4 November 2016 Corporates

Deutsche Lufthansa AG Germany, Transportation



Corporate profile

Lufthansa is a global aviation group organised into five segments: Passenger Airline Group, Logistics; Maintenance, Repair and Overhaul (MRO); Catering; and Other, Service and Financial Companies. The group's revenue ranks it among the leading European airlines and the largest carriers worldwide.

Ratings

Corporate Rating BBBOutlook Stable
Instrument Rating (senior unsecured) BBB-/Stable

Rating rationale

Scope Ratings assigns Corporate Issuer Credit Rating (CICR) of BBB- to Germany-based aviation group Lufthansa. The short-term rating is S-2 and the Outlook is Stable. Senior unsecured debt is rated BBB-.

Lufthansa's BBB- Corporate Issuer Credit Rating reflects Scope Ratings' view on the group's credit-supportive business risk profile. Lufthansa has a global network coverage and diversified route network, is a member and co-founder of the global airline alliance Star Alliance, and has a high share of business travellers. The company also benefits from diversification in various aviation-related services.

A key restraint for the business risk assessment is the marked cyclicality of the airline industry, including risks of material fluctuations of operating profits that may result from swings of demand for either passenger or cargo traffic. Lufthansa's profitability is currently below its peers' and is supported by low fuel costs, a benefit that will be short-lived in our view, given the intense market competition and likelihood that lower fuel prices will eventually be passed to customers through lower fares. Lufthansa has agreed collective-bargaining agreements with ground staff and flight attendants, which should help reduce unit costs in the future. The fleet-renewal programme may lower operating expenses, although we are concerned that some cost benefits may not be retained but are instead 'competed away'.

The airline industry in Europe remains fairly fragmented. As long as consolidation among the players does not occur, we do not see great chances for a structural increase of profits in the industry.

We view the financial risk profile of Lufthansa as slightly more favourable than its business risk profile. Our forecasts for 2016F point to a Scope-adjusted debt (SaD)/EBITDA of 2.6x and FFO/SaD of 31%, followed by gradual improvements of both ratios, given our forecast that free operating cash flows (FOCF) are expected to exceed projected dividend payments.

Analyst

Werner Stäblein +49 69 97944 751 w.staeblein@scoperatings.com

Back-up Analyst

Olaf Tölke +49 30 27891 261 o.toelke@scoperatings.com

Team Leader

Olaf Tölke +49 30 27891 261 o.toelke@scoperatings.com

Related Research // Methodology

Corporate Rating Methodology Nov. 2015

Short-term Corporate Debt Ratings, May 2016

Scope Ratings AG

Headquarters

Lennéstraße 5 10785 Berlin

Phone +49 30 27891 0 Fax +49 30 27891 100

info@scoperatings.com www.scoperatings.com



4 November 2016 1/16



Germany, Transportation

The recently announced Air Berlin transaction is neutral for the rating. Our forecast considers effects from the collective-bargaining agreement concluded with the flight attendants' union UFO (Unabhängige Flugbegleiter Organisation), but excludes those from the agreement likely to be reached with the pilots' union VC (Vereinigung Cockpit).

Lufthansa's liquidity is solid. Financial obligations in the medium term are covered by cash, committed credit lines and the expected excess of FOCF over dividend payments. Further financial flexibility also results from the high share of unencumbered aircraft in the fleet. In our view, Lufthansa pursues a cautious financial policy and is prepared to balance debtholder interests with shareholder interests, as happened during the financial crisis in 2009 and in 2011 when dividend payments were cut due to weaker earnings.

Outlook

The Outlook is Stable and incorporates our expectation that Lufthansa should achieve debt-protection measures, such as SaD/EBITDA, of 2.0x-2.5x in the medium term. The key premise behind our expectation is that cash generated from ongoing operations is likely to exceed projected dividend payments.

We would consider a negative rating action if SaD/EBITDA or FFO/SaD were to respectively deteriorate to about 3.0x and 25%. Lufthansa has some headroom to accommodate minor deteriorations in trading conditions, including lower operating earnings (EBITDA). We estimate, all other things being equal, that negative rating pressure could result if the reported EBITDA margin were to deteriorate to about 8.5% (versus 10.2% reported for 2015 and 10% expected for 2016F, adjusted for the expected one-time gain resulting from the agreement with the flight attendants' union).

A higher rating could be warranted if SaD/EBITDA were to decline below 2.0x sustainably.

4 November 2016 2/16



Germany, Transportation

Rating drivers

Positive

Globally diversified operations with various well-known brands

Scale of operations, including diversified worldwide route network and geographical reach, with strong positions at hubs in Frankfurt, Munich, Zurich, and Vienna

Diversified operations (MRO/Catering) with strong market positions mitigating cyclicality risks in passenger and cargo traffic

Multi-hub strategy gives customers a broad range of travel options; leading position in home market of Germany; competitive advantage in premium market for long-haul traffic

Co-founder of Star Alliance, supporting increased flight frequencies

Broad fleet of aircraft; fleet-renewal programme to support improvements in cost structures through next-generation aircraft

Moderate leverage as measured by SaD/EBITDA of just above 2.0x and good financial flexibility

Negative

Exposed to cyclical changes of discretionary travel (business and leisure) and event risks, such as natural disasters, contagious diseases and strikes, that negatively affect passenger volumes

Intensely competitive environment, including yield pressure from low-cost airlines and other network airlines

Risk of material fluctuations of operating profits in passenger airline segment due to the risk of volatile passenger and cargo traffic and high operating leverage

Operating performance occasionally affected by strikes and labour disputes

Multi-hub strategy has low flexibility to adjust capacity tactically or strategically without repercussions on the overall system

Rating-change drivers

Positive

Significant deleveraging beyond our base case; viewed unlikely given the highly competitive environment and capex needs for fleet-renewal programme

Successful reduction of unit costs and structural cost disadvantages through conclusion of long-term labour agreements

Negative

Sudden and unexpected negative changes to discretionary travel (business and leisure) due to changes in macroeconomic environment, or lower business confidence

Event risks including natural disasters, terrorist activities, political unrest, contagious diseases, and strikes by cabin crew or pilots; potential negative effects from the risk of overcapacity build-up in the air travel industry

Intensifying competition by low-cost carriers and Gulf carriers, in particular at the major hubs of Frankfurt and Munich

Deterioration of SaD/EBITDA or FFO/SaD to levels of about 3.0x and 25%

The present document was prepared by Scope Ratings AG as part of a private rating. As such, it is subject to the provisions of EU Regulation 1060/2009 of the European Parliament and the Council of the European Union. EU Regulation1060/2009 of the European Parliament and Council specifically prohibits the public disclosure of private ratings. Scope Ratings will not accept any liabilities for any failure to comply with the above-mentioned requirement caused directly or indirectly by the rating object or its affiliates. Based on these regulations Scope Ratings AG limits the possible uses of this document by the following provision: the disclosure of the rating documents, including in parts, is only permitted on written authorisation from Scope Ratings. All evaluations undertaken in this report are based on statements, documents and information which were made available by the rating object or its milieu. The rating was prepared with the greatest possible care and to the best of Scope's knowledge. The content and result however merely represent an expression of opinion by Scope. No liability is accepted for decisions taken on the basis of the rating report and their possible damages.

4 November 2016 3/16



Germany, Transportation

Financial overview

		Scope estimates		
Scope credit ratios	2015	2016F	2017F	2018F
EBITDA/interest coverage	12x	9x	9x	10x
Scope-adjusted debt (SaD)/EBITDA	2.3x	2.6x	2.3x	2.1x
Scope-adjusted FFO/SaD	38%	31%	35%	41%
FOCF/SaD	14%	11%	10%	11%

		Scope estimates		
Scope-adjusted EBITDA in EUR m	2015	2016F	2017F	2018F
EBITDA	3,270	3,785	3,358	3,589
Operating lease payment in respective year	393	465	465	465
less: agreement with cabin crew union (Scope estimate)	0	-700	0	0
Scope-adjusted EBITDA	3,663	3,550	3,823	4,054

		Scope estimates		
Scope funds from operations in EUR m	2015	2016F	2017F	2018F
EBITDA	3,270	3,785	3,358	3,589
less: (net) cash interest as per cash flow statement	5	-105	-100	-100
less: cash tax paid as per cash flow statement	-197	-379	-354	-394
less: pension interest	-182	-185	-190	-195
add: depreciation component, operating leases	264	332	332	332
add: dividends received from at-equity investees	56	50	50	50
less: agreement with cabin crew union (Scope estimate)	0	-700	0	0
Scope funds from operations (FFO)	3,216	2,798	3,095	3,282

		Scope estimates		
Scope-adjusted debt in EUR m	2015	2016F	2017F	2018F
Reported gross financial debt	6,370	6,370	6,370	6,370
Cash, cash equivalents	-3,093	-3,422	-3,645	-3,930
thereof: cash not accessible	350	350	350	350
Pension adjustment	2,423	3,450	3,450	3,450
Operating lease obligation (net present value)	2,666	2,666	2,666	2,666
Other adjustments	70	70	70	70
Fair value hedges	-83	-83	-83	-83
Hybrid bond	-247	-247	-247	-247
Scope-adjusted debt	8,456	9,155	8,932	8,646

4 November 2016 4/16



Germany, Transportation

One of the largest aviation groups worldwide

New strategy announced in 2014

Cyclicality of air transportation industry is 'high'

Event risk and high operating leverage

Air traffic grows at about 2.0-2.5 times GDP growth

Business risk profile

Lufthansa is a global aviation group organised into five segments: Passenger Airline Group (PAG), Logistics, MRO (Maintenance, Repair, and Overhaul), Catering and Other, Service and Financial Companies. The group has a broad fleet and ranks among the largest airline carriers worldwide. In 2015, PAG operated 581 aircraft, with a global network of 297 destinations in 89 countries. In 1997, Lufthansa was a founding member of the first global airline alliance, Star Alliance, which today serves more than 1,300 destinations worldwide. The privatisation of Lufthansa was completed in 1997 when the German government divested its remaining 36% stake.

In July 2014, Lufthansa announced its new strategy to establish different platforms for its aviation services. The multi-brand system with hubs in Frankfurt, Munich, Zurich, and Vienna is complemented by Lufthansa's WINGS platform in its European home markets. WINGS bundles the different operations of point-to-point air travel. With Eurowings as the starting platform, Lufthansa aims to develop a competitive European product for continental air travel. To this end, Eurowings is now replacing its CRJ 900 aircraft with A320s to improve its cost structure. Eurowings is building on the Germanwings concept of being a low-cost brand for point-to-point connections. Under the umbrella of the Eurowings brand, Lufthansa has gradually expanded its route network to include intercontinental connections.

Industry risk

Scope classifies the cyclicality risk for the airline industry as 'high' in accordance with our methodology to determine the credit characteristics of different industries. The airline industry is very susceptible to adverse economic changes. Reduced economic activity quickly influences air traffic, in particular, the high-margin business-class travel and, to a smaller extent, discretionary leisure travel. Large reductions in international trade flows bear the risk of lower air-freight volumes. Difficulties among airlines to adjust capacities to sudden market swings adds a further risk that the rates of fares and freight will come under pressure in economically weak times.

The airline industry is highly competitive. Small variations in passenger numbers, fares or cargo carried can have a disproportionately negative effect on operating profits as key cost items are fixed. The high operating leverage also makes it difficult to adjust quickly to changing demand. Airline travel is likewise exposed to event risk. Terrorist attacks, political uprisings, armed conflicts, natural disasters or epidemics like Ebola, SARS, H1N1 (swine flu) can quickly lead to booking cancellations, sudden drops in travel demand, and reductions in air-freight volume and services related to air traffic, such as catering.

Historically, global air-passenger traffic recovered from short-term shocks and has followed a long-term growth trend of about 2.0-2.5 times the growth of GDP. The secular growth in air travel over the past decades has been supported by the substantial declines in its real cost. Since the 1970s, the cost of air travel has fallen by about 2.0% annually according to IATA (International Air Transportation Association).

4 November 2016 5/16

Figure 1: Real GDP and tourist arrivals in European Union

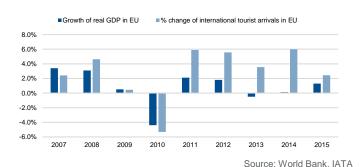


Figure 2: The impact of crisis events on long-term development of air traffic



Source: ICAO, Airbus Global Market Forecast 2016

Barriers to entry viewed as 'low' by Scope

Scope classifies the entry barriers to the airline industry as 'low' in accordance with our criteria to determine the characteristics of different industries. Airlines are subject to complex regulatory and legal standards, including consumer protection and night-flight bans that limit the availability of slots. Bottlenecks in the Europe's air traffic control system constitute a further limit to an increase in the industry's capacity. The continuous growth of air travel capacity over the past years, however, indicates that both incumbent airlines and new entrants effectively have limited barriers of either (i) entry to the market or (ii) expansion of their business operations.

Aircraft funding not a limiting factor

Scope believes that the funding of the capital-intensive airline industry is not a limiting factor for the airline industry. The funding of new aircraft via capital markets or bank loans has become more widely available in recent years, and the market for commercial-aircraft funding is liquid. Several aircraft lessors have (re-)entered the market for aircraft financing after the credit crunch in 2009-2010, and funding from export credit agencies is at its lowest in the past decade. We believe that the demand for aircraft financing is also supported by the low interest rates, with investors increasingly interested in collateralised aircraft-financing investments, which have higher yields.

Figure 3: Funding sources of Boeing aircraft sales

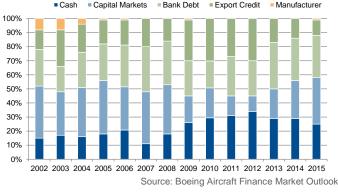
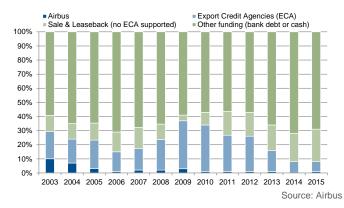


Figure 4: Funding sources of Airbus aircraft sales



Low substitution risk and risk from technology

Alternative modes of travel such as high-speed trains can be used for routes that have traditionally been served by airlines, which is particularly the case in France, Germany and China. However, we believe this type of substitution (including bus travel) has a limited impact on the industry. Technological change is also unlikely to affect air travel.

4 November 2016 6/16



Germany, Transportation

Global aviation traffic expected to continue its rise

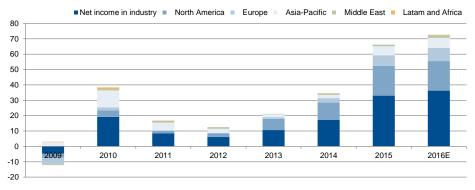
Airline industry is benefiting from the low oil price

Outlook for the airline industry

The outlook for global air traffic remains positive. Over the past two decades, global air traffic has grown by about 4-5% annually. The global expansion of air traffic is mainly driven by the lower cost of air travel and rising living standards in emerging markets such as India, China, Indonesia and Brazil. We believe the global demand for air traffic will continue to grow higher than global GDP growth. For 2016, we expect the global growth in air traffic to be about 7%, supported by lower oil prices that also result in lower air fares. This is in line with the forecast issued by IATA.

The global airline industry is enjoying record levels of profitability thanks to high air traffic figures, high passenger-load factors and, to some extent, the short-term benefit of lower fuel prices. According to IATA, the global airline industry reported net profits of USD 33bn in 2015, which IATA expects to rise to USD 36bn in 2016. The industry has recovered from the sharp and sudden increase of fuel prices in 2009, which was a key reason for industry-wide losses at the time. Carriers worldwide benefit from high load factors and lower fuel prices. However, Scope believes lower fuel prices will eventually be passed to the customer and 'competed away'.

Figure 5: Global airline industry profitability by region (USD bn)



Source: International Air Transport Association (IATA)

US airlines most profitable

US market is now consolidated with high concentration

US airlines continue to be more profitable than European or Asian peers. This is due to the higher market concentration in the US, disciplined capacity management by US airlines after the 2009 financial crisis, a strong US dollar over the years, and support from a strong domestic US economy.

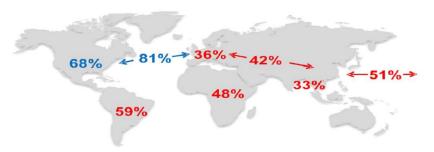
The marked consolidation in the US airline industry followed years of financial distress for carriers in the region, notably legacy airlines (airlines operating before the US Airline Deregulation Act in 1978). The entrance of low-cost carriers with point-to-point services and fewer types of aircraft have led to an industry shake-out over almost three decades, with more than 200 bankruptcies in the market since the deregulation in 1978. Today, the five largest US airlines represent about 90% of market capacity, whereas the comparable figure for the top five in Europe is at less than 50%. We do not foresee a similar trend towards market consolidation in Europe. Consolidation in the European airline industry continues to be delayed to some degree by national interests over domestic airlines. European carriers are temporarily benefiting from lower fuel prices. In our view, the cost benefits from low fuel prices disguise the need for structural cost adjustments. The European airline market will therefore stay much more contestable, resulting in lower profitability in the region.

4 November 2016 7/16



Germany, Transportation

Figure 6: High concentration in global airline markets except for Europe and Asia Market share of top-4 airlines/JVs



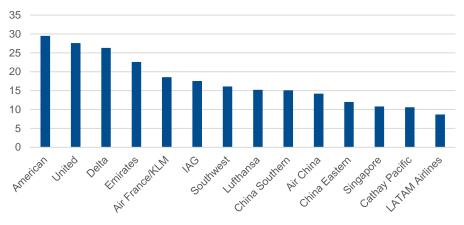
Source: IATA/SRS Analyser

Lufthansa is among the largest carriers worldwide

Lufthansa competitive position

Lufthansa is among the largest network carriers worldwide as measured by revenue passenger kilometres.

Figure 7: Largest airlines worldwide ranked by revenue passenger kilometres



Source: Statista

Hub airlines benefit from broad reach

The analysis of PAG's competitive advantages can be split into two strategic divisions: hub airlines and Eurowings. Lufthansa's hub airlines (Lufthansa, SWISS, and Austrian Airlines) are focused on securing leading positions at their major hubs, and on expanding European and long-haul networks. The market position of hub airlines is supported by a strong presence in their respective home markets of Germany, Switzerland, and Austria providing customers with a broad range of travel options covering 100 countries and 270 destinations. A broad fleet of aircraft and a good position in long-haul premium traffic also support Lufthansa's competitive position. The high-density network covered with routes operated by Lufthansa is complemented by long-standing partnerships, alliances, collaborations, and code-sharing connections with international airlines. Lufthansa was a founding member of Star Alliance, a partnership of 28 member airlines with connections to about 1,300 destinations worldwide. This alliance supports flight frequency and network coverage, thereby strengthening the competitive standing of the hub-airline business.

Yield pressure a key risk for hub airlines

Intense pricing competition is a key weakness and threat in the hub-airline business, with yield pressure existing even for premium traffic, which is normal in the industry. Carriers from the Middle East (Emirates, Etihad, Qatar) mainly compete in the long-haul segment. Competition from low-cost carriers (LCCs) in short-haul and medium-haul traffic

4 November 2016 8/16



Germany, Transportation

Eurowings: the low-cost carrier division

Lufthansa Cargo: third-largest cargo carrier worldwide

Catering business leading, but fragmented market

Lufthansa Technik is the largest independent MRO worldwide

segments is also intense, even though LCCs have so far failed to dent Lufthansa's position in key domestic markets.

In 2013, Lufthansa's PAG segment transferred the point-to-point services to Germanwings that did not operate through Frankfurt and Munich hubs. Since then, PAG has focused on hub and long-haul carrier business, along with all domestic and European routes from and to Frankfurt/Munich. Eurowings began flight operations in February 2015 under the new brand and integrated Germanwings in autumn 2015. Eurowings plans to use its brand to participate in the price-sensitive point-to-point leisure travel segment and to protect its home markets: Germany, Austria, Switzerland, and Belgium. To this end, Eurowings is targeting a different cost structure, including creating a harmonised fleet of A320 aircraft (phasing out the CRJ-900 aircraft) and A330-200 aircraft for long-haul traffic. Along with aircraft costs, Eurowings aims to reduce crew-related, maintenance and other operational costs. Within the LCC segment, Eurowings is positioned as a traditional low-cost carrier: about 75% of customers are leisure travellers and 25% are business travellers at primary and secondary airports. Eurowings benefits from structurally higher revenues per available seat kilometre due to its higher number of business travellers versus other LCCs, and the benefit of slot constraints at certain airports. Eurowings wants to participate in the expected consolidation of the European airline industry. One example is the envisaged deal with Air Berlin, which will lead to an immediate enlargement of the fleet size and will add to the scope of the network. For Eurowings to compete more effectively with other LCCs, the cost base will need to reduce further, such as for personnel, maintenance and infrastructure costs (like airport or traffic-control fees).

Lufthansa Cargo is the third largest cargo airline worldwide as measured by revenue tonne kilometres. Overcapacity in the air-freight market has increased substantially in recent years, especially in Asia and the routes from/to North America. Consequently, cargo yields have been under pressure for some time, and figures for the first half of 2016 suggest that the market will not recover. Cargo yields have dropped to almost the same level as observed during the 2009 financial crisis. As opposed to passenger fares, where the airline is retaining some relief from lower oil prices, the cargo business immediately passes on any reduction in input costs (lower oil price) in pricing. In view of the continuous yield pressure, Lufthansa Cargo has already removed two MD-11 cargo aircraft from operations in late 2015, and we expect capacity to reduce further in conjunction with the announced restructuring for the business segment.

Lufthansa's catering business, LSGgroup, holds the leading positon in the global airline catering market, with a market share of 29% (2015) according to Lufthansa's internal calculations. Market shares in the Americas (40%) and Europe (45%) are substantially higher. The airline catering market is very fragmented, with only one truly global rival to LSGgroup (Gategroup) and a high number of local/regional suppliers. In addition, logistics companies and restaurant chains have also entered the market in recent years, creating industry overcapacity and negative effects on pricing. Furthermore, the growth of low-cost carriers has reduced in-flight catering on short-haul and medium-haul flights, thus partly reducing overall demand in the transport-catering segment. Despite difficult market conditions, LSGgroup has held its good position. Only 20% of the unit's revenues depend on Lufthansa' in-house airlines.

Lufthansa Technik is one of the largest MRO providers for aircraft, engines and aircraft components worldwide. According to Lufthansa's statistics, the business segment holds a global market share of about 9% (2015) and is the largest independent MRO provider globally in fragmented market. About 30% (2015) of revenues depend on in-house airline customers. Key competitors in the industry are aircraft-manufacturers (notably Airbus, Boeing), engine and engine-component manufacturers (Rolls-Royce, General Electric, MTU), and independent MRO contractors (e.g. ST Aerospace, SR Technics). We view

4 November 2016 9/16



Germany, Transportation

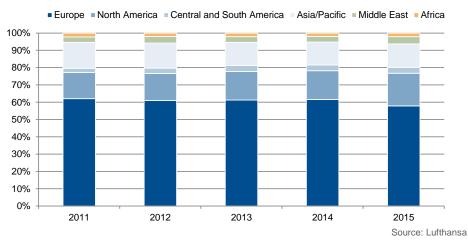
Lufthansa Technik's market position as strong, as reflected by the large number of aircraft served under exclusive contracts (about 3,700 aircraft in 2015 after 3,300 in 2014). We also expect the MRO industry to continue to grow by about 4-5%, in line with the higher number of commercial-aircraft deliveries in the future and supported by the expected increase of air traffic.

Good geographic diversification

Diversification

We view Lufthansa's diversification as supportive of the business risk assessment. The network of destinations in the passenger airline segment (including Eurowings) is broad. Group revenues are naturally more skewed towards Europe, given the major hubs in the region, but business outside Europe adds to the geographic diversification.

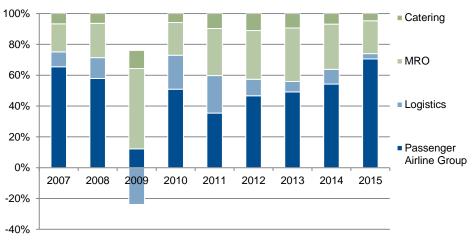
Figure 8: Lufthansa geographical split of revenues



Presence in different markets mitigates cyclicality risks

A further element of diversification is the presence of Lufthansa in different areas of aviation services, including MRO and Catering. Declines in global airline traffic do, of course, affect all business segments, including MRO and Catering. The two business segments have, however, proven to be more resilient against negative economic changes and add to a lower risk of earnings volatility when both passenger and cargo traffic weaken.

Figure 9: Lufthansa share of business segment results (EBIT) over time



Source: Lufthansa

4 November 2016 10/16



Germany, Transportation

Profitability is the weak spot in business risk profile

New collective-bargaining agreements improves unit costs

Slight tailwind from fuel costs in 2017

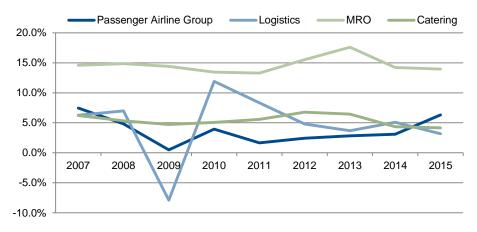
Profitability

Lufthansa's profitability remains the key weakness in the business risk assessment. As a result of structural cost disadvantages, Lufthansa continues to report levels of profitability (EBIT margin) that are below its peers'. The reported EBIT margin for the Lufthansa Group in 2015 was 4.9% (slightly higher when strike-related costs and other effects are adjusted). Besides the risks of sudden and unanticipated changes of global air traffic, we are concerned about the risk that profitability in the cargo segment will stay under pressure, given the falling yields and significant overcapacity in the industry. Going forward, we expect the Lufthansa Group to report profit margins (EBIT) comparable to the levels observed in 2015.

We see signs of structural cost improvements following the collective-bargaining agreements reached with ground staff (November 2015) and flight attendants (August 2016). We also believe that an agreement with the pilots' union can be reached soon. Lufthansa incurred about EUR 0.2bn of strike-related costs in both 2015 and 2014, and in the future we expect that the risk of any such special charges or disruptions to operations will reduce significantly after new collective-bargaining agreements are finalised.

In 2016 Lufthansa should continue to benefit from its lower fuel bill, even though most of the benefit of lower fuel prices is eventually passed to customers through lower fares. Fuel cost savings in the first half of 2016 were EUR 597m, and the full-year guidance indicates the tailwind from lower fuel costs will boost earnings by about EUR 0.9bn to EUR 1.0bn. For 2017 we expect a minimal reduction of fuel costs that results from Lufthansa's hedging strategy, which partly captures the low oil prices from late 2015 and early 2016.

Figure 10: Lufthansa profit margins by business segment (adjusted EBIT since 2015) over time



Source: Lufthansa

4 November 2016 11/16



Germany, Transportation

Slightly weaker earnings in 2016 result in slightly weaker ratios

Financial risk profile

Lufthansa's key credit metrics are expected to deteriorate moderately in 2016F, primarily due to slightly weaker earnings (EBITDA) and an expected increase in Scope-adjusted debt (SaD). The increase in SaD mainly results from the expected rise of the actuarial present value of future pension obligations at year-end 2016. However, we have not included in our calculations the entire effect of the reported increase in the pension deficit. Our pension adjustment only captures half of the reported pension deficit (defined benefit obligations minus the fair value of pension plan assets). Pension plan assets cover annual pension payments significantly in excess of 5x, our threshold for this treatment according to our Corporate Rating Methodology. Our forecasted pension deficit in 2016 also includes the expected reduction of the defined benefit obligations that result from the recent collective-bargaining agreement with the cabin crew.

A further reduction of the reported pension deficit in 2016 is possible if an agreement with the pilots' union can be achieved in 2016. In that case, we estimate that our Scopeadjusted debt would decline by about EUR 500m, which would, however, only have a marginal impact on the ratio SaD/EBITDA.

		Scope estimates		
Scope credit ratios	2015	2016F	2017F	2018F
EBITDA/interest cover	12x	9x	9x	10x
Scope-adjusted debt (SaD)/EBITDA	2.3x	2.6x	2.3x	2.1x
Scope-adjusted FFO/SaD	38%	31%	35%	41%
FOCF/SaD	14%	11%	10%	11%

Agreement with Air Berlin: effect on ratios difficult to judge

Our forecasts point to a Scope-adjusted debt/EBITDA of 2.6x and FFO/SaD of 31% in 2016F, followed by gradual improvements of these key credit metrics in 2017F. In our base case we have included the recently announced acquisition of the remaining 55% stake in Brussels Airlines (the deal is expected to be closed in early 2017), but exclude the effects from the envisaged lease agreement with Air Berlin. Under this agreement, it is intended that Air Berlin will operate up to 40 aircraft for the Lufthansa Group, mainly for Eurowings, starting in early 2017 for six years. According to Air Berlin, Lufthansa will make lease payments for the operation of up to 40 aircraft, amounting to EUR 1.2bn over the six-year period. At this stage, it is difficult to precisely judge both the earnings contribution (EBITDA) and impact on Lufthansa's adjusted debt (present value of operating lease obligations). We note, however, that even if we were to add the operating lease payments at face value (i.e. not discounted) to Lufthansa's SaD in 2017F, our conclusion on Lufthansa's rating would be the same.

We expect free cash flows to cover future dividends

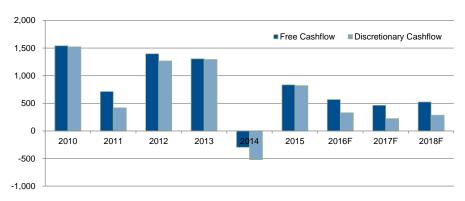
Our belief of a mild improvement in credit metrics is supported by a continuation of free operating cash flow (FOCF) generation above projected dividends (see Figure 11) eventually leading to a positive discretionary cash flow (FOCF minus dividend payments).

4 November 2016 12/16



Germany, Transportation

Figure 11: Historical and projected free cash flow and discretionary cash flow



Source: Lufthansa, Scope Ratings estimates

We view financial policy framework as cautious

Lufthansa has publicly declared certain transparent financial parameters on its principal financial policy and strategy, including on shareholder remuneration. In our view, Lufthansa has a moderate dividend payout policy, targeting 10-25% of Lufthansa Group's EBIT, subject to the availability of distributable reserves in the holding accounts. The 2015 dividend represented about 14% of the previous year's EBIT. As mentioned, we believe that future dividend payments are covered by the expected cash generated from ongoing operations (FOCF). Lufthansa has proven it can balance debtholder interests with shareholder interests when needed, by reducing dividend payments in economically weaker periods (dividends in 2010 for 2009 were cut substantially). In principle, Lufthansa's dividend and shareholder remuneration policies leaves the option for special dividends or share buybacks. However, we do not believe Lufthansa will use any of these instruments, and think that cash generated from ongoing business will continue to be used to fund the fleet modernisation. We also highlight the cautious attitude that Lufthansa is expected to maintain with regards to its financial flexibility. Lufthansa's policy is to maintain a minimum liquidity reserve of EUR 2.3bn to accommodate unforeseen changes in demand and air traffic.

4 November 2016 13/16



Germany, Transportation

Internal and external liquidity cover maturities

Liquidity

The short-term rating is S-2. Scope views Lufthansa's liquidity and financial flexibility as more than adequate in accordance with our methodology to determine the liquidity of corporates. Future financial liabilities are covered by internal sources (cash and expected cash generation) and external sources (committed bilateral credit lines). Lufthansa has strong banking relationships, as evidenced by numerous bilateral lines with different institutions and a good standing in public debt markets.

Liquidity is supported by:

- Cash and cash equivalents of EUR 3.1bn on 31 December 2015. Of the reported liquidity, about EUR 350m is not immediately accessible due to contractual restrictions (notably cash located at joint ventures), currency conversion limitations and/or other restrictions on repatriation. Therefore, we neither deduct the EUR 350m when determining our financial credit ratios, nor do we consider this amount in our liquidity assessment.
- Lufthansa has EUR 780m of bilateral lines with over 30 different banks. At the end of 2015, none were utilised. The credit lines each have a term of two years, which is extended at the end of the first year if not cancelled. Bilateral credit lines are free of financial-maintenance covenants.
- We project free operating cash flow in a range of EUR 500m-600m in 2016 and expect a similar range in 2017.

Liquidity is used as follows:

- Financial maturities of EUR 1.4bn as of 31 December 2015, of which EUR 750m relates to the bond repaid in July 2016.
- Financial maturities of EUR 900m in 2017.
- Dividend payments in a range of EUR 240m-250m in each of 2016 and 2017.

The unencumbered fleet of aircraft is a further potential source of financial flexibility given the liquid market for commercial aircraft created by aircraft lessors, banks, and private funds. As of 31 December 2015, about 74% of Lufthansa's fleet (600 aircraft) was unencumbered.

Liquidity and financial maturities in EUR m	2015	2016F	2017F	2018F
Unrestricted cash position	2,743	3,072	3,295	3,580
Undrawn committed lines	780	780	780	780
Maturity profile as of 31 December 2015	594	1.339	918	534
Discretionary cash flow (FOCF minus dividends)	757	329	268	286
Internally and externally provided liquidity cover	7.2x	3.1x	4.7x	8.7x

4 November 2016 14/16



Regulatory disclosures

Important information

Information pursuant to Regulation (EC) No 1060/2009 on credit rating agencies, as amended by Regulations (EU) No. 513/2011 and (EU) No. 462/2013

Responsibility

The party responsible for the dissemination of the financial analysis is Scope Ratings AG, Berlin, District Court for Berlin (Charlottenburg) HRB 161306 B, Chief Executive Officer: Torsten Hinrichs, Dr Stefan Bund, Dr Sven Janssen.

Rating prepared by Rating committee responsible for approval of the rating

Werner Stäblein, Lead Analyst Guillaume Jolivet, Committee Chair

The rating concerns an entity, which was evaluated for the first time by Scope Ratings AG.

The rating outlook indicates the most likely direction of the rating if the rating were to change within the next 12 to 18 months. A rating change is, however, not automatically ensured.

Information on interests and conflicts of interest

The rating was prepared independently by Scope Ratings but for a fee based on a mandate of the rated entity.

As at the time of the analysis, neither Scope Ratings AG nor companies affiliated with it hold any interests in the rated entity or in companies directly or indirectly affiliated to it. Likewise, neither the rated entity nor companies directly or indirectly affiliated with it hold any interests in Scope Ratings AG or any companies affiliated to it. Neither the rating agency, the rating analysts who participated in this rating, nor any other persons who participated in the provision of the rating and/or its approval hold, either directly or indirectly, any shares in the rated entity or in third parties affiliated to it. Notwithstanding this, it is permitted for the above-mentioned persons to hold interests through shares in diversified undertakings for collective investment, including managed funds such as pension funds or life insurance companies, pursuant to EU Rating Regulation (EC) No 1060/2009. Neither Scope Ratings nor companies affiliated with it are involved in the brokering or distribution of capital investment products. In principle, there is a possibility that family relationships may exist between the personnel of Scope Ratings and that of the rated entity. However, no persons for whom a conflict of interests could exist due to family relationships or other close relationships will participate in the preparation or approval of a rating.

Key sources of information for the rating

- oximes Data provided by external data providers oximes Current performance record
- ☑ Press reports/other public information

Scope Ratings considers the quality of the available information on the evaluated company to be satisfactory. Scope ensured as far as possible that the sources are reliable before drawing upon them, but did not verify each item of information specified in the sources independently.

Methodology

The methodology applicable for this rating (Corporate Rating Methodology) is available on www.scoperatings.com. The historical default rates of Scope Ratings can be viewed on the central platform (CEREP) of the European Securities and Markets Authority (ESMA): http://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml. A comprehensive clarification of Scope's default rating, definitions of rating notations and further information on the analysis components of a rating can be found in the documents on methodologies on the rating agency's website.

Examination of the rating by the rated entity prior to publication

Prior to publication, the rated entity was given the opportunity to examine the rating and the rating drivers, including the principal grounds on which the credit rating or rating outlook is based. The rated entity was subsequently provided with at least one full working day, to point out any factual errors, or to appeal the rating decision and deliver additional material information. Following that examination, the rating was not modified.

4 November 2016 15/16



Germany, Transportation

Conditions of use/exclusion of liability

© 2016 Scope Corporation AG and all its subsidiaries including Scope Ratings AG, Scope Analysis, Scope Investor Services GmbH (collectively, Scope). All rights reserved. The information and data supporting Scope's ratings, rating reports, rating opinions and related research and credit opinions originate from sources Scope considers to be reliable and accurate. Scope cannot, however, independently verify the reliability and accuracy of the information and data. Scope's ratings, rating reports, rating opinions, or related research and credit opinions are provided "as is" without any representation or warranty of any kind. In no circumstance shall Scope or its directors, officers, employees and other representatives be liable to any party for any direct, indirect, incidental or otherwise damages, expenses of any kind, or losses arising from any use of Scope's ratings, rating reports, rating opinions, related research or credit opinions. Ratings and other related credit opinions issued by Scope are, and have to be viewed by any party, as opinions on relative credit risk and not as a statement of fact or recommendation to purchase, hold or sell securities. Past performance does not necessarily predict future results. Any report issued by Scope is not a prospectus or similar document related to a debt security or issuing entity. Scope issues credit ratings and related research and opinions with the understanding and expectation that parties using them will assess independently the suitability of each security for investment or transaction purposes. Scope's credit ratings address relative credit risk, they do not address other risks such as market, liquidity, legal, or volatility. The information and data included herein is protected by copyright and other laws. To reproduce, transmit, transfer, disseminate, translate, resell, or store for subsequent use for any such purpose the information and data contained herein, contact Scope Ratings AG at Lennéstraße 5 D-10785 Berlin.

Rating issued by

Scope Ratings AG, Lennéstraße 5, 10785 Berlin

4 November 2016 16/16