

CREDIT OPINION

23 January 2024

Update



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RATINGS

Deutsche Lufthansa Aktiengesellschaft

Domicile	Koeln, Germany
Long Term Rating	Baa3
Type	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Deutsche Lufthansa Aktiengesellschaft

Update following upgrade to Baa3 stable

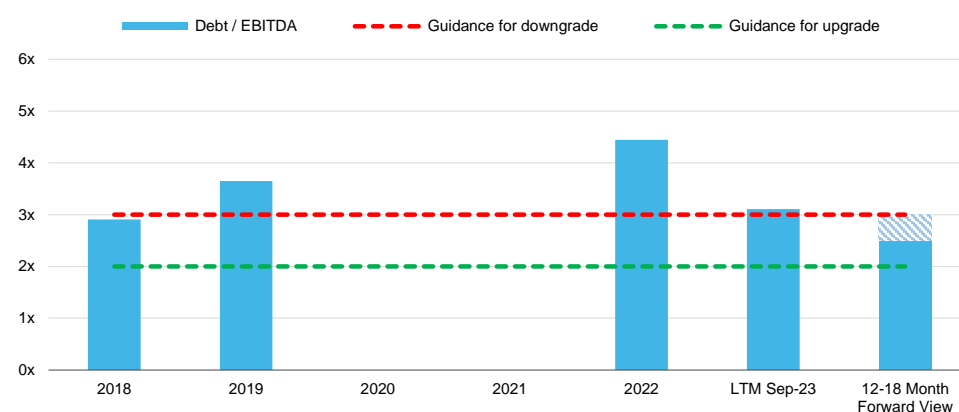
Summary

On 18 January 2024 we upgraded the ratings of Deutsche Lufthansa AG's (Lufthansa) to Baa3 from Ba1 with a stable outlook. The upgrade reflects (i) the positive trend of Lufthansa's operating profitability which improved markedly during 2023, (ii) the solid market prospects for the next 12 months at least with a strong yield environment, and (iii) the company's commitment to continue improving its credit profile through operational improvements and further debt reduction. Additionally, the meaningfully improved liquidity post-pandemic provides cushion for cyclical downturns.

Lufthansa has managed its cost base well over the last few years and its leading position in the European airline sector as well as a well-diversified route network and business segments reduce volatility of the cyclical passenger business. We expect 2024 to be a strong year for Lufthansa's passenger airlines business with a continued improvement in traffic and a strong yield environment with limited signs that inflationary pressures will weigh on unit pricing.

Exhibit 1

Absent a reversal in the current recovery in passenger traffic we expect leverage to reduce towards 3.0x over the next 12 to 18 months



Our forecasts assume that Revenue Passenger Kilometres (RPK) will not recover to 2019 levels before 2024 at the earliest. Debt metrics for 2020 and 2021 are heavily distorted by the impact of the pandemic, hence we do not show them on the chart above.
 Source: Moody's Investors Service

Gross adjusted leverage improved to 3.1x in LTM September 2023, from 4.4x and we expect that it will decrease to approximately 2.5x in 2025, driven by ongoing strong demand and maintenance of yields in passenger traffic while its cargo business is expected to normalize and maintenance, repair and overhaul (MRO) segment lifting profitability given the high demand for maintenance from the recent recalls and tight capacity. Lufthansa continues

to invest into modernization and standardization of its fleet, leading to negative Moody's adjusted free cash flow in the next years. We nevertheless expect the company to reduce gross debt going forward while maintaining its liquidity.

Credit strengths

- » Leading market position in Europe, with diverse global network and product offerings
- » Critical element of the transportation infrastructure in Germany, Austria, Switzerland and Belgium
- » Strategic importance for the German government demonstrated in 2020 with material liquidity injection amid the pandemic
- » Economies of scale from different business segments and some degree of earnings visibility because of business diversification
- » Sizeable unencumbered fleet

Credit challenges

- » Very strong passenger yield environment potentially normalising once more capacity is being restored and supply chain constraints are easing
- » Investment needs to modernize fleet dampen free cash flow generation
- » The relatively low Moody's-adjusted EBIT margin compared with that of other investment-grade-rated airlines reflects strong competition, but also a still high cost base
- » Remaining execution risk on cost reduction programme although implementation has been strong to date and ahead of our expectations

Rating outlook

The stable outlook on the ratings reflects Moody's view that Lufthansa's financial profile will gradually strengthen further over the next 12-18 months, supported by strong demand in the European airline market and the benefits from Lufthansa's structural progress in terms of cost reductions supported by strong MRO contribution. The stable outlook also encompasses the expectation that Lufthansa will maintain its prudent financial policy and focus on deleveraging.

Factors that could lead to an upgrade

The rating could come under positive pressure if:

- 1) gross adjusted leverage falls sustainably below 2.0x;
- 2) the retained cash flow (RCF)/debt metric increases materially above 35%; and
- 3) the adjusted EBIT margin is maintained at least double-digit in percentage terms, indicating resilience to competitive pressures, and
- 4) the company maintains its strong liquidity.

Factors that could lead to a downgrade

The rating could come under negative pressure if:

- 1) gross adjusted leverage is sustained above 3.0x, or
- 2) the RCF/debt metric falls below 25%, or
- 3) Funds from operations plus interest-to-interest is sustained below 6x, or

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody's.com> for the most updated credit rating action information and rating history.

4) Any deterioration in its liquidity profile below the defined corridor between €8.0-10.0 billion or weakening of its prudent financial policy.

Key indicators

Exhibit 2

Key Indicators for Deutsche Lufthansa Aktiengesellschaft^{[1][2][3]}

EUR million	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	LTM Sep-23	12-18 Month Forward View
Revenue	35,542	36,424	13,589	16,811	32,770	36,912	38,000 - 41,000
EBIT Margin %	8.6%	5.4%	-34.5%	-13.7%	4.9%	8.1%	7.8% - 8.2%
Debt / EBITDA	2.9x	3.6x	-11.7x	-556.0x	4.4x	3.1x	2.5x - 3.0x
RCF / Debt	25.4%	20.9%	-13.3%	-4.0%	17.2%	26.2%	26% - 29%
(FFO + Interest Expense) / Interest Expense	8.9x	11.5x	-3.9x	-0.3x	4.6x	7.4x	7.6x - 8.4x

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments.

[2] Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.

[3] Moody's Forecasts (f) or Projections (proj.) are Moody's opinion and do not represent the views of the issuer.

Source: Moody's Investors Service

Profile

Deutsche Lufthansa Aktiengesellschaft, headquartered in Cologne, Germany, is the leading European airline in terms of revenue. During the 12 months ended September 2023, it generated revenue of €36.9 billion and a Moody's adjusted EBITDA of €5.3 billion.

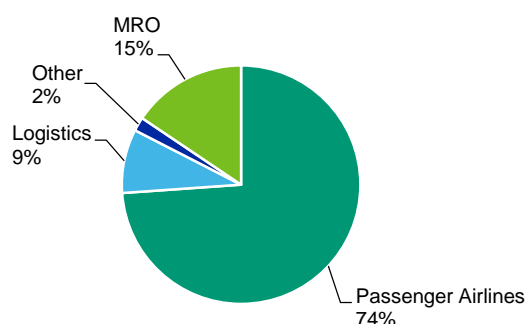
The company's revenue is derived principally from three business segments: Passenger Airlines (Lufthansa German Airlines, Swiss, Austrian Airlines, Brussels Airlines and low cost airline Eurowings); Logistics, a cargo provider focusing on the airport-to-airport business; MRO, a supplier of maintenance, repair and overhaul services for civil aircraft.

In the first nine months 2023, Lufthansa carried 93 million passengers on 717k flights. Pre-pandemic the route network of the company's Network Airlines comprised around 273 destinations in 86 countries. As of September 2023, the company's fleet consisted of 714 aircraft, with an average age of around 13 years.

Exhibit 3

Lufthansa's revenue by business segment

LTM September 2023



Catering business has been discontinued in Q1-23.

Source: Company's reports.

Detailed credit considerations

Recovery in passenger traffic about to achieve pre-pandemic levels despite macroeconomic uncertainties; yield environment remains strong as capacity is constrained

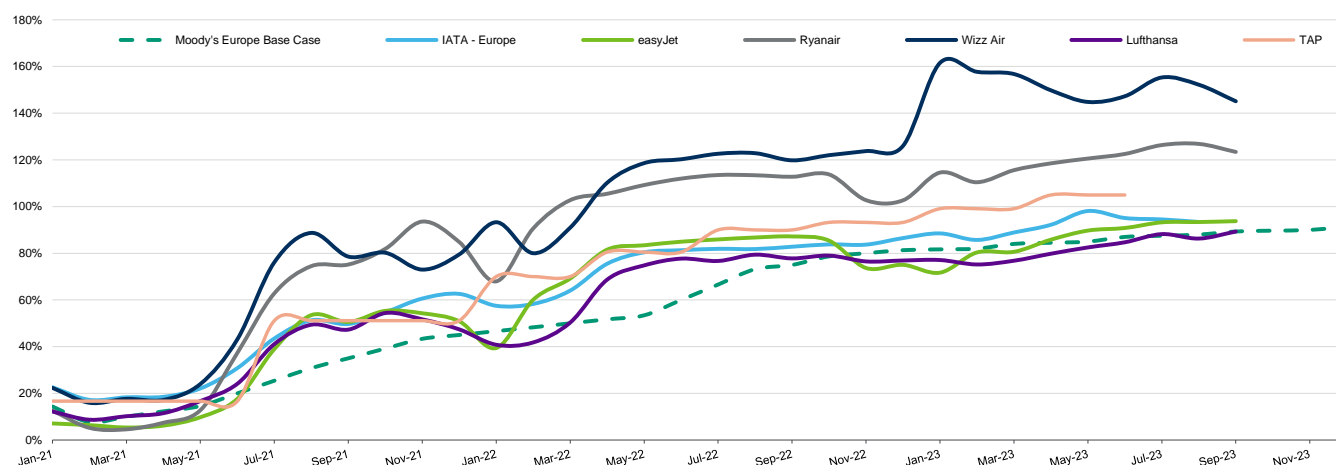
Passenger traffic continues to grow towards pre-pandemic levels and we expect it to be on par with 2019 within the next 12-24 month. Lufthansa has been able to operate close to 90% of its capacity as measured by Available Seat Kilometers at its network airlines versus pre-pandemic levels during the third quarter of 2023 increasing from 78% compared to the third quarter 2022 and

52% in 2021. Demand continued to exceed supply due to operating challenges across the air travel value chain (airport and air traffic control bottlenecks, lack of pilots, amongst other) as well as high level of groundings, e.g. from the GTF engine issue. The tight supply / demand balance led to a very significant increase in ticket fares and yields versus pre-pandemic levels with Lufthansa's network airlines reporting a 25% increase in yields versus pre-pandemic in Q3 2023 and a 2% increase versus 2022. This has translated into a significant improvement in credit metrics and an outperformance versus the expectations factored into our last rating action in May 2023.

The macroeconomic uncertainties and the high inflationary pressures persist in Europe but has not lead to any slowdown in the recovery in passenger traffic as expected by us previously. We expect the yield level to remain elevated in the next 12-18 months as constraints in the global commercial aviation supply chain, as well as labor shortages at the airlines and at key service providers like airports, will keep the industry's capacity below demand, sustaining its ability to sell tickets at prices that exceed its costs. We nevertheless factor in a slightly declining pattern as a reflection of potential competitive pressures as excess savings on the consumer side has reduced markedly during 2023. We also note that the lagging recovery in business travel (only back to around 60% of pre-pandemic level by passenger numbers) is exacerbating the seasonal nature of Lufthansa's passenger airline business with stronger volatility between off and peak season. Lufthansa should also benefit from a gradual recovery of the Asian market over that period as this region has not yet strongly recovered. Asia accounted for 19% of the network airline traffic revenue in 2019 versus only 7% in 2021 and 9% in 2022.

Exhibit 4

European passenger traffic has been broadly aligned with our forecasts so far; traffic still expected to recover to pre-pandemic level by 2024
Revenue Passenger Kilometers or flight numbers (Eurocontrol) for Europe



Source: Company's, IATA, Eurocontrol and Moody's Investors Service

Lufthansa's diversification supports earnings stability as cargo yields faded away during 2023 while MRO is expected to grow strongly

Lufthansa's various divisions benefit from mutual synergies and economies of scale. For example, its Logistics division transports a large proportion of freight in the belly capacity of Lufthansa's airlines businesses, while the MRO business maintains and repairs the group's sizeable fleet and provides MRO services to many other airlines. The Network Airlines and Eurowings divisions also complement each other, with Network Airlines operating medium- to long-haul routes with a strong premium positioning, while Eurowings is more focused on point-to-point traffic and customers, which are price sensitive.

Diversification across divisions has also supported earnings predictability to some degree. The Network Airlines business segment has stayed relatively robust in terms of margins and EBIT growth pre-pandemic, largely because of its strong market positions in economically strong domestic markets (mainly Germany), and its premium market positioning, especially in long-haul markets.

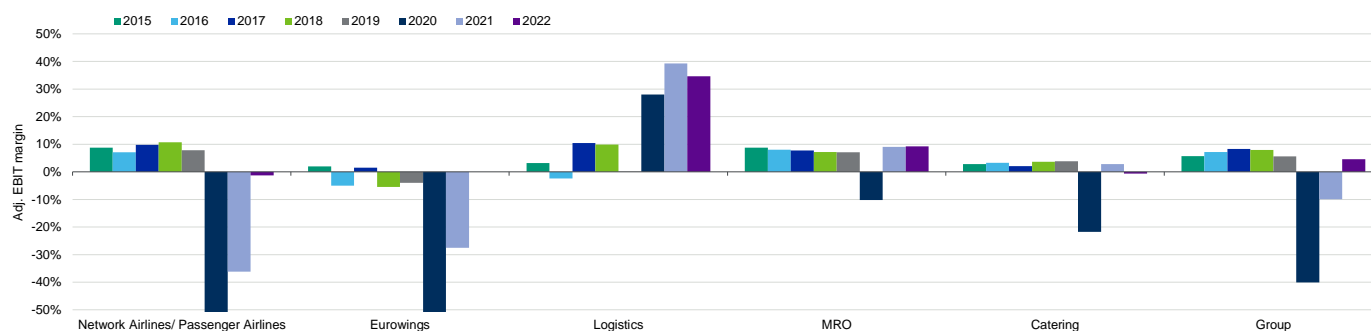
As illustrated in the chart below, Lufthansa's Logistics business has offered a strong hedge against the collapse in passenger traffic during the pandemic. This business generated a series of record EBIT since the onset of the pandemic in 2020 mainly supported by a

surge in cargo yields. While cargo yields have eased meaningfully during 2023, we nevertheless expect a stabilization over the medium term while the passenger business of Lufthansa continues to recover from the pandemic hence mitigating the weakening of the cargo business.

The MRO business is set to benefit from an unusually high demand for maintenance and repair as an unusual high amount of groundings is recently experienced in the airline industry leading to MRO capacity constraints until 2026. Additionally, Lufthansa's decision to divest the remaining catering business and its AirPlus operations supports profitability as both segments were dilutive to the group's margins.

Exhibit 5

EBIT of the Network Airlines and MRO businesses have offset the more cyclical and volatile earnings of its Eurowings and Logistics businesses pre pandemic; Logistics business has posted record performance since the onset of the pandemic



Passenger Airlines business segment comprises both Network Airlines and Eurowings from 2022 onwards
Source: Lufthansa and Moody's Investors Service

Solid strategic rationale for the acquisition of minority stake in ITA but turnaround risk is considered high, further consolidation cannot be ruled out

On 25th May 2023, Lufthansa announced that it has reached an agreement with the Italian Ministry of Economy and Finance (MEF) to buy a 41% stake in Italian airline ITA for €325 million through a capital increase at ITA. Under the terms and conditions agreed with the MEF, Lufthansa will acquire a 41% stake in ITA for €325 million through a capital increase rather through a payment to the MEF whilst the MEF will inject €250 million in the airline prior to the closing of the transaction. ITA will have close to €1 billion of cash on balance sheet pro forma of the two capital increases (based on €418 million stand-alone cash as per 31st December 2022). Lufthansa has an option to acquire the remaining shares in ITA at its discretion and / or dependent on a jointly agreed business plan for ITA. The aim of Lufthansa is to ultimately fully own and control the company.

The strategic rationale for the transaction is sound. The acquisition of ITA offers Lufthansa access to a strong long haul hub to reinforce its traffic to Latin America and the African continent, two relative weaknesses of Lufthansa in the past also relative to peers. Lufthansa intends to reduce the exposure of ITA to the very competitive point-to-point domestic Italian market and to increase the fleet of long haul aircraft to 24 from 14 currently. The strategic rationale is also underpinned by Italy being the 3rd largest economy in Europe and the 3rd largest airline market in Europe. Italy is already Lufthansa's fifth largest market. On a more negative note ITA is a newly created airline from the legacy of Alitalia that still needs to prove that it can become a profitable airline. ITA has been fully restructured with new pilot and crew labor contracts as well as no pension liabilities and no financial debt (excluding €1 billion lease liabilities). Lufthansa expects ITA to become profitable in 2025 and has structured the proposed transaction in such a way that it has the right but not the obligation to buy the remaining capital in ITA and only if a commonly agreed business plan has been met. However the acquisition of a 41% stake in ITA will be dilutive to Lufthansa's earnings as long as ITA is not achieving at least break even. The capital injection of €325 million is small in the context of Lufthansa's €8.4 billion cash position as per March 2023 but the risk also remains that additional equity injection might be required if ITA is not turning around its operating performance quickly enough.

While the acquisition of ITA will tie up management resources and will give Lufthansa access to a hub in Southern Europe with good access to the African and Latin American markets, we cannot rule out that Lufthansa will also be amongst the bidders for TAP once it becomes available for sale. This acquisition will further reinforce Lufthansa's market access to Latin America and notably Brazil, will give the company access to a modern fleet but will come at a significantly higher price tag than ITA.

Lufthansa remains committed to further improve its credit profile and to maintain a minimum liquidity corridor

We expect Lufthansa to continue focusing on improving its credit profile to achieve its own objective of returning back to an investment grade rating. The company is committed to reduce its financial indebtedness whilst maintaining its public liquidity corridor of €8 to 10 billion, which comprises both cash on balance sheet and the company's €2 billion sustainability-linked revolving credit facility. Lufthansa's liquidity corridor was set up after the pandemic and is calibrated to cover certain short term liabilities on balance sheet including unflown ticket liabilities.

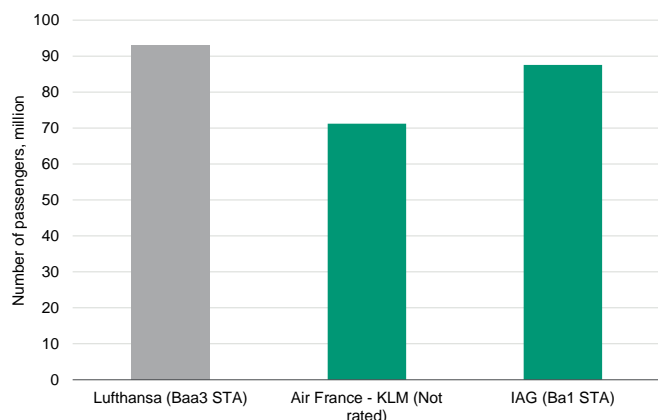
We expect Lufthansa to use excess cash flow to further reduce its financial indebtedness over time. Whilst the company has announced a restoration of a dividend payout potentially from 2024 onwards (cash out) we expect the company to exert caution and to use a conservative dividend payout ratio. Lufthansa's strategy to start hedging its net pension deficit by investing in a portfolio of long term assets with an interest rate mirroring the discount rate of its pension liabilities should reduce the volatility of its net pension deficit and hence the volatility of our Moody's adjusted debt.

Strong European market position and extensive network as a result of Lufthansa's participation in market consolidation

With revenue of around €36.9 billion as of LTM September 2023, Lufthansa is one of the largest airlines globally and the largest in Europe. Passenger numbers of around 93 million the first nine month 2023 and revenue seat kilometres of around 188 billion compare favourably with those of the [International Airlines Group](#) (IAG, Ba1 stable) and Air France-KLM (see Exhibits 5 and 6).

Exhibit 6

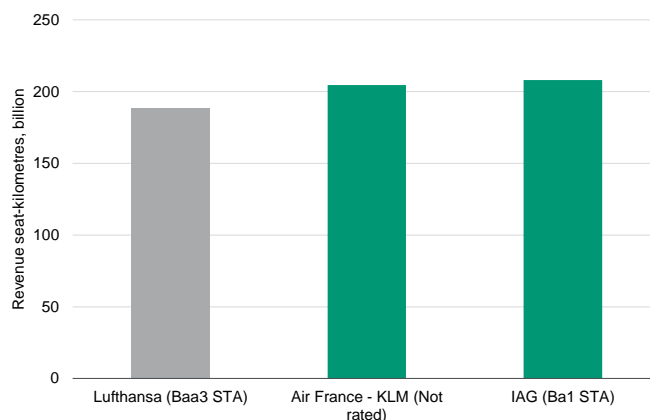
Lufthansa's passenger numbers are greater than those of its closest European peers
9M 2023 In millions



Source: Company information

Exhibit 7

Lufthansa's revenue seat kilometre slightly lower than peers
9M 2023 In billions



Source: Company information

The scale of Lufthansa's business and its leading market positions, especially in Germany, Austria, Switzerland and Belgium (DACHB markets), reflect the several acquisitions made over the last 10-15 years. These included Swiss Airlines in 2005, Austrian Airlines in 2009, the remaining 55% stake that it did not own in Brussels Airlines in 2017, LGW in early 2018 and its acquisition of most of Air Berlin's fleet in 2017-18. Besides strengthening the company's network and increasing its market shares in these markets (as of June 2019, Lufthansa accounted for 80% of intra-DACHB traffic and around 35% of DACHB-EU and DACHB-world traffic), these acquisitions have helped consolidate the still highly fragmented European aviation market compared with, for example, the US market.

ESG considerations

Deutsche Lufthansa Aktiengesellschaft's ESG credit impact score is CIS-3

Exhibit 8

ESG credit impact score

CIS-3



ESG considerations have a limited impact on the current rating, with potential for greater negative impact over time.

Source: Moody's Investors Service

Lufthansa's ESG Credit Impact Score reflects limited credit impact to date, but the potential for carbon transition and related social risk factors to pressure the rating over time. Carbon transition risk reflects that current aircraft propulsion technologies and very limited supply of sustainable aviation fuel will not support a rapid carbon transition scenario for the airline industry. Potential policy responses including more onerous regulations are possible and a social risk. However, the credit risk to airlines is long-term in nature. Lufthansa will address the increasing carbon transition risk for the airline industry through capital investments in new aircraft and a rejuvenation of its fleet. Given the company's sizeable fleet it will take time to markedly reduce the average fleet age of the airline group. Lufthansa's investment grade capital structure and its strong access to debt and equity capital markets will make it easier than for more levered airlines to make necessary investments to mitigate carbon transition risk. Lufthansa is also exposed to high Human Capital risk from a strongly unionised workforce. Labor disputes have had a financial impact on the company in recent years.

Exhibit 9

ESG issuer profile scores

ENVIRONMENTAL

E-4



SOCIAL

S-4



GOVERNANCE

G-2



Source: Moody's Investors Service

Environmental

Lufthansa faces environmental risk due to carbon transition. This will depend on evolving decarbonization policies around the globe and regulations which may increase operating costs for airlines. Further, the desire by some to reduce carbon emissions may lead to reduced travel, in particular, corporations seeking to reduce their carbon footprints. Point-in-time the average fleet age and efficiency is lower than for low cost peers that have smaller fleets and have a shorter corporate history. This exposes Lufthansa to higher carbon transition risk than certain low cost carriers such as Wizz Air.

Social

Social risks across the industry and for Lufthansa reflect our view of a linkage between carbon transition and demographic and societal trends. The score indicates the potential for policies and/or trends that lead to lower travel volumes or higher costs, or both. Lufthansa also has higher human capital risk than some of its US or low cost peers due to a higher level of unionisation, which has led to labor disruption events in the past. Lufthansa, like other airlines is also exposed to a potential shortfall in skilled labor (pilots and mechanics),

which would negatively affect operations and or increase costs. However the strength of Lufthansa's brand in Europe has enabled to recruit skilled staff without difficulties across its network of airlines in the past.

Governance

Lufthansa has good corporate governance practices. The company maintains conservative financial policies in line with its investment grade rating and has reduced financial risks since the pandemic. The company is publicly listed on the German stock exchange. Its capital structure is straightforward with most of the group's debt being raised at the parent company level.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity

Lufthansa's liquidity position is strong. The company had approximately €9.0 billion of cash on balance sheet at September 2023 and full availability under its €2.0 billion sustainability-linked revolving credit facility. Total liquidity (excluding credit lines) accounts for around 24% of LTM September 2023 revenue. This compares to €3.4 billion of cash (unused credit lines of €800 million) as per December 2019 or 9.3% of revenue (excluding credit lines) at that time. The company generated a Moody's adjusted FCF of €0.5 billion for the LTM to September 2023. Lufthansa has established a new liquidity corridor of €8 billion to €10 billion, which is materially higher than pre-pandemic. Lastly, Lufthansa has a well spread maturity profile.

Rating methodology and scorecard factors

The principal methodology used in these ratings was Passenger Airlines published in August 2021.

The scorecard indicated outcome as of LTM September 2023 and in our forward view is Baa3, in line with the current rating assigned.

Exhibit 10

Rating factors

Deutsche Lufthansa Aktiengesellschaft

Passenger Airline Industry Scorecard [1][2]			Current LTM 9/30/2023		Moody's 12-18 Month Forward View As of January 2024 [3]	
Factor 1 : Scale (10%)	Measure	Score	Measure	Score	Measure	Score
a) Revenue (USD Billion)	\$39.4	A			\$40 - \$43	A
Factor 2 : Business Profile (25%)						
a) Market Position and Network Strength	Baa	Baa			Baa	Baa
Factor 3 : Profitability and Efficiency (12.5%)						
a) EBIT Margin (EBIT / Revenue)	8.1%	B			7.8% - 8.2%	B
Factor 4 : Leverage and Coverage (37.5%)						
a) Debt / EBITDA	3.1x	Ba			2.5x - 3.0x	Baa
b) RCF / Debt	26.2%	Baa			26% - 29%	Baa
c) (FFO + Interest Expense) / Interest Expense	7.4x	Ba			7.6x - 8.4x	Baa
Factor 5 : Financial Policy (15%)						
a) Financial Policy	Baa	Baa			Baa	Baa
Rating:						
a) Scorecard-Indicated Outcome		Baa3				Baa3
b) Actual Rating Assigned						Baa3

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. [2] As of 30/09/2023 (L); [3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text; does not incorporate significant acquisitions and divestitures

Source: Moody's Investors Service

Ratings

Exhibit 11

Category	Moody's Rating
DEUTSCHE LUFTHANSA AKTIENGESELLSCHAFT	
Outlook	Stable
Issuer Rating -Dom Curr	Baa3
Senior Unsecured -Dom Curr	Baa3

Source: Moody's Investors Service

Appendix

Exhibit 12

Peer comparison

Deutsche Lufthansa Aktiengesellschaft

	Deutsche Lufthansa Aktiengesellschaft			British Airways, Plc			United Airlines Holdings, Inc.			American Airlines Group Inc.			Int'l Consolidated Airlines Group, S.A.		
	Baa3 Stable			Ba1 Stable			Ba2 Stable			B1 Stable			Ba1 Stable		
	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM
(in USD million)	Dec-21	Dec-22	Sep-23	Dec-21	Dec-22	Jun-23	Dec-21	Dec-22	Sep-23	Dec-21	Dec-22	Sep-23	Dec-21	Dec-22	Jun-23
Revenue	19,890	34,537	39,396	5,080	13,645	16,019	24,634	44,955	52,491	29,882	48,971	52,914	10,004	24,310	28,587
Operating Profit	(2,797)	1,492	2,918	(2,519)	395	1,473	(521)	2,753	4,879	(530)	2,394	5,305	(3,419)	1,308	3,042
EBITDA	(50)	4,085	5,639	(1,114)	1,984	3,222	2,781	6,215	9,167	3,103	5,927	9,043	(1,052)	3,620	5,644
Total Debt	26,556	18,378	17,389	13,520	12,770	13,255	41,288	37,191	35,772	50,396	45,841	43,358	22,625	21,559	21,645
Cash & Cash Equivalents	8,718	8,859	9,537	2,285	3,027	4,975	18,320	7,211	7,870	273	440	577	8,993	10,209	13,103
EBIT / Interest Expense	-3.2x	1.9x	4.4x	-4.0x	1.0x	2.8x	-0.2x	1.4x	2.5x	-0.2x	0.9x	1.9x	-3.6x	1.4x	3.2x
Debt / EBITDA	-556.0x	4.4x	3.1x	-12.3x	6.6x	3.9x	14.8x	6.0x	3.9x	16.2x	7.7x	4.8x	-22.4x	5.9x	3.7x
RCF / Net Debt	-6.0%	33.2%	58.1%	-15.6%	14.4%	29.4%	3.9%	14.1%	25.6%	1.7%	7.7%	14.8%	-16.0%	27.6%	55.0%
FCF / Debt	-7.8%	12.0%	3.1%	-9.8%	-1.5%	3.6%	-0.3%	3.0%	3.4%	1.2%	-1.2%	5.6%	-11.7%	-2.4%	4.9%

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics™

Exhibit 13

Reconciliation of Moody's-adjusted Debt^{[1][2]}

Deutsche Lufthansa Aktiengesellschaft

	FYE	FYE	FYE	FYE	FYE	LTM
(in EUR million)	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	Sep-23
As Reported Total Debt	6,685	10,030	15,368	16,670	15,151	14,355
Pensions	5,865	6,947	9,531	6,682	2,069	2,069
Leases	3,761	0	0	0	0	0
Hybrid Securities	(250)	(250)	0	0	0	0
Non-Standard Adjustments	101	302	0	0	0	0
Moody's Adjusted Total Debt	16,162	17,029	24,899	23,352	17,220	16,424

[1] All figures are calculated using Moody's estimates and standard adjustments.

[2] Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.

Source: Moody's Financial Metrics™

Exhibit 14

Reconciliation of Moody's-adjusted EBITDA^{[1][2]}

Deutsche Lufthansa Aktiengesellschaft

(in EUR million)	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22	LTM Sep-23
As Reported EBITDA	5,179	5,007	(3,844)	171	4,014	5,348
Unusual Items - Income Statement	(36)	(355)	1,692	(128)	(157)	(84)
Pensions	(110)	14	31	(85)	19	19
Leases	528	0	0	0	0	0
Moody's Adjusted EBITDA	5,561	4,666	(2,121)	(42)	3,876	5,283

[1] All figures are calculated using Moody's estimates and standard adjustments.

[2] Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.

Source: Moody's Financial Metrics™

Exhibit 15

Overview of Moody's-adjusted financial data

Deutsche Lufthansa Aktiengesellschaft

(in EUR million)	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22	LTM Sep-23
INCOME STATEMENT						
Revenue	35,542	36,424	13,589	16,811	32,770	36,912
EBITDA	5,561	4,666	(2,121)	(42)	3,876	5,283
EBIT	3,052	1,974	(4,682)	(2,301)	1,600	2,986
Interest Expense	568	378	674	727	822	679
BALANCE SHEET						
Cash & Cash Equivalents	3,235	3,401	5,460	7,666	8,301	9,008
Total Debt	16,162	17,029	24,899	23,352	17,220	16,424
Net Debt	12,927	13,628	19,439	15,686	8,919	7,416
CASH FLOW						
Funds from Operations (FFO)	4,468	3,981	(3,299)	(923)	2,970	4,336
Cash Flow From Operations (CFO)	4,349	3,552	(2,663)	(83)	4,854	3,857
Capital Expenditures	(4,412)	(3,961)	(1,729)	(1,714)	(2,774)	(3,322)
Dividends	361	426	21	19	8	31
Retained Cash Flow (RCF)	4,107	3,555	(3,320)	(942)	2,962	4,305
RCF / Debt	25.4%	20.9%	-13.3%	-4.0%	17.2%	26.2%
Free Cash Flow (FCF)	(424)	(835)	(4,413)	(1,816)	2,072	504
FCF / Debt	-2.6%	-4.9%	-17.7%	-7.8%	12.0%	3.1%
PROFITABILITY						
% Change in Sales (YoY)	-0.1%	2.5%	-62.7%	23.7%	94.9%	30.1%
EBIT margin %	8.6%	5.4%	-34.5%	-13.7%	4.9%	8.1%
EBITDA margin %	15.6%	12.8%	-15.6%	-0.2%	11.8%	14.3%
INTEREST COVERAGE						
(FFO + Interest Expense) / Interest Expense	8.9x	11.5x	-3.9x	-0.3x	4.6x	7.4x
EBIT / Interest Expense	5.4x	5.2x	-6.9x	-3.2x	1.9x	4.4x
EBITDA / Interest Expense	9.8x	12.3x	-3.1x	-0.1x	4.7x	7.8x
LEVERAGE						
Debt / EBITDA	2.9x	3.6x	-11.7x	-556.0x	4.4x	3.1x
Net Debt / EBITDA	2.4x	3.0x	-10.5x	-784.3x	2.3x	1.4x

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics™

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