on to their own customers (in the case of the freight forwarders) or whether they were indeed passed on to them (in the case of the final customers). Based on current assessments, there is nonetheless a slight probability of losing some of these lawsuits, which could have not insignificant effects on the Group's net assets, financial and earnings position.

Price fixing in passenger transport

In a lawsuit filed with a court in Ontario, Canada, Deutsche Lufthansa AG and six other airlines are accused of colluding to fix prices and surcharges for passenger transport on transatlantic routes to and from Canada since 2000. As far as the Company is aware, there are currently no indications whatsoever of such illegal price fixing.

Introduction of the Distribution Cost Charge (DCC) as part of the Content 2.0 project

The DCC of EUR 16.00, which was introduced in the course of the Content 2.0 project for all bookings made via computerised reservation systems (CRS), is subject to judicial or regulatory review in various jurisdictions.

Four complaints from travel agents' associations or online agents have been filed with the European Commission (DG Mobility and Transport). By introducing the DCC for CRS bookings, Deutsche Lufthansa AG (LH) is accused of breaching EU Regulation 80/2009, because the DCC is not levied on its own LHGroup-agent.com distribution channel. It is currently unclear whether the Commission will open formal proceedings against Deutsche Lufthansa AG by sending a list of the complaints.

In Austria, the Association for the Promotion and Protection of Fair Competition (VFSW) has applied to Korneuburg regional court for an injunction to prevent Austrian Airlines AG (OS) from levying the DCC and withholding "full content". The plaintiff is invoking Section 1f. UWG and claims that by withholding "full content", Austrian Airlines is discriminating against agents and deceiving consumers by not showing prices correctly. At the request of Austrian Airlines, the proceedings were referred to the relevant commercial court in Vienna. An application for a preliminary injunction against Austrian Airlines was rejected. In the interim, the plaintiff's legal counsel has resigned from the case. It remains to be seen how this will affect the duration and the outcome of the proceedings.

Following the negative ruling by the Austrian Federal Competition Authority (BWB), the travel agents' trade association in the Austrian Federal Economic Chamber has filed a private claim with the competition court against Deutsche Lufthansa AG applying for removal of abuse of significant market power. The substance of the application is largely the same as in the unsuccessful appeal to the BWB; the applicants are claiming that the DCC constitutes obstructive and discriminatory market abuse, as well as "margin squeezing". It is not currently possible to say what the chances of success or the duration of proceedings may be.

In this context, the Lufthansa Group (LHG) airlines intend to provide their customers with various other technical and commercial sales channels in future in addition to sales via the classic GDS (global distribution system), including direct connections to the Lufthansa Group systems. There was an out-of-court dispute between the Sabre GDS and the Lufthansa Group over the question of whether this expanded offering from the Lufthansa Group corresponds to the function of a GDS as defined in the contract. The Lufthansa Group has filed an application for a declaratory judgement on the matter with the District Court of Tarrant County, Texas. By making the application, the Lufthansa Group is seeking a judicial ruling on the different interpretations of this contractual clause.

Lawsuit against the reduction in transitional benefits by the amount of a state disability pension and the company retirement pension and against the deduction of health insurance contributions

Several flight attendants are suing Deutsche Lufthansa AG (LH) before the labour court in Frankfurt for offsetting the state pension for reduced earnings capacity and the company retirement pension against benefit entitlements under the collective agreement on transitional benefits (TV ÜV), which they receive because of their prolonged incapacity for flight service. Some of the plaintiffs are also objecting to the deduction of health insurance contributions when these transitional benefits are paid. In their reasoning, they claim that this constitutes discrimination because of their disability and is therefore a breach of Directive 2000/78/EC, and also that the transitional benefits are bridging payments for which no health insurance contributions are payable. In its defence, Deutsche Lufthansa AG claims that the offsetting is provided for in the TV ÜV, that this provision is valid and that it does not contravene higher ranking law. Furthermore, in the opinion of Deutsche Lufthansa AG, the benefits are invalidity benefits, because they are paid due to incapacity for flight service and are therefore subject to health insurance contributions. The first hearings will take place in March 2017 at the labour court in Frankfurt. A definitive ruling is not expected before 2018. The flight attendants have already asked for the matter to be referred to the ECJ.

Lawsuits for termination of a transport contract (Section 649 German Civil Code [BGB])

Deutsche Lufthansa AG is suing numerous customers in Germany before district courts and regional courts for termination of transport contracts. These proceedings are about whether the customer can cancel free of charge at any time and still have the price refunded, despite choosing a non-refundable fare. Under certain circumstances, Section 649 BGB gives customers of a work contract such a right. In this case, the work contractor must refund the expenses it no longer incurs because of the customer's early termination, whereby the law includes the (refutable) presumption that the contractor is generally only left with expenses totalling 5 per cent of the agreed payment for the work, which it may therefore keep.

Case law generally applies the law of work contracts to transport contracts. Deutsche Lufthansa AG is referring in these proceedings – mostly with success – to the fact that the terms and conditions of the fare effectively rule out the application of Section 649 in the disputed cases. Customers also have a choice between various fares. Non-refundable tickets are offered at a particularly attractive price, for which the customer makes a conscious choice. Customers are explicitly advised of the restrictions associated with the fare before they make the booking. If it is important to the customer to have the option of cancelling or rebooking a ticket, there are other products on offer at any time which enable just that. So far, it does not look as if any of these lawsuits will proceed to the German Federal Court of Justice (BGH). A defeat in the final instance (BGH) would have structural consequences. If customers could cancel any ticket free of charge and have the price refunded even for non-refundable fares (apart from the 5 per cent mentioned above), Deutsche Lufthansa AG would be forced to restructure a key element of its fare pricing mechanism. Cancellation (at will or with restrictions) would then no longer be available as a pricing criterion.

Investigations in connection with work and service contracts

The German customs office is currently investigating possible breaches of the German Law on Labour Leasing (AÜG) concerning the procurement of services by the Lufthansa Group. There are also administrative proceedings with the German Statutory Pension Insurance Scheme concerning the classification of two service providers who are allegedly falsely claiming independent contractor status. The circumstances of the matter as well as any possible parallel structures are currently the subject of an in-depth investigation by an external law firm. An assessment of possible risk is therefore not possible, either in relation to the existence of possible breaches or as regards the consequences of said breaches.

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, the acquisition of a foreign subsidiary and the recognition and measurement of certain provisions and assets. The Lufthansa Group has appealed against the resulting tax assessments. Based on current information, the Lufthansa Group assumes that there is a very strong likelihood of winning in all the matters at dispute. As of the reporting date, no provision had therefore been made. There is, however, the risk of a possible subsequent payment totalling some EUR 600m for the circumstances mentioned. The assessment of the amount is subject to uncertainty. Should Lufthansa's legal position be upheld, there is no risk. Risks for financial years, for which the audit has not yet begun, cannot be estimated with the required degree of reliability at present.

Events after the balance sheet date**Deutsche Lufthansa AG becomes sole shareholder of the Brussels Airlines group**

Deutsche Lufthansa AG acquired the remaining 55 per cent of the shares in SN Airholding SA/NV with effect from 9 January 2017, and is therefore the sole shareholder of the Brussels Airlines group. The acquisition is based on the purchase and option agreement dating from 2008. The option was exercised on the basis of a new agreement between the previous shareholders and Lufthansa, dated 15 December 2016, which set the strike price for the remaining shares at EUR 2.6m. Brussels Airlines will be fully consolidated in the new Point-to-Point segment. → Note 45, p. 162ff.

Wet-lease agreement with Air Berlin approved

On 30 January 2017, the German Federal Cartel Office unconditionally approved the wet lease of 38 aircraft agreed between the Lufthansa Group and Air Berlin. In the course of the transaction, the Lufthansa Group will acquire or lease up to 25 A320s from Air Berlin's lessors and will, in turn, itself lease them to Air Berlin for operation at market prices. This is intended to achieve sustainable cost reductions as part of the agreement.

Lufthansa Group and Vereinigung Cockpit pilots' union reach agreement in arbitration

On 15 February 2017, the Lufthansa Group and Vereinigung Cockpit accepted the arbitration proposal concerning the wage agreement. This includes a pay increase of around 8.7 per cent for the 5,400 pilots in the Group wage agreement as well as a one-off payment totalling some EUR 30m. The wage agreements shall run from May 2012 until the end of 2019. The outcome of the arbitration means an increase in remuneration costs for cockpit crew of around EUR 85m per year. Talks with the trade union

are to be continued in order to make alternative cost reductions as part of an overall solution. Should a solution not be reached, 40 new aircraft will be staffed by crew not included in the Group wage agreement – contrary to current fleet planning – in order to compensate for the additional costs.

Lufthansa Group and UFO make further progress on benefits system

Up until the end of February 2017, further details on the new system of benefits were set out in the course of concluding collective bargaining for the Lufthansa Passenger Airlines cabin crew and in subsequent talks. It is thereby still assumed that the finalisation of the new regulations will be completed by the end of the first quarter of 2017.

43 Other financial obligations

As of 31 December 2016, there were purchase commitments for EUR 15.6bn (previous year: EUR 16.5bn) for capital expenditure on property, plant and equipment and for intangible assets. There were also capital and shareholder loan commitments of EUR 93m towards equity investments (previous year: EUR 89m).

44 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:

T179 Auditors' fees

in €m	2016	2015
Annual audit	3.6	2.9
Other assurance services	0.4	0.8
Tax advisory services	1.2	0.5
Other services	1.4	2.0
Total	6.6	6.2

The following fees paid to the global PricewaterhouseCoopers network, especially abroad, were additionally recognised as expenses.

T180 Additional auditors' fees

in €m	2016	2015
Annual audit	3.2	3.6
Other assurance services	0.2	0.2
Tax advisory services	0.8	0.7
Other services	0.4	0.3
Total	4.6	4.8

Dr Bernd Roese is the German Public Auditor responsible for Lufthansa at PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft. Dr Bernd Roese has fulfilled this role in six audits so far.

Composition of the Group

45 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 return from the entity. 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 which 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 when the Lufthansa Group has joint control over the joint arrangement on the basis of a contractual agreement with a third party. 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 power to exercise major influence over financial and operating policy based on an interest of between 20 per cent and 50 per cent. 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 → [T189 – T192 on p. 176 – 183](#) and the list of shareholdings in → [T193 on p. 184 – 187](#).

In addition to Deutsche Lufthansa AG as the parent company, the group of consolidated companies includes 71 domestic and 262 foreign companies, including structured entities (previous year: 66 domestic and 249 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 per cent 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 expense, are allocated based on the user relationship.

Changes in the group of consolidated companies during the 2016 financial year are shown in the following table:

T181 Changes in the group of consolidated companies

Name, registered office	Additions	Disposals	Reasons
Passenger Airline Group segment			
LHAMIW LIMITED, Dublin, Ireland	1.2.2016		Consolidated for the first time
LHAMIS LIMITED, Dublin, Ireland	8.2.2016		Established
Lufthansa Asset Management Leasing GmbH, Frankfurt/Main	10.3.2016		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 31, Salzburg, Austria	4.4.2016		Established
Sylvaner Leasing Co. Ltd., Tokyo, Japan	20.4.2016		Established
SMFL Y Lease Nin-i-Kumiai Two, Tokyo, Japan	20.4.2016		Established
Yamasa Aircraft LH 13 Kumiai, Okayama, Japan	26.4.2016		Established
Dunkel Leasing Co., Ltd., Tokyo, Japan	27.7.2016		Established
Helles Leasing Co., Ltd., Tokyo, Japan	27.7.2016		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 33, Salzburg, Austria	20.9.2016		Established
Lufthansa Leasing Austria GmbH & Co. OG Nr. 32, Salzburg, Austria	20.9.2016		Established
TI DC Leasing Co., Ltd., Tokyo, Japan	20.10.2016		Established
TI DD Leasing Co., Ltd., Tokyo, Japan	20.10.2016		Established
Lufthansa Aviation Training GmbH, Hallbergmoos	27.10.2016		Established
Auslese Leasing Co., Ltd., Tokyo, Japan	9.12.2016		Established
Eifel Leasing Co., Ltd., Tokyo, Japan	9.12.2016		Established
Schloss Leasing Co., Ltd., Tokyo, Japan	9.12.2016		Established
NBB Harz Lease Co., Ltd., Tokyo, Japan	15.12.2016		Established
NBB Saxon Lease Co., Ltd., Tokyo, Japan	15.12.2016		Established
Evans Leasing Co., Ltd., Tokyo, Japan	20.12.2016		Established
Mitsui & Co. Ltd. Tokyo (Dreamcatcher), Tokyo, Japan		17.3.2016	Liquidation
Mitsui & Co. Ltd. Tokyo (Flying Carp.), Tokyo, Japan		17.3.2016	Liquidation
Mitsui & Co. Ltd. Tokyo (Wishbone), Tokyo, Japan		17.3.2016	Liquidation
Lufthansa Leasing Austria GmbH & Co. OG Nr. 6, Salzburg, Austria		13.6.2016	Merger
A319 LDA-LDB-LDC Ltd., Grand Cayman, Cayman Islands		30.6.2016	Liquidation
Lufthansa Leasing Austria GmbH & Co. OG Nr. 7, Salzburg, Austria		18.7.2016	Merger
SBL Beta Co. Ltd., Tokyo, Japan		29.11.2016	Liquidation
SBL Gamma Co. Ltd., Tokyo, Japan		29.11.2016	Liquidation
Crossbow Finance Limited, Grand Cayman, Cayman Islands		7.12.2016	Liquidation
Logistics segment			
time:matters Holding GmbH, Neu-Isenburg	8.8.2016		Increase in shareholdings
time:matters GmbH, Neu-Isenburg	8.8.2016		Increase in shareholdings
time:matters Spare Parts Logistics GmbH, Neu-Isenburg	8.8.2016		Increase in shareholdings
Catering segment			
Retail in Motion Limited, Dublin, Ireland	5.2.2016		Increase in shareholdings
MIM IFE Limited, Dublin, Ireland	5.2.2016		Acquisition
LSG Sky Chefs Czechia spol. s.r.o., Bor, Czechia	10.11.2016		Established
41/42 Bartlett (Pty) Ltd., Johannesburg, South Africa		26.8.2016	Liquidation
Caterair Taiwan In-Flight Services, Inc., Taipei, Taiwan		30.9.2016	Liquidation
Other			
Lufthansa Malta Finance Holding Limited, St. Julians, Malta	14.4.2016		Established
Lufthansa Malta Corporate Finance Limited, St. Julians, Malta	14.4.2016		Established
Lufthansa Malta Working Capital Solutions Limited, St. Julians, Malta	14.4.2016		Established

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Composition of the Group

Acquisition of subsidiaries

By contract dated 10 June 2016, Lufthansa Cargo AG acquired 51 per cent of the shares in time:matters Holding GmbH with effect from 8 August 2016. This increased the Group's stake in the company from 49 to 100 per cent, and the Group gained control over time:matters Holding GmbH. A purchase price of EUR 12m was agreed. Calculating the fair value of the company's assets and liabilities on the acquisition date resulted in badwill of EUR 2m.

Since the date of consolidation, the company contributed EUR 29m to Group revenue and EUR 1m to Group EBIT in 2016. If the company had already been acquired by 1 January 2016, it would have contributed an additional EUR 31m to Group revenue and a further EUR 2m to Group EBIT.

The following table provides a summary of the company's main assets and liabilities immediately before and after the acquisition date:

T182 Assets and liabilities time:matters Holding GmbH

in €m	before acquisition	after acquisition
Non-current assets	2	44
Current assets	23	22
of which liquid assets	3	3
of which other current assets	20	19
Total assets	25	66
Shareholders' equity	-14	24
Badwill	-	2
Non-current liabilities	13	13
Current liabilities	26	27
Total liabilities	25	66

By contract dated 25 November 2015, approved by the relevant competition authorities on 25 January 2016, between LSG Sky Chefs Europe Holding Ltd. and Cowcub Ltd., No. 2, The Forum, the existing stake of 40 per cent in Retail in Motion Limited was increased to 100 per cent with effect from 5 February 2016. The price for the acquisition of the 60 per cent stake was EUR 33.9m. Calculating the fair value of the company's assets and liabilities on the acquisition date resulted in goodwill of EUR 22.4m. In the course of this acquisition, 100 per cent of the shares in MIM IFE Limited were acquired by contract for a price of EUR 0.4m, subsequently approved by the relevant competition authority.

Since the date of consolidation, the companies contributed EUR 41m to Group revenue and EUR 2m to Group EBIT in 2016.

The following table provides a summary of the two companies' main assets and liabilities immediately before and after the acquisition date:

T183 Assets and liabilities Retail in Motion Limited and MIM IFE Limited

in €m	before acquisition	after acquisition
Non-current assets	25	42
Current assets	17	16
of which liquid assets	3	3
of which other current assets	14	13
Total assets	42	58
Shareholders' equity	26	40
Non-current liabilities	-	6
Current liabilities	16	12
Total liabilities	42	58

Acquisition of subsidiaries after the balance sheet date

Deutsche Lufthansa AG acquired the remaining 55 per cent of the shares in SN Airholding SA/NV with effect from 9 January 2017, and is therefore the sole shareholder of the Brussels Airlines group. From this point onwards, the company will be fully consolidated in the Lufthansa Group. The acquisition is based on the purchase and option agreement dating from 2008. The option was exercised on the basis of a new agreement between the previous shareholders and Lufthansa, dated 15 December 2016, which set the strike price for the remaining shares at EUR 2.6m. The acquisition of SN Brussels will strengthen the new Point-to-Point operating segment from 2017, as SN Brussels will form part of this new segment. The valuation of the previous 45-per-cent stake using the equity method arrived at negative equity of EUR -23m with earnings of EUR 6m for the financial year 2016. The carrying amount of the shares is zero (→ Note 21, p. 123ff.). The company generated revenue of EUR 1.2bn in 2016. The effects of consolidating the company on the Group's net assets, financial and earnings position depend, in particular, on the purchase price allocation and the associated market valuation of the company's assets and liabilities. The purchase price allocation has not yet been completed, as the underlying financial information is still being collected and reviewed. We expect the first-time consolidation of SN Brussels to increase net indebtedness by around EUR 100m. This depends to a large extent on the recognition of liabilities from aircraft leases resulting from the reclassification of operating to finance leases.

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 2016.

T184 Use of exemption provisions

Company name	Registered office
Eurowings Aviation GmbH	Cologne
Eurowings GmbH	Dusseldorf
Germanwings GmbH	Cologne
Hamburger Gesellschaft für Flughafenanlagen mbH	Hamburg
Jettainer GmbH	Raunheim
LSG Asia GmbH	Neu-Isenburg
LSG-Food & Nonfood Handel GmbH	Neu-Isenburg
LSG Lufthansa Service Catering- und Dienstleistungsgesellschaft mbH	Neu-Isenburg
LSG Lufthansa Service Europa/ Afrika GmbH	Neu-Isenburg
LSG Lufthansa Service Holding AG	Neu-Isenburg
LSG Sky Chefs Düsseldorf GmbH	Neu-Isenburg
LSG Sky Chefs Europe GmbH	Neu-Isenburg
LSG Sky Chefs Frankfurt International GmbH	Neu-Isenburg
LSG Sky Chefs Frankfurt ZD GmbH	Neu-Isenburg
LSG Sky Chefs Lounge GmbH	Neu-Isenburg
LSG Sky Chefs München GmbH	Neu-Isenburg
LSG Sky Chefs Objekt- und Verwaltungsgesellschaft mbH	Neu-Isenburg
LSG Sky Chefs Verwaltungsgesellschaft mbH	Neu-Isenburg
LSG-Sky Food GmbH	Alzey
LSG South America GmbH	Neu-Isenburg
LSY GmbH	Norderstedt
Lufthansa Asset Management GmbH	Frankfurt/Main
Lufthansa Asset Management Leasing GmbH	Frankfurt/Main
Lufthansa Aviation Training GmbH	Hallbergmoos
Lufthansa Cargo AG	Frankfurt/Main
Lufthansa CityLine GmbH	Munich
Lufthansa Commercial Holding GmbH	Cologne
Lufthansa Flight Training Berlin GmbH ¹⁾	Berlin
Lufthansa Flight Training GmbH ²⁾	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	Neu-Isenburg
Spiriant GmbH	Neu-Isenburg
time:matters GmbH	Neu-Isenburg
time:matters Holding GmbH	Neu-Isenburg
time:matters Spare Parts Logistics GmbH	Neu-Isenburg

¹⁾ Since 2 January 2017, the company has been known as Lufthansa Aviation Training Berlin GmbH.

²⁾ Since 2 January 2017, the company has been known as Lufthansa Aviation Training Germany GmbH.

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 UK Companies Act 2006.

The consolidated financial statements include investments in 35 joint ventures and 37 associated companies (previous year: 37 joint ventures and 40 associated companies), of which nine joint ventures (previous year: eight) and 17 associated companies (previous year: 19) 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.

46 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 Group and other related parties are disclosed below.

The Lufthansa Group business 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 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 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 Group usually charges the rental costs and incidental expenses incurred to the companies in question on a pro rata basis.

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Composition of the Group

The following table shows the volume of significant services provided to or by related parties:

T185 Volume of significant services provided to or by related parties

in €m	Volume of services rendered		Volume of services received	
	2016	2015	2016	2015
Non-consolidated subsidiaries				
Albatros Versicherungsdienste GmbH, Germany	1	2	55	50
Delvag Versicherungs-AG, Germany	6	6	4	5
DLH Fuel Company mbH, Germany	0*	0*	423	573
Global Load Control (PTY) LTD, South Africa	1	–	7	–
Global Tele Sales (PTY) Ltd., South Africa	1	1	0*	7
Global Telesales of Canada, Inc., Canada	1	1	3	6
handling counts GmbH, Germany	0*	1	13	15
LGSP Lufthansa Ground Service Portugal, Unipessoal Lda., Portugal	0*	–	8	3
Lufthansa Aviation Training USA Inc., USA	0*	0*	10	14
Lufthansa Consulting GmbH, Germany	1	1	6	8
Lufthansa Engineering and Operational Services GmbH, Germany	5	5	25	29
Lufthansa Flight Training – CST GmbH, Germany ¹⁾	4	4	12	10
Lufthansa Global Business Services Hamburg GmbH, Germany	7	15	26	31
Lufthansa Global Business Services S.A. de C.V., Mexico	1	0*	5	5
Lufthansa Global Business Services Sp. z o.o., Poland	3	1	23	23
Lufthansa Global Tele Sales GmbH, Germany	4	4	59	57
Lufthansa Industry Solutions TS GmbH, Germany	0*	0*	8	6
Lufthansa Super Star gemeinnützige Gesellschaft mit beschränkter Haftung, Germany	14	26	14	18
Lufthansa Systems FlightNav AG, Switzerland	0*	1	23	24
Lufthansa Systems Hungaria Kft., Hungary	0*	1	15	13
Lufthansa Systems Poland Sp. z o.o., Poland	1	1	19	17
Lufthansa Technical Training GmbH, Germany	6	4	18	26
Lufthansa Technik Logistik of America LLC, USA	6	6	28	23
Lufthansa Technik Shenzhen Co., Ltd., China	26	14	20	19
Lufthansa Technik Turbine Shannon Limited, Ireland	5	2	17	15
LZ-Catering GmbH, Germany	6	9	14	16
Joint ventures				
Airfoil Services Sdn. Bhd., Malaysia	0*	1	8	7
EFM – Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH, Germany	0*	0*	2	6
FraCareServices GmbH, Germany	8	9	1	2
Idair GmbH, Germany	4	3	2	6
Lufthansa Bombardier Aviation Services GmbH, Germany	1	5	8	4
N3 Engine Overhaul Services GmbH & Co. KG, Germany	5	7	1	2
Shanghai Pudong International Airport Cargo Terminal Co. Ltd., China	0	1	13	11
Spairliners GmbH, Germany	58	42	47	40
Terminal 2 Gesellschaft mbH & Co. oHG, Germany	0*	2	12	9
Terminal One Group Association, L.P., USA	6	4	5	5
Associated companies				
Aircraft Maintenance and Engineering Corp., China	108	37	2	16
Airmail Center Frankfurt GmbH, Germany	0*	0*	8	7
AviationPower GmbH, Germany	0*	0*	37	36
HEICO Aerospace Holdings Corp., USA	6	–	11	12
Other affiliated companies				
Brussels Airlines NV/SA, Belgium	60	82	37	33
Shanghai Pudong International Airport Public Cargo Terminal Co. Ltd. (West), China	–	0*	47	78
SunExpress Deutschland GmbH, Germany	23	22	20	0*

* Rounded below EUR 1m.

¹⁾ Since 2 January 2017, the company has been known as Lufthansa Aviation Training Operations Germany GmbH.

The following tables show receivables owed by and liabilities to related parties:

T186 Receivables from affiliated companies

in €m	2016	2015
Trade receivables from non-consolidated subsidiaries	40	23
Trade receivables from joint ventures	19	24
Trade receivables from associated companies	6	5
Trade receivables from other affiliated companies	53	11
Total trade receivables	118	63
Other receivables from non-consolidated subsidiaries	41	11
Other receivables from joint ventures	20	22
Other receivables from associated companies	5	6
Total other receivables	66	39
Loans to non-consolidated subsidiaries	53	51
Loans to joint ventures	35	39
Loans to associated companies	29	26
Loans to other affiliated companies	–	–
Total non-current receivables	117	116

T187 Liabilities to affiliated companies

in €m	2016	2015
Trade payables to non-consolidated subsidiaries	30	12
Trade payables to joint ventures	8	14
Trade payables to associated companies	6	9
Trade payables to other affiliated companies	2	2
Total trade payables	46	37
Other liabilities to non-consolidated subsidiaries	228	247
Other liabilities to joint ventures	0*	0*
Total other liabilities	228	247

* Rounded below EUR 1m.

No individual shareholders of Deutsche Lufthansa AG exercise significant influence over the Group. For related party transactions with members of the Executive Board and the Supervisory Board

→ Note 47, p. 167f.

47 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. 75ff.

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. 79–86.

Total Executive Board remuneration under IFRS was EUR 12.2m (previous year: EUR 10.6m), including current service costs for pensions of EUR 2.4m (previous year: EUR 2.1m).

The active members of the Executive Board in past reporting years were remunerated as follows:

T188 Executive Board remuneration (IFRS)

in € thousands	2016	2015
Basic salary	4,544	4,228
Other	500	422
One-year variable remuneration	2,747	2,261
Total short-term remuneration	7,791	6,911
Long-term variable remuneration*	1,419	1,274
Share-based remuneration	615	309
Current service cost for retirement benefits	2,380	2,090
Total long-term remuneration	4,414	3,673
Severance payments	–	–
Total	12,205	10,584

* Expenses recognised in the reporting year for long-term variable remuneration for the financial years 2014 to 2016.

Pension provisions for Executive Board members active in the 2016 financial year came to EUR 9.5m (previous year: EUR 6.9m).

In addition to the provision for the one-year variable remuneration of EUR 2,747,000 (previous year: EUR 2,261,000), provisions totalling EUR 1,419,000 (previous year: EUR 1,274,000) were recognised for the future payment of long-term variable remuneration for the Executive Board members active as of 31 December 2016. In addition, provisions of EUR 1,821,000 in total (previous year: EUR 1,206,000) were recognised for the future payment of long-term, share-based remuneration for the Executive Board members active as of 31 December 2016.

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Composition of the Group

Total remuneration (HGB) paid to the Executive Board of Deutsche Lufthansa AG in the financial year 2016 came to EUR 10,389,000 (previous year: EUR 9,605,000). This includes EUR 2,054,000 for the new share programme, in which the Executive Board acquired a total of 45,360 shares.

Current payments and other benefits for former members of the Executive Board and their surviving dependants came to EUR 5.7m (EUR 5.9m). This includes payments by subsidiaries as well as benefits in kind and concessionary travel.

Pension obligations toward former Executive Board members and their surviving dependants amount to EUR 70.4m (previous year: EUR 67.4m). These amounts are included in pension provisions.

→ [Note 32, p. 129ff.](#)

Expenses for the fixed remuneration of Supervisory Board members came to EUR 2,170,000 in 2016 (previous year: EUR 2,152,000). Other remuneration, mainly attendance fees, amounted to EUR 111,000 (previous year: EUR 110,000). The Deutsche Lufthansa AG Supervisory Board members were also paid EUR 17,000 (previous year: EUR 59,000) for work on supervisory boards of Group companies.

In the reporting year, as in the previous year, no loans or advance payments were made to members of the Executive Board and 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 0.9m in total for 2016 (previous year: EUR 1.3m).

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, 6 March 2017
Executive Board



Carsten Spohr
Chairman of the
Executive Board and CEO



Karl Ulrich Garnadt
Member of the Executive Board
Eurowings and Aviation Services



Harry Hohmeister
Member of the Executive Board
Hub Management



Ulrik Svensson
Member of the Executive Board
Finances



Dr Bettina Volkens
Member of the Executive Board
Corporate Human Resources
and Legal Affairs

Independent Auditor's Report

To Deutsche Lufthansa Aktiengesellschaft, Cologne

Report on the audit of the consolidated financial statements

Audit Opinion on the Consolidated Financial Statements

We have audited the consolidated financial statements of Deutsche Lufthansa Aktiengesellschaft, Cologne, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2016, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1, to December 31, 2016, and notes to the consolidated financial statements, including a summary of significant accounting policies.

According to § (Article) 322 Abs. (paragraph) 3 Satz (sentence) 1 zweiter Halbsatz (second half sentence) HGB ("Handelsgesetzbuch": German Commercial Code), we state that, in our opinion, based on the findings of our audit, the accompanying consolidated financial statements comply, in all material respects, with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Abs. 1 HGB and give a true and fair view of the net assets and financial position of the Group as at December 31, 2016, as well as the results of operations for the financial year from January 1, to December 31, 2016, in accordance with these requirements.

According to § 322 Abs. 3 Satz 1 erster Halbsatz HGB, we state that our audit has not led to any reservations with respect to the propriety of the consolidated financial statements.

Basis for Audit Opinion on the Consolidated Financial Statements

We conducted our audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), and additionally considered the International Standards on Auditing (ISA). Our responsibilities under those provisions and standards, as well as supplementary standards, are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group entities in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other German ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

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 January 1, to December 31, 2016.

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, and we do not provide a separate audit opinion on these matters.

In our view, the key audit matters were as follows:

1. Recognition of traffic revenue, including liabilities in respect of unused flight documents and bonus miles programs
2. Provisions for pensions
3. Recoverability of long-term assets, particularly goodwill and intangible assets with indefinite useful lives
4. Accounting for hedging transactions

Our presentation of these key audit matters has been structured as follows:

- a. Matter and issue
- b. Audit approach and findings
- c. Reference to further information

1. Recognition of traffic revenue, including liabilities in respect of unused flight documents and bonus miles programs

- a. Until they are used, sold flight documents are recognized as a liability from unused flight documents within the consolidated financial statements. Once a passenger coupon or an airfreight document has been used, the corresponding traffic revenue is recognized as revenue in the consolidated income statement. In addition, based on historical data, the amount of sold flight documents which are expected to not be used is estimated and this is also recognized as traffic revenue. In the financial year 2016, the Lufthansa Group realized EUR 24.7 billion in traffic revenue, of which EUR 22.3 billion was attributable to passenger airlines. As at December 31, 2016, EUR 3.0 billion are recognized in the consolidated statement of financial position as liabilities from unused flight documents.

In accordance with IFRIC Interpretation 13, until they are used bonus miles awarded to participants of the Miles&More program are deferred and measured at the fair value of the miles. Where bonus miles are acquired from external cooperation partners and awarded to program participants, these are deferred until used and measured at the respective proceeds from the bonus miles. Deferrals for issued bonus miles, which have been awarded but are no longer expected to be used, are transferred to profit or loss. The liabilities from mile bonus programs amounted to EUR 1.7 billion in total as of the balance sheet date.

From our point of view, these matters were of particular importance, as recognition and measurement of these items, which are specific to the business model and material in amount, are highly dependent on the estimates and assumptions made by management, for which measurement procedures, which are partly complex, are consistently applied.

- b. We also included our specialists of Risk Assurance Services (RAS) to audit traffic revenue. With their assistance, 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. If we were not able to conduct our own evaluation of the internal control system of IT systems 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 obligations from unused flight documents, we reconstructed among other things the individual steps used in the calculations. Specifically, we examined the open passenger coupons and their measurement by year of sale and validity. Furthermore, we considered the consistency and continuity of the methods used to determine 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 liability from miles bonus programs accounted for as of the balance sheet date, we verified among other things the fair value measurement for each category of use and the underlying assumptions and parameters derived therefrom. Furthermore, we assessed the consistency of the measurement method used and the mathematical accuracy of the calculation of the liability from miles bonus programs. We were able to satisfy ourselves that the estimates and assumptions made by management were consistently derived and sufficiently documented.
- c. The disclosures on traffic revenue and liabilities from unused flight documents and from miles bonus programs are contained in sections 2 and 3 of the notes to the consolidated financial statements.

2. Provisions for pensions

- a. Within the consolidated financial statements pension provisions amounting to EUR 8.4 billion are reported, comprising the net amount of the obligations under various pension plans, amounting to EUR 21.5 billion, and the fair value of the plan assets, amounting to EUR 13.1 billion. The majority of these provisions relates to old-age and transitional pension commitments in Germany and Switzerland. Obligations from defined-benefit pension plans are measured using the projected unit credit method in accordance with IAS 19. This requires in particular that assumptions be made as to the long-term salary and pension trend and average life expectancy. Furthermore, the discount rate as of the balance sheet date is derived on the basis of the market yields on high-quality corporate bonds issued

in currencies and having maturities that match those of the underlying obligations. Changes to these measurement assumptions are recognized in equity as remeasurements.

In addition, it must be taken into consideration that the retirement and transitional pension arrangement commitments to Deutsche Lufthansa AG's cabin personnel were renegotiated between the collective bargaining partners during the reporting period. Under the paid-in contribution guarantee, any new claims arising under the renegotiated commitments correspond to the credits to the corresponding plan assets from mandatory employer and employee contributions and returns on plan assets. In addition to changing individual measurement assumptions, it was agreed that the existing claims of the cabin personnel to a transitional pension arrangement would be transferred to the new pension scheme by way of an initial component. The remeasurement of the pension obligations including the initial component resulted in a reduction in pension obligations by EUR 808 million as of the transfer date. Of that amount, EUR 156 million related to the change in measurement assumptions which were recognized directly in equity, and EUR 652 million related to the change in the pension plans, which were recognized through profit or loss.

From our point of view, these matters were of particular importance, as the agreed changes to the pension and transitional pension arrangements significantly impact the Lufthansa Group's financial position, cash flows and financial performance. In addition, the recognition and measurement of these items, which are material in amount overall, are to a large extent based on management's estimates and assumptions. Furthermore, the balance sheet line item "pension provisions" is factored into the "dynamic redemption ratio", an indicator which is relevant to the Group's rating, as a portion of the Group's indebtedness; so the measurement of pension obligations materially affects compliance with the requirements set by the rating agencies.

- b. As part of our audit, we evaluated the actuarial reports obtained by the respective Group entities. Given the specific peculiarities of the actuarial valuations, we received assistance from pension specialists from our Capital Markets & Accounting Advisory Services (CMAAS). We assessed the use of the actuarial reports during our audit based on the professional qualification of the external appraisers and the measurement methods and assumptions used. On the basis of this, we then verified the deviation of the balance sheet, the recognition of the pension provisions and the disclosures in the notes to the consolidated financial statements based on the actuarial reports. We have assessed in detail the principles used by the appraiser to value the framework agreement for the cabin personnel. We have examined the correct application in the actuarial report by carrying out plausibility tests and tests of detail on an appropriate sample basis. Our evaluation of the fair values of plan assets was based on respective bank confirmations. On the basis of

our audit procedures, we verified that these items, which are significant in amount, were recognized and measured appropriately and that the disclosures in the notes to the consolidated financial statements in accordance with IAS 19 were complete.

- c. The disclosures about pension provisions are contained in Section 32 of the notes to the consolidated financial statements.

3. Recoverability of long-term assets, particularly goodwill and intangible assets with indefinite useful lives

- a. In the consolidated financial statements, a total amount of EUR 1.3 billion is reported under the line item "Goodwill and intangible assets with indefinite useful lives" 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 respective indications of impairment. These measurements are generally based on the present value of future cash flows of the cash-generating unit to which the respective asset is to be allocated. The present value is determined using the discounted cash flow method. The measurements are based on projections that were also used to prepare the three-year budget for the Lufthansa Group prepared by management and noticed by the supervisory board. The discount rate used is the weighted average cost of capital for the relevant cash-generating unit.

Impairment tests conducted on non-current assets excluding goodwill due to indications of impairment were carried out in particular for the Logistics segment due to large deviations of actual figures from projected figures both as at June 30, 2016, and as at December 31, 2016. In light of the cost-reduction measures initiated and the low interest rate level, no impairments were recognized in respect of property, plant and equipment. Impairment tests were also carried out for the Catering segment due to indications of impairment. A total of EUR 38 million in impairments was recognized in relation to goodwill and property, plant and equipment.

The result of these measurements depends to a high degree on management's assumptions of future cash inflows and the discount rate used. The measurements are therefore subject to considerable uncertainties and were of particular importance for our audit.

- b. We convinced ourselves that the future cash inflows underlying the measurements, in connection with the weighted cost of capital used, on the whole provide appropriate estimates for the impairment tests of the individual cash-generating units. As part of our assessment, we relied, among other things, on the management's detailed explanations regarding key assumptions used in the three-year plan and a comparison with general and sector-specific market expectations. We also convinced ourselves that the costs of corporate functions had properly been taken into account.

With the knowledge that even relatively small changes in the discount rate applied can have material effects on the value of goodwill calculated in this way, we also focused our testing on the parameters used to determine the discount rate applied, and evaluated the measurement model. Furthermore, we carried out additional own sensitivity analyses for the cash-generating units with a low coverage (net book value compared to present value ratio) and found that the respective goodwill was sufficiently covered by the discounted future cash flows. We consider the measurement inputs and assumptions used by management to be in line with our expectations.

- c. The disclosures pertaining to impairment tests are contained in section 2, 12 and 16 of the notes to the consolidated financial statements.

4. Accounting for hedging transactions

- a. The entities of Lufthansa Group use a number of different derivative financial instruments to hedge against currency, fuel price and interest rate risks associated with ordinary business activities. Management's hedging policy is documented in corresponding internal guidelines and serves as the basis for these transactions. Currency risks arise primarily from revenue, costs of materials (in particular fuel), investments (in particular aircraft purchases) and financing denominated in foreign currencies. The risk of changes in the price of fuel relates to the consumption of fuel by airlines in the Lufthansa Group. The risk of changes in interest rates results from floating and fixed-rate financing.

Derivative financial instruments are recognized at fair value as of the balance sheet date. The positive fair value of the derivative financial instruments used as hedges amounts to EUR 2.0 billion as of the balance sheet date and the negative

fair value amounts to EUR 0.2 billion. If the financial instruments used by Lufthansa Group are effective hedges of future cash flows in the context of hedging relationships in accordance with the requirements of IAS 39, the respective changes in fair value are recognized over the duration of the hedging relationships directly in equity. As of the balance sheet date, a cumulative EUR 1.4 billion were recognized outside profit or loss as expenses and income before taxes on income. From our point of view, these matters were of particular importance for our audit due to the high complexity and number of hedging transactions as well as the high accounting and reporting requirements under IAS 39.

- b. We involved our specialists from Corporate Treasury Solutions (CTS) to assist in the audit of the accounting including the effects of the hedges on equity and profit or loss. Together with these specialists, we assessed among other things the internal control system related to derivative financial instruments, including the internal activities to monitor compliance with the hedging policy. In our evaluation of the fair values, we also examined the measurement methods based on market data and the underlying data used. With respect to the hedging of expected future cash flows, we essentially retrospectively assessed past hedge effectiveness and the expected future hedge effectiveness as well as 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. We verified that hedges were appropriately accounted for and measured in accordance with the provisions of IAS 39.

- c. The disclosures about hedging transactions are contained in section 41 of the notes to the consolidated financial statements.

Other Information

Management is responsible for the other information. The other information comprises

- the Corporate Governance Report according to section 3.10 of the German Corporate Governance Code,
- the Corporate Governance Statement pursuant to § 289a HGB and § 315 Abs. 5 HGB, as well as
- other parts of the annual report of Deutsche Lufthansa Aktiengesellschaft, Cologne, for the financial year ended on December 31, 2016, which were not subject of our audit.

Our audit opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements 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 Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation of the consolidated financial statements, which comply with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB, and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. Furthermore, management is responsible for such internal control as management determines is 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, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objective is 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 to issue an auditor's report that includes our audit opinion on the consolidated financial statements. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, 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 economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, 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, 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 opinion. 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 in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or the group management report or, if such disclosures are inadequate, to modify our audit opinion. 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 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 represent the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the net assets and financial position as well as the results of operations of the Group in accordance with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB.

- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an audit opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance, 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 relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and 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 report on the audit of the consolidated financial statements unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Report on the Audit of the Group Management Report

Audit Opinion on the Group Management Report

We have audited the group management report of Deutsche Lufthansa Aktiengesellschaft, Cologne, which is combined with the Company's management report, for the financial year from January 1, to December 31, 2016.

In our opinion, based on the findings of our audit, the accompanying group management report as a whole provides a suitable view of the Group's position. In all material respects, the group management report is consistent with the consolidated financial statements, complies with legal requirements and suitably presents the opportunities and risks of future development.

Our audit has not led to any reservations with respect to the propriety of the group management report.

Basis for Audit Opinion on the Group Management Report

We conducted our audit of the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management and Those Charged with Governance for the Group Management Report

Management is responsible for the preparation of the group management report, which as a whole provides a suitable view of the Group's position, is consistent with the consolidated financial statements, complies with legal requirements, and suitably presents the opportunities and risks of future development. Furthermore, management is responsible for such policies and procedures (systems) as management determines are necessary to enable the preparation of a group management report in accordance with the German legal requirements applicable under § 315a Abs. 1 HGB and to provide sufficient and 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 group management report.

Auditor's Responsibilities for the Audit of the Group Management Report

Our objective is to obtain reasonable assurance about whether the group management report as a whole provides a suitable view of the Group's position as well as, in all material respects, is consistent with the consolidated financial statements as well as the findings of our audit, complies with legal requirements, and suitably presents the opportunities and risks of future development, and to issue an auditor's report that includes our audit opinion on the group management report.

As part of an audit, we examine the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the IDW. In this connection, we draw attention to the following:

- The audit of the group management report is integrated into the audit of the consolidated financial statements.
- We obtain an understanding of the policies and procedures (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 policies and procedures (systems).
- We perform audit procedures on the prospective information presented by management in the group management report. Based on appropriate and sufficient audit evidence, we hereby, in particular, evaluate the material assumptions used by management as a basis for the prospective information and assess the reasonableness of these assumptions as well as the appropriate derivation of the prospective information from these assumptions. We are not issuing a separate audit opinion on the prospective information or the underlying assumptions. There is a significant, unavoidable risk that future events will deviate significantly from the prospective information.
- We are also not issuing a separate audit opinion on individual disclosures in the group management report; our audit opinion covers the group management report as a whole.

Responsible auditor

The auditor responsible for the audit is Dr. Bernd Roese.

Dusseldorf, March 6, 2017

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Petra Justenhoven
Wirtschaftsprüferin
(German Public Auditor)

Dr. Bernd Roese
Wirtschaftsprüfer
(German Public Auditor)

Major subsidiaries

T189 Major subsidiaries as of 31.12.2016

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Business segment Passenger Airline Group			
A319 LDD-LDE-LDF Ltd., George Town, Grand Cayman, Cayman Islands	0.00	0.00 ¹⁾	
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⁾	
Air Sylph Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
AirTrust AG, Zug, Switzerland	100.00	100.00	June
AirUtopia Ltd. Japan, Tokyo, Japan	0.00	0.00 ¹⁾	
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⁾	
All Nippon Airways Trading Sky Leasing Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
AUA Beteiligungen Gesellschaft m.b.H., Vienna Airport, Austria	100.00	100.00	
AUA LNR/LNS/LNT/LNU Ltd., George Town, Grand Cayman, Cayman Islands	0.00	0.00 ¹⁾	
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	
Benjamin LH6 Kumiai Japan, Okayama, Japan	0.00	0.00 ¹⁾	
Canary Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
CASTOR Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Common Ground BER GmbH, Frankfurt/Main	100.00	100.00	
Common Ground BRE GmbH, Frankfurt/Main	100.00	100.00	
Common Ground CGN GmbH, Frankfurt/Main	100.00	100.00	
Common Ground DUS GmbH, Frankfurt/Main	100.00	100.00	
Common Ground HAJ GmbH, Frankfurt/Main	100.00	100.00	
Common Ground HAM GmbH, Frankfurt/Main	100.00	100.00	
Common Ground NUE GmbH, Frankfurt/Main	100.00	100.00	
Common Ground STR GmbH, Frankfurt/Main	100.00	100.00	
Dia Himmel Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Dia Kranich Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Dia Vogel Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Dunkel Leasing Co., Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Edelweiss Air AG, Kloten, Switzerland	100.00	100.00	
Eifel Leasing Co., Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Ellen Finance 2010 S.N.C., Paris, France	0.00	0.00 ¹⁾	
Empyrée S.A.S., Paris, France	0.00	0.00 ¹⁾	
Eurowings Aviation GmbH, Cologne	100.00	100.00	
Eurowings Europe GmbH, Vienna Airport, Austria	100.00	100.00	
Eurowings GmbH, Dusseldorf	100.00	100.00	
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⁾	
First Valley Highway Kumiai, Tokyo, Japan	0.00	0.00 ¹⁾	
Fleur Leasing Co. Ltd. Japan, 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⁾	

T189 Major subsidiaries as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Gabriela Finance 2012 Limited, Dublin, Ireland	0.00	0.00 ¹⁾	
Germanwings GmbH, Cologne	100.00	100.00	
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⁾	
Hummels Leasing Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Ingrid Finance 2010 S.N.C., Paris, 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⁾	
Lark Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
LeaseAir GmbH & Co. Verkehrsflugzeuge V KG, Dortmund	100.00	100.00	
LHAMIP LIMITED, Dublin, Ireland	100.00	100.00	
LHAMIS LIMITED, Dublin, Ireland	100.00	100.00	
LHAMIW LIMITED, Dublin, Ireland	100.00	100.00	
LHBD Holding Limited, London, UK	100.00	100.00 ²⁾	
Lily Port Leasing Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Lufthansa Asset Management Leasing GmbH, Frankfurt/Main	100.00	100.00	
Lufthansa Aviation Training GmbH, Hallbergmoos	100.00	100.00	
Lufthansa CityLine GmbH, Munich Airport	100.00	100.00	
Lufthansa Flight Training Berlin GmbH, Berlin ³⁾	100.00	100.00	
Lufthansa Flight Training GmbH, Frankfurt/Main ⁴⁾	100.00	100.00	
Lufthansa Leasing Austria GmbH & Co. OG Nr. 4, Salzburg, Austria	100.00	100.00	
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. 19, 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. 23, 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. 31, 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 Malta Aircraft-Leasing Ltd., St. Julians, Malta	100.00	100.00	
Lufthansa Malta Holding Ltd., St. Julians, Malta	100.00	100.00	
Lufthansa Process Management GmbH, Neu-Isenburg	100.00	100.00	
Matterhorn Leasing Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	

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Major subsidiaries

T189 Major subsidiaries as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Miles & More GmbH, Neu-Isenburg	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 Saxon Lease Co., Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Nicolai LH7 Kumiai Japan, Okayama, 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 ⁵⁾	
ÖLP Österreichische Luftverkehrs-Privatstiftung, Vienna Airport, Austria	0.00	0.00 ⁶⁾	
ORIX Himalia Corporation Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
ORIX Miranda Corporation Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Schloss Leasing Co., Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Second Valley Highway Kumiai, Tokyo, Japan	0.00	0.00 ¹⁾	
SJ Frankfurt Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SL Aurora Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SL Crane Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SL Opal Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SL Prairie Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SL Victoria Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SMFL Alphard Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SMFL Y Lease, Tokyo, Japan	0.00	0.00 ¹⁾	
SMFL Y Lease Nin-i-Kumiai Two, Tokyo, Japan	0.00	0.00 ¹⁾	
SMLC Antila Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SMLC Circinus Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
SMLC Crater Co. Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Soir Leasing Co., Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Stork Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Swiss Aviation Software AG, Basel, Switzerland	100.00	100.00	
Swiss Aviation Training AG, Kloten, 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⁾	
Third Valley Highway Kumiai, 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., Paris, France	0.00	0.00 ¹⁾	
Tim LH5 Kumiai Japan, Okayama, Japan	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 Saffron Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
TLC Salvia Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Tyrolean Airways Luftfahrzeuge Technik GmbH, Innsbruck, Austria	100.00	100.00	
Warbler Leasing Ltd., Tokyo, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH1 Kumiai (AIKG), Okayama, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH2 Kumiai (AIKH), Okayama, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH3 Kumiai (AIKK), Okayama, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH4 Kumiai (AIKM), Okayama, Japan	0.00	0.00 ¹⁾	

T189 Major subsidiaries as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Yamasa Aircraft LH9 Kumiai Ltd., Okayama, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH10 Kumiai Ltd., Okayama, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH11 Kumiai Ltd., Okayama, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH12 Kumiai Ltd., Okayama, Japan	0.00	0.00 ¹⁾	
Yamasa Aircraft LH13 Kumiai Ltd., Okayama, Japan	0.00	0.00 ¹⁾	
Business segment Logistics			
Jettainer Americas, Inc., Wilmington, USA	100.00	100.00	
Jettainer GmbH, Raunheim	100.00	100.00	
LHAMIC LIMITED, Dublin, Ireland	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	
Business segment MRO			
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 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 Airmotive Ireland 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, Co., Claire, Ireland	100.00	100.00	
Lufthansa Technik Sofia OOD, Sofia, Bulgaria	75.10	75.10	
Business segment Catering			
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, Stockholm-Arlanda, 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	

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Major subsidiaries

T189 Major subsidiaries as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Bahia Catering Ltda., Sao Cristovao (Salvador), Brazil	100.00	100.00	
Belém Serviços de Bordo Ltda., Belém, Brazil	70.00	70.00	
Capital Gain International (1981) Ltd., Hong Kong, China	100.00	100.00	
Caterair Servicos de Bordo e Hotelaria Ltda., Rio de Janeiro, Brazil	100.00	100.00	
Cater Suprimento de Refeicoes, Ltda., Rio de Janeiro, 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, Santiago de Chile, 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	
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, Tanzania	61.99	61.99	
International Food Services Ltd., Hong Kong, China	100.00	100.00	
Inversiones Turisticas Aeropuerto Panama, S.A., Panama City, Panama	100.00	100.00	
LSG Asia GmbH, Neu-Isenburg	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 Catering (Thailand) Ltd., Bangkok, Thailand	100.00	100.00	
LSG-Food & Nonfood Handel GmbH, Neu-Isenburg	100.00	100.00	
LSG France 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., Capetown, 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., 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 ⁶⁾	
LSG Lufthansa Service Saipan, Inc., Saipan, Micronesia	100.00	100.00	
LSG Lufthansa Service – Sky Chefs do Brasil Catering, Refeições Ltda., São Paulo, Brazil	100.00	100.00	
LSG Sky Chefs Argentina S.A., Buenos Aires, 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 Bremen GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Brussels International BVBA, Zaventem, Belgium	100.00	100.00	
LSG Sky Chefs Czechia spol. s.r.o., Bor, Czechia	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 Europe Holdings Ltd., West Drayton, UK	100.00	100.00	
LSG Sky Chefs Finland Oy, Vantaa, Finland	0.00	0.00 ⁷⁾	
LSG Sky Chefs – First Catering Schweiz AG, Bassersdorf, Switzerland	60.00	60.00	

T189 Major subsidiaries as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
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 Hamburg GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Havacilik Hizmetleri A.S., Sefaköy-Istanbul, Turkey	100.00	100.00	
LSG Sky Chefs Heathrow Limited i.L., Sidcup, UK	100.00	100.00	
LSG Sky Chefs (India) Private Ltd., Mumbai, India	100.00	100.00	
LSG Sky Chefs Istanbul Catering Hizmetleri A.S., Istanbul, Turkey	100.00	100.00 ⁸⁾	
LSG Sky Chefs Kenya Limited, Nairobi, 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 Leipzig GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Lounge GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Malmö AB, Stockholm, 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	March
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 Retail GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Rus, Moscow, Russia	100.00	100.00	
LSG Sky Chefs Schweiz AG, Bassersdorf, Switzerland	100.00	100.00	
LSG Sky Chefs Solutions Asia Limited, Hong Kong, China	100.00	100.00	
LSG Sky Chefs South Africa (Proprietary) Ltd., Johannesburg, South Africa	100.00	100.00	
LSG Sky Chefs S.p.A., Fiumicino, Italy	100.00	100.00	
LSG Sky Chefs Spain, S.A., Madrid, Spain	100.00	100.00	
LSG Sky Chefs Stuttgart GmbH, Neu-Isenburg	100.00	100.00	
LSG Sky Chefs Supply Chain Solutions, Inc., Wilmington, USA	100.00	100.00	
LSG Sky Chefs Sverige AB, Stockholm, Sweden	100.00	100.00	
LSG Sky Chefs TAAG Angola S.A., Luanda, Angola	40.00	40.00 ⁶⁾	
LSG Sky Chefs (Thailand) Ltd., Bangkok, Thailand	100.00	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-Sky Food GmbH, Alzey	100.00	100.00	
LSG South America GmbH, Neu-Isenburg	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., Natal, Brazil	70.00	70.00	
Oakfield Farms Solutions Europe Ltd., West Drayton, UK	51.00	51.00	
Oakfield Farms Solutions, L.L.C., Wilmington, Delaware, USA	100.00	100.00	
Retail in Motion (International) Limited, Dublin, Ireland	100.00	100.00	
Retail in Motion Limited, Dublin, Ireland	100.00	100.00	
SC International Services, Inc., Wilmington, USA	100.00	100.00	
SCIS Air Security Corporation, Wilmington, USA	100.00	100.00	
ServCater Internacional Ltda., Guarulhos, Brazil	90.00	90.00	
Siam Flight Services Ltd., Bangkok, Thailand	49.00	66.67	
Silver Wings Bulgaria OOD, Sofia, Bulgaria	28.75	28.75 ⁹⁾	
Sky Chefs Argentine, Inc., Wilmington, USA	100.00	100.00	

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Major subsidiaries

T189 Major subsidiaries as of 31.12.2016 (continued)

Name, registered office	Equity stake	Voting share	Different reporting period
	in %	in %	
Sky Chefs Chile SpA, Santiago de Chile, 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, Inc., Wilmington, USA	100.00	100.00	
Sky Chefs Things Remembered Services Limited, Lagos, Nigeria	51.00	51.00	
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	
Starfood Finland Oy, Vantaa, Finland	100.00	100.00	
Starfood S.r.l., Fiumicino, Italy	100.00	100.00	
Supply Chain S.à.r.l., Senningerberg, Luxembourg	100.00	100.00	
Western Aire Chef, Inc., Wilmington, USA	100.00	100.00	
ZAO AeroMEAL, Yemelyanovo, Russia	100.00	100.00	
Other			
AirPlus Air Travel Card Vertriebsgesellschaft mbH, Vienna, Austria	100.00	100.00	
AirPlus Holding GmbH, Vienna, Austria	100.00	100.00	
AirPlus International AG, Kloten, Switzerland	100.00	100.00	
AirPlus International, Inc., Springfield, USA	100.00	100.00	
AirPlus International Limited, London, UK	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	
LHAMIH LIMITED, Dublin, Ireland	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 Commercial Holding GmbH, Cologne	100.00	100.00	
Lufthansa Global Business Services GmbH, Frankfurt/Main	100.00	100.00	
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 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 Finance Ltd., St. Julians, Malta	100.00	100.00	
Lufthansa Malta Working Capital Solutions Limited, St. Julians, Malta	100.00	100.00	
Lufthansa Seeheim GmbH, Seeheim-Jugenheim	100.00	100.00	
Lufthansa SICAV-FIS-Fonds, Saint-Josse-ten-Noode, Belgium	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⁾ Since 2 January 2017, the company has been known as Lufthansa Aviation Training Berlin GmbH.

⁴⁾ Since 2 January 2017, the company has been known as Lufthansa Aviation Training Germany GmbH.

⁵⁾ 50.20 per cent of the equity stakes and voting rights are attributed via ÖLP.

⁶⁾ Management responsibility for the company lies with the Group.

⁷⁾ 100 per cent of the equity shares and voting rights are attributed via a call option.

⁸⁾ 33.34 per cent of the equity stakes and 50.01 per cent of the voting rights are attributed via a call option.

⁹⁾ 28.75 per cent of the equity stakes and voting rights are attributed via a call option.

T190 Major joint ventures as of 31.12.2016¹⁾

Name, registered office	Equity stake in %	Voting share in %	Different reporting period
Business segment Passenger Airline Group			
Günes Ekspres Havacilik Anonim Sirketi (SunExpress), Antalya, Turkey	50.00	50.00	
Terminal 2 Gesellschaft mbH & Co. oHG, Munich Airport	40.00	40.00	
Business segment Logistics			
Shanghai Pudong International Airport Cargo Terminal Co. Ltd., Shanghai, China	29.00	22.22	
Business segment MRO			
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	51.00	
Business segment Catering			
Alpha LSG Limited, Manchester, UK	50.00	50.00	
Other			
Diners Club Spain S.A., Madrid, Spain	25.00	25.00	

T191 Joint operations as of 31.12.2016²⁾

Aerologic GmbH, Leipzig	50.00	50.00	
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T192 Major associated companies as of 31.12.2016¹⁾

Business segment Passenger Airline Group			
SN Airholding SA/NV, Brussels, Belgium	45.00	45.00	
Business segment MRO			
Aircraft Maintenance and Engineering Corp., Beijing, China	25.00	28.57	
HEICO Aerospace Holdings Corp., Florida, USA	20.00	20.00	
Business segment Catering			
CateringPor – Catering de Portugal, S.A., Lissabon, 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, China	40.00	40.00	
Starfood Antalya Gida Sanayi ve Ticaret A.S., Istanbul, Turkey	49.00	49.00	
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

T193 Miscellaneous equity investments as of 31.12.2016

Name, registered office	Equity stake in %	Voting share in %
Subsidiaries, not consolidated		
ACS Aircontainer Services Gesellschaft m.b.H., Fischamend, Austria	76.00	76.00
Air Dolomiti Deutschland GmbH, Munich	100.00	100.00
Airline Marketing Services India Private Limited, Mumbai, India	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, Schkeuditz	100.00	100.00
Albatros Service Center GmbH, Cologne	100.00	100.00
Albatros Versicherungsdienste GmbH, Cologne	100.00	100.00
ATC – Austrian Technik Consulting, s.r.o. in Liquidation, Trencin, Slovakia	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 Quality Services GmbH, Frankfurt/Main	100.00	100.00
Avionic Design GmbH, Hamburg	100.00	49.00
AVS Privatkunden Versicherungsservice GmbH, Vienna Airport, Austria	100.00	100.00
Cargo Future Communications (CFC) GmbH, Büchenbeuren	65.00	65.00
Caterair Portugal – Assistencia A Bordo, Lda., Sacavém, Portugal	100.00	100.00
CrewAcademy GmbH, Frankfurt/Main ¹⁾	100.00	100.00
Crossair AG, Basel, Switzerland	100.00	100.00
Delvag Versicherungs-AG, Cologne	100.00	100.00
Deutsche Lufthansa Unterstützungswerk GmbH, Cologne	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 Systems (TOPCO) Limited, Staffordshire, UK	85.00	50.00
GERANOS Grundstücksgesellschaft mbH & Co. IMMOBILIEN KG, Cologne	85.00	100.00
German-American Aviation Heritage Foundation, Washington, USA	100.00	100.00
Global Load Control (PTY) LTD, Capetown, South Africa	100.00	100.00
Global Tele Sales (PTY) Ltd., Capetown, 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 Tele Sales Pty Limited, Melbourne, Australia	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
Hinduja Lufthansa Cargo Holding B.V., Amsterdam, Netherlands	100.00	100.00
IBYKUS-KG THG Grundbuchtreuhandgesellschaft mbH & Co., Cologne	85.00	88.14
IND Beteiligungs GmbH, Raunheim	100.00	100.00
In-Flight Management Solutions Latin America, S.A. de C.V., Mexico City, Mexico	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
LCH Grundstücksgesellschaft Berlin mbH, Cologne	100.00	100.00
LGSP Lufthansa Ground Service Portugal, Unipessoal Lda., Maia/Oporto, Portugal	100.00	100.00
LH Cargo Holding GmbH, Frankfurt/Main	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
LSG Sky Chefs Lounge, Inc., Wilmington, USA	100.00	100.00
LSI Malta Pension Ltd., St. Julians, Malta	100.00	100.00
Lufthansa Aviation Training Austria GmbH, Vienna Airport, Austria	100.00	100.00

T193 Miscellaneous equity investments as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %
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., New Delhi, India	100.00	100.00
Lufthansa Cargo Servicios Logísticos 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 Ltda., Rio de Janeiro, Brazil	92.78	99.90
Lufthansa Consulting GmbH, Frankfurt/Main	92.87	100.00
Lufthansa Consulting Managementbeteiligungs GmbH & Co. KG, Cologne	64.35	64.35
Lufthansa Engineering and Operational Services GmbH, Frankfurt/Main	100.00	100.00
Lufthansa Flight Training – CST GmbH, Berlin ²⁾	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 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	98.32	98.32
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., Gdansk, 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 Logistik of America LLC, New York, USA	100.00	100.00
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 Services India Private Limited, New 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
Lufthansa Technik Vostok Services OOO, Moscow region, 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
Maptext, Inc., Monmouth Junction, USA	100.00	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

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Miscellaneous equity investments

T193 Miscellaneous equity investments as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %
Pilot Training Network GmbH, Frankfurt/Main ³⁾	100.00	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 in Motion Latin America SpA, Santiago de Chile, Chile	100.00	100.00
Servicios Complementarios de Cabina, S.A. de C.V., Mexico City, Mexico	51.88	99.80
Shared Services International India Private Limited, New Delhi, India	100.00	100.00
Shared Services International, Singapore, Singapore	100.00	100.00
Sky Chefs Things Remembered Services FZE, Lagos, Nigeria	51.00	51.00
Star Risk Services Inc., Southlake, USA	100.00	100.00
Swiss European Air Lines AG, Kloten, Switzerland	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
THG Grundbuchtreuhandgesellschaft mbH, Cologne	85.00	85.00
time matters GmbH, Zurich, Switzerland	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 Netherlands B.V., Luchthaven Schiphol, Netherlands	100.00	100.00
VPF Malta Pension Ltd., St. Julians, Malta	100.00	100.00
ZeroG GmbH, Raunheim	100.00	100.00
Other equity investments		
Aerexchange Ltd., Wilmington, USA	9.46	9.46
AFC Aviation Fuel Company oHG, Hamburg	50.00	50.00
Airfoil Services Sdn. Bhd., Kuala Lumpur, Malaysia	50.00	50.00
Airmail Center Frankfurt GmbH, Frankfurt/Main	40.00	40.00
ATLECON Fuel LLC, Atlanta, USA	11.11	11.11
AviationPower GmbH, Hamburg	49.00	49.00
Beijing Lufthansa Center Co. Ltd., Beijing, China	11.23	12.50
Chelyabinsk Catering Service OOO, Chelyabinsk, Russia	26.00	26.00
CommuniGate Kommunikationservice GmbH, Passau	50.00	50.00
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
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
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
FMO Passenger Services GmbH, Greven	33.33	33.33
FraCareServices GmbH, Frankfurt/Main	49.00	49.00
FSH Flughafen Schwechat-Hydranten-Gesellschaft GmbH & Co. OG, Vienna Airport, Austria	14.29	14.29
GOAL German Operating Aircraft Leasing GmbH & Co. KG, Grünwald	40.00	39.99
GOAL German Operating Aircraft Leasing GmbH, Munich	40.00	40.00
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
Hangzhou Xiaoshan Airport LSG Air Catering Co. Ltd., Hangzhou, China	25.00	28.57
Hydranten-Betriebs OHG, Frankfurt/Main	48.00	16.67
Idair GmbH, Hamburg	50.00	50.00
INAIRVATION GmbH, Edlitz-Thomasberg, Austria	50.00	50.00
Jade Cargo International Company Limited i.L., Shenzhen, China	25.00	28.57
LSG Gate Gourmet Paris S.A.S. i.L., Roissy, France	50.00	50.00

T193 Miscellaneous equity investments as of 31.12.2016 (continued)

Name, registered office	Equity stake in %	Voting share in %
LSG Sky Chefs Catering Egypt S.A.E., Cairo, Egypt	15.00	15.00
Lufffahrzeugverwaltungsgesellschaft GOAL mbH, Grünwald	40.00	40.00
Lufthansa HNA Technical Training Co., Ltd., Meilan Airport, 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
N3 Engine Overhaul Services Verwaltungsgesellschaft mbH, Hamburg	50.00	50.00
Nigerian Aviation Handling Company PLC., Lagos, Nigeria	6.00	6.00
SAEMS Special Airport Equipment and Maintenance Services GmbH & Co. KG, Hamburg	40.00	40.00
S.A.E.M.S. Verwaltungs-GmbH, 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	49.00	40.00
Sky Chefs for Airlines Catering Company, Tripolis, Libya	44.50	44.50
STARS Special Transport and Ramp Services GmbH & Co. KG, Hamburg	49.00	49.00
S.T.A.R.S. Verwaltungs-GmbH, Hamburg	49.00	49.00
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	30.00	30.00
Turbo Fuel Services Sachsen (TFSS) GbR, Hamburg	20.00	20.00
UBAG Unterflurbetankungsanlage Flughafen Zurich AG, Rümlang, Switzerland	12.00	12.00
Universal Air Travel Plan, Inc., Washington, USA	5.26	5.26
Vayant Travel Technologies, Inc., City of Lewes, USA	19.03	21.14
Xinjiang HNA LSG Sky Chefs Co. Ltd., Urumqi, China	49.00	40.00
Zentrum für Angewandte Luftfahrtforschung GmbH, Hamburg	20.00	20.00

¹⁾ Since 2 January 2017, the company has been known as Lufthansa Aviation Training Crew Academy GmbH.

²⁾ Since 1 January 2017, the company has been known as Lufthansa Aviation Training Operations Germany GmbH.

³⁾ Since 3 January 2017, the company has been known as Lufthansa Aviation Training Pilot Academy GmbH.

Ten-year overview

T194 Ten-year overview

		2016	2015	2014 ⁷⁾
Income statement Lufthansa Group				
Revenue	€m	31,660	32,056	30,011
Result				
Adjusted EBIT ¹⁾	€m	1,752	1,817	1,171
Adjusted EBIT margin	%	5.5	5.7	3.9
Operating result ¹⁾	€m			
Operating margin	%			
Profit/loss from operating activities	€m	2,190	1,555	879
Profit/loss before income taxes ²⁾	€m	2,248	2,026	180
Income taxes ²⁾	€m	-445	-304	-105
Net profit/loss attributable to shareholders of Deutsche Lufthansa AG	€m	1,776	1,698	55
Main cost items				
Staff costs	€m	7,354	8,075	7,335
Fees and charges	€m	5,736	5,651	5,265
Fuel for aircraft	€m	4,885	5,784	6,751
Depreciation, amortisation and impairment	€m	1,769	1,715	1,528
Net interest	€m	-218	-170	-256
Balance sheet Lufthansa Group				
Asset structure				
Non-current assets	€m	24,504	23,526	22,227
Current assets	€m	10,193	8,936	8,247
of which liquid assets	€m	3,937	3,093	2,738
Capital structure				
Shareholders' equity	€m	7,149	5,845	4,031
of which issued capital	€m	1,200	1,189	1,185
of which reserves	€m	4,084	2,881	2,728
Liabilities	€m	27,548	26,617	26,443
of which pension provisions	€m	8,364	6,626	7,231
of which borrowing	€m	6,575	6,370	5,958
Total assets	€m	34,697	32,462	30,474
Other financial data Lufthansa Group				
Capital expenditure	€m	2,231	2,568	2,773
of which on tangible and intangible assets	€m	2,160	2,454	2,699
of which on financial investments	€m	71	114	74
Cash flow from operating activities	€m	3,246	3,393	1,977
Free cash flow	€m	1,138	834	-297
Indebtedness				
gross	€m	6,638	6,440	6,156
net	€m	2,701	3,347	3,418
Deutsche Lufthansa AG				
Net profit/loss for the year	€m	1,169	1,034	-732
Transfer to/from reserves	€m	-935	-802	732
Dividends proposed/paid	€m	234	232	-
Dividend per share proposed/paid	€	0.50	0.50	-

Further information

Ten-year overview

	2013 ⁶⁾	2012 ⁵⁾	2011	2010 ⁴⁾	2009	2008	2007
	30,027	30,135	28,734	26,459	22,283	24,842	22,420
	986	725	972	1,297			
	3.3	2.4	3.4	4.9			
					130	1,280	1,378
					0.6	5.2	6.1
	851	1,622	773	1,386	271	1,309	1,586
	546	1,296	446	1,134	-134	730	2,125
	-220	-91	-157	-161	-112	178	365
	313	1,228	-13	1,131	-34	542	1,655
	7,356	6,741	6,678	6,491	5,996	5,692	5,498
	5,167	5,167	5,000	4,318	3,762	3,499	3,174
	7,115	7,392	6,276	4,964	3,645	5,377	3,860
	1,767	1,839	1,722	1,654	1,475	1,289	1,204
	-346	-372	-288	-346	-325	-172	-194
	19,419	18,782	18,627	18,963	17,696	14,975	14,076
	9,689	9,777	9,454	10,357	8,696	7,433	8,244
	4,698	4,966	3,998	5,380	4,439	3,278	3,607
	6,108	4,839	8,044	8,340	6,202	6,594	6,900
	1,180	1,177	1,172	1,172	1,172	1,172	1,172
	4,563	2,374	6,790	5,939	4,956	4,817	4,018
	23,000	23,720	20,037	20,980	20,190	15,814	15,420
	4,718	5,844	2,165	2,571	2,710	2,400	2,461
	6,337	6,910	6,424	7,184	6,802	3,581	3,345
	29,108	28,559	28,081	29,320	26,392	22,408	22,320
	2,499	2,358	2,560	2,271	2,304	2,152	1,737
	2,444	2,291	2,445	2,222	2,177	1,798	1,621
	55	67	115	49	127	354	116
	3,290	2,842	2,356	2,992	1,991	2,473	2,862
	1,307	1,397	713	1,542	251	612	2,688
	6,393	6,919	6,440	7,207	6,860	3,639	3,369
	1,695	1,953	2,328	1,596	2,195	-125	-768
	407	592	-116	483	-148	276	1,123
	-200	-592	230	-208	148	44	-551
	207	-	114	275	-	320	572
	0.45	-	0.25	0.60	-	0.70	1.25

Further information

Ten-year overview

T194 Ten-year overview (continued)

		2016	2015	2014 ⁷⁾
Operational ratios Lufthansa Group				
Return on sales (Profit/loss before income taxes ^{2)/revenue)}	%	7.1	6.3	0.6
Return on capital employed (Profit/loss before income taxes ^{2) plus interest on liabilities/total assets)}	%	7.3	7.3	2.0
Return on equity (Profit/loss after income taxes/shareholders' equity)	%	25.2	29.5	1.9
Return on equity (Profit/loss before income taxes ^{2)/shareholders' equity)}	%	31.4	34.7	4.5
Equity ratio (Shareholders' equity/total assets)	%	20.6	18.0	13.2
Gearing (Net indebtedness plus pension provisions/shareholders' equity)	%	154.8	170.6	264.2
Leverage (Net indebtedness/total assets)	%	7.8	10.3	11.2
Internal financing ratio (Cash flow/capital expenditure)	%	145.5	132.1	71.3
Debt repayment ratio (Net indebtedness/adjusted cash flow from operating activities)	%	28.7	30.7	20.8
Revenue efficiency (Cash flow/revenue)	%	10.3	10.6	6.6
Net working capital (Current assets less current liabilities)	€bn	-0.8	-3.5	-2.7
Non-current asset ratio (Non-current assets/total assets)	%	70.6	72.5	72.9
Depreciation ratio for aircraft/reserve engines (Accumulated depreciation/accumulated acquisition costs)	%	49.7	51.6	51.4
Staff ratios				
Average number of employees	number	123,287	119,559	118,973
Revenue/employee	€	256,799	268,119	252,251
Staff costs/revenue	%	23.2	25.2	24.4
Traffic figures Lufthansa Group³⁾				
Passengers	millions	109.7	107.7	106.0
Available seat-kilometres	millions	286,555	273,975	268,104
Revenue seat-kilometres	millions	226,633	220,396	214,643
Passenger load factor	%	79.1	80.4	80.1
Available cargo tonne-kilometres	millions	15,117	14,971	14,659
Revenue cargo tonne-kilometres	millions	10,071	9,930	10,249
Cargo load factor	%	66.6	66.3	69.9
Total available tonne-kilometres	millions	43,607	40,421	41,548
Total revenue tonne-kilometres	millions	32,300	29,928	31,308
Overall load factor	%	74.1	74.0	75.4
Number of flights	number	1,021,919	1,003,660	1,001,961
Aircraft in service	number	617	600	615

¹⁾ Since 2015, Adjusted EBIT has replaced the operating result as the main earnings metric for the Company's forecasts. The Adjusted EBIT figures for the previous years are calculated up to and including 2010.

²⁾ Until 2008 including the discontinued business segment Leisure Travel.

³⁾ Lufthansa Passenger Airlines, SWISS, Austrian Airlines, Eurowings and Lufthansa Cargo.

⁴⁾ 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.

⁵⁾ The figures for the financial year 2012 were adjusted retrospectively due to the application of the revised IAS 19.

⁶⁾ The figures for the financial year 2013 were adjusted retrospectively due to IFRS 11.

⁷⁾ The figures for the financial year 2014 were adjusted retrospectively due to the new reporting method.

Further information

Ten-year overview

	2013 ⁶⁾	2012 ⁵⁾	2011	2010 ⁴⁾	2009	2008	2007
	1.8	4.3	1.6	4.3	-0.6	2.9	9.5
	3.6	6.4	3.3	5.7	1.4	4.9	11.2
	5.3	25.6	0.0	13.7	-0.4	8.4	25.5
	8.9	26.8	5.5	13.6	-2.2	11.1	30.8
	21.0	16.9	28.6	28.4	23.5	29.4	30.9
	105.0	161.1	55.9	50.0	79.1	34.5	24.5
	5.8	6.8	8.3	5.4	8.3	-0.6	-3.4
	131.7	120.5	92.0	131.7	86.4	114.9	164.8
	37.0	34.4	49.7	59.7	38.1	97.0	154.7
	11.0	9.7	8.8	11.9	8.9	10.0	12.8
	-1.3	0.0	-0.3	0.5	-0.1	-0.6	0.0
	66.7	65.8	66.3	64.7	67.1	66.8	63.1
	52.6	54.2	54.4	53.9	54.2	58.9	58.0
	117,414	118,368	119,084	117,066	112,320	108,123	100,779
	255,736	254,587	241,292	226,018	198,384	229,757	222,467
	24.5	22.4	23.2	24.5	26.9	22.9	24.5
	104.6	103.6	100.6	92.7	77.3	70.5	62.9
	262,682	260,169	258,263	234,377	208,226	195,431	169,108
	209,649	205,015	200,376	186,452	162,286	154,156	135,011
	79.8	78.8	77.6	79.6	77.9	78.9	79.8
	14,893	14,749	16,260	15,298	14,372	15,141	13,416
	10,285	10,240	10,861	10,429	8,706	9,510	9,043
	69.1	69.4	66.8	68.2	60.6	62.8	67.4
	41,218	40,925	40,798	37,664	35,469	34,960	30,339
	30,879	30,408	29,908	28,274	24,943	24,972	22,613
	74.9	74.3	73.3	75.1	70.3	71.4	74.5
	1,028,260	1,067,362	1,050,728	1,008,988	899,928	830,832	749,431
	622	627	696	710	722	524	513

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 carriers 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 traffic revenue divided by offered seat kilometres.

Yields Average 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.30f.](#)

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. → [T067 Consolidated cash flow statement, p.99.](#)

Compliance Institutionalised arrangements for ensuring that a company's management and staff duly comply with all statutory provisions and prohibitions.

Debt repayment ratio A financial indicator. It represents the ratio of adjusted cash flow from operating activities to net indebtedness and pensions. → [p.37.](#) The rating agencies' comparable criteria for an investment grade rating are met if a target of at least 60 per cent is achieved sustainably.

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. Under German law, any such dealings must be disclosed if they exceed EUR 5,000 within a calendar year.

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.

Earnings After Cost of Capital – EACC Main indicator of value creation. This is calculated from EBIT plus interest income on liquidity less taxes of 25 per cent and costs of capital. A positive EACC means that the Company has created value in a given financial year. → [Management system and supervision, p.18.](#)

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.

Internal financing ratio Financial indicator expressing the degree to which capital expenditure was financed from the cash flow generated.

Jet fuel crack Price difference between crude oil and kerosene.

Lufthansa Pension Trust A fund to which Lufthansa has been contributing since 2004 to finance future retirement benefits to staff in Germany and those seconded abroad. Annual contributions are planned to build up fund assets, with the objective of funding benefit obligations in full.

Net indebtedness / net liquidity Financial indicator denoting non-current borrowing less cash, cash equivalents and current securities.

Operating result An earnings measure. The operating result is calculated as the profit from operating activities, adjusted for book gains and losses, write-backs of provisions, impairment losses, results of financial investments and the measurement of financial liabilities at the end of the period.

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.

Retention of earnings Transfer of a company's profit to equity. It strengthens the company's financial position.

Return On Capital Employed – ROCE Indicator of value creation. EBIT, to which interest income on liquidity has been added and taxes of 25 per cent 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.

Further information

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Chart and table overview

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Further information

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Contact

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Andreas Hagenbring (Editor)
Anne Katrin Brodowski
Patrick Winter

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Rolf Bewersdorf, Frankfurt/Main, Germany
Jens Görlich, Oberursel, Germany
Andreas Pohlmann, München, Germany

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Contact

Andreas Hagenbring

+49 69 696–28001

Frédéric Depeille

+49 69 696–28013

Patricia Minogue

+49 69 696–28003

Deutsche Lufthansa AG
Investor Relations
LAC, Airportring
60546 Frankfurt am Main
Germany
Phone: +49 69 696–28001
Fax: +49 69 696–90990
E-mail: investor.relations@dlh.de

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Financial calendar 2017/2018

2017

- 16 March** Release of Annual Report 2016
- 27 April** Release of Interim Report
January – March 2017
- 5 May** Annual General Meeting in Hamburg
- 2 Aug.** Release of Interim Report
January – June 2017
- 25 Oct.** Release of Interim Report
January – September 2017

2018

- 15 March** Release of Annual Report 2017
- 26 April** Release of Interim Report
January – March 2018
- 8 May** Annual General Meeting in Hamburg
- 31 July** Release of Interim Report
January – June 2018
- 30 Oct.** Release of Interim Report
January – September 2018

Disclaimer in respect of forward-looking statements

Information published in the Annual Report 2016, with regard to the future development of the Lufthansa Group and its subsidiaries consists purely of forecasts and assessments and not of definitive facts. Its purpose is exclusively informational, and can be identified by the use of such cautionary terms as “believe”, “expect”, “forecast”, “intend”, “project”, “plan”, “estimate”, “anticipate”, “can”, “could”, “should” or “endeavour”. These forward-looking statements are based on discernible information, facts and expectations available at the time that the statements were made. They are therefore subject to a number of risks, uncertainties and factors, including, but not limited to, those described in disclosures, in particular in the Opportunities and risk report in the Annual Report. Should one or more of these risks occur, or should the underlying expectations or assumptions fail to materialise, this could have a significant effect (either positive or negative) on the actual results.

It is possible that the Group's actual results and development may differ materially from the results forecast in the forward-looking statements. Lufthansa does not assume any obligation, nor does it intend, to adapt forward-looking statements to accommodate events or developments that may occur at some later date. Accordingly, it neither expressly nor conclusively accepts liability, nor gives any guarantee, for the actuality, accuracy and completeness of this data and information.

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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