Deutsche Lufthansa AG
Germany, Transportation

Corporate profile

Lufthansa is a global aviation group organised into three strategic pillars: Network Airlines, Point-to-Point, and Aviation Services (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.

Key metrics

		Scope estimates		
Scope credit ratios	2016	2017F	2018F	2019F
EBITDA/interest cover (x)	11x	12x	12x	12x
Scope-adjusted debt (SaD)/EBITDA	2.2x	1.6x	1.4x	1.2x
Scope-adjusted FFO/SaD	41%	52%	63%	74%
FOCF/SaD	16%	29%	27%	30%

Rating rationale

Scope Ratings affirmed its BBB- corporate credit rating on Germany-based aviation group Lufthansa and raised the Outlook on the long-term rating to Positive from Stable. The short-term rating is unchanged and affirmed at S-2. Senior unsecured debt continues to be rated BBB-.

The change in Outlook for the long-term BBB- rating to Positive from Stable is mainly driven by our belief that Lufthansa is likely to achieve improved financial credit metrics in the medium term, supporting a more favorable view of its financial risk profile. The drivers of the projected improvements in financial credit metrics are twofold in our view: Firstly, Lufthansa's capital expenditure on its fleet renewal programme peaked in 2017 with the result that gradually declining capex should lead to improved free cash flow (FOCF) generation going forward. Secondly, the expected final agreement with German pilot union Vereinigung Cockpit should lead to a substantial reduction in Lufthansa's pension provisions. We likewise expect Lufthansa to use most of the projected FOCF from 2017 for a one-time contribution to pension assets (EUR 1.6bn). We do not believe that Lufthansa will deviate from its long-standing financial policy including its dividend policy. This, coupled with our updated projections for 2018F and beyond, leads us to conclude that Lufthansa should generate FOCF substantially above expected dividend payments, eventually leading to gradual deleveraging as well as more headroom to accommodate unexpected deteriorations in trading conditions. We also believe that the expansion of the point-to-point business through the addition of Brussels Airlines and the expected closing of the Air Berlin transaction should support a positive earnings contribution from the point-to-point business going forward, eventually boosting cash flow generation. While the rebound in the logistics business could prove to be short-lived if international trade activities were to weaken, we see the operating turnaround in the division as supportive of additional earnings contributions and cash flow generation in 2018F.

Our assessment of Lufthansa's business risk profile remains unchanged. We recognise the group's improved market position and prospects following the full takeover of Brussels Airlines, the acquisition of significant parts of Air Berlin, and benefits afforded by the reduced number of players in the market following the insolvency of Air Berlin and troubles of Alitalia.

Ratings & Outlook

Corporate ratings	BBB-/Positive
Short-term rating	S-2

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Related methodology

Corporate Rating Methodology, January 2017

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However, all of these effects combined do not change our view that Lufthansa's business risk profile continues to be restrained by the risk of marked cyclicality in the airline industry, including the risk of material fluctuations in operating profits that may result from swings in either passenger or cargo traffic demand. Our business risk assessment continues to be chiefly supported by Lufthansa's global network coverage; diversified route network, including membership in the global airline alliance Star Alliance; high share of business travellers; and the diversification benefits afforded by various aviation-related services.

The expected final agreement with the German pilot union follows the collective bargaining agreements reached in 2016 with ground staff and flight attendants. All of these labour agreements combined should support unit cost reductions in the future while reducing the risk of strikes and strike-related costs.

We view Lufthansa's financial risk profile as more favourable than its business risk profile. Our forecasts for 2017F point to a Scope-adjusted debt (SaD)/EBITDA ratio of 1.6x and funds from operations (FFO)/SaD of 52%. For 2017F and subsequent years we have included the estimated increase in operating lease obligations that results from the takeover of aircraft from Air Berlin and Brussels Airlines. Our forecasts also include the effect of the expected agreement with the pilot union on our pension adjustment (EUR 0.9bn), the anticipated reduction in staff costs from this agreement in 2018F and beyond, the acquisition of significant parts of Air Berlin, and integration costs for Air Berlin.

Given that the full earnings contribution from the Air Berlin transaction (the acquisition of significant parts of Air Berlin) is not included in the 2017F figures, whereas the effect of higher lease obligations is, we view the credit ratios for 2018F as more indicative of Lufthansa's financial strength. Overall, we have considerably lifted our free operating cash flow forecast for 2017F and 2018F and now expect FOCF to substantially exceed projected dividend payments (which we have assumed will continue to be commensurate with Lufthansa's dividend policy), eventually leading to gradual deleveraging.

Lufthansa has publicly declared an interest in acquiring selected assets of the bankrupt Alitalia, should the Italian carrier be liquidated ('New Alitalia'). Lufthansa has submitted an offer to the administrator (Alitalia has been under administration since May 2017) and has repeatedly ruled out an entire takeover of Alitalia. We could imagine that Lufthansa plans to acquire or take over existing lease contracts for Alitalia's fleet including slots and crew (i.e. excluding Alitalia's aviation services and ground service activities). Alitalia's fleet size is slightly greater than the fleet size of bankrupt Air Berlin. Other industry players such as Easyjet, Delta Airlines, and Etihad have likewise expressed interest in the Alitalia assets. We therefore expect any such transaction, if it were to materialise, to lead to a cash effect of more than the immediate cash payment made for significant parts of Air Berlin. We also believe that Alitalia will be liquidated piecemeal. Assuming that a potential Alitalia transaction were to lead to a cash payment of EUR 500m (a figure that has been neither published nor confirmed by Lufthansa), our rating and outlook would remain unchanged.

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 demonstrated during the financial crisis in 2009 and in 2011 when dividend payments were cut due to weaker earnings.

Outlook

The Outlook is Positive and incorporates our expectation that Lufthansa should achieve debt protection measures, such as SaD/EBITDA of significantly below 2.0x, in the medium term.

We would consider a positive rating action if SaD/EBITDA or FFO/SaD were to improve sustainably to levels of below 1.5x and above 60%, respectively.

We would consider a negative rating action, including a change of Outlook back to Stable, if SaD/EBITDA were to deteriorate to about 2.5x. This could be triggered by a sudden and unexpected negative change in discretionary travel (business and leisure) due to shifts in the macroeconomic environment, lower business confidence or event risks such as natural disasters, terrorist activities, political unrest or contagious diseases. Weakening operating profits at Lufthansa could also result from intensifying competition from low-cost carriers (LCCs) or other network carriers, in particular at the major hubs of Frankfurt or Munich.

Rating drivers

Positive rating drivers	Negative rating drivers
• 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 and good financial flexibility	• Exposed to cyclical changes in discretionary travel (business and leisure) and event risks, such as natural disasters, contagious diseases and strikes, which negatively affect passenger volumes • Fiercely competitive environment, including yield pressure from low-cost airlines and other network airlines • Risk of material fluctuations in operating profits for 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 rating-change drivers	Negative rating-change drivers
• Significant deleveraging beyond our base case • Substantial reduction of unit costs (cost per available seat kilometer) and structural cost disadvantages • Financial credit metrics sustainably below 1.5x (SaD/EBITDA)	• Sudden and unexpected negative changes to discretionary travel (business and leisure) due to shifts 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 from LCCs or other network carriers, in particular at the major hubs of Frankfurt and Munich • Deterioration of SaD/EBITDA or FFO/SaD to levels of about 2.5x and above 60%

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Financial overview

		Scope estimates		
Scope credit ratios	**2016**	**2017F**	**2018F**	**2019F**
EBITDA/interest cover	11x	12x	12x	12x
SaD/EBITDA	2.2x	1.6x	1.4x	1.2x
Scope-adjusted FFO/SaD	41%	52%	63%	74%
FOCF/SaD	16%	29%	27%	30%
Scope-adjusted EBITDA in EUR m	**2016**	**2017F**	**2018F**	**2019F**
EBITDA	3,959	5,452	4,662	4,652
Operating lease payment in respective year	430	522	522	522
UFO agreement (2016)/VC agreement (2017)	-652	-900	0	0
Scope-adjusted EBITDA	**3,737**	**5,074**	**5,184**	**5,174**
Scope funds from operations in EUR m	**2016**	**2017F**	**2018F**	**2019F**
EBITDA	3,959	5,452	4,662	4,652
less: (net) cash interest as per cash flow statement	-50	-107	-95	-95
less: cash tax paid as per cash flow statement	-54	-579	-588	-579
less: pension interest	-151	-155	-150	-150
add: depreciation component op leases	298	360	328	328
add: dividends received from @equity	80	85	85	85
less: UFO agreement (2016)/VC agreement (2017)	-652	-900	0	0
Scope funds from operations	**3,430**	**4,156**	**4,242**	**4,241**
Scope-adjusted debt in EUR m	**2016**	**2017F**	**2018F**	**2019F**
Reported gross financial debt	6,575	6,575	6,575	6,575
Cash and cash equivalents	-3,937	-4,104	-5,043	-6,061
add: cash not accessible	65	65	65	65
add: pension adjustment	3,361	1,882	1,882	1,882
add: operating lease obligation	2,613	3,874	3,874	3,874
add: other bank borrowing	63	63	63	63
add: fair value hedges	-98	-98	-98	-98
less: hybrid bond	-247	-247	-247	-247
Scope-adjusted debt	**8,395**	**8,010**	**7,071**	**6,053**

Business risk profile

Lufthansa is a global aviation group which is organised into three strategic pillars: the Network Airlines, Point-to-Point, and Aviation Services. The Network Airlines segment includes the recently renamed Lufthansa German Airlines, SWISS, and Austrian Airlines and operates out of the major hubs in Frankfurt, Munich, Zurich, and Vienna. The Point-to-Point segment is a continuation of the strategy announced in July 2014 to create a low-cost brand for point-to-point connections under the umbrella of the Eurowings brand. The recently acquired Brussels Airlines will be integrated into the Point-to-Point segment. The Aviation Services segment includes logistics (Lufthansa Cargo), the MRO (maintenance, repair and overhaul) unit Lufthansa Technik, catering services (LSGgroup), and Other, Service and Financial Companies.

The group has a broad fleet and ranks among the largest airline carriers worldwide. As of 31 December 2016, Lufthansa had 617 aircraft in its fleet. This number has risen by over 10% in 2017 following the acquisition of Brussels Airlines and the aircraft added from the wet-lease deal with Air Berlin agreed earlier in 2017 (a wet lease means that the owner of the aircraft provides crew, maintenance and other services needed to include the aircraft in operations). We assume that the recently announced transaction to acquire substantial parts of the Air Berlin business will be consummated in early 2018. Lufthansa's fleet size in 2018 will therefore expand with the additional aircraft taken over from Air Berlin (those aircraft over and above the aircraft that were already covered by the wet-lease deal agreed with Air Berlin in November 2016).

For the 2017 summer flight schedule, the airline served 301 destinations in 100 countries. In 1997, Lufthansa became a founding member of the first global airline alliance, Star Alliance, which today flies to more than 1,300 destinations worldwide. The privatisation of Lufthansa was completed in 1997 when the German government divested its remaining 36% stake.

Industry risk

Scope classifies cyclicality risk for the airline industry as 'high' in accordance with our methodology used to determine the credit characteristics of different industries. Our classification of entry barriers is 'low' and, overall, we view the transportation/airline industry to have an industry risk in the 'B' category. For further details please see our rating report on Lufthansa published on 4 November 2016. (https://www.scoperatings.com/ScopeRatingsApi/api/downloadanalysis?id=0530558b-4020-4520-97ec-8935ca03aca2).

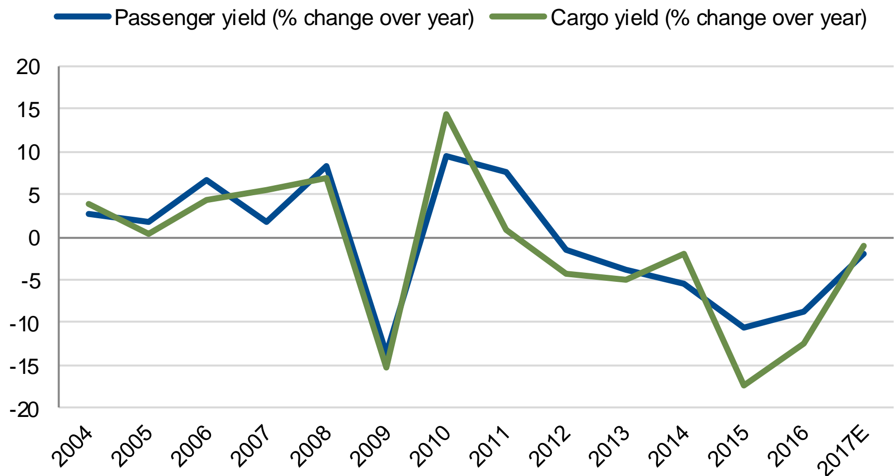
Outlook for the airline industry

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 worldwide demand for air traffic will continue to outpace global GDP growth. Growth in revenue passenger kilometers worldwide was +6% in 2016 compared to our estimate from October 2015 of a rate of +7%. For 2017, the outlook suggests another year of strong air traffic growth with revenue passenger kilometers worldwide expected to rise by 6-7% YoY (versus the growth rate of 7.9% for the YTD August 2017). For 2018F, we expect global aviation traffic growth to revert to the long-term trend of 4-5%.

Following the substantial decline in yields in 2014-2016 for both passenger and cargo, the International Air Transport Association (IATA) has observed a reversal of the negative yield trend for 2017F. Yields were compressed prior to 2017 largely because airlines

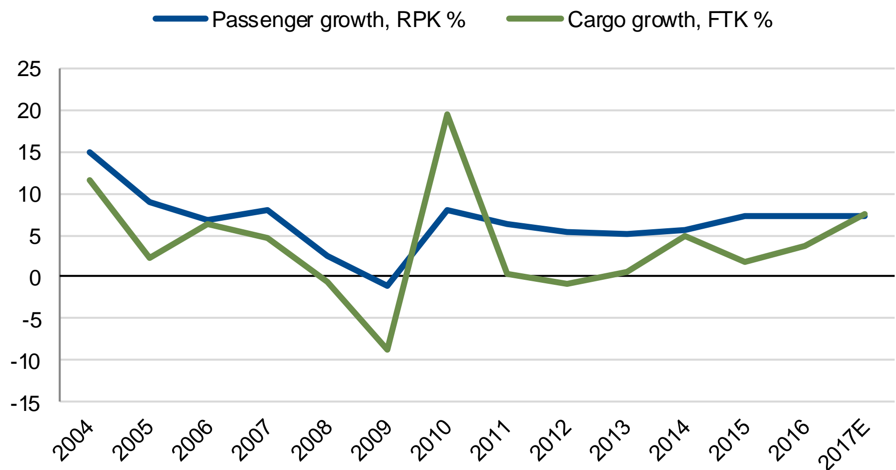
passed on lower jet fuel prices through lower fares. In addition, cargo yields were severely negatively affected by the built-up of additional capacity ('belly space') brought about by increased deliveries of wide-body aircraft. The supportive economic environment has led to a revival of world trade, in turn supporting cargo tonnage, load factors and, eventually, pricing.

Figure 1: RPK and FTK



Source: IATA;
RPK= revenue passenger kilometres ; FTK = freight tonne kilometres

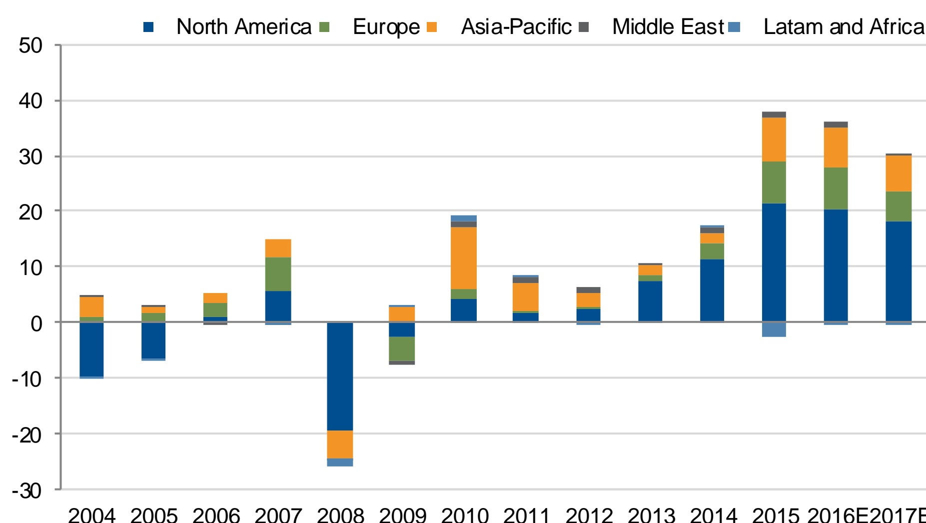
Figure 2: Passenger and cargo yield



Source: 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 preliminary IATA data, the global airline industry had another year of record profitability in 2016 with net industry profits of about USD 36bn, slightly surpassing the record high in 2015. The industry continued to recover from the sharp and sudden increase in fuel prices in 2009 which was a key cause of industry-wide losses at that time. IATA's outlook for 2017 suggests slightly higher jet fuel prices and a continuation of air traffic growth. Industry capacity expansion is expected to slow to 5.6% in 2017 (from 6.2% in 2016).

Figure 3: Global airline industry profitability by region (USD bn)



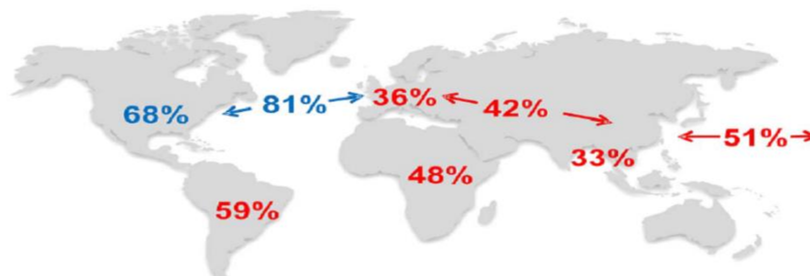
Source: IATA

US airlines continue to be more profitable than European or Asian peers. This is due to the higher market concentration in the United States, disciplined capacity management by US airlines after the 2009 financial crisis, a strong US dollar over the years, and support from a thriving 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 which began operating before the US Airline Deregulation Act of 1978). The entrance of LCCs with point-to-point services and fewer types of aircraft has led to an industry shakeout over almost three decades, with more than 200 bankruptcies in the market since deregulation in 1978. Today, the five largest US airlines represent over 80% of market capacity (as measured by available seat kilometres). To compare, the cumulative market share of the top five carriers in Europe was 46% in 2016 (versus about 50% in 2015).

We expect consolidation among European airlines to grow: not, however, as an active market development but rather in a passive fashion, with larger airlines acquiring the assets and slots of troubled airlines (see also our study: European Airlines – Growing Need for Consolidation?). We do not foresee any transformative consolidation in Europe, and possible steps towards consolidation continue to be somewhat delayed by national interests in domestic airlines. Troubled airlines that are too small to compete effectively in the long-haul markets against the big players, and too expensive to compete effectively in the short-haul markets against the LCCs, will become subject to passive consolidation. Scope also believes that LCCs will participate in this type of consolidation more actively than in the past, as they have to contend with the limitation of growth through the artificial stimulation of demand and growing overlaps within their route networks. Eventually,

accelerated industry consolidation is likely to help restore the European airline industry's economic health in the longer term.

Figure 4: High concentration in global airline markets except for Europe and Asia



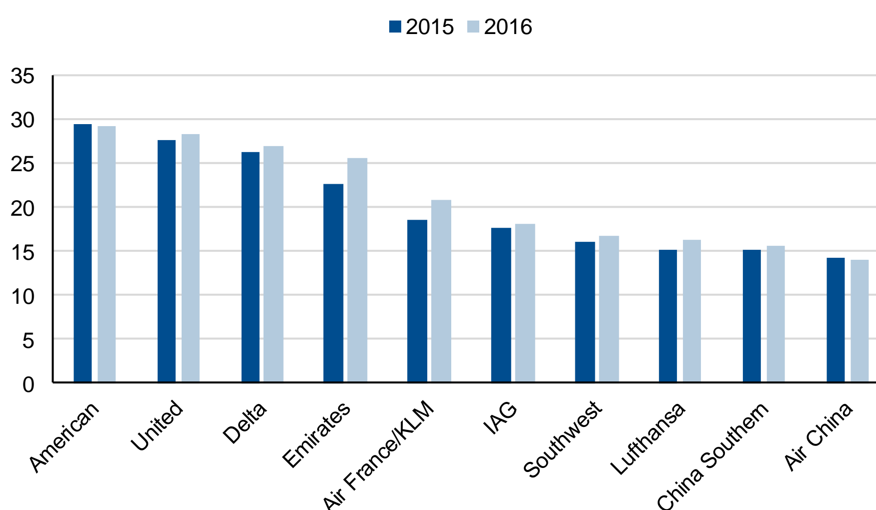
Source: IATA/SRS Analyser

Scope believes that the funding of the capital-intensive airline industry is not a limiting factor for the industry. Funding for 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 for the past decade. We believe that demand for aircraft financing is also supported by low interest rates, with investors showing increasing interest in collateralised aircraft-financing investments, which have higher yields.

Lufthansa's competitive position

Lufthansa is among the largest network carriers worldwide as measured by revenue passenger kilometres. Lufthansa's passenger business is split into the business segments Network Airlines and Point-to-Point operations.

Figure 5: Largest airlines worldwide ranked by RPK (bn)



Source: Statista; RPK = revenue passenger kilometres

Network Airlines business segment

The Network Airlines (Lufthansa German Airlines, SWISS, and Austrian Airlines) segment is focussed on hub and long-haul carrier business, along with all domestic and European routes from and to the hubs in Frankfurt, Munich, Zurich, and Vienna.

The market position of these 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 more than 100 countries. A broad fleet of aircraft and a good position in long-haul premium traffic also bolster Lufthansa's competitive position. The high-density network of 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. Intense pricing competition is a key weakness and threat in the network airlines business, with yield pressure existing even for premium traffic.

Competition from LCCs in the short-haul and medium-haul traffic segments is also fierce, even though LCCs have so far failed to dent Lufthansa's position in key domestic markets. Competition with LCCs is not necessarily for the same passengers. LCCs serve secondary airports and mostly leisure travellers for leisure destinations. LCCs have, however, recently started operations at major airports (such as Ryanair with a larger flight schedule to various destinations to/from Frankfurt) or will be entering Lufthansa's key market (e.g. EasyJet with the aircraft acquired from the Air Berlin bankruptcy) potentially leading to some increased competitive pressures to cater to the typical price-sensitive LCC customer.

At the same time, however, the competitive squeeze in the long-haul segment from Middle East carriers (Emirates, Etihad, Qatar) has abated given the operational issues currently besetting carriers from the Gulf region.

Point-to-Point business segment

In 2013, Lufthansa bundled all of its point-to-point business which was not operated through the hubs of Frankfurt and Munich into Germanwings. Eurowings began flight operations in February 2015 under its new brand which was integrated into Germanwings in autumn 2015. Since then, Eurowings' strategy has been threefold:

- Participation in the price-sensitive point-to-point leisure travel segment,
- Protection of the group's market position in its home markets (Germany, Austria, Switzerland, and Belgium), and
- Active participation in the consolidation of the European airline industry.

To this end, Eurowings focusses on a different cost structure, including the harmonisation of its fleet with A320 aircraft (CRJ-900 aircraft were phased out in 2016) 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 to and from primary and secondary airports. Eurowings benefits from structurally higher revenues per available seat kilometre due to its greater number of business travellers versus other LCCs, and the benefit of slot constraints at certain airports.

Further active participation in the shaping of the European airline industry was seen in January 2017 with the acquisition of the remaining stake of 55% in SN Airholding SA (Brussels Airlines) for a price of EUR 2.6m. Lufthansa originally acquired a 45% stake in SN Airholding in 2009 for EUR 65m and has had the option of acquiring the remaining 55% since 2011. Brussels Airlines added virtually no debt to Lufthansa's consolidated figures and Brussels Airlines' short-haul business is currently in the process of being integrated into Eurowings. Prior to the year of the full takeover by Lufthansa (2015), Brussels Airlines reported revenues of about EUR 1.3bn and EBIT of EUR 43m, suggesting a higher level of profitability than Eurowings (bearing in mind that Eurowings' profitability is still held back by the ramp-up of capacity and only a gradual increase in scale). At the time of the Brussels Airlines takeover, Brussels Airlines had the lowest operating costs in the Lufthansa group (CASK of about 6 euro cents). The integration of Brussels Airlines' fleet of A319/A320s (short-haul) and A330s (long-haul) into the flight schedule is less problematic because Brussels Airlines is a code-sharing partner of Lufthansa and member of the Star Alliance. Brussels Airlines should continue to benefit from a high share of business travelers out of Brussels (EU, NATO). One drawback is the high average fleet age of Brussels Airlines' fleet suggesting increasing capex on modernisation in future years. The Brussels Airlines deal led to an immediate enlargement of the Eurowings fleet size and expanded the scope of the network. In 2017, Brussels Airlines has added 500 basis points to Lufthansa group's reported growth.

A further expansion of fleet size and passive consolidation preceded the recently announced acquisitions of significant parts of the insolvent Air Berlin. Air Berlin and Lufthansa agreed on a wet-lease transaction in November 2016 which was eventually implemented in January 2017 following approval by the national cartel authorities. Under this wet-lease agreement, Lufthansa agreed to take over 38 aircraft from Air Berlin. A total of 33 wet-leased aircraft were already put into service in early 2017.

Air Berlin filed for insolvency in September 2017 and, in conjunction with the break-up of Air Berlin, Lufthansa acquired significant parts of the company including the carrier LGW (Luftfahrtgesellschaft Walter). The aircraft taken over by Lufthansa from Air Berlin are currently under leasing contracts and Lufthansa has indicated that it will gradually purchase these aircraft from lessors (we have included the effect of higher operating lease obligations in our financial model). The closure of the transaction would add 81 aircraft to Eurowings' fleet and is expected in early 2018 subject to approval by the cartel authorities. The Air Berlin transaction supports Lufthansa /Eurowings in its key home markets of Germany and Austria and, in view of the wet-lease deal between Air Berlin and Lufthansa agreed last year, the majority of Air Berlin aircraft is already effectively 'in operation' at Lufthansa, thus reducing the need for integration. The aircraft added from Air Berlin (A320s) are well-suited to Eurowings' technical focus on an Airbus fleet. At the time of the Air Berlin takeover, Lufthansa had a market share in Germany of about 34% and Air Berlin about 13-14% (Air Berlin's market share in Western Europe was about 2%). The gradual integration of Air Berlin aircraft into the Eurowings fleet is very likely to keep seat capacity in Germany limited in 2018F and we believe that competitors' capacity will only come into play with the winter flight schedule for 2018/2019. Therefore, we expect pricing in the German market to become more rational in the short term. The Air Berlin transaction (combined with Brussels Airlines) will make Eurowings the third-largest point-to-point carrier in Europe (after Ryanair and Easyjet) with an estimated fleet size of 210 aircraft at the end of 2018 and about 40 million passengers in 2018. The increase in fleet size and scale should support Eurowings' operating profitability going forward. Eurowings has reported positive operating results for 2017 (Lufthansa's EBIT) and we believe that the earnings contribution from point-to-point business is set to increase in

2018F given our expectation of a favorable pricing environment and gradual progress in the lowering of Eurowings' operating costs (CASK).

Aviation services (logistics, MRO, catering)

Logistics: 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. According to IATA, cargo tonnage increased by about 4% in 2016 but structural overcapacities continued to exist and yields declined by 12.5% YoY. In 2016, cargo yields dropped to almost the same level as observed during the 2009 financial crisis. In 2017, yields recovered in conjunction with strong demand for air freight and high freight load factors. As opposed to passenger fares, where the airline is provided with some relief from lower oil prices, the cargo business immediately passes on any reduction in input costs (lower oil prices) to pricing. Visibility in the division is limited to a few weeks and demand patterns can change quickly. In view of the continuous yield pressure, Lufthansa Cargo adjusted its capacity in 2016 by removing two MD-11 cargo aircraft from operations and one further MD-11 is likely to be taken out of service in 2017. As of 31 December 2016, the cargo fleet consisted of 5 B777Fs and 14 MD-11s. Lufthansa plans to reduce costs in the logistics division by EUR 80m by the end of 2018 (fully provisioned in 2016). Thanks to the more favourable trading environment in 2017, the logistics unit will make a positive contribution to group operating profit (Lufthansa's EBIT) as compared to the operating loss in 2016.

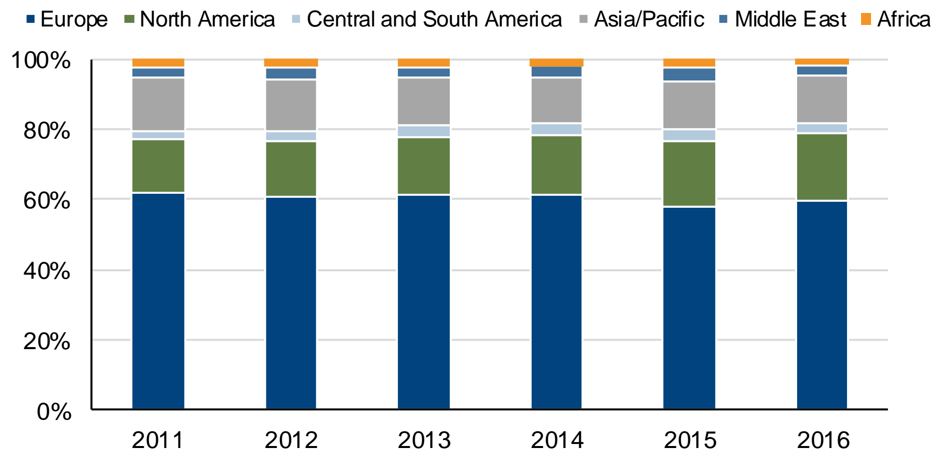
MRO (maintenance, repair and overhaul): Lufthansa Technik is one of the largest MRO providers for aircraft, engines and aircraft components worldwide. According to Lufthansa's statistics, the business segment commands a global market share of about 9% and is one of the largest MRO providers globally in a fragmented market. About 30% of revenues depend on in-house airline customers. Key competitors in the industry are aircraft manufacturers (notably Airbus and Boeing), engine and engine-component manufacturers (Rolls-Royce, General Electric, MTU), and independent MRO contractors (e.g. ST Aerospace, SR Technics). We view Lufthansa Technik's market position as strong, as reflected by the large number of aircraft served under exclusive contracts (4,132 aircraft in 2016 versus 3,700 aircraft in 2015 and 3,300 in 2014). We also expect the MRO industry to continue to grow by about 4-5%, in line with a higher number of commercial aircraft deliveries in future and supported by the expected increase in air traffic. While the share of earnings contributed by the MRO unit continues to decline (given the substantially growing share of operating profits from the passenger airline business), we view the more stable MRO business as positive for Lufthansa's overall business risk.

Catering: Lufthansa's catering business (LSGgroup), holds the leading position in the global airline catering market, with a market share of about 29% 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 with its Gategourmet brand) 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 LCCs has reduced in-flight catering on short-haul and medium-haul flights, thus partly decreasing overall demand in the transport-catering segment. One of the catering unit's largest customers, Condor, has terminated its contract, again reflecting both lower demand for in-flight catering services and price competition. Despite difficult market conditions, LSGgroup has held its good position. Only 20% of the unit's revenues depend on Lufthansa's in-house airlines. The catering unit is currently undergoing restructuring, scheduled to be completed in 2021.

Diversification

We view Lufthansa's diversification as supportive of its 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 geographic diversification.

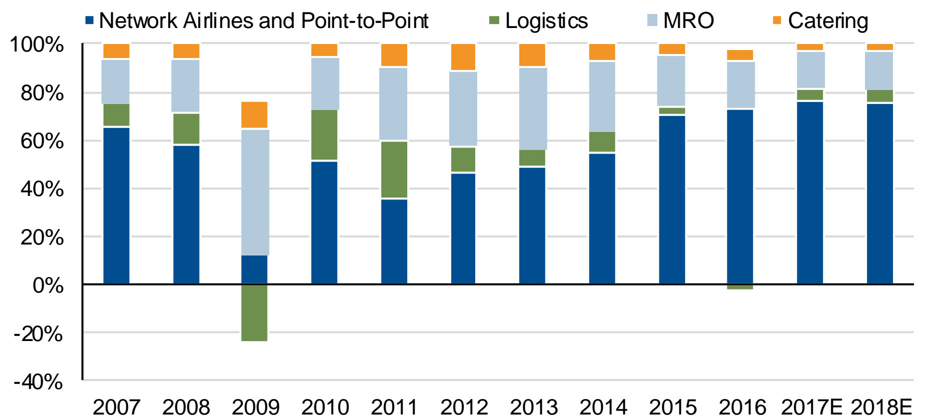
Figure 6: Lufthansa geographical split of revenues



Source: Lufthansa

Further diversification is afforded by Lufthansa's presence 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. These two business segments have, however, proven to be more resilient to negative economic changes and add to a lower risk of earnings volatility when both passenger and cargo traffic weaken.

Figure 7: Lufthansa share of business segment results (EBIT) over time



Source: Lufthansa

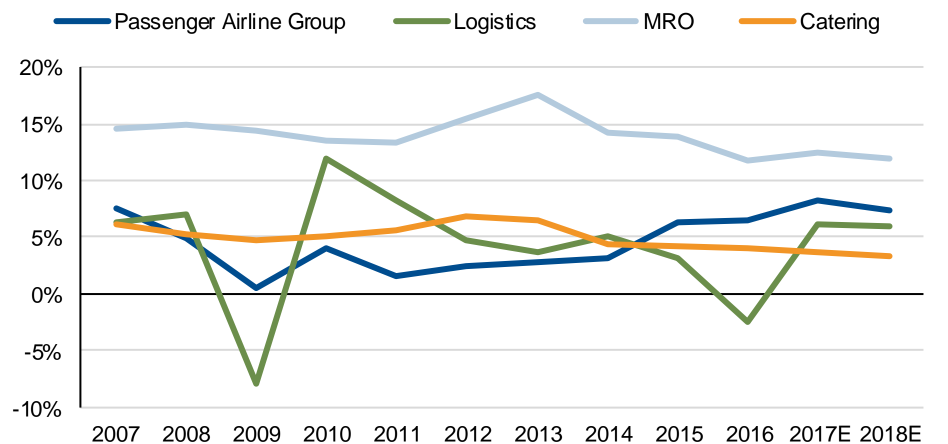
Profitability

Lufthansa's profitability remains a weakness in its business risk profile, albeit to a lesser extent than in our previous assessment. Lufthansa's level of profitability (EBIT margin) remains below that of its peers but the profitability gap to peers has narrowed. Our preferred measure for the comparison of airlines is the EBITDAR margin. Our forecast for 2017 and 2018 suggests that Lufthansa should achieve an EBITDAR margin of about 14%. Operating margins in 2017 were supported by increasing passenger numbers, notably transatlantic traffic and greater inbound traffic from Asia (in 2016, traffic from Asia was curtailed by the terrorist attacks in Paris and Brussels); high business confidence, leading to a continued large share of business travelers; and the strong rebound in the cargo market with higher yields and benefits from the cost reduction programme initiated in the cargo division in 2016.

We see signs of structural cost improvements following the collective bargaining agreements reached with ground staff (November 2015), flight attendants (August 2016), and the expected final agreement with the pilot union in December 2017. Lufthansa incurred about EUR 0.2bn in strike-related costs in 2015 and 2014 each, and EUR 0.1bn in 2016. Looking ahead, we expect that the risk of any such special expenses or disruptions to operations will be significantly reduced once all of the collective bargaining agreements have been concluded.

As opposed to 2016, when Lufthansa benefitted from a significant fuel cost tailwind, the group had to deal with a minor fuel cost headwind in 2017.

Figure 8: Lufthansa profit margins by business segment (EBIT since 2015) over time



Source: Lufthansa

Financial risk profile

Lufthansa's key credit metrics are expected to improve in 2018F, supported by stable operating profits, solid free cash flow generation, moderate dividend payments and reduced pension obligations. Our base case includes:

- Unit cost improvements following the agreement with the pilot union of 1% (about EUR 100-150m in cost savings). The initial agreement reached with Vereinigung Cockpit includes the additional benefit that strikes will be ruled out until 2022, reducing the risk of extra strike-related expenses. Overall, we expect a CASK reduction of about 2% in 2017 and further CASK reductions in 2018F, notably at Eurowings.
- Positive EBIT contribution from the point-to-point business in 2017.
- Turn-around of the logistics business with a positive EBIT contribution in 2017 (the logistics business had negative EBIT in 2016) and positive EBIT in 2018.
- Benefits from a fee agreement with Fraport are difficult to quantify; lower air traffic control fees were a benefit in 2017 (Deutsche Flugsicherung, the company in charge of air traffic control for Germany, lowered its fees for 2017).

Scope-adjusted debt projected for year-end 2017F and beyond includes:

- One-time relief on pension liabilities of EUR 900m to be booked in Q4 2017 reflecting the changes in the agreements on retirement and transitional payments for pilots. Lufthansa and Vereinigung Cockpit, have, in principle, reached an agreement on all main collective bargaining issues. The agreement is still subject to a union ballot and we expect the agreement to become binding by year-end 2017. Our estimate of EUR 900m compares with Lufthansa's public guidance of a reduction in pension obligations to the tune of a 'high three-digit million euro amount'. The additional decline in pension obligations in 2017 follows the reduction of pension obligations in 2016 resulting from the collective bargaining agreement reached with the cabin crew (EUR 0.7bn).
- A one-time contribution to pension plan assets of EUR 1.6bn by year-end 2017 to fully fund transitional payment obligations ('Übergangsversorgung') for flight attendants (this reduces the pension deficit but effectively has no impact on SaD given the resulting lower cash balance).
- The increased net present value of operating lease obligations that results from the Air Berlin transaction (notably the wet-lease agreement from early 2017 and the expected impact of the Air Berlin agreement in October 2017) plus the aircraft under operating leases operated by Brussels Airlines. The purchase price for Air Berlin is included in our 2018E forecast as a cash item.

Our forecasts point to a SaD/EBITDA of 1.6x and FFO/SaD of 52% in 2017F, followed by gradual improvements of these key credit metrics in 2018F.

Our belief that credit metrics will improve slightly is supported by a continuation of FOCF generation above projected dividends. While we anticipate capital expenditures to be slightly higher than in 2016, this is primarily due to the effect of a roll-over of aircraft deliveries into 2017 (the new C-series was introduced into the fleet in 2017 rather than in 2016 as originally planned leading to slightly higher capex in 2017) and the buy-out of Air Berlin aircraft from operating leases. Lufthansa has guided for a capex level of about EUR 2.7bn going forward. We believe that Lufthansa will gradually purchase the aircraft that are currently being financed through operating leases. The effect of any such transaction would be neutral for our credit ratios with the obligation under operating

leases (net present value) declining while reported cash would likewise decrease. Our base case also includes the assumption of moderate dividend payouts in 2018F and beyond. Lufthansa's dividend payout target of 10-25% refers to Lufthansa's EBIT and would therefore disregard the positive accounting gains expected to be booked following the closing of the pilot union deal.

Financial policy, dividend payments and shareholder remuneration

Lufthansa has publicly declared certain transparent financial parameters for its principal financial policy and strategy, including for shareholder remuneration. In our view, Lufthansa has a moderate dividend payout policy, targeting 10-25% of the Lufthansa Group's EBIT, subject to the availability of distributable reserves in the holding accounts and the allowance for payout according to local GAAP result. The dividend paid in 2017 represented about 14% of the previous year's EBIT (excluding the one-time effect of the agreement with the UFO union). The dividend paid in 2016 represented about 14% of Lufthansa's EBIT for the previous year.

In our base case we have assumed that dividend payments will remain at levels of less than 15% of EBIT (as defined by Lufthansa). Consequently, we continue to believe that future dividend payments are covered by expected cash generated from ongoing operations (FOCF), eventually leading to further deleveraging going forward. Lufthansa has proved that 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 provide the option of special dividends or share buybacks. However, we do not believe that Lufthansa will use any of these instruments. In our opinion, cash generated from ongoing business will continue to be used to fund fleet modernisation and/or the buy-out of aircraft that are currently under operating lease (notably aircraft taken over from Air Berlin).

We also highlight the cautious attitude that Lufthansa is expected to maintain with regard to its financial flexibility. Lufthansa's policy is to keep a minimum liquidity reserve of EUR 2.3bn to accommodate unforeseen changes in demand and air traffic.

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 for determining 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 demonstrated 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 3.9bn on 31 December 2016. Of the reported liquidity, about EUR 65m is not immediately accessible due to contractual restrictions (notably cash located at joint ventures), currency conversion limitations and/or other restrictions on repatriation. Cash as of 31 December 2016 includes the first tranche of a promissory note issued in late 2016. The second tranche of the promissory note (EUR 660m) was placed in January 2017.

- Lufthansa has EUR 855m in bilateral lines with over 30 different banks. At the end of 2016, none were utilised. Each of the credit lines has a term of two years, which is extended at the end of the first year if it is not cancelled. Bilateral credit lines are free of financial maintenance covenants.
- We project FOCF in a range of EUR 1.9-2.0bn in 2017 and about EUR 1.5bn in 2018.

Liquidity is used as follows:

- Financial maturities of EUR 0.8bn as of 31 December 2016 due in 2017
- Financial maturities of EUR 0.5bn due in 2018
- Dividend payments of EUR 280m in 2017 and EUR 390m in 2018

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 2016, about 72% of Lufthansa's fleet was unencumbered (versus 74% as of 31 December 2015).

		Scope estimates		
Liquidity and financial maturities in EUR m	**2016**	**2017F**	**2018F**	**2019F**
Unrestricted cash position	3,872	4,039	4,978	5,996
Undrawn committed lines	855	855	855	855
Maturity profile as of 31 December of respective year	1,339	781	529	1,061
Discretionary cash flow	-363	1,817	939	1,018
Internally and externally provided liquidity cover	**3.3x**	**8.6x**	**12.8x**	**7.4x**

Regulatory disclosures

This credit rating and/or rating outlook is issued by Scope Ratings AG.
The rating analysis has been prepared by Werner Stäblein, Executive Director. Responsible for approving the rating: Olaf Tölke, Managing Director
The rating was first assigned by Scope on 04.11.2016. / The rating was last updated on 21.12.2017.

Methodology

The methodologies used for this rating and/or rating outlooks are Rating Methodology Corporate Ratings 2017 Jan. Available on www.scoperatings.com.
Historical default rates of Scope Ratings can be viewed in the rating performance report on https://www.scoperatings.com/#governance-and-policies/regulatory-ESMA Please also refer to 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 definition of default as well as definitions of rating notations can be found in Scope's public credit rating methodologies on www.scoperatings.com.
The rating outlook indicates the most likely direction of the rating if the rating were to change within the next 12 to 18 months.

Stress testing & cash flow analysis

No stress testing was performed. Scope performed its standard cash flow forecasting for the company under review.

Solicitation, key sources and quality of information

The rated entity and/or its agents participated in the rating process.
The following substantially material sources of information were used to prepare the credit rating: public domain, the rated entity, third parties and Scope internal sources. Scope considers the quality of information available to Scope on the rated entity or instrument to be satisfactory. The information and data supporting Scope's ratings originate from sources Scope considers to be reliable and accurate. Scope does not, however, independently verify the reliability and accuracy of the information and data.
Prior to publication, the rated entity was given the opportunity to review the rating and/or outlook and the principal grounds on which the credit rating and/or outlook is based. Following that review, the rating was not amended before being issued.

Potential conflicts

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