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The airline top 50 2016

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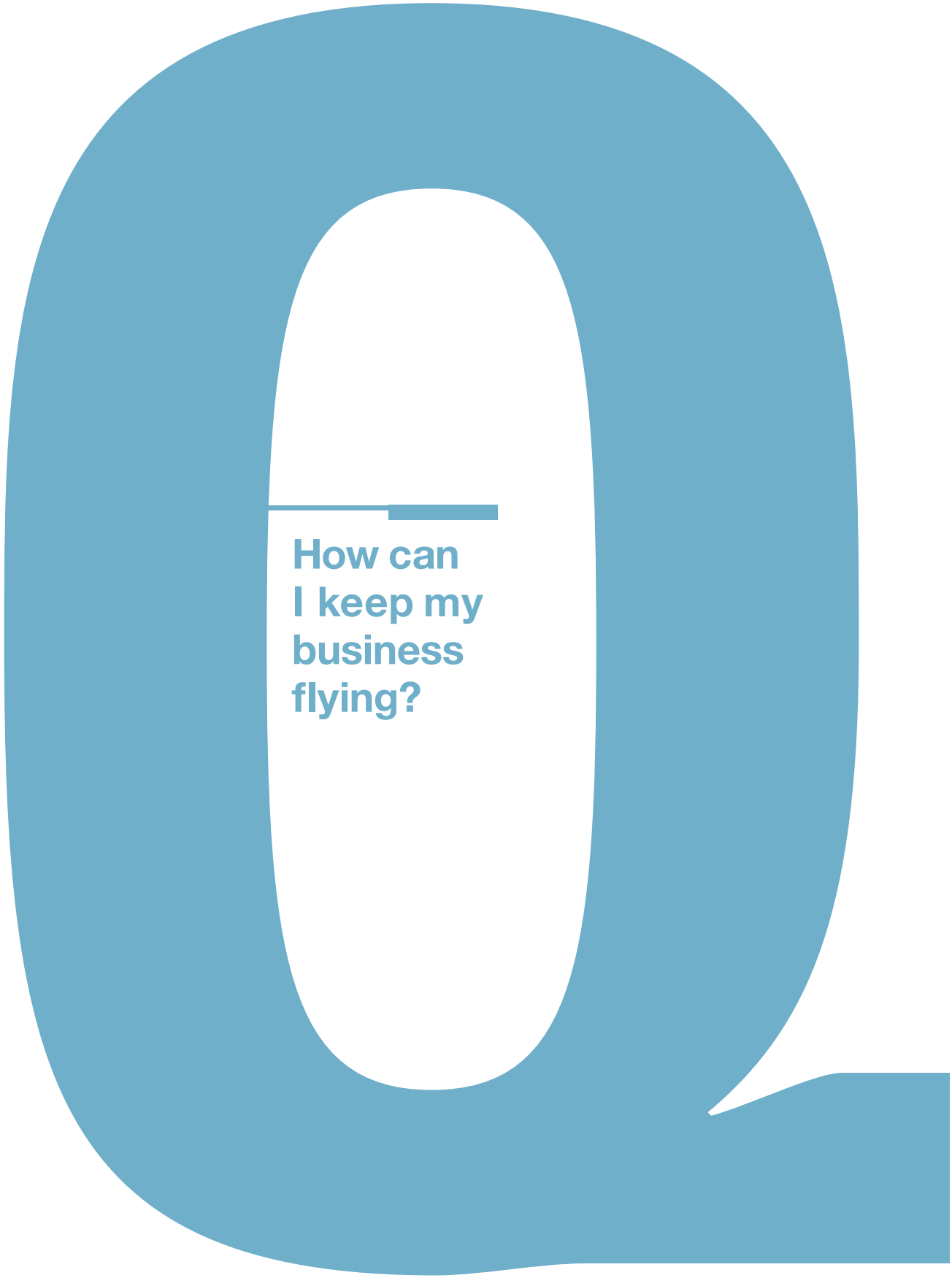

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EDITORIAL

Brexit cloud hovers over aviation

Ryanair dominated this year's Airline Top 50 rankings, but the UK's decision to leave the European Union is already causing anxiety.

Welcome to the fifth annual Airline Top 50 supplement, which is backed by data supplied by The Airline Analyst. For the second year running, Ryanair tops the rankings with an AA- financial rating as assessed by The Airline Analyst Financial Ratings (TAA Financial Ratings). This single quantitative measure is based on the average fleet age of the carrier and four key financial ratios.

Unlike public credit ratings that are only available for 20 airlines, TAA Financial Ratings are available for 137 carriers.

It will be interesting to see what impact the United Kingdom's decision to leave the European Union will have on the ratings of Ryanair – which is Europe's biggest airline by passenger numbers – as well as other European and North Atlantic airlines.

The Dublin-based carrier already has indicated it is unlikely to place any of its 2017 aircraft deliveries into the UK market. Instead, it will focus its growth into the EU.

No doubt there are concerns that a plummeting British currency, regulatory uncertainty under the EU's single aviation market and slowdown in economic growth will impact travel demand in Europe and the UK.

However, a sell-off in airline shares immediately after the referendum, including those of many US carriers, demonstrates the far-reaching concern the Brexit vote is having already on the global airline industry.

A closer look at the Top 50 results for the 12-month period spanning March 2015 to March 2016 shows that total revenue in our Top 50 by Revenue ranking equated to $576 billion, or 87% of the total sample.

US carriers dominated the top three positions: American, Delta and United Continental took the number one, two and three spots, respectively.

The degree of concentration within the Top 50 is apparent with the top 10 airlines accounting for 50% of the Top 50's revenues.

Also, a good number of US carriers made it onto the Top 50 by Net Income Margin ranking after a long absence. Virgin America, United Continental, American, Allegiant, Alaska Air Group and Spirit Airlines all made it into the top 10 positions of the rankings.

However, because of the stress on network business models in Asia, Cathay Pacific, Qantas and Singapore Airlines were all absent from the list because they failed to produce net income margins that were high enough to beat out competitors such as Emirates and Turkish Airlines.

Liquidity is a major indicator of financial flexibility for an airline and it demonstrates a carrier's ability to deal with unexpected shocks to its network.

It should come as no surprise that successful low-cost carriers such as Ryanair, again in the number one position, and Wizz Air lead the Top 50 by Highest Liquidity ranking.

A number of low-cost carriers also made it onto the Top 50 by Lowest Leverage ranking with strong cash generation supporting their debt loads from recent fleet expansions.

Air Greenland tops the list, followed by Luxair Group and SIA Cargo. Ryanair, Southwest and Easyjet made the number eight, nine and 10 positions, respectively.

The year 2016 is expected to be the fifth in a row of improving aggregate industry profits, again thanks to very favourable fuel prices.

However, the industry faces ongoing geopolitical concerns. Not only has Brexit raised questions about air travel demand, but also it has ignited a stronger US dollar, which can be challenge, particularly for carriers in emerging markets.

But despite this, the International Air Transport Association (Iata) has revised its 2016 financial outlook for global air transport industry profits upwards to $39.4 billion from its $36.3 billion forecast in December 2015. That figure is expected to be generated on revenues of $709 billion for an aggregate net profit margin of 5.6%.

For the second consecutive year, and only the second time in the airline industry's history, the return on invested capital, 9.8%, will exceed the cost of capital, estimated to be 6.8%. The airline industry is beginning to generate profits that would be expected of any "normal business", says Iata.

Also, amid this indicator of success there are still many airlines struggling to keep revenue ahead of expense. We calculate that 29 airlines made an aggregate loss of $5.2 billion. These carriers face an uncertain future.

While the aviation market is still very much in a wait-and-see mood regarding Brexit and its impact on the EU regulatory framework and travel demand, currency fluctuations and fuel price uncertainty are challenges that the sector must embrace now.

How the aviation sector digests this post-Brexit world will be reflected in next year's Top 50 rankings.

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THE AIRLINE TOP 50

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The Airline Analyst presents the top 50 airlines by revenue and income, passenger revenue and yield, RPKs and passenger load factor, staff costs, Rask-Cask margin, Ebitdar margin, leverage, fixed charge cover, liquidity, equity market capitalisation and return on capital employed.

The Top 50 Airlines

Basic Info						Financial Rating			Financial Rating - LTM							
Rank	Airline	Most recent 12 month Latest Twelve Months (LTM)	LTM Revenues [USDm]	Average age of fleet (years) Source: AeroTransport Data Bank	EBITDAR (Earnings before Interest, Tax, Depreciation, Amortization and Rents)/Total Revenues (%)	Fixed Charge Cover: EBITDAR/Net Interest plus Rent (x)	Liquidity as % of Revenue	Adjusted Net Debt/EBITDAR (x)	Average age of fleet score	EBITDAR Margin score	Fixed Charge Cover score	Liquidity score	Leverage score	Score for most recent 12 month (LTM) period	Movement in last twelve months
1	Ryanair	31-Mar-16	$7,287	6.7	30.6%	11.9	66.1%	0.3	6	6	8	8	8	7.4	↘
2	Spirit Airlines	31-Mar-16	$2,186	5.1	36.9%	3.7	41.3%	1.9	7	7	7	8	7	7.2	→
3	Air Arabia	31-Mar-16	$1,086	2.3	26.9%	22.2	48.0%	1.9	8	5	8	8	7	7.1	→
4	Alaska Air Group	31-Mar-16	$5,676	9.0	32.1%	19.0	27.6%	0.0	5	6	8	6	8	6.8	→
5	Allegiant Travel Company	31-Mar-16	$1,282	22.2	37.8%	18.3	26.8%	0.7	1	7	8	6	8	6.8	↘
6	WestJet	31-Mar-16	$3,074	6.6	24.1%	4.7	35.4%	1.5	6	4	8	8	7	6.7	↘
7	Japan Airlines	31-Mar-16	$12,474	9.1	24.0%	13.6	31.5%	-0.4	5	4	8	7	8	6.6	↘
8	Air New Zealand	31-Dec-15	$3,627	8.0	26.8%	6.1	26.8%	1.9	6	5	8	6	7	6.5	→
9	Hawaiian Airlines	31-Mar-16	$2,328	9.9	28.0%	4.0	28.7%	1.5	5	5	8	6	7	6.4	↑
10	Wizz Air	31-Mar-16	$1,592	3.9	30.8%	2.4	45.2%	1.8	7	6	4	8	7	6.3	↘
11	Icelandair	31-Mar-16	$1,164	20.9	21.0%	9.0	25.9%	-0.2	2	4	8	6	8	6.1	↘
12	Southwest Airlines	31-Mar-16	$20,060	12.0	26.0%	17.0	17.9%	0.3	4	5	8	4	8	6.1	↘
13	easyJet	31-Mar-16	$6,799	6.2	19.7%	7.7	22.5%	0.6	6	3	8	5	8	6.0	↘
14	jetBlue	31-Mar-16	$6,509	8.2	27.2%	7.7	19.8%	1.1	6	5	8	4	7	6.0	↗
15	Spring Airlines	31-Mar-16	$1,247	3.2	28.6%	3.1	37.1%	4.2	7	5	6	8	4	5.9	↘
16	Hainan Airlines	31-Dec-15	$5,432	5.0	38.0%	2.3	43.6%	5.9	7	7	4	8	4	5.9	↗
17	Copa Holdings	31-Mar-16	$2,175	6.4	22.7%	3.7	30.7%	3.2	6	4	7	7	5	5.8	↘
18	Singapore Airlines	31-Mar-16	$11,005	6.3	19.7%	3.3	31.5%	1.3	6	3	6	7	7	5.8	↘
19	Frontier Airlines	31-Dec-15	$1,604	9.2	31.2%	2.9	26.1%	2.3	5	6	5	6	6	5.7	↗
20	Aer Lingus	30-Jun-15	$1,771	10.3	14.2%	2.7	51.5%	0.8	5	2	5	8	8	5.7	↓
21	AirAsia	31-Mar-16	$1,639	5.1	47.8%	3.3	17.8%	4.0	7	8	6	4	4	5.6	↑
22	Volaris	31-Mar-16	$1,089	4.4	36.3%	1.8	32.5%	3.8	7	7	3	7	5	5.6	↗
23	American Airlines Group	31-Mar-16	$40,598	11.6	24.8%	4.8	17.1%	2.5	5	4	8	4	6	5.5	↘
24	British Airways	31-Dec-15	$16,537	12.9	19.1%	9.1	17.6%	1.6	4	3	8	4	7	5.4	↓
25	Delta Air Lines	31-Mar-16	$40,567	15.7	23.5%	13.4	7.2%	0.8	3	4	8	2	8	5.3	→
26	EVA Airways	31-Mar-16	$4,253	7.8	21.9%	3.2	27.8%	3.9	6	4	6	6	5	5.3	↗
27	Virgin America	31-Mar-16	$1,567	6.3	28.0%	1.9	35.9%	3.6	6	5	3	8	5	5.3	↗
28	Qantas Airways	31-Dec-15	$12,357	8.3	20.3%	4.6	14.1%	2.2	6	4	8	3	6	5.3	↗
29	Air Canada	31-Mar-16	$10,872	14.6	18.1%	3.8	21.1%	2.6	4	3	7	5	6	5.2	→
30	Cebu Pacific	31-Mar-16	$1,254	4.7	30.5%	3.4	14.7%	3.5	7	6	6	3	5	5.2	→
31	IndiGo	31-Mar-16	$2,411	3.8	34.4%	2.1	29.3%	4.0	7	6	4	6	4	5.2	↑
32	United Continental	31-Mar-16	$37,451	13.4	22.1%	4.7	10.6%	2.1	4	4	8	3	6	5.2	↗
33	Swiss	31-Dec-15	$4,656	14.1	16.8%	20.0	6.1%	0.6	4	3	8	2	8	5.2	→
34	Air China	31-Dec-15	$16,887	6.1	30.3%	4.2	6.5%	4.2	6	6	8	2	4	5.1	↗
35	Cathay Pacific	31-Dec-15	$13,192	8.8	17.8%	4.4	19.2%	3.9	6	3	8	4	5	5.1	↘
36	ANA Holdings	31-Mar-16	$16,819	10.2	21.3%	3.6	15.5%	3.1	5	4	7	4	5	5.0	→
37	Emirates	31-Mar-16	$22,937	6.2	28.0%	2.6	23.7%	4.0	6	5	5	5	4	4.9	↗
38	Juneyao Airlines	31-Mar-16	$1,350	3.8	30.6%	3.5	13.6%	4.3	7	6	6	3	4	4.9	↘
39	EL AL Israel Airlines	31-Mar-16	$2,031	13.6	19.5%	3.9	10.4%	2.8	4	3	7	3	6	4.7	↑
40	Jet2.com	31-Mar-15	$1,049	22.2	11.4%	1.9	35.5%	1.5	1	2	3	8	7	4.7	↑
41	Qatar Airways	31-Mar-15	$9,395	5.3	17.3%	2.0	42.4%	4.1	7	3	3	8	4	4.7	↓
42	China Southern	31-Dec-15	$17,127	6.2	26.8%	4.1	4.1%	4.7	6	5	8	1	4	4.6	↗
43	Vueling Airlines	31-Dec-15	$2,203	6.9	19.3%	1.6	32.5%	3.5	6	3	3	7	5	4.6	↓
44	China Airlines	31-Mar-16	$4,381	9.4	23.6%	3.4	15.9%	4.6	5	4	6	4	4	4.5	↘
45	Ethiopian Airlines	30-Jun-15	$2,318	5.4	25.4%	2.7	10.5%	5.6	7	5	5	3	4	4.5	→
46	Finnair	31-Mar-16	$2,633	10.9	16.2%	1.6	31.1%	4.4	5	3	3	7	4	4.3	↗
47	Korean Air	31-Mar-15	$9,974	10.1	19.3%	4.2	14.0%	6.3	5	3	8	3	3	4.3	↗
48	Aegean Airlines	31-Dec-15	$1,133	8.7	21.7%	2.0	15.3%	3.5	6	4	3	4	5	4.2	↓
49	China Eastern	31-Dec-15	$14,452	5.8	23.7%	3.5	9.7%	6.5	7	4	7	2	3	4.2	↗
50	SkyWest, Inc.	31-Mar-16	$3,097	11.3	25.8%	2.3	14.0%	4.6	5	5	4	3	4	4.1	↘
	Airline Groups														
	International Airlines Group	31-Dec-15	$25,916	11.1	18.8%	4.8	25.6%	1.9	5	3	8	6	7	5.9	↘
	Lufthansa Group	31-Mar-16	$36,943	10.7	9.7%	10.9	10.3%	1.0	5	1	8	3	8	5.0	→
	Air France-KLM	31-Mar-16	$29,199	11.1	14.4%	2.8	14.6%	3.6	5	2	5	3	5	3.9	→

Source: Airfinance Journal's Airline Financial Ratings, July 2016


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ANALYSIS

Iata expects tailwind conditions for airlines

The International Air Transport Association (Iata) has revised upwardly its industry financial outlook, and all indications are that 2016 will see a continued improvement in airlines' financial performances.

Global air transport industry profits are predicted to reach $39.4 billion in 2016 versus $36.3 billion forecast in December 2015, according to International Air Transport Association (Iata). That is expected to be generated on revenues of $709 billion for an aggregate net profit margin of 5.6%. This year should be the fifth consecutive year of improving aggregate industry profits.

In 2015, airlines generated a global aggregate profit of $35.3 billion, with all regions making a contribution to the $4.1 billion boost over 2015 profits with improved results; but there were stark regional differences in performance. In 2016, more than half of the industry profits will be generated in North America ($22.9 billion), while African carriers are forecast to continue generating an overall $500 million loss.

While record profits in a low-growth economy suggest airlines have gone some way to decoupling successfully their financial fortunes from economic growth, Iata believes fragility of the latter remains the biggest to derailing the industry's strong profit run.

The organisation's outlook is based on oil averaging $45 a barrel over the course of 2016, which is significantly lower than the $53.9 average price in 2015. The full impact of lower fuel prices is still being realised as hedges mature. Overall, fuel is expected to represent 19.7% of the industry's expenses, says Iata, down from a recent high of 33.1% in 2012-13.

"Lower oil prices are certainly helping – though tempered by hedging and exchange rates. In fact, we are probably nearing the peak of the positive stimulus from lower prices," said Tony Tyler, Iata's director-general and chief executive officer.

Iata expects gross domestic product (GDP) to grow by 2.3% this year as weak economic conditions prevail. This is down from 2.4% in 2015 and the weakest growth since 2008 when the global financial crisis hit.

Consumer spending is relatively strong, it says, but the corporate sector is conserving cash and, despite some easing of government austerity budgets and low interest rates, there is little evidence of an acceleration in infrastructure spending.

Passenger demand continues to be robust, albeit growing at a slower pace. Iata anticipates a 6.2% growth in 2016, down from a 7.4% growth recorded in 2015.

Capacity is anticipated to grow slightly ahead of demand at 6.8%. Load factors are expected to remain high at about 80% but are predicted to drop by as much as 7% this year. This will be compensated by 7.7% lower units costs, driven by lower fuel prices, says Iata.

Overall, the passenger business is projected to generate $511 billion in revenues, albeit down from $518 billion in 2015. On the cargo side, Iata anticipates $49.6 billion in revenues, down from $52.8 billion in 2015.

The cargo side of the business remains in the doldrums, with 2.1% growth anticipated in 2016. Airlines are growing their fleets with long-haul widebody models, in an already flat air cargo market, but in the meantime cargo yields are set to experience an 8% fall.

Regional diversity

Iata says North American carriers continue to deliver the industry's strongest financial performance, with an expected net profit of $22.9 billion, compared with $21.5 billion in 2015.

North America's capacity will grow by 4.3% in 2016, marginally outpacing an anticipated 4% increase in demand. Load factors are forecast to remain well above break-even levels. Iata says cash flow has been sufficient for airlines in this region to improve balance sheets significantly by repaying debt, and return cash to shareholders through dividends and share buy-backs.

European carriers are expected to report $7.5 billion in profits in 2016, broadly in line with last year's $7.4 billion. Iata sees capacity to grow by 5.8%, ahead of expected demand growth of 4.9%. But the organisation warns of the intense competition on intra-Europe routes, and states that the burdens of high taxes, onerous regulation and inefficient infrastructure (particularly air traffic management) have yet to be meaningfully addressed. Additionally, for many carriers there is a wide gap between the expectations of labour and management, says Iata.

Airlines in the Asia-Pacific region are expected to post a $7.8 billion profit this year, up from $7.2 billion in 2015. Iata anticipates a 9.1% capacity, ahead of demand, which is likely to grow by 8.5%. Challenges include intense competition as the budget sector expands, restructuring in the Chinese economy and continuing infrastructure and cost difficulties in the Indian market.

Iata notes that Asia-Pacific carriers represent 40% of the global air cargo market. As a result, they continue to feel the brunt of stagnation in this sector, which is holding back the improvement in financial performance.

Middle East carriers are expected to improve profits marginally this year. Iata anticipates carriers in the region to report $1.6 billion in profits, a slight increase on the $1.4 billion in 2015.

Capacity is forecast to grow at 12.2%, outpacing an expected 11.2% expansion of demand. Efficient hubs continue to gain market share on connecting markets for the region's major carriers, although local markets have been weakened by the impact of falling commodity revenues, according to Iata.

Changes in the region's oil economies are manifesting themselves in a spate of increases in charges and taxes, which could dampen the Middle East's cost competitiveness.

Airlines in Latin America are expected to move into profit territory again this year, says Iata. It forecasts $100 million in profits as demand is expected to grow by 4.2% while capacity will be restricted to 3.7%. Two of the region's major economies – Brazil and Venezuela – continue in a deep economic and political crisis. The region has been hit disproportionately by the fall in commodity prices and revenues, which led to foreign exchange crises to add to the economic difficulties.

Such has been the falling of exchange rates in Brazil and other major commodity economies in the region that airlines have seen hardly any decline of fuel costs in local currencies, while out-

bound residents have suffered a dramatic decline in purchasing power overseas. In 2015, Latin American carriers reported a $1.5 billion loss.

African airlines are expected to remain in the red, however. Iata anticipates a $500 million loss in 2016, a slight improvement on the $700 million that the region's carriers lost in 2015. Capacity, forecast at 5.3%, is anticipated to outpace demand growth of 4.5%.

Iata says carriers in the region continue to confront a plethora of challenges, including intense competition on long-haul routes, political barriers to growing intra-Africa traffic, high costs and infrastructure deficiencies.

In addition, many major economies in the continent have been hit hard by the collapse of commodity prices, and the impact that has had on revenues and the inflow of hard currencies. Unresolved foreign exchange crises are adding to the economic difficulties facing airlines in this region.

Iata believes the airline industry continues to add value to customers, to the wider economy and to governments. In 2016, the average return airfare, before surcharges and taxes, is expected to be $366. This represents a 62% reduction on 1995 levels, after adjusting for inflation.

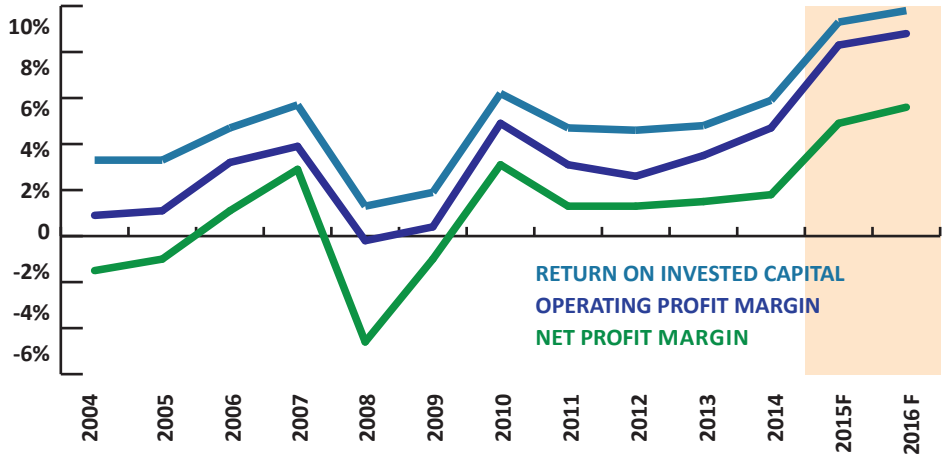
The number of direct airline jobs is expected to rise by 2.8% in 2016, to 2.61 million, predicts Iata, with the total airline payroll expected to reach $153 billion, up 6.4% from $144 billion in 2015.

Compared with 2015, average unit labour costs are expected to rise by 0.1% as productivity per employee improves 3.4%.

The industry tax bill is expected to grow to $118 billion in 2016, a 5.5% increase on 2015.

Investments in new aircraft are a major driver of fuel-efficiency improvements. In 2016, airlines are expected to take delivery of almost 1,900 new aircraft. About half are projected to replace less fuel-efficient older models.

IATA INDUSTRY FORECAST JUNE 2016



Source: IATA

Better returns

Iata says airlines have long struggled to reward their investors appropriately. But, in 2015, a major milestone was achieved as they generated a return on invested capital exceeding the cost of that capital.

For the first time in history airlines made a "normal" level of profitability – in real terms, a $35.3 billion net profit on revenues of $718 billion.

The sharp decline in the price of oil is a major driver of improved profitability. Last year, the average price of a barrel of jet fuel was 42% lower than in 2014.

The declines in jet fuel prices, however, were not felt evenly across airlines and regions globally, says Iata. This partly relates to different hedging practices within the industry, which can delay the benefits of lower oil prices translating into lower unit costs.

But sharp drops in the value of many currencies against the US dollar were another complicating factor in 2015, as the exchange rate declines offset the benefits of cheaper US dollar-based oil prices for many airlines. This was particularly the case for Brazil and Russia, whose currencies fell 30% to 40% against the US dollar.

Debt providers to the airline industry are well rewarded for their capital, usually invested with the security of a very mobile aircraft asset to back it. On average, during the business cycle the airline industry has been able to generate enough revenue to pay its suppliers' bills and service its debt. However, equity owners have not been rewarded adequately for risking their capital in most years, except at a handful of airlines.

Iata says investors should expect to earn at least the normal return generated by assets of a similar risk profile – the weighted average cost of capital. Such is the intensity of competition, and the challenges to doing business, that average airline returns are rarely as high as the industry's cost of capital.

Equity investors have typically seen their capital shrink. But this year Iata predicts the industry to generate a 9.8% return on invested capital, which does, for only the second year, adequately reward equity owners.

On invested capital of almost $600 billion, the industry is forecast to generate $16.2 billion of value for investors this year. But it should be clear that $39.4 billion net profit, while exceptional for the airline industry, is really only sufficient to pay investors a normal return for risking their capital. Moreover, high returns have only started to be generated outside North America in the past year and are still not widespread across all regions.

The trend improvement in returns is being driven by changes in industry structure and behaviour. Break-even load factors are usually on a painful upward trend as yields fall faster than cost reductions. They are falling this year because of lower fuel prices and increasing ancillary revenues. On top of that, consolidation and more returns-focused behaviour have boosted load factors achieved.

IATA INDUSTRY FORECAST JUNE 2016

Worldwide airline industry	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015F	2016F
REVENUES $bn	379	413	465	510	570	476	564	642	706	720	751	718	709
EXPENSES $bn	376	409	450	490	571	474	536	623	687	695	716	659	647
OPERATING PROFIT $ bn	3.3	4.4	15.0	19.9	-1.1	1.9	27.6	19.8	18.4	25.3	35.1	59.5	62.2
OPERATING PROFIT % margin	0.9	1.1	3.2	3.9	-0.2	0.4	4.9	3.1	2.6	3.5	4.7	8.3	8.8
NET PROFIT $ billion	-5.6	-4.1	5.0	14.7	-26.1	-4.6	17.3	8.3	9.2	10.7	13.7	35.3	39.4
NET PROFIT % margin	-1.5	-1.0	1.1	2.9	-4.6	-1.0	3.1	1.3	1.3	1.5	1.8	4.9	5.6
RETURN ON INVESTED CAPITAL %	3.3	3.3	4.7	5.7	1.3	1.9	6.2	4.7	4.6	4.8	5.9	9.3	9.8

Data sources: Historic data to 2014 from ICAO, except fuel detail and global passenger and freight. IATA forecasts 2016 and estimates for some 2014 & 2015 items. IATA Economic Industry Performance. IATA Economic Industry Performance (IATA Economics)
Note: Bankruptcy reorganization and large non-cash costs are excluded.

ANALYSIS

OEMs raise market forecast for next 20 years

The 2016 Farnborough air show was the venue for manufacturers to unveil their upbeat forecasts.

Four original equipment manufacturers (OEMs) released their annual forecasts at the 2016 Farnborough Airshow, highlighting the need for more aircraft during the next two decades.

Airbus, ATR, Boeing and Embraer all increased their annual forecasts, citing a rise in global demand for air travel, particularly from the emerging markets.

Boeing

Boeing anticipates demand for 39,620 new aircraft worth $5.9 trillion during the next 20 years, an increase of 4.1% over last year's forecast.

The US manufacturer believes the Asian market, including China, will continue to lead the way in total aircraft deliveries during the next two decades.

It sees 15,130 new deliveries in the region through 2035. North America deliveries will account for 8,330 units, while another 7,570 are destined for Europe.

The Middle East and Latin America will receive 3,310 and 2,960 deliveries, respectively, for the 2016-35 period.

Boeing forecasts equal demand from Africa and the CIS, with 1,150 and 1,170 units, respectively.

The single-aisle market will be especially strong, says the OEM, with low-cost carriers and emerging markets driving growth. It expects 28,140 new aircraft will be needed in this segment, an increase of more than 5% over last year.

On the widebody side, 9,100 aircraft are forecast, with a large wave of potential replacement demand in the 2021- 28 timeframe.

Boeing projects a continued shift from very large aircraft to small and medium widebodies, such as the Boeing 787, 777 and 777X.

With cargo traffic forecast to grow at 4.2% a year, Boeing anticipates the need for 930 new freighters and 1,440 converted freighters.

"Despite recent events that have impacted the financial markets, the aviation sector will continue to see long-term growth, with the commercial fleet doubling in size," says Randy Tinseth, Boeing Commercial Airplanes' vice-president of marketing. "We expect to see passenger traffic grow 4.8% a year over the next two decades."

Airbus

Airbus increased its forecast by about 500 aircraft and now anticipates a need for more than 33,000 new aircraft above 100 seats in the next 20 years (2016-35).

According to the Airbus Global Market Forecast, the world's aircraft fleet will have doubled to almost 40,000 units by 2035, from today's 19,500 aircraft.

Some 13,000 passenger and freighter aircraft will be replaced with more fuel-efficient types, it says.

Passenger traffic will grow at an average 4.5% a year, driving a need for 32,425 passenger aircraft and 645 freighters greater than 10 tonnes by 2035, worth $5.2 trillion.

In the widebody market, Airbus forecasts a trend towards higher capacity aircraft with a requirement for more than 9,500 widebody passenger and freighter aircraft.

This represents 29% of all new aircraft deliveries and 54% by value. Most widebody deliveries (46%) will be in the Asia-Pacific region. In this segment, Airbus's A330, A330neo, A350 and the A380 "offer the most comprehensive widebody product range between 200 and above 600 seats", says the European manufacturer.

In the single-aisle market, Airbus forecasts a need for more than 23,500 new aircraft. This represents 71% of total demand. Asia-Pacific will take 39% of these deliveries.

Airbus says urbanisation and increased wealth in emerging economies, particularly in Asia, is powering air traffic growth. With a combined population of more than six billion people, these economies will grow at 5.6% a year and the propensity to travel will triple to 75% of its population.

Within 10 years, China's domestic air traffic will become the world's largest. In economies such as western Europe or North America, air traffic growth will be 3.7%, it says.

While gross domestic product (GDP) remains a key driver in traffic growth, Airbus sees private consumption (a component of GDP) becoming a more significant economic variable on some important flows, including domestic China and domestic India. The middle-class population in emerging markets will double to 3.5 billion by 2035.

ATR

Turboprop manufacturer ATR forecasts demand for 2,800 turboprops during the next 20 years. Demand splits into 600 units in the 40- to 60-seat category and 2,200 units in the 61- to 80-seat range during the 2016-35 period.

ATR has mainly sold its -600 variants in the 61- to 80-seat category, but it says demand for 50-seater aircraft is strong.

ATR vice-president marketing, Zuzana Hrnkova, says there are 700 turboprops to be replaced in the 30-seat category. She sees demand for 50-seater turboprops in northern Europe, the USA and islands in South-East Asia.

Of the 2,100 turboprop current fleet, ATR anticipates that 1,100 will remain in service by 2035, 1,000 will be replacement aircraft and the other 1,800 will be to provide for growth.

The Toulouse-based manufacturer says the forecast anticipates a 3.9% average annual growth during the 20-year timeframe with GDP growth of 3%.

Hrnkova says the key point is that 50% of growth will come from route creation. "We predict more than 3,000 new routes will be opened and this will require 900 turboprop aircraft," she says.

China and India will contribute to that growth. "There is a huge potential to develop regional aviation in China in the future," she adds.

ATR forecasts an annual fleet growth of 3.2% for route creation. Another 3.5% of growth is attributed to existing routes.

It forecasts demand from Asia-Pacific, excluding China, at 28%; China, 10%; Latin America and the Caribbean, 14%; Europe and the CIS, 21%; North America, 16%; and Africa and the Middle East, 11%.

Hrnkova does not exclude "any possibility in aircraft improvement and development" in reference to a 90-seater turboprop.

Bertrand Pabon, ATR head of market strategy, says that a "100-seater turboprop could stimulate the market".

Embraer

Embraer projects market demand for 6,400 new jet aircraft in the 70- to 130-plus-seat capacity category worth $300 billion by 2035.

According to Embraer's 2016-35 market outlook, there will be a need for 2,300 units in the 70- to 90-seat segment and 4,100 units in the

Region	Deliveries	Market share (%)
North America	2,020	31
Asia-Pacific	1,690	26
Europe	1,160	18
Latin America	690	11
CIS	380	6
Africa	230	4
Middle East	230	4

Source: Embraer, July 2016

The global 70- to 130-plus seat fleet in service will increase to 6,690 units by 2035, up from 2,670 aircraft in 2015, says the Brazilian manufacturer. Embraer says the 70- to 130-plus seat range is the fastest-growing segment among all aircraft seat capacities. Market growth will drive 63% of total demand, and the remaining 37% will be delivered to replace ageing aircraft.

System-wide demand for air transport — measured in revenue-passenger kilometres (RPKs) — is expected to grow on average at 4.7% annually by 2035, fuelled by stronger domestic demand in advanced economies and improvements in the macro-environment in a number of distressed economies in emerging markets.

While region-specific outlooks may vary considerably, globally, the prospect for growth remains bright over the next 20 years driven by a gradual move from a share-driven market strategy to one of disciplined capacity growth with a commitment to strong earnings and return on invested capital.

Oil price will continue to play an important role in the evolution of air passenger traffic and the deployment of aircraft capacity in the coming years.

"Apart from the obvious near-term positive effect on airline balance sheets, the low price of oil may exacerbate the overcapacity problem by tempting airlines to stimulate demand with fuel cost pass-through. Greater control in matching aircraft capacity to market demand will be an ever-present strategy to keep revenues ahead of costs over the long run," says John Slattery, Embraer Commercial Aviation president and chief executive officer.

Sound financial performance via higher profits and strong non-fuel cost discipline is one of the main pillars to long-term sustainability. Right-sized aircraft call for a new, smarter approach that maximises opportunities and optimises revenues and returns with a more prudent solution to seek out untapped opportunities and to increase capacity and flight frequency, while preserving unit revenues.

Slattery adds: "The E-Jets lie at the heart of the 70- to 130-plus-seat segment. As the most efficient family of aircraft in the segment, they are perfectly positioned to maximise profitability for both airlines and leasing companies."

ANALYSIS

Profits fail to lift US airline stocks

US carriers are in a strong position, but this is not reflected in their values, writes Joe Kavanagh.

It seems counter-intuitive that the US airline industry is still valued poorly by investors, despite posting record profits.

"[US airline stocks] are trading at valuations that we've not seen since half of them were on the verge of bankruptcy," says Jim Corridore, director of industrials and consumer staples equity research, S&P Global.

As Corridore notes, US carriers are also buying back stock and are carrying out profit-sharing plans. Most are also taking steps to deleverage their balance sheets.

Meanwhile, the cost of funds is very competitive, and the next wave of fuel-efficient aircraft will soon be entering the fleets of the major airlines.

JP Morgan analyst Jamie Baker summed up the relative health of the industry in a note to investors, writing: "Cost convergence, fare unbundling, widespread consolidation, diminished new entrant activity, and return-oriented management teams have combined to form an industry that is actually managing itself for the first time we can recall."

In other words, things are looking good for US carriers.

A total of 11 US airlines made it into The Airline Top 50 ranking, as determined by financial data provided by The Airline Analyst, and seven of these carriers earned a spot in the top 20.

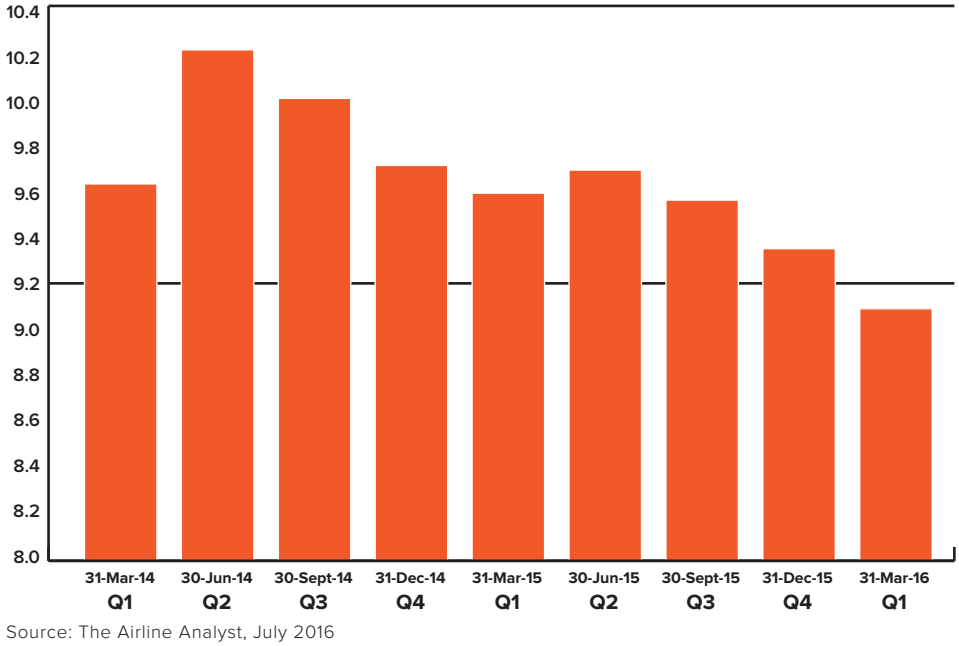
Furthermore, Spirit Airlines, Alaska Air Group and Allegiant Travel Company secured positions two, four and five, respectively, in The Airline Top 50. Spirit Airlines jumped one place in this year's ranking, while Allegiant Travel Company slipped two positions.

But the performance of airline stocks shows that investors still have some concerns.

At the start of July, the S&P Global 1500 composite index – which measures the stock price of public US carriers – recorded prices down 21.5% since the start of 2016.

At about $38 a share at the end of June, the price of Delta Air Lines was lower than it had been since October 2014. However, the airline's share price has since rallied to more than $40.

Four largest US airlines: total revenue (USD) per available seat kilometre (ASK)



Source: The Airline Analyst, July 2016

Meanwhile, Delta ranked 25th in The Airline Top 50 ranking, beating the previous year's 28th place.

Analysts who spoke to *Airfinance Journal* pointed out a number of investor concerns that have been placing pressure on US carriers' performance in the stock market.

The most common complaint is of a perceived reluctance to reduce capacity growth, resulting in a softening of yields.

Investors had hoped that the low cost of fuel would encourage airlines to maintain the capacity discipline and ticket price levels that have helped the industry to generate record profits over the past year.

However, throughout 2015, US airline capacity growth outstripped the growth in gross domestic product (GDP). As underlined by a recent report by consultants Oliver Wyman, the airline industry has tended to focus on keeping capacity growth at or below that of GDP growth. To see capacity outstripping GDP is concerning some investors who prefer to see increasing yields.

According to one estimate, total US airline capacity growth in 2015 was 3.3%, while annual GDP growth for North America was 2.9%.

Combined with an increase in fare competition, particularly in the domestic market, this has led to a softening of airline yields among major US carriers.

There are also concerns about declining passenger revenue, as measured on airlines' balance sheets by revenue per available seat kilometre (Rask). Data collected using The Airline Analyst (see below) shows that the four largest US carriers – American, Delta, United Continental and Southwest – have seen these revenues decline during the past year.

However, Southwest, American and United Continental secured the number 12, 23 and 32 positions, respectively, in The Airline Top 50. Southwest jumped ahead three places this year, while American fell to 23rd from 18th. United Continental advanced six places from last year's 32nd spot.

There are also some worries about how airlines will cope if the cost of fuel increases. US airlines' record profits were largely caused by a dramatic reduction in the price of fuel. In early 2014, the price for one barrel of Brent crude was $110 but, by early 2016, the price was closer to $30. As of July it was around $47.

Ultimately, the fate of US airline stocks will depend on whether investors believe airline executives are listening to their demands for higher margins.

In a note to investors about Spirit Airlines, JP Morgan's Baker suggests the industry is responding to the pressure from investors who are keen to see revenue per available seat mile (RASM) improvement. He notes: "Frankly, we cannot recall a time of such heightened domestic fare activity as various airlines seemingly fall over one another in efforts to identify the best structural path to higher RASM."

Striking an optimistic note, he adds: "Given the industry's collective interest in satisfying its owners, we expect a consensus to ultimately be reached, hopefully by autumn."

What about Brexit?

US airline stocks took a dive in the aftermath of the United Kingdom voting to leave the European Union. Those carriers which operate flights over the Atlantic were particularly affected.

The immediate fallout on the morning of 24 June, when markets woke to the news that the UK had voted to leave the EU, was substantial. The British pound had closed at 1.5 to the US dollar the night before, but fell to 1.34 by the end of the day. It had sunk as low as 1.29 in early July, before recovering.

Unsurprisingly, US airline stocks also dipped. Those with routes to the UK were particularly affected: American Airlines, which is part of a codeshare with British Airways, was the worst affected, with shares down 6.5% the day after the vote. Investors were worried that demand for travel to and from the UK might be affected, or that there might be lower demand for the profitable business seats that are crucial to the revenue streams of full-service carriers.

However, shares in Hawaiian Airlines increased after the referendum result, and the stock had risen 4% this year as The Airline Top 50 went to press. The airline does not have a single route to Britain or the European Union, so it has avoided any immediate negative impact from Brexit.

Despite these concerns, most airline share prices recovered to their pre-Brexit levels in the weeks after the vote.

ANALYSIS

Maintenance reserves: a $22bn per year industry

The total maintenance reserves business is a $22 billion industry and will grow in the coming decades as the leased fleet is increases and maintenance costs continue to rise at a rate of 3-5% rate per annum, says IBA's chief executive officer Phil Seymour.

The basic principles of an operating lease agreement are that the lessor expects a lease rental to cover the cost of capital and the financing of its aircraft asset.

And, of course, at the end of the lease it is the lessor who is the owner – the airline simply hands back the keys. The lessor carries the residual risk and management of the aircraft and the next placement under its control

In the event of default, the lessor finds itself in a position where it has no choice but to support the aircraft's ongoing costs. The associated costs of that liability for just a six-month period will be many hundreds of thousands of dollars to cover storage and insurance and upcoming maintenance tasks. Once the aircraft is placed, the next lessee usually expects to receive some form of contribution to the upcoming tasks.

Maintenance reserves calculations: A narrowbody case

A new narrowbody valued at $45 million has a 0.8% lease rate factor with a medium-risk airline for a 12-year lease period. This equates to $360,000 per month rental. Assuming the aircraft is operated for 300 hours and 150 flights (cycles) per month, the maintenance reserves payments could be:

Two-engine performance restoration: $1.875 million per visit at 15,000 hours = $125 per hour per engine = $37,500 per month and 2 = $75,000 per month
Two-engine life limited parts: $2.25 million at 15,000 cycles = $150 per cycle = $22,500 per engine = $45,000 per month

Airframe 6/12-year checks: circa $20,000 per month

Landing Gear Overhaul at $350,000 at 10 years = $3,000 per month
APU Overhaul at $450,000 at four years = $9,375 per month
Thrust reversers at 600,000 at 10 years = $5,000 per month

TOTAL = $157,375 per month

The airline would pay $360,000 lease rental per month as well as $157,375 per month in maintenance reserves.

The size of the maintenance reserve market:

Estimated number of narrowbodies under operating lease arrangements: **7,500 aircraft**
Typical maintenance reserves per month/per annum **7,500 x 157,375 x 12 = $14.2 billion per annum**

Estimated number of twin engine widebodies under operating lease arrangements: **800 aircraft**
Typical maintenance reserves per month/per annum **800 x 350,000 x 12 = $3.36 billion per annum**

Large widebodies (four-engine models), regional jets and turboprops: **$4 billion per annum**

A lessor not taking maintenance reserves places considerable value at risk but provides the airline with a substantial cashflow benefit, albeit that there should be an accrual for future cost and expense in the airline's accounts. A lessor taking maintenance reserves benefits from considerable cash balance and then has the ability to make decisions that impact the economic life of individual aircraft.

The above summary is of course simplified but it highlights the importance of maintenance reserves provision and the need for data, benchmarks, opinion and advice is crucial for both parties.

Ideally the lessor wants to have the aircraft in as close to full-life condition as possible either by way of ongoing cash maintenance reserves and or lease-end condition or compensation that takes the aircraft either physically back to full life or cash to that same level.

For the stronger credit airlines, there may be no cash maintenance reserves payable in the lease term.

In the case of airlines with weaker credit lines, there is a need to provide security in the form of monthly lease rentals and additional monthly cash payments for key components such as the engine, engine life-limited parts, landing gear, auxiliary power units, thrust reversers and airframe checks.

Flexibility for airlines and lessors?

As the end of the lease term approaches, a lessor may discuss with the airline the option of not performing maintenance work with a view to retaining the accrued cash and then sell the aircraft for part-out. This has become a popular option especially for lessors of the smaller versions of the Airbus A320 family aircraft and the Boeing 737 next generation aircraft.

Many A318s, A319s and 737-600s and -700s have been parted out since their value as parts in the broader family spares market is robust. The lease rate likely to be achieved for the smaller versions has not been sustainable.

When lessors are sold, or portfolios of leased aircraft are placed into asset backed securitisation (ABS) structures, the benefits of the cash maintenance reserves are used as a significant part of the overall consideration of the value of the aircraft and/or structure.

There can be major differences in the assumptions and details between original equipment manufacturer (OEM) data, what an airline pays for maintenance and what the lessor may desire to be accrued in the worst case of a default - since lessors are unlikely to have maintenance cost agreements lower than the airlines achieve.

The most volatile cost of maintenance relates to the engines and for the older airframes. The steadier aspects of the maintenance reserves are the airframe scheduled checks and the engine life-limited parts. Therefore the scope for negotiation is considerable.

Support Packages

The matter has become more complex in recent years with the push by the OEMs, especially the engine OEMs, to provide long-term support packages to airlines.

For airlines it is often an easy decision – pay the OEM an agreed ongoing amount that transfers the technical and maintenance cost risk back to the OEM.

These agreements go way beyond the purpose of the maintenance reserves. The airline benefits from an almost fixed, known cost whereas the maintenance reserves paid to the lessor is only a payment towards scheduled maintenance cost.

Under the typical maintenance reserves payment scheme, the airline is only allowed to claim for the scheduled major shop visit of the engine. Other non-scheduled events are for the airline's account. Whereas under the OEM long-term support schemes, the OEM becomes aligned with the airline's desire for maximum on-wing times for the engine. The OEM decides the build standard and takes the risk of lower than expected on-wing times.

This offering, which has become standard for widebody aircraft is one reason why there are fewer lessors in the widebody sector. The narrowbody maintenance market is much less dominated by the OEMs in terms of the aftermarket offerings.

The total maintenance reserves business is currently a $21.6 billion industry and will only grow in the coming decades. Both the leased fleet and maintenance costs continue to rise in the order of 3% to 5% per annum.

With the leased fleet forecast to double in 10 years' time and with a circa 4% average inflation of maintenance costs, the maintenance reserves business will be worth over $50 billion per annum.

It is hardly surprising that this aspect of airline costs in relation to leased aircraft is the topic of increased discussion and debate.

Maintenance costs however are usually guarded by airlines and there is no desire for an airline to disclose costs incurred to any other party.

However, several of the airline associations, including the International Air Transport Association (Iata), do occasionally run data provided on an anonymous basis from member airlines.

The organisation has a specialist group advising on leasing and Iata use the broader resources, not just airlines, but the likes of IBA to independently assess the output and advise on improvements.

But the data is only valuable as long as the context is understood and airlines are increasingly having their own data benchmarked to the wider global industry.

For many airlines who traditionally finance their aircraft and have large in-house maintenance resources the prospect of paying maintenance reserves to a lessor can be deal breaking. Comparing global rates with their own costs - perhaps at locally significant reduced rates, compared with an OEM estimate of $85 per man hour, the impact is a significant draw of its cash resource and can offset the advantage of operating new aircraft.

After all the main selling point of buying anything new is that maintenance is a long way in the future. So why pay cash for that now?

On the other hand, maintenance reserves are the price to be paid for the ability to operate new equipment without having the capital and reserves to finance the aircraft with a bank.

And there is another upside for an airline. Even airlines that could potentially finance aircraft at lower rates then they lease them at, are attracted to the flexibility that leased aircraft give them. They can be handed back at the end of the term when there may be overcapacity and does not require internal resource that would otherwise be required to manage the sale process.

The maintenance reserves are just one small piece in the overall economic assessment of the operating leasing option. That's if you consider $21.6 billion as just a small piece.

ANALYSIS

Skymark – life after bankruptcy

The Japanese carrier wants to return to profitability and relist on the Tokyo Stock Exchange. Shigehiro Nishioka, executive officer and director of Skymark, tells Michael Allen how the carrier will do so.

Shigehiro Nishioka is an experienced investment banker, but for the past 18 months he and his colleagues have been tackling the challenges of the airline industry and of getting Skymark back on track after filing for bankruptcy protection in January 2015.

Nishioka also serves as the vice-president of Integral Corporation, the private equity company that assumed a 50.1% stake in Skymark following its filing.

He spent nearly a decade at Morgan Stanley Tokyo before joining Integral in September 2014 and being stationed at Skymark as director and executive officer the same month the carrier entered into its restructuring process.

Integral's investment in Skymark marks the first time the private equity firm has put money into an airline.

The company has a diverse portfolio of businesses, including Itokin, a Japanese clothing manufacturer, J-Trading, an importer of wholesale seafood, and QB House, a hair salon chain offering cheap and cheerful 10-minute haircuts.

Despite this lack of experience in the aviation sector, Nishioka is confident he can turn the airline around and get it relisted on the Tokyo Stock Exchange within five years.

"Skymark filed for bankruptcy at the Tokyo District Court in January 2015 with ¥71 billion ($603 million) in liabilities."

New leases

The restructuring process began with renegotiating the lease contracts of some of Skymark's 26 Boeing 737-800 aircraft.

Nishioka would not be drawn on how many aircraft contracts Skymark's leasing partners agreed to modify, but says that some of the leases were extended, so the monthly lease rentals were reduced.

"We achieved a reduction in fleet-leasing expenses and that is the major reason why we could achieve a big jump in terms of the profit," he says.

Skymark achieved a ¥1.5 billion ($13.2 million) operating profit for the last fiscal year compared with a ¥17 billion operating loss in fiscal year 2015. The carrier is targeting an operating profit of ¥7 billion on ¥80 billion turnover for the fiscal year that ends March 2019.

"This profit target is based on the very conservative oil price and foreign currency exchange rate, so we will exceed the target. I am confident to exceed that target," says Nishioka.

Although Nishioka says Skymark has no plans to introduce new aircraft or reduce the number of aircraft during the next three years, the company will try to maximise its aircraft utilisation rate.

"We are trying to increase our available seat kilometres [ASK] as much as possible while keeping the operational quality and high punctuality rate," he says.

"We achieved a reduction in fleet-leasing expenses and that is the major reason why we could achieve a big jump in terms of the profit."

"In addition to that, we are revising our service concepts and strengthening our service education to our employees. We want the service level to be good and the punctuality rate high, while keeping the air fare affordable – that is the model we are seeking."

Skymark will also introduce a currency-hedging programme provided by local Japanese banks to guard against fluctuations in the value of the yen against the US dollar, something that caused it financial difficulties earlier this decade.

On the route planning side, Skymark opted to cut its unprofitable routes, including Naha-Ishigaki and Naha-Miyako. It also closed some unprofitable airport branches such as Sendai and Yonago.

Amid increased competition in the international route market from both domestic and international carriers, Nishioka admits he has not yet determined whether to enter into the international business and will focus on domestic routes for the time being.

He says: "We are just examining the size of the market and the competitiveness and our capability, like maintenance and pilots and so on, so no specific plan right now – but we are considering."

Skymark's troubled history

Skymark Airlines was set up in 1996 and started operations two years later with three leased Boeing 767s. At the time, the Tokyo-based carrier was owned by a consortium of companies led by a Japanese travel agent and 58.7% stakeholder HIS Travel. Japanese lessor Orix also held a 6.7% share.

Over the years, the ownership structure changed, with entrepreneur Shinichi Nishikubo becoming Skymark's largest shareholder in 2003.

In 2010, the airline entered into negotiations with Airbus regarding the restructuring of its aircraft orders. Skymark ordered four Airbus A380s with two options, an ambitious move, making it the first Japanese airline to order the widebody. However, Skymark – which positions itself as a hybrid carrier in between low-cost carriers and full-service carriers – was hit by both increased competition from Japanese low-cost carriers such as AirAsia Japan (now Vanilla Air) and Jetstar Japan.

In addition, the airline was unprepared for the devaluation of the Japanese yen in 2012 because it had no currency-hedging programme in place to act as a buffer.

These problems caused the airline to fall into poor financial health. Airbus cancelled the A380 order in July 2014 and sued the airline in a London court. Skymark filed for bankruptcy at the Tokyo District Court in January 2015 with ¥71 billion ($603 million) in liabilities.

Along with Airbus, US lessor Intrepid was also hurt by Skymark's financial situation. Skymark had agreed to lease seven A330s from Intrepid but cancelled the leasing agreements. The airline also had agreed to lease three A330s from CIT Aerospace and cancelled those too – but while this represented just 1% of CIT's overall fleet, the seven A330s accounted for 15% of Intrepid's.

Airfinance Journal reported at the time that, at a conservative estimate, seven 2014-vintage A330s kept off lease for just six months would result in about $35 million of lost revenue. Frank Pray, Intrepid's then chief executive officer, said, however, that his company would be able to pull through despite the ill-fated contracts with Skymark.

In August 2015, Skymark's creditors bid on two rival proposals to restructure the airline. The winning proposal with 60.25% of the votes was backed by Skymark and called for an investment of ¥18 billion, with Integral to hold 50.1%. ANA Holdings to take 16.5%, with the rest to be held by a fund – UDS Airlines Investment – to be created by the Development Bank of Japan and SMBC.

The proposal that failed to gain enough votes with only 38.13% was led by Intrepid.

The restructuring plan became binding on 1 September after no appeals against the decision were lodged by creditors at the Tokyo district court.

Skymark's creditors are owed ¥150 billion, but will be forced to write off the majority of this as a loss. Although Skymark has returned 10% of that to creditors already, the civil rehabilitation process has been finalised and the airline is not required to repay any more debt.

The money for the repayment came from the ¥18 billion capital injection from new shareholders Integral, ANA and UDS Airlines Investment.

Skymark also had to pay fees to lawyers and financial advisers, as well as other payments related to the civil rehabilitation process, so none of that original ¥18 billion is left.

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Airline Top 50 by fleet size

		717	737	747	757	767	777	787	A319	A320	A321	A330	A340	A350	A380	TOTAL
1	American Airlines	-	409	-	104	57	67	42	123	57	319	24	-	22	-	1,224
2	Southwest Airlines	-	1,010	-	-	-	-	-	-	-	-	-	-	-	-	1,010
3	United Airlines	-	453	22	105	51	84	49	56	97	-	-	-	35	-	952
4	Delta	91	203	14	156	95	18	18	57	69	82	67	-	25	-	895
5	Lion Air	-	358	2	-	-	-	-	-	150	65	3	-	-	-	578
6	Ryanair	-	571	-	-	-	-	-	-	-	-	-	-	-	-	571
7	China Eastern	-	175	-	-	-	20	-	38	170	54	66	1	20	-	544
8	Indigo	-	-	-	-	-	-	-	-	535	-	-	-	-	-	535
9	China Southern	-	191	2	11	-	26	10	38	125	80	40	-	-	5	528
10	Emirates	-	-	-	-	-	343	-	-	-	-	12	13	-	141	509
11	Turkish Airlines	-	178	-	-	-	35	-	14	30	160	62	5	-	-	484
12	Lufthansa	-	9	32	-	-	20	-	31	133	104	19	40	25	14	427
13	Air China	-	164	11	-	-	36	15	33	43	53	53	3	10	-	421
14	Easyjet	-	-	-	-	-	-	-	133	267	-	-	-	-	-	400
15	Airasia	-	-	-	-	-	-	-	-	382	-	-	-	-	-	382
16	Norwegian Air Shuttle	-	236	-	-	-	-	42	-	100	-	-	-	-	-	378
17	Qatar Airways	-	-	-	-	-	118	30	2	66	24	36	4	80	10	370
18	British Airways	-	2	40	-	11	58	42	44	92	28	-	-	18	12	347
19	All Nippon Airways	-	45	1	-	52	82	83	-	21	30	-	-	-	3	317
20	Etihad Airways	-	-	1	-	-	60	71	2	23	36	31	10	62	10	306
21	Air France	-	-	-	-	-	70	16	38	50	20	15	13	18	12	252
22	Korean Air	-	73	42	-	-	56	11	-	-	30	29	-	-	10	251
23	Jetblue	-	-	-	-	-	-	-	-	155	91	-	-	-	-	246
24	Aeroflot	-	49	-	-	-	16	22	3	78	31	22	-	22	-	243
25	Qantas	6	67	13	-	2	-	5	-	99	-	28	-	-	20	240
26	Avianca	-	-	-	-	-	-	15	45	134	25	8	-	-	-	227
27	Air Canada	-	61	-	-	16	25	37	17	42	15	8	-	-	-	221
28	Singapore Airlines	-	-	9	-	-	59	30	-	-	-	29	-	67	24	218
29	Cathay Pacific Airways	-	-	29	-	-	91	-	-	-	-	45	5	48	-	218
30	Vietjetair	-	100	-	-	-	-	-	-	70	46	-	-	-	-	216
31	Alaska Airlines	-	215	-	-	-	-	-	-	-	-	-	-	-	-	215
32	Wizz Air	-	-	-	-	-	-	-	-	73	137	-	-	-	-	210
33	Japan Airlines	-	50	-	-	41	43	45	-	-	-	-	-	31	-	210
34	Gol Transportes Aereos	-	205	-	-	-	-	-	-	-	-	-	-	-	-	205
35	LAN	-	-	-	-	23	-	23	18	104	34	-	-	-	-	202
36	Garuda Indonesia	-	128	2	-	-	10	-	-	9	-	40	-	-	-	189
37	Westjet	-	183	-	-	4	-	-	-	-	-	-	-	-	-	187
38	Xiamen Airlines	-	164	-	4	-	-	10	-	-	-	-	-	-	-	178
39	Hainan Airlines	-	131	-	-	3	-	18	-	-	-	24	-	-	-	176
40	TAM	-	-	-	-	14	12	-	25	78	31	7	-	7	-	174
41	Shenzhen Airlines	-	92	-	-	-	-	-	5	75	-	-	-	-	-	172
42	Spirit Airlines	-	-	-	-	-	-	-	29	108	32	-	-	-	-	169
43	Jet Airways	-	137	-	-	-	5	10	-	-	-	13	-	-	-	165
44	SAS	-	83	-	-	-	-	-	4	43	8	8	8	8	-	162
45	Vueling Airlines	-	-	-	-	-	-	-	6	141	15	-	-	-	-	162
46	Frontier Airlines	-	-	-	-	-	-	-	45	89	19	-	-	-	-	153
47	Saudi Arabian	-	-	20	-	-	47	8	-	35	15	25	-	-	-	150
48	Pegasus Airlines	-	59	-	-	-	-	-	-	72	18	-	-	-	-	149
49	Air India	-	3	5	-	-	18	27	22	53	20	-	-	-	-	148
50	Asiana	-	-	14	-	8	11	-	-	8	54	15	-	30	6	146

Aircraft in service, stored and on order
Source: Airfinance Journal's Fleets, July 2016

Airline Top 50 by fleet size with engines

		BMW RR	CFM INTERNATIONAL	ENGINE ALLIANCE	GENERAL ELECTRIC	INTERNATIONAL AERO ENGINES	PRATT & WHITNEY	ROLLS-ROYCE	TOTAL
1	American Airlines	-	660	-	171	248	141	188	1,408
2	Delta	91	374	-	82	69	444	51	1,111
3	Southwest Airlines	-	977	-	-	-	-	-	977
4	United Airlines	-	453	-	100	153	159	97	962
5	Skywest Airlines	-	-	-	379	-	233	-	612
6	Ryanair	-	571	-	-	-	-	-	571
7	China Southern	-	251	-	56	181	35	30	553
8	China Eastern	-	332	-	37	105	6	50	530
9	Emirates	-	4	129	325	-	-	51	509
10	Lufthansa	-	170	-	52	63	68	83	436
11	Air China	-	254	-	33	42	19	66	414
12	Turkish Airlines	-	186	-	69	117	10	20	402
13	Lion Air	-	390	-	-	2	2	3	397
14	Airasia	-	382	-	-	-	-	-	382
15	Qatar Airways	-	1	10	176	41	50	92	370
16	Easyjet	-	370	-	-	-	-	-	370
17	Norwegian Air Shuttle	-	236	-	-	-	50	35	321
18	British Airways	-	4	-	39	129	-	130	302
19	Jetblue	-	-	-	84	176	40	-	300
20	All Nippon Airways	-	57	3	101	-	52	80	293
21	Indigo	-	1	-	-	104	180	-	285
22	Etihad Airways	-	27	10	102	34	-	102	275
23	Air France	-	139	12	99	-	-	18	268
24	Korean Air	-	73	10	64	30	86	-	263
25	Air Canada	-	135	-	105	-	-	8	248
26	Japan Airlines	-	50	-	110	-	51	31	242
27	Avianca	-	109	-	-	12	86	23	230
28	Alaska Airlines	-	215	-	5	-	5	-	225
29	Garuda Indonesia	-	137	-	30	-	29	26	222
30	Aeroflot	-	161	-	16	-	-	44	221
31	Qantas	6	145	-	42	-	-	26	219
32	Singapore Airlines	-	-	5	27	-	9	177	218
33	Cathay Pacific Airways	-	5	-	88	-	8	117	218
34	Endeavor Air	-	-	-	218	-	-	-	218
35	Republic Airlines	-	-	-	160	-	51	-	211
36	Gol Transportes Aereos	-	205	-	-	-	-	-	205
37	Hainan Airlines	-	131	-	12	-	36	25	204
38	LAN	-	56	-	23	37	51	22	189
39	Westjet	-	183	-	4	-	-	-	187
40	Xiamen Airlines	-	164	-	10	-	-	4	178
41	SAS	-	121	-	12	25	-	16	174
42	TAM	-	59	-	28	75	5	7	174
43	Spirit Airlines	-	-	-	-	116	53	-	169
44	Shenzhen Airlines	-	134	-	-	31	-	-	165
45	Jet Airways	-	137	-	18	-	10	-	165
46	Saudi Arabian	-	50	-	81	3	2	27	163
47	Expressjet	-	-	-	159	-	-	-	159
48	Azul Linhas Aereas	-	5	-	77	-	69	8	159
49	Vietjetair	-	153	-	-	-	-	-	153
50	Air India	-	51	-	46	18	34	-	149

Aircraft in service, stored and on order
Source: Airfinance Journal's Fleets, July 2016

Airline Top 50 by percentage of aircraft leased

		Aircraft on balance sheet	Aircraft off balance sheet	TOTAL
1	American Airlines	964	444	1,408
2	Delta	1,008	165	1,173
3	Southwest Airlines	901	109	1,010
4	United Airlines	770	192	962
5	Skywest Airlines	513	99	612
6	Lion Air	502	78	580
7	Ryanair	532	39	571
8	China Eastern	433	125	558
9	China Southern	355	198	553
10	Indigo	440	95	535
11	Emirates	371	138	509
12	Turkish Airlines	413	73	486
13	Lufthansa	426	10	436
14	Air China	345	81	426
15	Easyjet	341	59	400
16	Airasia	380	2	382
17	Norwegian Air Shuttle	311	67	378
18	Expressjet	254	119	373
19	Qatar Airways	345	25	370
20	British Airways	278	71	349
21	Aeroflot	87	250	337
22	All Nippon Airways	322	10	332
23	Jetblue	276	54	330
24	Etihad Airways	274	32	306
25	Air France	119	151	270
26	Korean Air	231	32	263
27	Air Canada	156	92	248
28	Avianca	174	72	246
29	Japan Airlines	208	24	232
30	Qantas	199	41	240
31	Garuda Indonesia	95	141	236
32	Alaska Airlines	195	30	225
33	Azul Linhas Aereas	108	116	224
34	Singapore Airlines	175	43	218
35	Cathay Pacific Airways	187	31	218
36	Endeavor Air (Delta)	112	106	218
37	Vietjetair	187	29	216
38	Republic Airlines	169	42	211
39	Wizz Air	145	65	210
40	Hainan Airlines	137	72	209
41	Gol Transportes Aereos	89	116	205
42	LAN	114	88	202
43	Westjet	143	44	187
44	American Eagle	176	9	185
45	Xiamen Airlines	135	43	178
46	Jet Airways	95	80	175
47	TAM	36	138	174
48	SAS	80	94	174
49	Saudi Arabian	133	41	174
50	Shenzhen Airlines	126	46	172

Aircraft in service, stored and on order
Source: Airfinance Journal's Fleets, July 2016

ANALYSIS

Tax ambiguity holds up US airlines' Jolco plans

Profitable US carriers want to fund themselves like their European competitors, but a 13-year-old US-Japan tax treaty is proving a sticking point, Michael Allen reports.

US carriers have done a 180-degree turn in terms of market perception. Previously viewed as financially weak, in need of fleet trimming and frequenters of Chapter 11 restructuring, US carriers are viewed as some of the best financially performing airlines in the sky.

It is no wonder they want to enter the Japanese operating lease with call option (Jolco) market to fund their aircraft, following in the footsteps of the likes of British Airways, Air France and Lufthansa.

Although they are generally spoiled for choice with domestic financing options in the USA, the Jolco offers cheap, 100% off-balance-sheet financing, with plenty of equity investor demand.

Amelia Anderson, American Airlines' managing director and assistant treasurer, said earlier this year that the carrier was exploring Jolco financing.

At the same time, Ted North, senior vice-president and treasurer at Chicago-based United Airlines, said his airline also was eyeing the structure.

"The economics are very attractive, so we are exploring that as well [as other structures, including the enhanced equipment trust certificate]," he said.

Atlanta-based Delta Air Lines, sources say, may be less inclined to use a Jolco structure because it is cash-rich and may not be as reliant on financing as United or American.

Sources say that other potential candidates outside of the "big three" could be Alaska Airlines, Hawaiian Airlines and Southwest Airlines.

Silent partnership

But the viability of US-Japan Jolcos rests on an ambiguous clause in the Protocol to the US-Japan Income Tax Treaty signed more than a decade ago, in November 2003. The Jolco structure relies on two types of bilateral contract, called tokumei kumiai (TK) and nin-i-kumiai (NK), which are similar to partnerships in the US.

The NK structure differs from the TK in that it is more suited to a single larger-ticket investor, while the TK structure can accommodate multiple small-ticket investors.

TKs are more popular and common than NKs, but there have still been a significant amount of deals done using the NK structure.

Both contracts form a so-called silent partnership in which the assets are the property of a manager (in the case of Jolcos, this is a Japanese equity arranger) and the anonymous partners have a right to a share of profits from the venture.

The TK structure, which holds the equity in a Jolco deal, is not the object of Japanese tax because it is regarded as a pass-through entity.

"The Jolco investor only has to pay the tax for their income or their core business generated from their core business plus profit from TK structure," explains one Japanese equity arranger source.

"The equity provider of a Jolco is a special purpose company [SPC], which contracts a TK agreement. By contracting a TK agreement, Jolco investors get the benefit of obtaining tax loss and profit. So by obtaining a tax loss from the SPC, that Japanese investor could reduce their tax payment by combining tax loss distributed from the SPC, which itself doesn't have to pay tax to Japanese tax authorities, notwithstanding they get profit or loss."

But Paragraph 13A of the 2003 protocol removes the tax benefits available from using the TK structure. It is not clear, however, what the impact on the NK structure from this clause is.

"[The] United States may treat an arrangement created by a sleeping partnership (tokumei kumiai) contract or similar contract as not a resident of Japan, and may treat income derived subject to the arrangement as not derived by any participant in the arrangement," according to the protocol.

It adds: "In that event, neither the arrangement nor any of the participants in the arrangement will be entitled to benefits of the Convention with respect to income derived subject to the arrangement."

Simon Collins, a partner at White & Case Tokyo, explains that the interpretation of the words "or similar contract" in the protocol is the source of differences in opinion in the legal market about whether

the NK structure can be used in this context.

"We believe an NK will clearly be outside the scope of the protocol. We have to assume for this purpose that NKs elect the flow-through method in their accounting, which is, we understand, generally the case – and, hence, can benefit from the exemption for withholding tax under the double tax treaty," says Collins.

However, a source at an international bank in Japan, which is active on the debt side of Jolcos, thinks that both the TK and NK structure will be caught in the net, although the ultimate interpretation can only be decided by the US taxman.

"This is [about] how the tax authority in the US will interpret the language, so all that we can do from Japan is just guess from the language of the treaty," says the source.

"Our understanding in our communications with local tax advisers and other guys is the current language will catch both the TK and NK structure. I think in that sense we have to think about the other routes to pave the way [for US airlines to enter the market]."

Finding a solution

Airfinance Journal understands that Skyworks Capital is working to create a structure – likely to be an NK – that that would allow US carriers to execute Jolco transactions. The company has previous experience as advisers in the Jolco market, most recently with Air Canada and Aeromexico.

However, an NK has different structuring requirements to a TK and, while it may allow US airlines to close some Jolco financings, the investor base may not allow for as many deals as if the use of a TK structure were possible.

"Part of the challenge that the US carriers face is they are looking to do a series of deals but there is reportedly a smaller investor base for NK than TK structures," says White & Case's Collins.

Airfinance Journal understands that some investors which have historically invested in TK structures may not be willing to switch to NK, though some of those which have invested in NKs are comfortable doing TKs.

Some sources suggest that the NK structure provides less anonymity to investors and means their identities are visible to an airline.

"To receive the benefit of the US-Japan tax treaty, the NK investors need to provide an IRS Form W-8BEN and obtain a US taxpayer ID number. They will not be anonymous, as the US withholding agent, which includes the airline and the trustee of the aircraft owning trust, will receive and review those forms," says Collins.

He adds: "This requirement for the tax form does discourage some Japanese investors from investing through NK."

Japan-US relations

Even if the tax issues do get resolved by Skyworks or another party, the issue of Japanese investors' historically negative view of US carriers remains. Although they have noted the improved financial performance of several US carriers in recent years, the memory of Jolco investors is long, and the ghost of Chapter 11 bankruptcy haunts their investment decisions.

"Probably the Japanese investors' view of the other airlines [outside of the big three] is not so good, as they have had bankruptcies," says one equity arranger source.

However, the memory of what happened does seem to be gradually fading, although one Japanese banker suggests a younger generation of financiers might be more open to pursue financings with US carriers.

Collins says: "I think there's a recognition that the US market has changed and the US airlines have had a good stretch of profitable years. There was historically a concern about Chapter 11 but Japanese equity investors now seem to be much more comfortable with the US airlines as potential lessees for Jolcos."

If US carriers do manage to pull off a Jolco, one equity arranger source assumes that, although their ultimate goal must be to finance widebodies using Jolcos, they will likely start with narrowbody aircraft.

The source says: "Obviously, the aircraft cost is lower and therefore the equity amount will be smaller and will be probably swallowed by one leasing company or arranger who is interested in pursuing this structure."

AIRLINE OF THE YEAR 2015

American Airlines

Joe Kavanagh finds out what lies behind the record profits posted by the US carrier.

American Airlines takes the Airline of the Year prize for posting record profits, carrying out a large fleet-renewal programme and achieving very efficient financing, all in the wake of one of the most significant airline mergers in recent history.

For the full-year 2015, American posted a net profit of $6.3 billion, excluding special items. The airline also invested more than $5.3 billion in new aircraft, taking delivery of 75 mainline aircraft and 52 regional models, financed in part by its March enhanced equipment trust certificate (EETC) issuance, which achieved the lowest coupons for an A and B tranche.

In addition, American has taken significant steps in reducing its leverage and refinancing existing debt.

Speaking about the merger with US Airways, American's chief financial officer, Derek Kerr, tells *Airfinance Journal*: "It's been much more successful than we planned, from a financial standpoint. The number one item from an integration point that we've focused on is bringing the teams together and making sure that the two teams are on the same page. Doug's [Parker, chief executive officer] done a tremendous job of doing that."

He adds: "From an integration standpoint, it's gone really smooth. There was no disruption whatsoever cutting over to the Sabre [airline reservation] system. It was a tremendous job by the operating team, the IT team and the integration management team. On the day of the cutover, the teams were sitting around waiting for something bad to happen, and it never did."

Kerr says: "From a financial perspective, the number one item for integration was to make sure that we were financially stable and able to raise low-cost capital for the many aircraft deliveries over the past two years as we implemented our fleet-replacement programme. The new aircraft enabled us to save costs and provide a better product for our customers. Tom [Weir, vice-president and treasurer] and his team did an incredible job of raising cash to fund the aircraft deliveries at very attractive rates."

Speaking about aircraft financing, Weir says: "The EETC market remains strong. We are always looking for ways to diversify our funding, so we continue to talk to banks

"American has taken significant steps in reducing its leverage and refinancing existing debt."

and leasing companies about potential transactions. I see the market for those kinds of transactions very similar to last year."

Asked what financial options the airline is exploring, Weir adds: "We are in the process now of negotiating with banks on some aircraft mortgage debt and we are looking at a number of opportunities."

The Airline Analyst Financial Ratings shows American Airlines Group's overall ratings have improved over the past three fiscal years.

American's average fleet age has come down to 11.9 years from 12.9 between 31 March 2014 and 31 March 2016.

The carrier's earnings before interest, tax and rents (Ebitdar) have massively improved over the three-year period. Ebitdar reached 28.8% at 31 March 2016, up from 14.6% in 2014.

American recorded a $6.3 billion net profit in 2015, an increase of 50% versus the previous record set in 2014. For the full-year 2015, total revenue was $41 billion, down 3.9% compared with 2014 on a 1.2% increase in total available seat miles. Driven by a 6.5% decrease in consolidated passenger yield, 2015 consolidated passenger revenue per available seat miles was down 5.4% to 13.21 cents versus the previous year.

Full-year 2015 total operating expenses were $34.8 billion, down 9.4% on the previous year. Excluding net special charges and fuel, mainline cost per available seat miles was 8.99 cents, up 4.2% versus 2014. Regional cost per available seat miles, excluding net special charges and fuel, increased 0.9% to 16.09 cents versus 2014.

Fixed-charge coverage, which represents the number of times Ebitdar covers the sum of net interest expense plus aircraft rent, has almost doubled over the past three years. In 2016, data shows that American's fixed-charge coverage reached a ratio of 8.8, up from 2.5.

Unrestricted cash represented almost 17% of the last 12 months' revenues at 30 March 2016, against 31% in 2014. Leverage, defined as adjusted net debt/Ebitdar, has been relatively stable at about a ratio of four over the past three years.

AIRLINE TREASURY TEAM OF THE YEAR 2015

Emirates

Jack Dutton speaks to Huzaifa Ayaz, treasury manager, aircraft financing, at the Dubai-based carrier, about diversifying the airline's funding.

Emirates had a busy 2015, achieving several milestones on its mission to diversify its funding.

"Clearly, the stand out has to be the Ukef [UK Export Finance] sukuk bond we closed," says Huzaifa Ayaz, treasurymanager, aircraft financing, at Emirates Airlines.

"It was one of a kind and was something where we pushed the envelope. Nobody has been there before and has taken the extra effort to expand the investor base on the Ukef guarantee."

The $913 million Ukef-guaranteed sukuk funded the delivery of four new Airbus A380s. It was the first sukuk bond guaranteed by the UK export credit agency (ECA) and the largest capital markets offering in aviation involving an ECA guarantee.

"We knew it would be a challenge," he says, adding: "It was important for us to bring newer investors to the table so that we have this avenue open for future fundings as well."

Another memorable Emirates deal, which closed at the end of last year, was a structured sale and leaseback to fund an A380, featuring both Islamic and German investment. The highly leveraged transaction featured a traditional senior loan provided by Deka Bank, a pari-passu senior tranche from Dubai Islamic Bank (DIB) and a 40% Islamic mezzanine tranche from DIB that uses a Murabaha commodities facility to maintain compliance with Islamic law. Emirates has warmed to the structure, more recently closing another similar deal for an A380.

In March 2015, the Dubai-based airline also tapped the Japanese markets, closing its first Japanese operating lease with call option (Jolco) financing for one of its A380s. Mauritian lessor Veling arranged the equity, while Crédit Agricole Corporate and Investment Bank acted as Jolco debt arranger. The 12-year deal was special because it allowed Emirates to negotiate an earlier termination option than on a typical Jolco transaction – at year seven and year 10.

Over the course of 2015, Emirates took delivery of 29 aircraft – 16 A380s, 12 Boeing 777s and one 777 freighter – about 50% on balance sheet and 50% off.

"All our financings for the year have grown, which is pretty much what we're seeing every year. We have 36 deliveries coming in the next financial year starting in April, so suddenly the task is becoming more and more challenging," says Ayaz.

"The focus now has been over the last several years to diversify our sources of funding and to look at newer and

more diverse avenues to raise money, so we have all of these open and available to us in future years – especially if one is not available to us at some point in time, you can always look at some of the others to tap into."

Having one of the largest fleets in the world, Emirates' treasury team has had to think also about how it is phasing out and trading older aircraft.

Ayaz says: "We are in the process of phasing out a few of our aircraft. But what has happened to us in the

meanwhile is that we are also looking at extending some of the existing aircraft, just to maintain the capacity. We still need some capacity, as we're flying on newer routes. So, all of the A330s are in the process of being phased out but some of the 777s that we had are being extended for a few years more."

Emirates' well-thought-out financing strategy has shown in the carrier's 2014/15 annual results, with the airline achieving a net profit of Dh4.55 billion ($1.2 billion), a 40% rise from the previous year. The airline looks to continue this in the years to come.

Ayaz says: "We want to continue to do more of the same in these coming years. The challenges are bigger, the numbers are bigger, the values are bigger – we're looking at about eight or nine billion dollars of funding next year and, again, with the more challenging aircraft, the A380s and the 777s. It's important to keep exploring new avenues and, at the same time, tapping into sources you have tapped into earlier to keep that relationship going as well."

The Airline Analyst Financial Ratings shows Emirates' overall ratings have improved over the past three fiscal years.

The carrier's average fleet age has been relatively stable, at just above the six years, but other key metrics highlight an improvement in financial terms.

Its earnings before interest, tax and rents (Ebitdar) have jumped to 28% from 20% between 31 March 2014 and 31 March 2016 as the carrier reported its record profit of Dh7.1 billion.

Emirates posted a 4% drop in revenues to Dh85 billion in the 2015/16 financial year because of unfavourable currency exchanges that impacted its bottom line by Dh1.6 billion.

However, total operating costs decreased by 8% over the previous year. The airline's fuel bill dropped by 31% over last year to Dh19.7 billion. Fuel is now 26% of operating costs, compared to 35% in 2014/15, but it remained the biggest cost component for the airline.

Data shows that fixed-charge coverage, which represents the number of times Ebitdar covers the sum of net interest expense plus aircraft rent, has risen to 2.6 from 2.2 over the past three years.

Equally, liquidity, or unrestricted cash, represented almost 24% of the last 12 months' revenues at 30 March 2016, against 20.3% in 2014.

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The $913 million Ukef-guaranteed sukuk funded the delivery of four new Airbus A380s. It was the first sukuk bond guaranteed by the UK export credit agency (ECA) and the largest capital markets offering in aviation involving an ECA guarantee.

"We knew it would be a challenge," he adds, "but it was important for us to bring newer investors to the table so that we have this avenue open for future fundings as well."

Another memorable Emirates deal, which closed at the end of last year, was a structured sale and leaseback to fund an A380, featuring both Islamic and German investment. The highly leveraged transaction featured a traditional senior loan provided by Deka Bank, a pari-passu senior tranche from Dubai Islamic Bank (DIB) and a 40% Islamic mezzanine tranche from DIB that uses a Murabaha commodities facility to maintain compliance with Islamic law. Emirates has warmed to the structure, more recently closing another similar deal for an A380.

In March 2015, the Dubai-based airline also tapped the Japanese markets, closing its first Japanese operating lease with call option (Jolco) financing for one of its A380s. Mauritian lessor Veling arranged the equity, while Crédit Agricole Corporate and Investment Bank acted as Jolco debt arranger. The 12-year deal was special because it allowed Emirates to negotiate an earlier termination option than on a typical Jolco transaction – at year seven and year 10.

Over the course of 2015, Emirates took delivery of 29 aircraft – 16 A380s, 12 Boeing 777s and one 777 freighter – about 50% on balance sheet and 50% off.

"All our financings for the year have grown, which is pretty much what we're seeing every year. We have 36 deliveries coming in the next financial year starting in April, so suddenly the task is becoming more and more challenging," says Ayaz.

"The focus now has been over the last several years to diversify our sources of funding and to look at newer and

more diverse avenues to raise money, so we have all of these open and available to us in future years – especially if one is not available to us at some point in time, you can always look at some of the others to tap into."

Having one of the largest fleets in the world, Emirates' treasury team has had to think also about how it is phasing out and trading older aircraft.

Ayaz says: "We are in the process of phasing out a few of our aircraft. But what has happened to us in the

meanwhile is that we are also looking at extending some of the existing aircraft, just to maintain the capacity. We still need some capacity, as we're flying on newer routes. So, all of the A330s are in

"Over the course of 2015, Emirates took delivery of 29 aircraft – 16 A380s, 12 777s and one 777 freighter – about 50% on balance sheet and 50% off."

the process of being phased out but some of the 777s that we had are being extended for a few years more."

Emirates' well-thought-out financing strategy has shown in the carrier's 2014/15 annual results, with the airline achieving a net profit of Dh4.55 billion ($1.2 billion), a 40% rise from the previous year. The airline looks to continue this in the years to come.

Ayaz says: "We want to continue to do more of the same in these coming years. The challenges are bigger, the numbers are bigger, the values are bigger – we're looking at about eight or nine billion dollars of funding next year and, again, with the more challenging aircraft, the A380s and the 777s. It's important to keep exploring new avenues and, at the same time, tapping into sources you have tapped into earlier to keep that relationship going as well."

The Airline Analyst Financial Ratings shows Emirates' overall ratings have improved over the past three fiscal years.

The carrier's average fleet age has been relatively stable, at just above the six years, but other key metrics highlight an improvement in financial terms.

Its earnings before interest, tax and rents (Ebitdar) have jumped to 28% from 20% between 31 March 2014 and 31 March 2016 as the carrier reported its record profit of Dh7.1 billion.

Emirates posted a 4% drop in revenues to Dh85 billion in the 2015/16 financial year because of unfavourable currency exchanges that impacted its bottom line by Dh1.6 billion.

However, total operating costs decreased by 8% over the previous year. The airline's fuel bill dropped by 31% over last year to Dh19.7 billion. Fuel is now 26% of operating costs, compared to 35% in 2014/15, but it remained the biggest cost component for the airline.

Data shows that fixed-charge coverage, which represents the number of times Ebitdar covers the sum of net interest expense plus aircraft rent, has risen to 2.6 from 2.2 over the past three years.

Equally, liquidity, or unrestricted cash, represented almost 24% of the last 12 months' revenues at 30 March 2016, against 20.3% in 2014.

Leverage, defined as adjusted net debt/Ebitdar, has been relatively stable at about a ratio of four over the past three years.

ANALYSIS

Industry overview: key financials

Many of the world's airlines have enjoyed a stellar 12-18 month run of improving profitability. Revenues for the 122 airline groups included in this study reached close to $600 billion in 2015-16 as shown in Figure 1. More noticeable is the 31% increase in ebitdar and the 261% increase in net income, driven by the 21% ebitdar margin, to a record $40.6 billion.

On the leverage front the trend has also been favourable, despite the record capital expenditure. Although adjusted net debt increased by 8.1% to $424 billion, leverage (measured as adjusted net debt/ebitdar) declined for the third year in a row, to 3.4x. Fixed charge coverage increased to 3.3x from as low as 2.4x in 2012-13.

The only indicator which has not improved over the last four years is liquidity as a percentage of revenues, which remains at the 16.5% level, equivalent to only about two months' worth of liquidity. Given the cost to carry, a number of airlines have been reducing cash on balance sheet in favour of committed liquidity facilities. Another factor reducing liquidity has been special dividends and stock buy backs by a significant number of airlines.

Figure 2 shows the trend in *Airfinance Journal's* Financial Ratings for the industry as a whole over the last three years. On a simple average basis the industry rating has improved from 3.5 points (equivalent to a single B rating) to 4.0 (equivalent to a BB- rating). However on a revenue weighted basis ratings are both higher and have shown greater improvements. This means larger airlines are demonstrating stronger credit metrics and are improving faster than the many smaller airlines for whom survival is an achievement. The score of 4.7 points is equivalent to a BB+ rating.

While the aggregate figures are impressive, not all regions or all airlines have achieved such a significant improvement in their performance. Of the 122 airline groups in the study, 29 made aggregate net losses of $5.2 billion. The loss makers tended to be in countries with weak economic conditions like Brazil or where excess capacity and competition have impacted profitability, such as South East Asia.

As shown in Figure 3, fully 62% of the industry's net profits were generated by North American airlines followed by Europe, China, Japan and the Middle East. The other regions have capacity, structural and other issues to address if they are to achieve sustained levels of profitability.

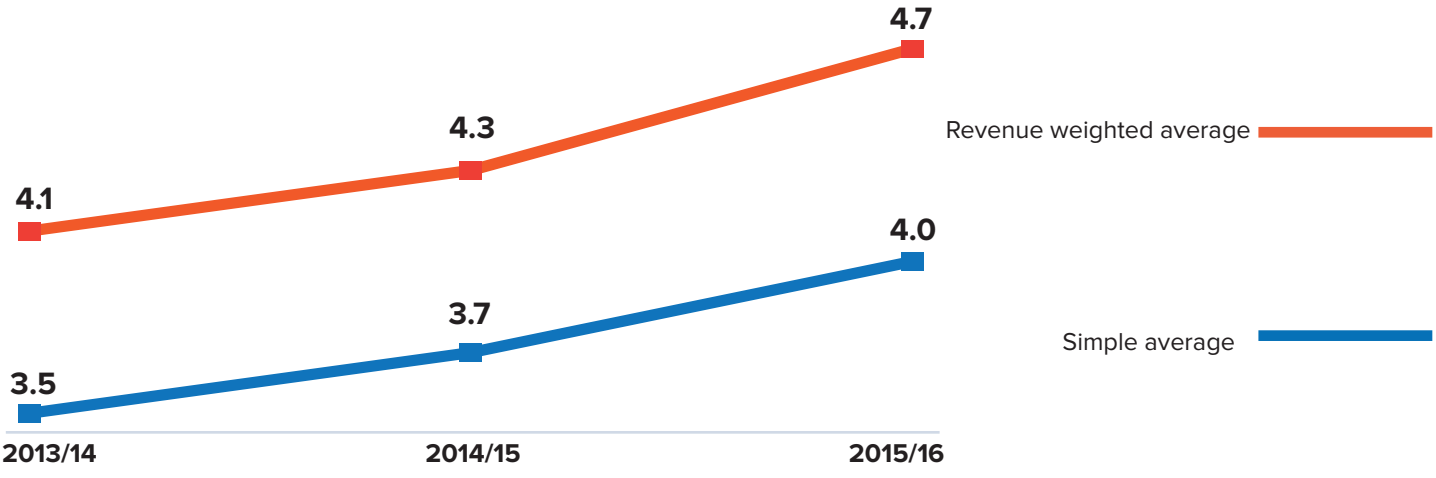
Figure One - Global Airline Industry[1] Key Financials

	FINANCIAL PERIODS ENDING IN			
$m	2012/13	2013/14	2014/15	2015/16
Total Revenue	545,111	535,827	589,317	598,967
% change		-1.7%	10.0%	1.6%
EBITDAR	76,628	81,078	96,404	126,001
% change		5.8%	18.9%	30.7%
Net Income	6,369	6,532	11,234	40,568
% change		2.6%	72.0%	261.1%
Adjusted Net Debt	342,528	344,954	392,283	424,159
% change		0.7%	13.7%	8.1%
Net Fixed Charges	31,626	31,842	34,731	37,973
EBITDAR Margin	14.1%	15.1%	16.4%	21.0%
EBITDAR/Net Fixed Charges (x)	2.4	2.5	2.8	3.3
Unrestricted Cash/Total Revenues	17.4%	18.3%	16.0%	16.5%
Adjusted Net Debt/EBITDAR (x)	4.5	4.3	4.1	3.4

[1] Aggregate values for 122 airline groups included in study
Note 2013-14 excludes Delta's $8.3 billion tax credit

Source: Airfinance Journal's The Airline Analyst, July 2016

Figure One - Global Industry Rating Trend



Source: Airfinance Journal's Airline Financial Ratings, 2016

Figure Three - Airline Net Profits by Geographic Region

	FINANCIAL PERIODS ENDING IN			
$m	2012/13	2013/14	2014/15	2015/16
North America	476	3,259	8,177	25,210
Latin America	(20)	252	(108)	(1,985)
Europe	1,007	641	2,582	7,432
Middle East	438	778	940	2,138
Africa	(85)	(175)	(216)	(103)
Japan	1,811	1,511	1,514	2,481
China	2,140	1,662	1,949	3,869
North East Asia	414	(29)	240	(159)
South East Asia	891	(118)	(682)	629
South Asia	(600)	(1,309)	(875)	477
Australasia	(104)	61	(2,287)	579
Total	6,369	6,532	11,234	40,568
Parent groups with positive net income	13,960	14,748	19,254	45,795
Parent groups with negative net income	(7,591)	(8,216)	(8,020)	(5,227)
Total	6,369	6,532	11,234	40,568
Parent groups with positive net income	85	86	74	93
Parent groups with negative net income	35	34	44	29
Number of parent groups	120	120	118	122

Note "number of parent groups" varies due to consolidation (US Airways, Tigerair, Vueling, Aer Lingus), IPOs (IndiGo and Wizz) and de-consolidation (Frontier)
Note 2013-14 excludes Delta's $8.3 billion tax credit
Source: Airfinance Journal's The Airline Analyst, July 2016

THE AIRLINE TOP 50

The data set

Airlines Included in Survey

No.	Airline	FYE
1	Aegean Airlines	31-Dec-2015
2	Aeroflot	31-Dec-2015
3	Aigle Azur	31-Mar-2015
4	Air Arabia	31-Dec-2015
5	Air Astana	31-Dec-2015
6	Air Berlin	31-Dec-2015
7	Air Busan	31-Dec-2015
8	Air Canada	31-Dec-2015
9	Air China	31-Dec-2015
10	Air France	31-Dec-2015
11	Air France-KLM	31-Dec-2015
12	Air Greenland	31-Dec-2015
13	Air Malta	31-Mar-2015
14	Air Mauritius	31-Mar-2016
15	Air New Zealand	30-Jun-2015
16	Air Wisconsin	31-Dec-2015
17	Airasia	31-Dec-2015
18	Airasia X	31-Dec-2015
19	Alaska Air Group	31-Dec-2015
20	Alitalia - SAI	31-Dec-2015
21	Allegiant	31-Dec-2015
22	American Airlines	31-Dec-2015
23	Amerijet International	31-Dec-2015
24	ANA Holdings	31-Mar-2016
25	Asiana Airlines	31-Dec-2015
26	Atlantic Airways	31-Dec-2015
27	Avianca Holdings	31-Dec-2015
28	Azul LAB S.A.	31-Dec-2015
29	Bangkok Airways	31-Dec-2015
30	British Airways	31-Dec-2015
31	Brussels Airlines	31-Dec-2015
32	Cargojet Airways	31-Dec-2015
33	Cargolux	31-Dec-2015
34	Cathay Pacific	31-Dec-2015
35	Cebu Pacific	31-Dec-2015
36	Centurion Cargo	31-Dec-2015
37	China Airlines	31-Dec-2015
38	China Eastern	31-Dec-2015
39	China Southern	31-Dec-2015
40	Chorus Aviation Inc.	31-Dec-2015
41	Comair Limited	30-Jun-2015
42	Copa Holdings	31-Dec-2015
43	Croatia Airlines	31-Dec-2015
44	Delta Air Lines	31-Dec-2015
45	Easyjet	30-Sep-2015
46	EL AL Israel Airlines	31-Dec-2015
47	Emirates	31-Mar-2016
48	Enter Air	31-Dec-2015
49	Ethiopian Airlines	30-Jun-2015
50	EVA Airways	31-Dec-2015
51	Expressjet	31-Dec-2015
52	Finnair	31-Dec-2015
53	Flybe	31-Mar-2016
54	Frontier Airlines	31-Dec-2015
55	Garuda Indonesia	31-Dec-2015
56	Goair	31-Mar-2015
57	Gojet Airlines	31-Dec-2015
58	GOL	31-Dec-2015
59	Grupo Aeromexico	31-Dec-2015
60	Hainan Airlines	31-Dec-2015
61	Hawaiian Airlines	31-Dec-2015
62	Horizon Air	31-Dec-2015
63	IAG	31-Dec-2015
64	Iberia	31-Dec-2015
65	Icelandair	31-Dec-2015
66	Indigo	31-Mar-2016
67	Japan Airlines	31-Mar-2016
68	Jazeera Airways	31-Dec-2015
69	Jeju Air	31-Dec-2015
70	Jet Airways	31-Mar-2016
71	Jet2.com	31-Mar-2015
72	Jetblue	31-Dec-2015
73	Jetstar Asia	30-Jun-2015
74	Jin Air	31-Dec-2015
75	Juneyao Airlines	31-Dec-2015
76	Kalitta Air	31-Dec-2015
77	Kenya Airways	31-Mar-2015
78	KLM	31-Dec-2015
79	Korean Air	31-Dec-2015
80	LATAM	31-Dec-2015
81	Lufthansa Group	31-Dec-2015
82	Luxair Group	31-Dec-2015
83	Meridiana fly	31-Oct-2015
84	Mesa Airlines	31-Dec-2015
85	Miami Air International	31-Dec-2015
86	Monarch Airlines	31-Oct-2015
87	Nok Air	31-Dec-2015
88	Norwegian Air Shuttle	31-Dec-2015
89	Oman Air	31-Dec-2015
90	Omni Air International	31-Dec-2015
91	PAL Holdings	31-Dec-2015
92	Pegasus Airlines	31-Dec-2015
93	Polar Air Cargo	31-Dec-2015
94	Precision Air	31-Mar-2015
95	PSA Airlines	31-Dec-2015
96	Qantas Airways	30-Jun-2015
97	Qatar Airways	31-Mar-2015
98	Regional Express	30-Jun-2015
99	Republic Airways	31-Dec-2015
100	Royal Jordanian	31-Dec-2015
101	Ryanair	31-Mar-2016
102	SAS	31-Oct-2015
103	Scoot	31-Mar-2015
104	Shandong Airlines	31-Dec-2015
105	Shuttle America	31-Dec-2015
106	SIA Cargo	31-Mar-2015
107	Silkair	31-Mar-2015
108	Singapore Airlines	31-Mar-2016
109	Skywest, Inc.	31-Dec-2015
110	Southwest Airlines	31-Dec-2015
111	Spicejet	31-Mar-2016
112	Spirit Airlines	31-Dec-2015
113	Spring Airlines	31-Dec-2015
114	SriLankan Airlines	31-Mar-2015
115	StarFlyer	31-Mar-2016
116	Sun Country Airlines	31-Dec-2015
117	Swiss International	31-Dec-2015
118	TAP Group	31-Dec-2015
119	Thai Airasia	31-Dec-2015
120	Thai Airways	31-Dec-2015
121	Thomas Cook Airlines	30-Sep-2015
122	Thomson Airways	30-Sep-2015
123	Tigerair	31-Mar-2016
124	TransAsia Airways	31-Dec-2015
125	Transat A.T.	31-Oct-2015
126	Turkish Airlines	31-Dec-2015
127	United Continental	31-Dec-2015
128	USA Jet	31-Dec-2015
129	Utair	31-Dec-2015
130	Virgin America	31-Dec-2015
131	Virgin Atlantic	31-Dec-2015
132	Virgin Australia	30-Jun-2015
133	Volaris	31-Dec-2015
134	Vueling Airlines	31-Dec-2015
135	Westjet	31-Dec-2015
136	Wizz Air	31-Mar-2016
137	Xiamen Airlines	31-Dec-2015

THE AIRLINE TOP 50

Methodology

We have evaluated the world's airlines on a number of operational and financial criteria using data from The Airline Analyst. The sample includes a total of 137 airlines whose financials are available in the public domain and which have released financial statements for periods ending between March 2015 and March 2016. Of the 137, 15 are separately reporting subsidiaries such as British Airways, Iberia, Vueling, Austrian Airlines, Swiss, Air France and KLM, meaning that we have 122 airline groups in the study.

The sample does not include airlines whose financial statements are not available publicly, or those whose most recent available financials are for periods prior to March 2015 such as Adria Airways, Air India and South African Airways. However the sample is estimated to include airlines representing around 85% of global RPKs. Aeroflot and Utairthe only Russian airlines included this year due to delayed release of financials by the others.

Data for all of the 137 companies represents financial years ending in 2015 or on March 31 2016. The data includes the most recent 31st March 2016 releases for ANA Holdings, Japan Airlines, Jet Airways, Ryanair, Singapore Airlines and Spicejet.

The sample includes the following categories of airline, each of which has its unique characteristics:

Airline Top 50 Sample By Business Model

Category	Number
Network	68
National	9
Regional	19
LCC	24
Leisure	10
Cargo	7
Total	**137**

The sample broken down by geographic region is as follows:

Airline Top 50 Sample By Region

Category	Number
North America	33
Europe	40
Middle East & Africa	12
Asia Pacific	39
South Asia	6
Latin America	7
Total	**137**

American is number one by total revenue and net income.

We have used the following 16 parameters on which to evaluate the airlines' financial and operational performance:

Total Revenue	Net Income
Net Income Margin	Cargo Revenue
RPKs	Passenger Load Factor
Passenger Revenue per Passenger	Passenger Yield
Staff Costs to Revenue	RASK-CASK Margin
EBITDAR Margin	Leverage
Fixed Charge Cover	Liquidity
Return on Invested Capital	Equity Market Capitalisation

Weaknesses in the methodology are acknowledged. Foremost among these is the fact that different airlines report to different year-ends. As a consequence, the comparisons are not like-for-like regarding the economic or fuel price environment prevailing in their respective financial periods. Note that in The Airline Analyst itself, we offer the ability to create comparisons for the same financial periods by aggregating quarterly data, when available, but this is not possible for the full sample of airlines. In addition, while in the majority of cases the financial statements are consolidated, in some only parent unconsolidated financials are available. One other weakness is the need to convert to a common currency and the validity of the exchange rate chosen. We have converted into the US dollar using the spot rates prevailing on 8th July 2016. We believe using the spot rates rather than the historic exchange rates produces a more valid comparison.

The Haves and the Have Nots

Headed by the "big three" US carriers, total revenues in our sample of 122 airline groups whose financials are available in the public domain are $599 billion (after eliminating double counting of subsidiaries that are included in the sample separately). Total revenues for our Top 50 by Revenue airlines are $576 billion or 87% of the total sample. The degree of concentration within the Top 50 is apparent - the top 10 airlines account for 50% of the Top 50's revenues.

Of the total sample of 122 parent groups, 93 recorded aggregate positive net income of $40.8 billion while 29 reported losses aggregating $5.2 billion for a net positive figure of $40.6 billion, up from $10.7 billion last year. Overall, the Top 50 by Net Income had a net profit margin of 8.4%, up from 3.4%. The net profit margin for all airline parent groups combined was 6.8%.

As we can see from the Top 50 by Net Income Margin, 24 airlines achieved a margin in excess of 10%, headed by Jazeera Airways, Ryanair, Virgin America, British Airways, United and American. Other low-cost carriers including Spring and Spirit are prominent towards the top of the list.

Most of the US carriers made it on to the list after a long absence. Indicative of the stress on network business models in Asia, Cathay Pacific, Qantas and Singapore Airlines failed to produce a net income margin high enough to make the cut, but competitors Emirates and Turkish Airlines did.

THE AIRLINE TOP 50

Analysis: **revenue and income**

Top 50 by Total Revenue

Rank	Airline	$m
1	American Airlines	40,990
2	Delta Air Lines	40,704
3	United Continental	37,864
4	Lufthansa Group	36,447
5	Air France-KLM	28,794
6	IAG	25,254
7	Emirates	22,939
8	Southwest Airlines	19,648
9	Air France	18,206
10	ANA Holdings	17,590
11	China Southern	16,686
12	Air China	16,303
13	British Airways	14,705
14	China Eastern	14,043
15	Cathay Pacific	13,192
16	Japan Airlines	13,127
17	Qantas Airways	11,941
18	Singapore Airlines	11,194
19	KLM	10,943
20	Turkish Airlines	10,626
21	Air Canada	10,605
22	LATAM	10,126
23	Korean Air	10,054
24	Qatar Airways	9,397
25	Ryanair	7,221
26	Aeroflot	6,475
27	Jetblue	6,416
28	Easyjet	6,071
29	Alaska Air Group	5,598
30	Hainan Airlines	5,264
31	Thai Airways	5,254
32	Iberia	5,198
33	Asiana Airlines	5,047
34	Swiss International	4,689
35	SAS	4,622
36	Air Berlin	4,530
37	China Airlines	4,507
38	Avianca Holdings	4,361
39	EVA Airways	4,262
40	Garuda Indonesia	3,815
41	Air New Zealand	3,574
42	Virgin Australia	3,566
43	Alitalia - SAI	3,445
44	Jet Airways	3,313
45	Skywest, Inc.	3,096
46	Westjet	3,081
47	Virgin Atlantic	3,068
48	GOL	2,965
49	TAP Group	2,918
50	Transat A.T.	2,727

Top 50 by Net Income

Rank	Airline	$m
1	American Airlines	7,610
2	United Continental	7,340
3	Delta Air Lines	4,526
4	British Airways	3,230
5	Southwest Airlines	2,181
6	Emirates	1,940
7	Lufthansa Group	1,876
8	Ryanair	1,723
9	Japan Airlines	1,713
10	IAG	1,652
11	Turkish Airlines	1,069
12	Air China	1,056
13	Alaska Air Group	848
14	Cathay Pacific	773
15	ANA Holdings	768
16	Easyjet	710
17	China Eastern	678
18	Jetblue	677
19	Singapore Airlines	597
20	China Southern	558
21	Iberia	522
22	Hainan Airlines	449
23	Qantas Airways	421
24	Swiss International	388
25	Virgin America	341
26	Spirit Airlines	317
27	Indigo	297
28	Westjet	281
29	Air France	269
30	Thomson Airways	259
31	Air New Zealand	237
32	Air Canada	232
33	Allegiant	220
34	Wizz Air	213
35	Xiamen Airlines	202
36	EVA Airways	200
37	Spring Airlines	198
38	Hawaiian Airlines	183
39	Jet Airways	181
40	China Airlines	179
41	Ethiopian Airlines	162
42	Juneyao Airlines	157
43	Frontier Airlines	146
44	Air Arabia	139
45	Airasia	136
46	Volaris	133
47	Air France-KLM	130
48	PAL Holdings	122
49	Skywest, Inc.	118
50	SAS	111

Top 50 by Net Income Margin

Rank	Airline	%
1	Jazeera Airways	26.3%
2	Ryanair	23.9%
3	Virgin America	22.3%
4	British Airways	22.0%
5	United Continental	19.4%
6	American Airlines	18.6%
7	Allegiant	17.5%
8	Spring Airlines	16.4%
9	Alaska Air Group	15.1%
10	Spirit Airlines	14.8%
11	Volaris	13.5%
12	Wizz Air	13.5%
13	Japan Airlines	13.1%
14	Air Arabia	13.0%
15	Juneyao Airlines	12.8%
16	Indigo	12.4%
17	Easyjet	11.7%
18	Mesa Airlines	11.5%
19	Delta Air Lines	11.1%
20	Southwest Airlines	11.1%
21	Jetblue	10.6%
22	Thomson Airways	10.3%
23	Turkish Airlines	10.1%
24	Iberia	10.0%
25	Icelandair	9.8%
26	Omni Air International	9.2%
27	Westjet	9.1%
28	Frontier Airlines	9.1%
29	Airasia	8.6%
30	Hainan Airlines	8.5%
31	Amerijet International	8.5%
32	Emirates	8.5%
33	Swiss International	8.3%
34	Spicejet	8.0%
35	Hawaiian Airlines	7.9%
36	Jeju Air	7.8%
37	Cebu Pacific	7.8%
38	Kalitta Air	7.7%
39	Xiamen Airlines	7.5%
40	Bangkok Airways	7.5%
41	StarFlyer	7.4%
42	PSA Airlines	7.3%
43	Air Busan	7.2%
44	Ethiopian Airlines	7.1%
45	Thomas Cook Airlines	7.1%
46	Aegean Airlines	6.8%
47	Monarch Airlines	6.8%
48	Thai Airasia	6.7%
49	Air New Zealand	6.6%
50	IAG	6.5%

THE AIRLINE TOP 50

Analysis: **revenue and income**

Top 50 by Cargo Revenue

The Top 50 by Cargo Revenue ranking is dominated by the network carriers from Europe and Asia. Retaining the number 1 spot is Emirates with $3 billion, 13% of its total revenues but down on last year. Dedicated freight carrier Cargolux is in 6th place by revenues. Other dedicated cargo providers in the list include Kalitta Air, Centurion Cargo and Polar Air Cargo. Many of these enjoyed bumper years of growth as a result of US military airlift to Iraq and Afghanistan but are now experiencing a sharp reduction in business from these sources. Several others have gone into liquidation.

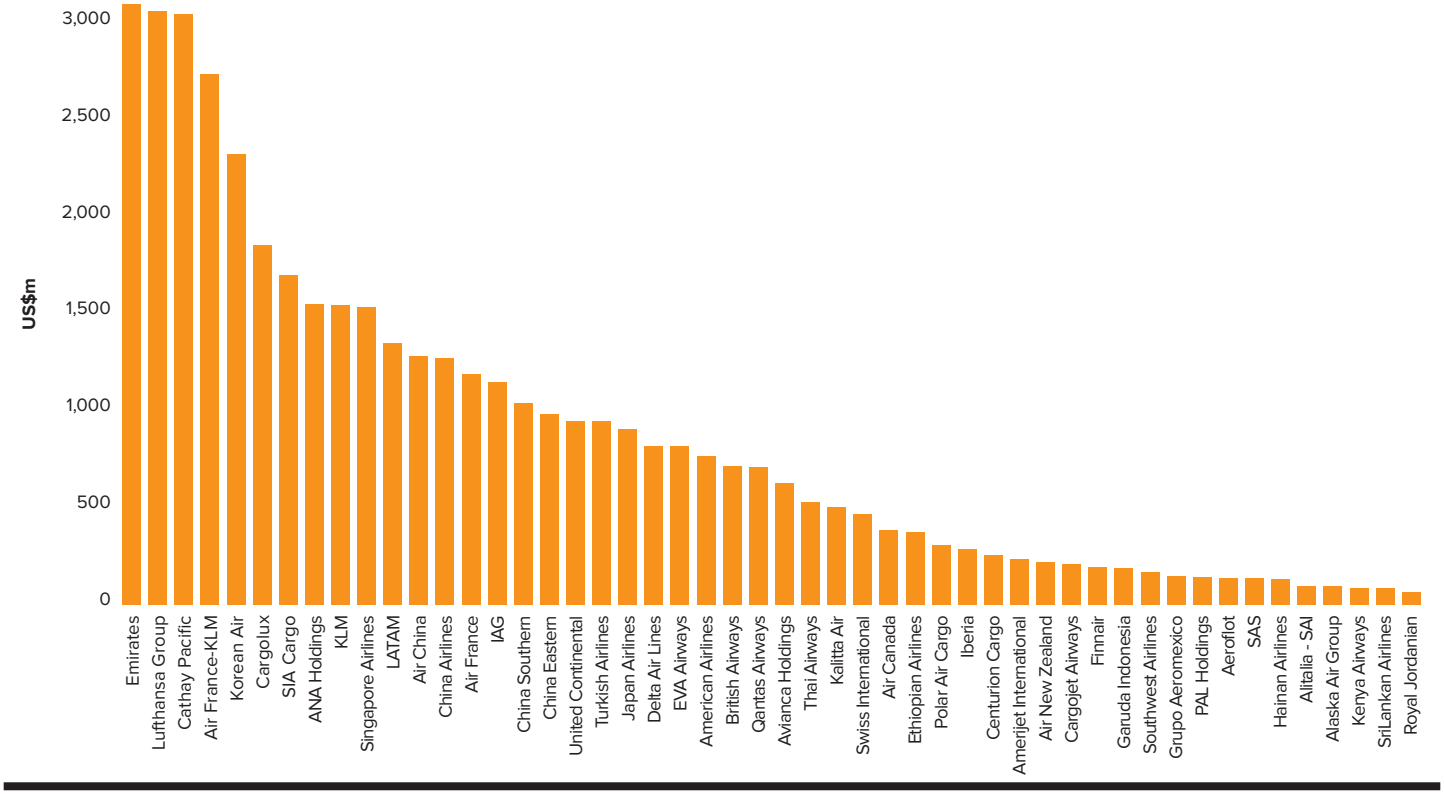
Historically seen as a diversification of risk for network carriers otherwise dependent solely on passenger revenues, we have seen in recent years how fickle cargo revenues are to a slowdown in world trade and shipment of technology and fashion products from Asia. Many airlines have not yet achieved a return to the pre financial crisis peak level of cargo revenues and have been aggressively reducing and restructuring their dedicated freighter fleets.

For many of the Asian carriers and selected Middle Eastern and Latin American carriers, cargo revenues nevertheless remain a very high percentage of total revenues, as shown in the table. The carriers of Taiwan, Korea and Hong Kong top the list.

Cargo Revenues as % of Total Revenues

Rank	Airline	%
1	China Airlines	27.8%
3	Korean Air	22.6%
4	Cathay Pacific	22.6%
5	EVA Airways	19.0%
6	Ethiopian Airlines	16.7%
7	Avianca Holdings	14.3%
8	KLM	13.9%
9	Singapore Airlines	13.5%
10	Emirates	13.2%
11	LATAM	13.1%
12	SriLankan Airlines	10.2%
13	Thai Airways	10.1%
14	Swiss International	10.0%
15	Air France-KLM	9.3%
16	Kenya Airways	8.9%
17	Turkish Airlines	8.8%
18	ANA Holdings	8.7%

Top 50 by Cargo Revenue



THE AIRLINE TOP 50

Analysis: **passenger revenue and yield**

Top 50 by Passenger Revenue per Passenger[1]

Rank	Airline	Ave trip length[2] (km)	US $
1	Omni Air International	4,690	611
2	Virgin Atlantic	6,442	532
3	Miami Air International	1,664	411
4	EL AL Israel Airlines	3,993	377
5	Emirates	4,921	357
6	Air Greenland	1,220	333
7	Singapore Airlines	3,914	312
8	KLM	3,264	304
9	British Airways	3,278	304
10	Air France	2,824	295
11	Air France-KLM	2,983	287
12	Cathay Pacific	3,591	276
13	Copa Holdings	3,333	275
14	Ethiopian Airlines	3,575	274
15	Royal Jordanian	2,448	255
16	IAG	2,513	255
17	StarFlyer	955	254
18	EVA Airways	3,506	253
19	Korean Air	2,985	242
20	Icelandair	2,766	239
21	Swiss International	2,283	238
22	United Continental	2,392	234
23	Japan Airlines	1,553	232
24	ANA Holdings	1,556	232
25	Lufthansa Group	2,047	232
26	Air Canada	2,643	231
27	Thomas Cook Airlines	3,509	219
28	Kenya Airways	2,343	217
29	Qantas Airways	2,288	210
30	Air New Zealand	2,094	209
31	Thai Airways	2,866	205
32	China Airlines	2,526	201
33	Delta Air Lines	1,881	194
34	Virgin America	2,387	194
35	Hawaiian Airlines	2,181	190
36	Finnair	2,486	188
37	Oman Air	2,310	178
38	American Airlines	1,783	177
39	Regional Express	373	176
40	Sun Country Airlines	2,043	176
41	SriLankan Airlines	2,982	172
42	Jetblue	1,912	168
43	PAL Holdings	2,372	160
44	Air China	1,912	160
45	Meridiana fly	N/A	157
46	Southwest Airlines	1,600	155
47	Turkish Airlines	1,949	153
48	Alaska Air Group	1,695	150
49	Airasia X	4,857	146
50	Jazeera Airways	N/A	144

[1] Passenger revenue divided by number of passengers

[2] RPKs divided by number of passengers

Top 50 by Passenger Yield[1]

Rank	Airline	Ave trip length[2] (km)	US cents
1	Regional Express	373	47.25
2	Air Greenland	1,220	27.28
3	StarFlyer	955	26.60
4	Miami Air International	1,664	24.70
5	Precision Air	420	18.74
6	Flybe	484	18.01
7	Japan Airlines	1,553	14.95
8	ANA Holdings	1,556	14.91
9	Croatia Airlines	741	14.29
10	Air Wisconsin	583	14.28
11	Bangkok Airways	760	13.92
12	Omni Air International	4,690	13.02
13	Lufthansa Group	2,047	11.33
14	SAS	1,170	11.12
15	Horizon Air	469	10.62
16	Air France	2,824	10.44
17	Swiss International	2,283	10.42
18	Royal Jordanian	2,448	10.42
19	Delta Air Lines	1,881	10.31
20	IAG	2,513	10.13
21	TransAsia Airways	1,140	10.08
22	Air New Zealand	2,094	9.97
23	American Airlines	1,783	9.89
24	United Continental	2,392	9.77
25	Avianca Holdings	1,254	9.75
26	Southwest Airlines	1,600	9.68
27	Air France-KLM	2,983	9.63
28	Luxair Group	1,086	9.45
29	EL AL Israel Airlines	3,993	9.45
30	KLM	3,264	9.33
31	Kenya Airways	2,343	9.28
32	British Airways	3,278	9.27
33	Qantas Airways	2,288	9.17
34	Azul	876	9.08
35	Alaska Air Group	1,695	8.87
36	PSA Airlines	619	8.79
37	Jetblue	1,912	8.78
38	Air Canada	2,643	8.74
39	Air Berlin	1,554	8.72
40	Hawaiian Airlines	2,181	8.70
41	Icelandair	2,766	8.66
42	Sun Country Airlines	2,043	8.60
43	Aegean Airlines	969.0	8.55
44	Virgin Australia	1,604	8.44
45	Air China	1,912	8.35
46	Copa Holdings	3,333	8.25
47	Garuda Indonesia	1,215	8.15
48	Virgin America	2,387	8.11
49	Korean Air	2,985	8.11
50	China Eastern	1,560	8.03

[1] Passenger revenue divided by RPKs

[2] RPKs divided by number of passengers

THE AIRLINE TOP 50

Analysis: **passenger revenue and yield**

Top 50 by passenger revenue per passenger
Omni Air International heads this list at $611 followed by Virgin Atlantic at $532 attributable to it having the longest average trip length at 6,442 km. The Top 50 by Passenger Revenue per Passenger shows the expected correlation with average trip length (RPKs divided by number of passengers).

Exceptions to that include Miami Air International, Air Greenland, StarFlyer and Regional Express. The two main Japanese carriers, Japan Airlines and ANA Holdings, are also exceptions where the high yields in the domestic market support a high revenue per passenger despite average trip lengths of only 1,500 km.

There are no low-cost carriers (LCC) appearing on this ranking, reflecting their relatively short average stage length and "no frills" offerings.

Top 50 by passenger yield
This ranking, while also influenced by average trip length, shows the influence of flying on less competitive routes such as for Regional Express and Air Greenland. Yields for Japan Airlines and ANA Holdings head the rankings of the major carriers but are trending down due to increased competition. Next follow Lufthansa and SAS with their relatively short average trip length and Air France.

Despite the competitive pressures from Norwegian Air Shuttle, Ryanair and others, SAS continues to realise relatively high yields, higher than most of its European network competitors.

THE AIRLINE TOP 50

Analysis: **RPKs and passenger load factor**

Top 50 by RPKs

Of all of our rankings, the most predictable is the Top 50 by RPKs. Increasingly dominated by the "mega" groups, the top 10 airline groups comprise 47% of the total RPKs for the sample of 122 airline groups. The phenomenon of Emirates' growth is evident from its ranking in 4th place, up from 8th three years ago, edging out Air France-KLM, IAG and Lufthansa. The Chinese majors come in at numbers 8, 10 and 11. LATAM at number 18 is the largest of the Latin American carriers. Ryanair does not feature as its RPK data is not yet available for 2015-16.

Top 50 by Passenger Load Factor

Heading the list is Thomson Airways, followed by Spring Airlines, Easyjet, Thomas Cook and Spicejet, all of which had load factors in excess of 90%. All of the Top 50 achieved load factors in excess of 80% including all three US and three European "mega" carrier groups. The average load factor for all airlines in the sample of 122 airline groups for whom RPK and ASK data is available was 81%, up from 80.5%.

Top 50 by RPKs

Rank	Airline	RPKs (m)
1	American Airlines	358,900
2	Delta Air Lines	337,359
3	United Continental	335,727
4	Emirates	255,176
5	Air France-KLM	235,715
6	IAG	221,996
7	Lufthansa Group	220,400
8	China Southern	189,588
9	Southwest Airlines	189,098
10	Air China	171,714
11	China Eastern	146,342
12	Air France	142,487
13	British Airways	142,016
14	Cathay Pacific	122,330
15	Turkish Airlines	119,372
16	Singapore Airlines	119,009
17	Qantas Airways	112,543
18	LATAM	111,510
19	Air Canada	108,703
20	Aeroflot	97,636
21	KLM	93,228
22	ANA Holdings	79,106
23	easyJet	77,619
24	Korean Air	71,647
25	Jetblue	67,127
26	Hainan Airlines	66,241
27	Japan Airlines	62,411
28	Thai Airways	60,893
29	Alaska Air Group	54,039
30	Iberia	48,569
31	Skywest, Inc.	47,752
32	Air Berlin	47,010
33	Norwegian Air Shuttle	42,284
34	Jet Airways	41,299
35	Garuda Indonesia	40,049
36	Swiss International	40,038
37	Asiana Airlines	39,678
38	GOL	38,411
39	Virgin Atlantic	37,157
40	China Airlines	37,079
41	Indigo	35,968
42	Virgin Australia	35,774
43	Avianca Holdings	35,478
44	EVA Airways	35,283
45	Westjet	34,643
46	SAS	33,781
47	Thomson Airways	33,331
48	Grupo Aeromexico	32,115
49	Wizz Air	30,786
50	Airasia	30,006

Top 50 by Passenger Load Factor

Rank	Airline	LF%
1	Thomson Airways	93.6%
2	Spring Airlines	92.8%
3	easyJet	92.6%
4	Thomas Cook Airlines	92.1%
5	Spicejet	90.6%
6	Jet2.com	89.1%
7	Wizz Air	88.4%
8	Hainan Airlines	88.2%
9	KLM	86.4%
10	Frontier Airlines	86.4%
11	Norwegian Air Shuttle	86.2%
12	Cathay Pacific	85.7%
13	Juneyao Airlines	85.2%
14	Jeju Air	85.2%
15	Air France-KLM	85.1%
16	Delta Air Lines	85.0%
17	Allegiant	85.0%
18	Jetblue	84.7%
19	Spirit Airlines	84.7%
20	Air France	84.3%
21	Air Berlin	84.2%
22	Alaska Air Group	84.1%
23	Air New Zealand	84.1%
24	Indigo	84.0%
25	Nok Air	84.0%
26	Southwest Airlines	83.6%
27	Air Canada	83.5%
28	United Continental	83.4%
29	Tigerair	83.3%
30	American Airlines	83.0%
31	LATAM	83.0%
32	Icelandair	83.0%
33	Swiss International	82.8%
34	Skywest, Inc.	82.7%
35	PSA Airlines	82.7%
36	EL AL Israel Airlines	82.6%
37	Jet Airways	82.4%
38	Volaris	82.3%
39	Virgin America	82.2%
40	Thai Airasia	82.1%
41	Mesa Airlines	82.1%
42	Monarch Airlines	82.0%
43	Hawaiian Airlines	81.6%
44	British Airways	81.5%
45	IAG	81.4%
46	Vueling Airlines	81.3%
47	Iberia	81.1%
48	EVA Airways	80.8%
49	Expressjet	80.7%
50	Lufthansa Group	80.5%

THE AIRLINE TOP 50

Analysis: **staff costs**

Top 50 by Staff Costs

Rank	Airline	Average Cost per Employee (US$k)	Employee Costs as % of Revenue
1	Polar Air Cargo	180	2.7%
2	Enter Air	N/A	3.1%
3	SIA Cargo	88.8	4.7%
4	Wizz Air	54.2	7.1%
5	Hainan Airlines	36.1	7.7%
6	Ethiopian Airlines	18.7	7.9%
7	GoAir	N/A	8.1%
8	PAL Holdings	35.1	8.2%
9	Cargojet Airways	31.5	8.4%
10	Vueling Airlines	74.2	8.7%
11	Scoot	N/A	8.8%
12	Ryanair	66.7	9.0%
13	Air Busan	N/A	9.5%
14	Spicejet	N/A	9.7%
15	Centurion Cargo	N/A	9.7%
16	Nok Air	N/A	9.8%
17	Airasia X	34.6	10.3%
18	USA Jet	83.2	10.3%
19	Volaris	33.7	10.5%
20	Transat A.T.	55.2	10.9%
21	Air Astana	18.3	11.0%
22	Indigo	N/A	11.2%
23	Monarch Airlines	62.2	11.2%
24	Aegean Airlines	53.7	11.4%
25	Jet Airways	N/A	11.4%
26	Thai Airasia	N/A	11.5%
27	Thomson Airways	79.3	11.7%
28	StarFlyer	N/A	11.9%
29	Tigerair	N/A	11.9%
30	Garuda Indonesia	N/A	12.0%
31	Airasia	29.5	12.1%
32	easyJet	75.3	12.4%
33	Jin Air	N/A	12.5%
34	Pegasus Airlines	35.6	12.7%
35	Cargolux	134.2	12.8%
36	Copa Holdings	31.2	12.9%
37	Jetstar Asia	N/A	12.9%
38	Jeju Air	58.3	13.2%
39	Jazeera Airways	60.7	13.3%
40	Aeroflot	26.2	13.4%
41	SilkAir	62.5	13.6%
42	Virgin Atlantic	54.1	14.0%
43	Comair Limited	27.9	14.1%
44	Royal Jordanian	30.1	14.4%
45	Emirates	55.4	14.8%
46	EVA Airways	73.6	14.8%
47	Air Berlin	77.6	14.8%
48	Finnair	79.6	15.1%
49	Brussels Airlines	89.0	15.1%
50	Norwegian Air Shuttle	88.2	15.3%

Top 50 by lowest staff costs to revenue

Employee costs are typically the second largest Ebitdar cost item after fuel for the world's airlines. Labour relations and compensation structures tend to put the old "legacy" airlines at a serious competitive disadvantage to start-up low-cost carriers (LCCs) and carriers based in emerging economies. The Top 50 by Lowest Staff Costs to Revenue ranking shows this very clearly.

Some of the dedicated cargo carriers have extremely low employee costs/revenue ratios, perhaps in part due to costs being in other companies within the group. Heading the list of passenger carriers are Wizz Air, Hainan Airlines, Ethiopian, GoAir and PAL Holdings.

They are then followed by creditable performances by other LCCs and leisure carriers (including Scoot, Nok Air, Vueling, Volaris and Indigo). With cost pressures in China, none of the Chinese "big three" make the Top 50. Their average staff cost increased to $36k from $26.6k last year. Ryanair, as a major airline based in a developed economy, achieves an attention getting 9%, down from 9.6% three years ago.

By comparison, the developed "mega" carrier groupings do not qualify for a Top 50 ranking. Lufthansa's ratio is 27.6% while IAG and Air France-KLM are 18.2% and 30.1% respectively. The US majors show a little better on account of lower average employee costs but are all around 2 percentage points higher than last year. Delta's ratio is 25.2%, UAL's 25.7% and American Airlines is 26.1%. Southwest is an unexpectedly high 32.5%, presumably reflecting their shorter average trip length.

Virgin Atlantic and Emirates make the list, helped by their long average trip lengths offsetting their higher average staff costs, but Singapore Airlines does not with a ratio of 16.3%. The major Latin American carriers had quite varied results. Copa made it into the Top 50 at number 36 with a ratio of 12.9%. Avianca's ratio was 15.3% while LATAM are laggards at 20.5%.

THE AIRLINE TOP 50

Analysis: **Rask-Cask margin**

Top 50 by Rask-Cask margin: where the rubber meets the road

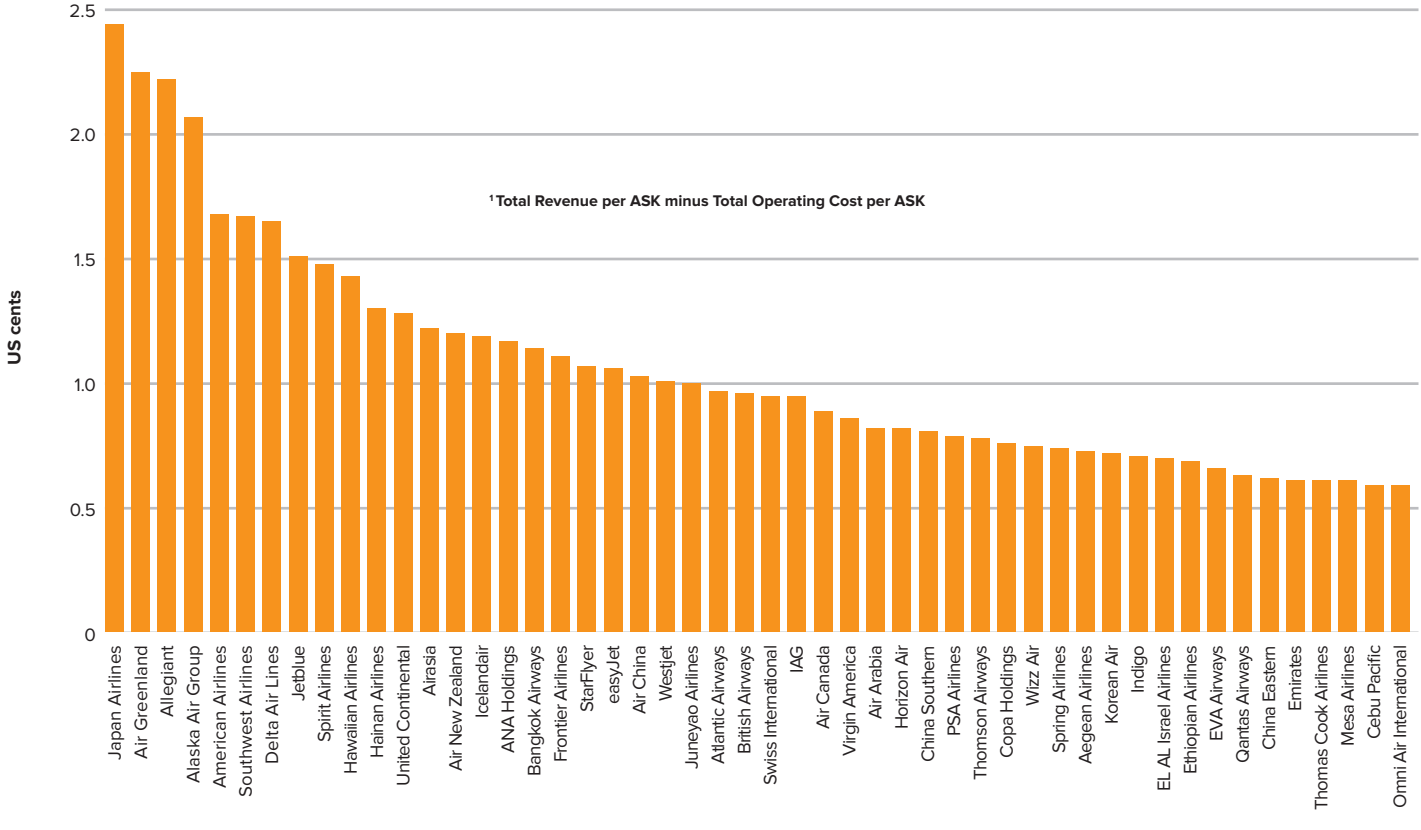
Rask-Cask margin has become one of the key ratios monitored by airline management and analysts alike in assessing competitiveness and trends over time.

In the ever competitive airline industry, very slim margins and competitive advantages mean the difference between success and failure. Having a marginally higher cost structure can be sustainable if it is supporting a premium revenue structure such as with British Airways or the US majors. However if it is not, the strength of competitive forces will root out the airline's weakness over time.

Considering that many airline management teams dream for a Rask-Cask margin in excess of one US cent it is striking that 23 of our Top 50 did just that, 10 of them from the USA. Japan Airlines, a major network carrier, topped the list at 2.44 cents up from 1.73 cents. Copa was the biggest decliner, dropping to 35th position at 0.76 cents.

Outside the US dominated leaders, Airasia, Air New Zealand and Icelandair put in very creditable performances. British Airways and Swiss were the highest ranked of the European majors. IAG ranked 27th this year but neither Lufthansa Group nor Air-France-KLM made it into the Top 50.

Top 50 by Rask-Cask Margin[1]



THE AIRLINE TOP 50

Analysis: **Ebitdar margin**

Top 50 by Ebitdar margin

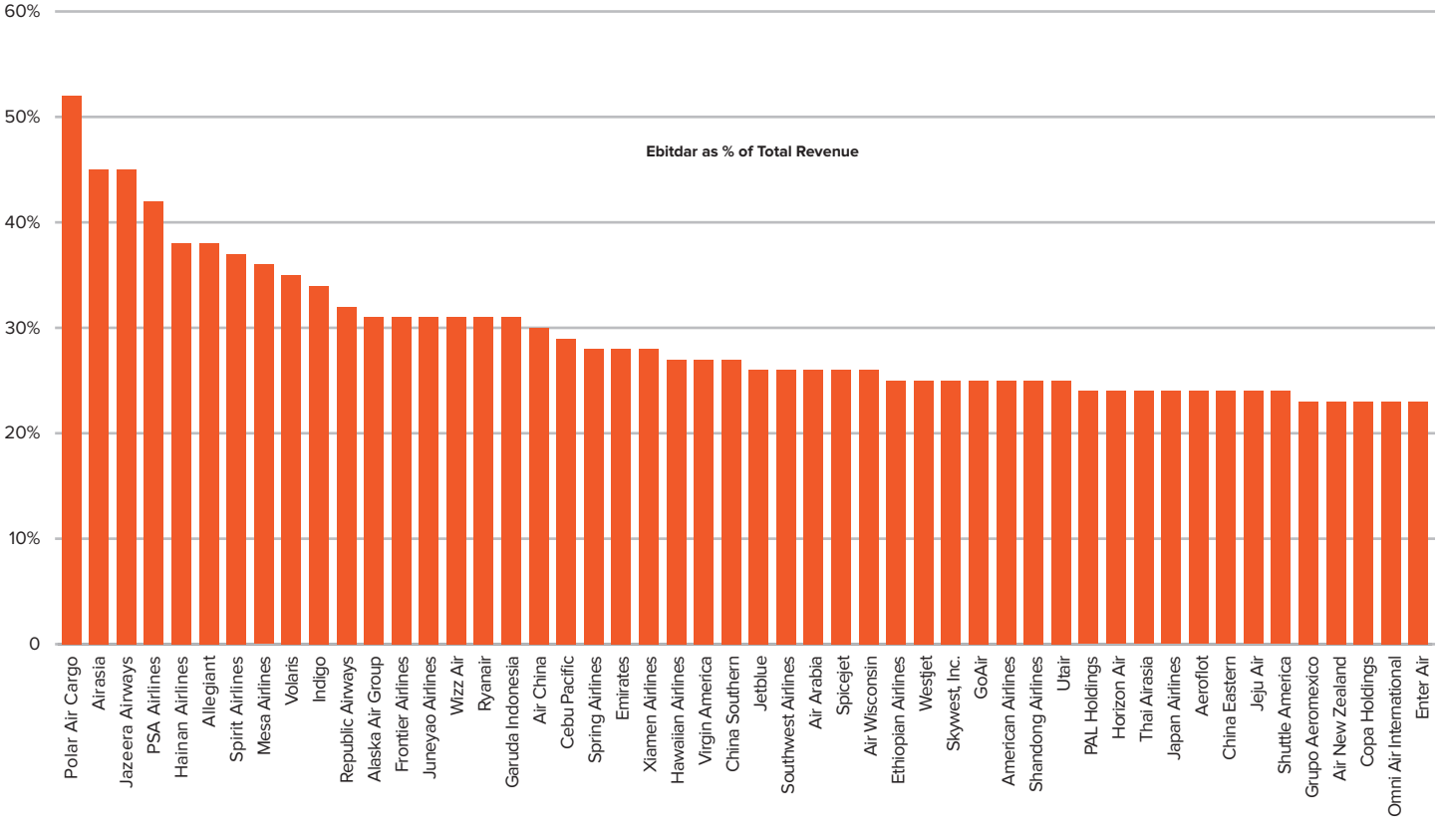
Unlike some other measures, Ebitdar margin (Earnings before interest tax, depreciation and amortisation) is neutral to the means of aircraft financing (owned or leased) and degree of financial leverage of an airline. While a high Ebitdar margin will therefore not alone make a financially successful airline, it is a very appealing measure of management's success in running the airline and the viability of the airline's core business, independent of the financing strategies chosen.

Reflecting the improving profitability of the industry, the Ebitdar margin for the sample of 122 airline groups improved from 15.8% last year to 21% in 2015-16.

The passenger carriers on the list are headed by Airasia, Jazeera Airways and PSA Airlines. Some other LCCs also had great results such as Allegiant, Spirit, Volaris, Indigo and Frontier. Hainan Airlines, Alaska Air Group and Garuda Indonesia are the highest ranked network carriers.

Only American Airlines among the "mega" carrier groupings of the US and Europe are in the Top 50 but Emirates makes the list at 28% as does China Southern at 26.8%.

Top 50 by Ebitdar Margin



THE AIRLINE TOP 50

Analysis: **financial flexibility**

Top 50 by Lowest Leverage[1]

Rank	Airline	Times
1	Air Greenland	0.0
2	Luxair Group	0.0
3	SIA Cargo	0.0
4	Japan Airlines	0.0
5	USA Jet	0.0
6	Alaska Air Group	0.1
7	Icelandair	0.1
8	Ryanair	0.3
9	Southwest Airlines	0.4
10	easyJet	0.5
11	Regional Express	0.6
12	Swiss International	0.6
13	Allegiant	0.7
14	Kalitta Air	0.8
15	Delta Air Lines	0.8
16	Singapore Airlines	1.3
17	Westjet	1.4
18	Jetblue	1.5
19	Jet2.com	1.5
20	British Airways	1.6
21	Lufthansa Group	1.7
22	Hawaiian Airlines	1.8
23	SilkAir	1.8
24	Wizz Air	1.8
25	Spirit Airlines	1.9
26	IAG	1.9
27	Air Arabia	2.0
28	United Continental	2.0
29	Air New Zealand	2.0
30	Frontier Airlines	2.3
31	Comair Limited	2.3
32	American Airlines	2.4
33	Qantas Airways	2.4
34	Transat A.T.	2.4
35	Air Mauritius	2.5
36	Jazeera Airways	2.5
37	Air Canada	2.6
38	Air Busan	2.7
39	EL AL Israel Airlines	2.7
40	Jeju Air	2.8
41	Thomas Cook Airlines	2.9
42	Bangkok Airways	2.9
43	Xiamen Airlines	3.0
44	ANA Holdings	3.1
45	Amerijet International	3.1
46	Copa Holdings	3.2
47	Iberia	3.3
48	Brussels Airlines	3.4
49	Horizon Air	3.4
50	Atlantic Airways	3.5

[1] *Adjusted Net Debt/EBITDAR*

Top 50 by Highest Fixed Charge Cover[1]

Rank	Airline	Times
1	Air Greenland	24.7
2	Air Arabia	20.6
3	Swiss International	20.0
4	Alaska Air Group	19.1
5	Allegiant	17.4
6	Southwest Airlines	15.8
7	Regional Express	15.5
8	Lufthansa Group	13.9
9	Japan Airlines	13.6
10	Ryanair	11.9
11	Delta Air Lines	11.8
12	British Airways	9.1
13	Icelandair	8.5
14	Luxair Group	7.8
15	easyJet	7.7
16	Jetblue	7.0
17	Kalitta Air	6.9
18	Air New Zealand	5.4
19	Korean Air	4.9
20	Westjet	4.8
21	IAG	4.8
22	American Airlines	4.8
23	Horizon Air	4.8
24	United Continental	4.5
25	Cathay Pacific	4.4
26	Turkish Airlines	4.4
27	Xiamen Airlines	4.2
28	Air China	4.2
29	Comair Limited	4.1
30	China Southern	4.1
31	Copa Holdings	4.0
32	Qantas Airways	3.9
33	Air Canada	3.9
34	EL AL Israel Airlines	3.9
35	Hawaiian Airlines	3.8
36	Spirit Airlines	3.6
37	ANA Holdings	3.6
38	China Airlines	3.6
39	Atlantic Airways	3.5
40	China Eastern	3.5
41	Singapore Airlines	3.3
42	EVA Airways	3.3
43	Air Mauritius	3.2
44	Cebu Pacific	3.2
45	Juneyao Airlines	3.2
46	Airasia	3.2
47	Spring Airlines	3.1
48	SIA Cargo	3.0
49	Cargolux	3.0
50	Frontier Airlines	2.9

[1] *EBITDAR/Net Interest plus Rents*

We have assessed financial flexibility on three key financial parameters: leverage, fixed charge cover and liquidity. Leverage is calculated as adjusted net debt (net balance sheet debt plus 8 x aircraft rent) to Ebitdar, fixed charge cover as Ebitdar divided by net interest + aircraft rent) and liquidity as unrestricted cash as a percentage of revenue. A "cash flow" measure of leverage is preferred as traditional ratios based on book equity can mislead. A leverage measure has more value in our opinion if it is related to ability to service debt from continuing operations rather than some balance sheet equity figures that may not reflect current values of assets. Both the leverage and fixed charge cover measures take into account the effect of aircraft operating leases, either by "capitalising" the rental as in leverage or including rent in the fixed charges that must be covered by Ebitdar.

Top 50 by lowest leverage

Leverage for the Top 50 ranges from zero for those airlines with no adjusted net debt to a high of 3.5x for Atlantic Airways. As to be expected, the list includes all airlines with investment grade credit ratings. Noticeably highly placed on the list is Japan Airlines following the debt forgiveness achieved through its restructuring. Other majors on the list include Delta, Singapore Airlines, British Airways, IAG, Lufthansa and United but Air France-KLM, Emirates and Cathay Pacific are not in the Top

THE AIRLINE TOP 50

Analysis: **financial flexibility**

50. Other absentees include all the Latin American carriers except Copa. A number of the major LCCs make the ranking with strong cash generation supporting their debt loads from recent fleet expansion.

Top 50 by highest fixed-charge cover

"Who cares what our leverage is as long as we pay our rent/interest and you have our aircraft as collateral anyway?" is a question heard often by aviation financiers and there is an element of truth to it. A meaningful Fixed Charge Cover ratio and/or covenant can help protect the asset financier against the likelihood of default. Our Top 50 airlines ranking for Fixed Charge Cover is similar to the Top 50 by Lowest Leverage. Those airlines with no or minimal adjusted net debt are at the top but some notable airlines make this list despite their higher leverage such as Cathay Pacific, China Airlines, Turkish Airlines, Korean Air and the three Chinese majors. All of these airlines have a fixed charge cover comfortably above 2x which translates into the financier being protected for rent and interest (if not principal) payments even if Ebitdar declines by 50-60%. Airasia made it back to the list after falling out last year.

Top 50 by highest liquidity

Liquidity is another major indicator of financial flexibility for an airline and its ability to withstand sudden shocks such as a strike, natural disaster or grounding of all or a portion of its fleet. Top of the list for liquidity are a number of very successful low-cost carriers whose financial analysis may be focused on whether to return some surplus cash to shareholders or buy new aircraft. At the other end of the scale, many market participants consider that liquidity of three months of revenues is the minimum level required for comfortable operation of an airline. That is equivalent to a figure of at least 25% of revenues as a liquidity buffer.

Some airlines rely on committed liquidity facilities that are not captured in our data, as with Qantas and Finnair. Others may keep a buffer of unencumbered aircraft to be converted into cash if required. It is notable that neither Delta nor American Airlines made it into the Top 50 by liquidity. Emirates made it into this Top 50 list but not the other two financial flexibility measures.

Top 50 by Highest Liquidity

Rank	Airline	%
1	Ryanair	66.1%
2	Bangkok Airways	55.1%
3	Jazeera Airways	53.4%
4	Air Arabia	49.2%
5	Wizz Air	45.2%
6	Jeju Air	44.8%
7	Hainan Airlines	43.6%
8	Qatar Airways	42.4%
9	Luxair Group	40.1%
10	Spring Airlines	38.2%
11	Spirit Airlines	37.5%
12	Tigerair	37.3%
13	Jet2.com	35.5%
14	Nok Air	32.7%
15	Virgin America	32.5%
16	Vueling Airlines	32.5%
17	Japan Airlines	31.5%
18	Singapore Airlines	31.5%
19	SilkAir	30.9%
20	Finnair	30.3%
21	Westjet	29.4%
22	Indigo	29.3%
23	Jin Air	29.1%
24	Volaris	28.4%
25	Air Greenland	28.1%
26	Copa Holdings	27.6%
27	Air Astana	27.5%
28	Pegasus Airlines	27.4%
29	Airasia	27.3%
30	Air New Zealand	26.8%
31	Allegiant	26.4%
32	Flybe	26.2%
33	EVA Airways	26.1%
34	Frontier Airlines	26.1%
35	Cargolux	26.0%
36	IAG	25.6%
37	TransAsia Airways	25.4%
38	Thai Airasia	24.3%
39	Hawaiian Airlines	24.2%
40	Alaska Air Group	23.7%
41	Emirates	23.7%
42	Air Malta	22.5%
43	Virgin Atlantic	22.2%
44	Air Busan	21.6%
45	SAS	20.4%
46	Scoot	20.3%
47	easyJet	20.0%
48	Air Canada	19.3%
49	Cathay Pacific	19.2%
50	Enter Air	19.2%

[1] Unrestricted Cash as % of Total Revenues

THE AIRLINE TOP 50

Analysis: **equity market capitalisation and return on invested capital**

Top 50 by Equity Market Capitalisation[1]

Rank	Airline	US$m
1	Delta Air Lines	28,834
2	Southwest Airlines	25,892
3	American Airlines	17,368
4	Ryanair	15,814
5	United Continental	13,971
6	China Eastern	12,370
7	Air China	12,359
8	Japan Airlines	10,566
9	IAG	9,850
10	China Southern	9,471
11	ANA Holdings	9,333
12	Singapore Airlines	9,269
13	Alaska Air Group	7,378
14	Hainan Airlines	5,902
15	Cathay Pacific	5,710
16	Spring Airlines	5,621
17	easyJet	5,581
18	Lufthansa Group	5,564
19	Jetblue	5,512
20	Indigo	5,454
21	Juneyao Airlines	5,236
22	Qantas Airways	4,390
23	LATAM	3,655
24	Spirit Airlines	3,278
25	PAL Holdings	2,734
26	Turkish Airlines	2,680
27	Allegiant	2,449
28	Copa Holdings	2,323
29	Hawaiian Airlines	2,264
30	Virgin America	2,128
31	Westjet	1,983
32	Volaris	1,907
33	Air France-KLM	1,903
34	Airasia	1,814
35	Air New Zealand	1,758
36	EVA Airways	1,699
37	Air Arabia	1,690
38	Thai Airways	1,647
39	Korean Air	1,611
40	China Airlines	1,573
41	Aeroflot	1,473
42	Grupo Aeromexico	1,419
43	Skywest, Inc.	1,396
44	Bangkok Airways	1,382
45	Air Canada	1,300
46	Norwegian Air Shuttle	1,269
47	Icelandair	1,268
48	Cebu Pacific	1,263
49	Wizz Air	1,158
50	Jet Airways	967

[1]Based on closing prices on 8th July 2016

Top 50 by Return on Invested Capital[1]

Rank	Airline	%
1	USA Jet	34.9%
2	Air Greenland	34.2%
3	Regional Express	32.3%
4	Precision Air	30.5%
5	Atlantic Airways	29.8%
6	Swiss International	22.8%
7	Japan Airlines	22.7%
8	Amerijet International	22.3%
9	Jet2.com	21.4%
10	Air Busan	19.8%
11	Frontier Airlines	19.6%
12	Air Canada	18.8%
13	Delta Air Lines	18.4%
14	Comair Limited	18.0%
15	Alaska Air Group	17.9%
16	American Airlines	17.5%
17	United Continental	17.1%
18	Miami Air International	17.0%
19	British Airways	16.3%
20	Kalitta Air	15.4%
21	Jetblue	15.3%
22	Air Mauritius	15.2%
23	Monarch Airlines	15.0%
24	Westjet	15.0%
25	easyJet	14.7%
26	Aigle Azur	14.6%
27	Allegiant	14.3%
28	Lufthansa Group	14.3%
29	Enter Air	13.9%
30	Omni Air International	13.9%
31	IAG	13.9%
32	Wizz Air	13.8%
33	Southwest Airlines	13.7%
34	Thomas Cook Airlines	13.5%
35	Air New Zealand	13.1%
36	Hawaiian Airlines	12.6%
37	Brussels Airlines	12.6%
38	EL AL Israel Airlines	12.5%
39	Icelandair	11.8%
40	Jin Air	11.6%
41	Horizon Air	11.1%
42	Spirit Airlines	11.0%
43	Vueling Airlines	10.2%
44	Ryanair	9.9%
45	Qantas Airways	9.7%
46	Transat A.T.	9.7%
47	Thomson Airways	9.6%
48	Aegean Airlines	9.4%
49	StarFlyer	9.3%
50	Airasia	9.1%

[1](EBIT plus 1/3 Aircraft Rental)/(Equity Market Capitalisation or book equity, plus Adjusted Net Debt)

Top 50 by equity market capitalisation

Following the recent sell-offs due to capacity and Rask concerns, particularly in the USA, the Top 50 airline stocks had a total value of $295 billion as of 8th July 2016, down from $362 billion last year. Delta continues to be the top ranked airline with a market capitalisation of $28.8 billion.

There is only one significant "new entrant" – Indigo at number 20 at an attention getting $5.5 billion. Aer Lingus left the ranking, having been de-listed following its acquisition by IAG.

Three of the top 10 are from China while the "mega" European carriers of IAG, Lufthansa, and Air France-KLM make it into positions 9, 18 and 33, respectively. LATAM remains the highest ranked Latin American carrier in 23rd position, down from 12th last year and 7th two years ago, followed by Copa in 28th.

Southwest leads the LCC stakes, ahead of Ryanair (4), Easyjet (17), Spirit (24), Allegiant (27), Westjet (31), Wizz Air (49). Airasia is the biggest climber, rising from 42nd to 34th. The two major Japanese carriers come in at numbers 8 and 11.

Top 50 by return on invested capital

The Top 50 by return on invested capital ranking shows a wide range of results. Topping the list are a number of small carriers with limited capital bases. Among the larger carriers, the best performance came from Swiss at 22.8% and Japan Airlines at 22.7%. A total of 43 generated returns in excess of 10%, up from 12 last year. However, many of the long established network carriers like LATAM, Singapore Airlines and Cathay Pacific earned returns that are unlikely to have exceeded their cost of capital.

AIRFINANCE JOURNAL EVENTS

2017 EVENT CALENDAR

19th Annual Global Airfinance Conference

Dublin, 17th Jan -19th Jan 2017

2nd Annual Africa Airfinance Conference

Addis Ababa, 16th Feb – 17th Feb 2017

The Inaugural Korea Airfinance Conference

Seoul, 9th Mar – 10th Mar 2017

6th Annual Japan Airfinance Conference

Tokyo, 20th Apr – 21st Apr 2017

37th Annual North America Airfinance Conference

18th May – 19th May 2017

15th Annual China Airfinance Conference

Shanghai, 7th Jun – 8th Jun 2017

13th Annual Latin America Airfinance Conference

Rio De Janeiro, 12th Sep – 13th Sept 2017

15th Annual Middle East Airfinance Conference

Dubai, 2017

18th Annual Asia-Pacific Airfinance Conference

Hong Kong, 2017

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