

An *Airfinance Journal*special supplement

Airline top 50 2018

## Top 50 airlines

Basic information				Financial rating parameters					Financial rating scores						
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, amortisation and rents)/	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 latest 12 months
1	Ryanair	31-Mar-18	\$8,314	6.7	32.3%	16.5	51.0%	0.4	6	6	8	8	8	7.4	<b>→</b>
2	Air Arabia	31-Dec-17	\$1,034	3.9	26.9%	-19.1	67.8%	1.5	7	5	8	8	7	7.0	7
3	Copa Holdings	31-Dec-17	\$2,528	7.8	28.5%	5.4	37.3%	1.6	6	5	8	8	7	6.9	<b>7</b>
4	Japan Airlines	31-Mar-18	\$12,437	9.7	21.8%	19.5	32.5%	-0.7	5	4	8	7	8	6.6	<b>→</b>
5	Westjet	31-Dec-17	\$3,459	7.5	22.4%	5.0	30.5%	2.0	6	4	8	7	7	6.5	•
6	Wizz Air	31-Mar-18	\$2,279	4.5	33.8%	2.4	50.3%	1.9	7	6	4	8	7	6.3	<b>X</b>
7	Luxair Group	31-Dec-17	\$622	4.9	3.8%	-21.4	38.6%	-3.2	7	1	8	8	8	6.3	•
9	Alaska Air Group	31-Dec-17 31-Dec-17	\$7,933 \$26,707	7.5 11.5	25.4%	6.2 4.9	20.4%	1.6	6 5	5 4	8	5 6	7	6.2	<b>1</b>
10	International Airlines Group Allegiant Travel Company	31-Dec-17 31-Dec-17	\$26,707	18.4	26.4%	10.9	27.4%	2.0	2	5	8	6	7	6.2	<b>1</b>
11	Cebu Pacific	31-Dec-17	\$1,276	5.0	31.6%	3.7	23.0%	2.0	7	6	7	5	6	6.1	7
12	Spirit Airlines	31-Dec-17 31-Dec-17	\$2,648	5.0	28.4%	3.1	34.1%	3.0	7	5	6	7	6	6.1	24
13	Air New Zealand	31-Dec-17	\$3,473	8.0	23.3%	5.6	25.5%	2.3	6	4	8	6	6	6.0	***
14	Easyjet	30-Sep-17	\$6,487	7.0	14.6%	5.6	26.3%	0.7	6	2	8	6	8	6.0	•
15	Frontier Airlines	31-Dec-17	\$1,915	5.5	29.4%	2.2	37.1%	2.9	7	5	4	8	6	5.9	***
16	Hawaiian Airlines	31-Dec-17	\$2,696	11.5	28.1%	4.9	17.1%	1.6	5	5	8	4	7	5.9	***
17	Southwest Airlines	31-Dec-17	\$21,171	10.6	22.6%	21.0	15.5%	0.4	5	4	8	4	8	5.9	7
18	SIA Group	31-Mar-18	\$11,509	6.3	22.5%	4.2	17.3%	1.9	6	4	8	4	7	5.8	*
19	British Airways	31-Dec-17	\$17,193	13.5	22.5%	9.4	22.9%	1.2	4	4	8	5	7	5.8	•
20	Jazeera Airways	31-Dec-17	\$187	6.2	37.9%	1.7	41.2%	3.7	6	7	3	8	5	5.8	**
21	Scoot	31-Mar-17	\$511	0.7	17.8%	5.0	45.4%	8.0	8	3	8	8	3	5.7	7
22	Vietjet Air	31-Dec-17	\$995	3.2	31.4%	2.0	30.4%	3.9	7	6	4	7	5	5.6	<b></b>
23	Air Greenland	31-Dec-17	\$203	19.7	16.9%	34.4	16.4%	-0.7	2	3	8	4	8	5.5	7
24	Jin Air	31-Dec-17	\$833	11.6	23.8%	2.2	38.2%	2.2	5	4	4	8	6	5.5	<b></b>
25	Republic Airline	31-Dec-17	\$1,196	8.0	34.9%	3.5	20.6%	4.4	6	6	7	5	4	5.5	<b></b>
26	Pegasus Airlines	31-Dec-17	\$897	5.4	25.5%	2.3	37.2%	4.6	7	5	4	8	4	5.4	<b></b>
27	Spring Airlines	31-Dec-17	\$1,612	4.1	21.8%	2.5	38.9%	4.6	7	4	5	8	4	5.4	7
28	Qatar Airways	31-Mar-17	\$10,847	5.4	17.5%	2.7	50.1%	3.1	7	3	5	8	5	5.4	<b></b>
29	Skymark Airlines	31-Mar-18	\$747	6.2	36.7%	2.5	12.9%	2.9	6	7	5	3	6	5.3	7
30	TUI Airways	30-Sep-17	\$2,615	8.2	18.0%	2.7	48.3%	3.8	6	3	5	8	5	5.3	<b></b>
31	Qantas Airways	30-Jun-17	\$10,162	10.1	20.0%	6.2	10.5%	1.9	5	3	8	3	7	5.2	***
32	Finnair	31-Dec-17	\$3,076	9.5	21.1%	2.1	37.2%	3.2	5	4	4	8	5	5.2	7
33	Jetblue	31-Dec-17	\$7,015	9.2	22.0%	8.6	9.9%	1.1	5	4	8	2	7	5.2	***
34	Lufthansa Group	31-Dec-17	\$42,530	10.9	13.7%	17.7	10.8%	0.9	5	2	8	3	8	5.2	<b>3</b>
35	Air Canada	31-Dec-17	\$12,484	15.2	17.6%	4.0	23.4%	2.2	3	3	7	5	6	5.1	<b>M</b>
36	Delta Air Lines	31-Dec-17	\$41,244	15.7	20.5%	11.3	6.4%	1.1	3	4	8		7	5.1	***
37	Turkish Airlines	31-Dec-17	\$11,054	7.5	22.3%	4.6	18.9%	4.2	6	4	8		4	5.1	<b>+</b>
38	Jet2.com	31-Mar-17	\$2,220	22.0	11.8%	2.5	32.8%	0.7	1	2	5	7	8	5.1	-
39	ANA Holdings	31-Mar-18	\$17,729	10.0	21.8%	3.6	18.1%	3.1	5	4	7	4	5	5.0	<b>•</b>
40	Jeju Air	31-Dec-17	\$895	11.4	25.0%	2.1	29.3%	2.9	5	4	4	6	6	5.0	<b>→</b>
41	Korean Air	31-Dec-17	\$10,860	9.5	26.2%	4.1	10.5%	5.2	5	5	8	3	4	5.0	•
42	Indigo	31-Mar-18	\$3,232	5.9	28.0%	1.5	31.2%	4.7	7	5	3	7	4	4.9	<b>7</b>
43	Airasia	31-Dec-17	\$2,419	5.6	31.1%	2.6	18.9%	4.1	7	6	5	4	4	4.9	<b>+</b>
44 4E	Hainan Airlines	31-Dec-17	\$8,713	5.1	30.4%	1.5	53.2%	7.4	7	6	2	8	3	4.9	+
45	Icelandair	31-Dec-17	\$1,420	21.6	13.5%	5.7	15.9%	1.2	4	2	8	4	7	4.9	24
46	Swiss International Air Lines	31-Dec-17	\$4,612	14.1	19.6%	11.5	4.9%	0.8	4	3	8	7	8	4.9	
47	United Continental Holdings	31-Dec-17	\$37,736	14.4	18.3%	4.4	10.1%	2.8	4	3	8	3	6	4.9	***
48	Vueling Airlines	31-Dec-17	\$2,463	6.6	21.4%	1.8	32.4%	3.4	6	4	3	7	5	4.9	7
49	Air France-KLM	31-Dec-17	\$31,876	11.0	16.7%	3.3	18.3%	2.7	5	3	6	4	6	4.8	7
50	KLM - Royal Dutch Airlines	31-Dec-17	\$12,057	9.8	18.8%	3.6	10.9%	Source: Airt	5	3	7	3	6	4.8	<b>₹</b>

Source: Airfinance Journal's The Airline Analyst



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# Top 50 by size of current fleet

			Fleet size		%	Flee	et value (\$m)	
Rank	Airline	Leased	Owned	Total	Leased	Leased	Owned	Total
1	American Airlines	409	602	1,011	40%	9,638	19,900	29,538
2	Delta Air Lines	185	748	933	20%	3,755	13,744	17,499
3	Southwest Airlines	123	692	815	15%	1,967	15,248	17,215
4	United Airlines	156	632	788	20%	2,176	15,604	17,780
5	China Southern	199	383	582	34%	6,494	16,126	22,620
6	China Eastern	112	419	531	21%	4,294	16,766	21,060
7	Skywest Airlines	108	345	453	24%	477	4,427	4,905
8	Ryanair	74	372	446	17%	3,078	11,878	14,957
9	Air China	102	314	416	25%	4,732	11,949	16,681
10	Fedex	21	364	385	5%	349	10,074	10,423
11	Lufthansa	23	264	287	8%	614	9,752	10,365
12	Turkish Airlines	67	218	285	24%	3,014	10,828	13,842
13	British Airways	103	176	279	37%	2,821	5,012	7,833
13=	Emirates	155	124	279	56%	17,334	14,274	31,609
15	Jetblue	49	199	248	20%	722	5,347	6,070
16	Aeroflot	223	21	244	91%	9,440	789	10,229
16=	UPS	3	241	244	1%	21	5,525	5,546
18	All Nippon Airways	16	216	232	7%	796	7,393	8,189
19	Hainan Airlines	106	125	231	46%	4,640	5,115	9,755
20	Expressjet	45	181	226	20%	138	413	551
21	Air France	111	104	215	52%	4,685	3,563	8,248
22	Qatar Airways	81	129	210	39%	6,608	11,978	18,586
23	Air Canada	98	110	208	47%	1,504	5,550	7,054
24	Saudia	78	126	204	38%	3,932	7,394	11,326
25	Republic Airline	27	175	202	13%	470	2,674	3,144
26	Shenzhen Airlines	46	139	185	25%	1,219	4,777	5,996
27	Alaska Airlines	26	151	177	15%	753	4,367	5,120
28	Endeavor Air	167	9	176	95%	1,605	6	1,611
28=	Indigo	156	20	176	89%	5,019	412	5,431
30	Easyjet	65	107	172	38%	1,188	3,209	4,397
31	Korean Air	30	141	171	18%	2,104	9,661	11,765
32	Xiamen Airlines	72	96	168	43%	2,762	3,541	6,303
33	Japan Airlines	21	142	163	13%	647	6,264	6,910
34	Cathay Pacific Airways	35	123	158	22%	2,682	9,922	12,604
35	Garuda Indonesia	135	16	151	89%	5,554	249	5,802
36	Mesa	79	66	145	54%	1,583	810	2,393
37	Sichuan Airlines	57	84	141	40%	2,457	2,800	5,256
37=	Air India	83	58	141	59%	3,794	2,664	6,458
39	Eurowings	123	17	140	88%	2,518	310	2,827
40	SAS	94	39	133	71%	2,640	577	3,217
40=	Tianjin Airlines	115	18	133	86%	2,326	639	2,965
42	Azul Linhas Aereas	109	23	132	83%	2,476	502	2,978
43	Qantas	25	106	131	19%	935	3,462	4,397
44	Allegiant Air	101	27	128	79%	925	691	1,617
44=	Etihad Airways	38	90	128	30%	2,934	5,220	8,154
46	Westjet	39	87	126	31%	806	2,306	3,113
47	Singapore Airlines	39	94	124	24%	2,260	7,678	9,938
47=	PSA Airlines	124	0	124	100%	1,565	0	1,565
47=	Shandong Airlines	69	51	124	58%	2,609	1,733	4,341
50	KLM	89	30	119	75%	3,882	578	4,460

Source: Airfinance Journal's Fleet Tracker

# Top 50 by size of current fleet and engine manufacturer

					Ma	nufacturer					
Rank	Airline	Allison	BMW RR	CFM International	Engine Alliance	GE	IAE	P&W	Rolls-Royce	Other	Total
1	American Airlines			466		104	241	82	118		1,011
2	Delta Air Lines		90	368		72	56	328	19		933
3	Southwest Airlines			814				1			815
4	United Airlines	9		335		91	167	123	63		788
5	China Southern			287		56	165	43	31		582
6	China Eastern	1		348		22	105		55		531
7	Skywest Airlines					436		17			453
8	Ryanair			446							446
9	Air China			243		34	54	12	73		416
10	Fedex			1		224		93	67		385
11	Lufthansa			109		32	63	11	72		287
12	Turkish Airlines			87		65	97	10	26		285
13	British Airways			7		42	128		102		279
13=	Emirates				90	162			27		279
15	Jetblue					60	188				248
16	Aeroflot			160		17			22	45	244
16=	UPS					92		113	39		244
18	All Nippon Airways			57		72		39	64		232
19	Hainan Airlines			166		25		11	29		231
20	Expressjet	163				63					226
21	Air France			112	10	92				1	215
22	Qatar Airways			4	10	118	36		42		210
23	Air Canada			90		108		2	8		208
24	Saudia			66		90	1	6	41		204
25	Republic Airlines	20				180		2			202
26	Shenzhen Airlines			139			41	1	4		185
27	Alaska Airlines			170		7					177
28	Endeavor Air					176					176
28=	Indigo			13			113	50			176
30	Easyjet			170			1			1	172
31	Korean Air			38	10	60		63			171
32	Xiamen Airlines			152		12			4		168
33	Japan Airlines			50		97		16			163
34	Cathay Pacific Airways			1		67		7	83		158
35	Garuda Indonesia			77		30		19	25		151
36	Mesa					140		5			145
37	Sichuan Airlines			34			82	11	14		141
37=	Air India			72		45	17	7	_		141
39	Eurowings			91		8	20	20	1		140
40	SAS			79		23	23		8		133
40=	Tianjin Airlines	18		9		57	20	24	5		133
42	Azul Linhas Aereas		_	16		64		45	7		132
43	Qantas		5	70		40			16		131
44	Allegiant Air			81	4.5	F.		43	4		128
44=	Etihad Airways			422	10	50	34		34		128
46	Westjet			120		4		2	65		126
47	Singapore Airlines				1	27		7	89		124
47=	PSA Airlines					124					124
49	Shandong Airlines			118		2			_		120
50	KLM			50		68			1		119

Source: Airfinance Journal's Fleet Tracker

# Top 50 by **firm order backlog**

		Manufacturer										
Rank	Airline	Airbus	ATR	Boeing	Bombardier	Embraer	Mitsubishi	Yakovlev	Yunshuji	Total		
	Indigo	389	40							429		
2	Airasia	385								385		
3	Lion Air	178		195						373		
1	Delta Air Lines	283		30	20					333		
5	Southwest Airlines			274						274		
5	Wizz Air	265								265		
7	Flydubai			244						244		
7=	United Airlines	45		174		25				244		
——— 9	American Airlines	100		120		10				230		
10	Skywest Airlines					122	100			222		
11	Turkish Airlines	116		103						219		
12	Emirates	58		159						217		
3	Norwegian	95		108						203		
14	Qatar Airways	97		101						198		
5	Frontier Airlines	191		701						191		
16	Vietjetair	77		100						177		
17	Etihad Airways	98		77						177		
17 18	Spicejet	30		142	25					167		
				150	25					150		
19	Ryanair	422		_								
20	Lufthansa	123		20						143		
21	Jet Airways	5		135						140		
22	Avianca	128		4						132		
23	Goair	125								125		
24	Gol Transportes Aereos			124						124		
25	Easyjet	121								121		
26	Qantas	107		9						116		
27	Jetblue	90				24				114		
28	Volaris	108								108		
29	Singapore Airlines	46		61						107		
30	Fedex		30	75						105		
31	Iran Air	97	7							104		
32	Aeroflot	14		27				50		91		
33	Air Canada	45		45						90		
34	All Nippon Airways	26		47			15			88		
35	Pegasus Airlines	78		3						81		
36	Cathay Pacific Airways	56		21						77		
37	Airasia X	76								76		
38	Flynas	75								75		
38=	China Southern	28		42					5	75		
40	Japan Airlines	31		11			32			74		
41	Garuda Indonesia	17	4	49						70		
41=	Jetsmart Airlines	70								70		
13	Korean Air	34		36						70		
14	Tui Travel	J.		69						69		
45 45	British Airways	49		14						63		
46	Copa	7.7		61						61		
+6 17	-	60		01						60		
	Spring Airlines			22	11							
48	Ethiopian Airlines	15		33	11					59		
48=	Westjet Aeromexico			57 57	2					59 57		

Source: Airfinance Journal's Fleet Tracker

At *Airfinance Journal's* 2017 global awards in Miami in May, two airlines won awards for strong treasury performance and return on invested capital.

### Airline treasury team of the year: Gol Linhas Aereas

Prazilian carrier Gol Linhas Aereas won the prize this year as investors bought into the company's turnaround story.

In July 2016, Gol carried out a distressed debt exchange under which investors holding \$41 million of its 2022s agreed to swap their bonds for just \$70 of cash and \$380 of new 9.5% 2021s per \$1,000 exchanged. Holders of other Gol bonds took similarly hefty haircuts, though the take-up on the exchange was low across the curve.

Eighteen months later, the Brazilian real had stabilised and the economy had exited its worst recession. Furthermore, Gol went through a restructuring that included cutting routes, negotiating with lessors to return 20 aircraft, and selling other jets.

With market conditions as strong as most bankers had seen, Gol – still rated Caa3/CCC+/B but with an upgrade from S&P imminent — was thus able to issue its largest-ever deal at its lowest-ever yield in December 2017.

Gol was looking to price at least \$350 million of new bonds, but left open the option to increase the size. After receiving \$1.35 billion of orders, the company was

able to bring guidance in to 7.375% before launching a \$500 million deal at 7.25%.

The transaction was followed by an additional \$150 million issuance at 7% in January 2018.

Last year Gol was upgraded by all three major rating agencies.

Fitch and S&P raised its credit rating twice, ending the year at 'B', stable outlook, and 'B-', positive outlook, respectively. In December, Moody's upgraded Gol's corporate credit rating by four notches to 'B2', stable outlook. This was clear evidence that the market begun to acknowledge Gol's improved credit profile.



L to R: **Julio Perotti**, competitive strategy director a **Gol** and *AFJTAA managing director* **Michael Duff** 

Last December Gol also managed to buy back two-thirds of its 8.875% senior notes due in 2022.

By the offer's deadline on 6 December, subsidiary Gol Finance had received valid tenders for \$185 million of the notes from an aggregate principal amount of almost \$277 million. The tender offer was launched on 27 November, with note holders offered \$1,065 for each \$1,000 principal amount of notes, plus accrued interest.

Gol Finance engaged Credit Suisse Securities (USA); Merrill Lynch; Morgan Stanley; and BCP Securities to act as the dealer managers.

In 2017 Gol's Ebitdar margin was an impressive 23%, up from 21.7% in 2016.

The balance sheet continued to strengthen: adjusted net debt was 6x the last 12 months' Ebitdar in the fourth quarter of 2017, compared with 7.5x in 2016.

At 31 December 2017, total liquidity, including cash, financial investments, restricted cash and accounts receivable, totalled R\$3.2 billion (\$912 million), an increase of 66% from a year earlier. \(\Lambda\)

### Airline of the year: Delta Air Lines

Delta Air Lines beat strong competition from its US competitors to win the airline of the year award for 2017. The award was based on return on invested capital (ROIC) as recorded by The Airline Analyst (TAA). TAA includes financial data for more than 200 airlines, with more being added all the time.

As can be seen from the chart, the top four ROIC performers were all US airlines. Ryanair came fifth as the top non-US carrier, followed by British Airways and Japan Airlines.

Delta has worked towards ROIC goals for many years, using a disciplined cost structure and balanced capital deployment. The success of this strategy contributed to its investment grade rating in 2016. Delta has now returned \$10 billion and repurchased approximately 16% of the outstanding shares of the company while reducing debt by \$9 billion.

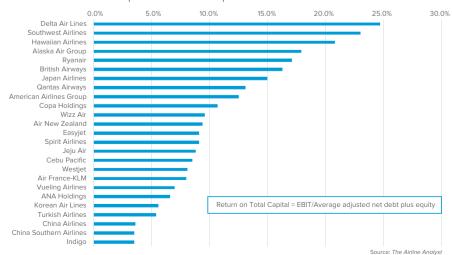
Ebit (earnings before interest and tax) margin in the meantime has doubled from 7.1% in 2012 to 14.2% in 2017.

The airlines in the chart represent the cream of the crop, although it is noticeable how fast airline returns drop away to single

digits, which questions whether all of the top 25 – and the wider market – are earning returns in excess of their cost-of-capital.

Notably under-represented in the chart are airlines from the fast-growing Asia-Pacific market and from Latin America. Nevertheless, Delta clearly generated positive shareholder value and is to be congratulated on an outstanding achievement. We will see if any of 2017's challengers can up their game and run Delta even closer in 2018.

#### Return on total capital 2017 - Top 25



# Industry overview: **Key financials**

As shown in Figure 1 the airline industry had a successful year in 2017/18. Revenues of \$651 billion were 4% higher than the prior year. Ebitdar was however slightly lower while net income increased 9% to \$36.9 billion, short of the record \$40.6 billion in 2015/16.

Ebitdar Margin was a full percentage point lower at 20.5% reflecting tough competition and higher costs, especially fuel and staff.

Notwithstanding some key bankruptcies, capital structure remained benign. The leverage trend has been favourable, despite the record capital expenditure.

Adjusted net debt was down slightly at \$473 billion and leverage (measured as adjusted net debt/Ebitdar) declined marginally from 3.6x to 3.5x. Fixed charge coverage declined from 3.2x to 3.1x.

One indicator which has not improved over the last six years is liquidity as a percentage of revenues, which remains at the 16.8% 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 The airline industry had a successful year in 2017/18. Revenues of \$651 billion were 4% higher than the prior year. Ebitdar was however slightly lower while net income increased 9% to \$36.9 billion. 55

Figure 1: Global airline industry<sup>1</sup> key financials

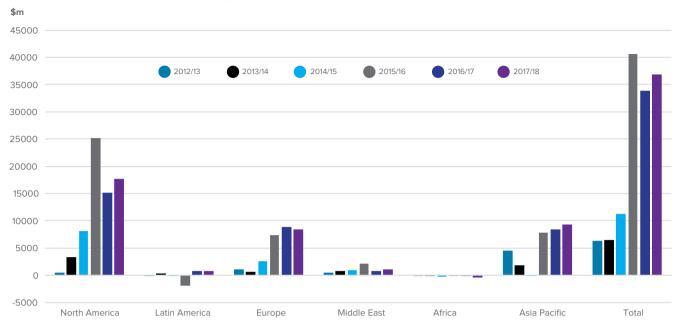
			Financial period	ds ending in		
\$m	2012/13	2013/14 <sup>2</sup>	2014/15	2015/16	2016/17	2017/18
Total Revenue	545,111	535,827	589,317	598,967	626,050	650,929
% change		-1.7%	10.0%	1.6%	4.5%	4.0%
Ebitdar	76,628	81,078	96,404	126,001	134,443	133,335
% change		5.8%	18.9%	30.7%	6.7%	-0.8%
Net Income	6,369	6,532	11,234	40,568	33,836	36,868
% change		2.6%	72.0%	261.1%	-16.6%	9.0%
Adjusted Net Debt	342,528	344,954	392,283	424,159	477,521	472,521
% change		0.7%	13.7%	8.1%	12.6%	-1.0%
Net Fixed Charges	31,626	31,842	34,731	37,973	42,552	43269
Ebitdar Margin	14.1%	15.1%	16.4%	21.0%	21.5%	20.5%
Ebitdar/Net Fixed Charges (x)	2.4	2.5	2.8	3.3	3.2	3.1
Unrestricted Cash/Total Revenues	17.4%	18.3%	16.0%	16.5%	16.8%	16.8%
Adjusted Net Debt/Ebitdar (x)	4.5	4.3	4.1	3.4	3.6	3.5
Parent groups with positive net income	13,960	14,748	19,254	45,795	37,259	39,711
Parent groups with negative net income	(7,591)	(8,216)	(8,020)	(5,227)	(3,423)	(2,843)
Total	6,369	6,532	11,234	40,568	33,836	36,868
Parent groups with positive net income	85	86	74	93	101	105
Parent groups with negative net income	35	34	44	29	27	28
<sup>3</sup> Number of parent groups	120	120	118	122	128	133

<sup>&</sup>lt;sup>1</sup> Aggregate values for airline groups included in study

<sup>&</sup>lt;sup>2</sup> 2013/14 excludes Delta's \$8.3 billion tax credit

<sup>&</sup>lt;sup>3</sup> Number of "parent groups" varies due to consolidation (US Airways, Tigerair, Vueling, Aer Lingus), IPOs (IndiGo, Wizz, Azul), de-consolidation (Frontier), bankruptcy (Air Berlin, Monarch, Alitalia) and financials for additional airlines becoming available.

Figure 2 - Net income by major region



Source: The Airline Analyst

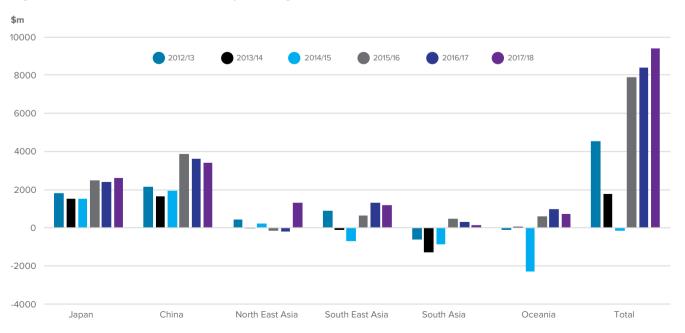
a significant number of airlines. Figure 2 shows net income broken down by region and illustrates clearly that the growth in profitability in the latest year was primarily driven by North American and Asia-Pacific carriers. The Middle East airlines had a tough year and Latin America remained only marginally profitable in aggregate. Africa was again loss-making. However, some of the perennial loss-makers improved their performance. Of the 133 airline groups in the study, 28 made

GG Of the 133 airline groups in the study, 28 made aggregate net losses of \$2.4 billion. 575

aggregate net losses of \$2.4 billion, the lowest such figure over the last 6 years. It is also helpful to look at the

breakdown of the Asia-Pacific numbers by sub-region as there are huge differences that tend to be camouflaged in the aggregates. This is presented in Figure 3 and shows clearly the large, stable and growing contribution from Japan, the decline for China over the last three years and the strong performance by the North East Asia, South East Asia and Oceania sub-regions. South Asia remained weak overall. The China performance needs monitoring.  $\wedge$ 

Figure 3 - Asia-Pacific net income by sub-region



## The data set

#### Airlines included in survey

No.	Airline	FYE
1	ABX Air, Inc.	31-Dec-2017
2	Aegean Airlines	31-Dec-2017
3	Aeroflot	31-Dec-2017
4	Air Arabia	31-Dec-2017
5	Air Astana	31-Dec-2017
6	Air Busan	31-Dec-2017
7	Air Canada	31-Dec-2017
8	Air China	31-Dec-2017
9	Air France-KLM	31-Dec-2017
10	Air Greenland	31-Dec-2017
11	Air Incheon	31-Dec-2017
12	Air Italy	31-Dec-2017
13	Air Mauritius	31-Mar-2018
14	Air New Zealand	30-Jun-2017
15	Air Seoul, Inc.	31-Dec-2017
16	Air Transport International	31-Dec-2017
17	Air Transport Services Group	31-Dec-2017
18	Air Wisconsin	31-Dec-2017
19	Airasia	31-Dec-2017
20	Airasia X	31-Dec-2017
21	Alaska Air Group	31-Dec-2017
22	Allegiant Travel Company	31-Dec-2017
23	American Airlines Group	31-Dec-2017
24	Amerijet International	31-Dec-2017
25	ANA Holdings	31-Mar-2018
26	Asiana Airlines	31-Dec-2017
27	Atlantic Airways	31-Dec-2017
28	Atlas Air Worldwide	31-Dec-2017
29	Atlas Air, Inc.	31-Dec-2017
30	Austrian Airlines	31-Dec-2017
31	Avianca Brasil	31-Dec-2017
32	Avianca Holdings	31-Dec-2017
33	Azul S.A.	31-Dec-2017
34	Blue Panorama	31-Dec-2017 31-Dec-2017
	British Airways	
36	Brussels Airlines	31-Dec-2017
37	Cargojet Airways	31-Dec-2017
38	Cargolux	31-Dec-2017
39	Cathay Pacific	31-Dec-2017
40	Cebu Pacific	31-Dec-2017
41	China Airlines	31-Dec-2017
42	China Eastern	31-Dec-2017
43	China Southern	31-Dec-2017
44	Chorus Aviation	31-Dec-2017
45	Comair Limited	30-Jun-2017
46	Compass Airlines	31-Dec-2017
47	Copa Holdings	31-Dec-2017
48	Croatia Airlines	31-Dec-2017
49	Danish Air Transport	31-Dec-2017
50	Delta Air Lines	31-Dec-2017
_51	Eastarjet	31-Dec-2017
52	Easyjet	30-Sep-2017
53	EL AL Israel Airlines	31-Dec-2017
54	Emirates	31-Mar-2018

Nic	At the	EVE
No.	Airline	FYE
55	Enter Air	31-Dec-2017
56	Envoy Air	31-Dec-2017
57	euroAtlantic airways	31-Dec-2017
58	Eva Airways	31-Dec-2017
59	Evelop Airlines	31-Dec-2017
60	ExpressJet Airlines	31-Dec-2017
61	Fastjet	31-Dec-2017
62	Finnair	31-Dec-2017
63	Flybe	31-Mar-2018
64	flydubai	31-Dec-2017
65	Frontier Airlines	31-Dec-2017
66	Garuda Indonesia	31-Dec-2017
67	Gojet Airlines	31-Dec-2017
68	GOL	31-Dec-2017
69	Grupo Aeromexico	31-Dec-2017
70	Grupo VivaAerobus	31-Dec-2017
71	Hainan Airlines	31-Dec-2017
72	Hawaiian Airlines	31-Dec-2017
73	Horizon Air	31-Dec-2017
74	Iberia	31-Dec-2017
75	Icelandair	31-Dec-2017
76	Indigo	31-Mar-2018
77	Interjet	31-Dec-2017
78	International Airlines Group	31-Dec-2017
79	Japan Airlines	31-Mar-2018
80	Jazeera Airways	31-Dec-2017
81	Jeju Air	31-Dec-2017
82	Jet Airways	31-Mar-2018
83	Jet2.com	31-Mar-2017
84	Jetblue	31-Dec-2017
85	Jetstar Asia	30-Jun-2017
86	Jin Air	31-Dec-2017
87	Juneyao Airlines	31-Dec-2017
88	Kalitta Air	31-Dec-2017
89	Kenya Airways	31-Mar-2017
90	Kenya Airways	31-Dec-2017
91	KLM - Royal Dutch Airlines	31-Dec-2017
92	Korean Air	31-Dec-2017
93	Latam Airlines Group	31-Dec-2017
94	Latam Brasil	31-Dec-2017
95	Lucky Air	31-Dec-2017
96	Lufthansa Group	31-Dec-2017
97	Lufthansa Parent	31-Dec-2017
98	Luxair Group	31-Dec-2017
99	Mesa Airlines	31-Dec-2017
100	Miami Air International	31-Dec-2017
101	Nok Air	31-Dec-2017
102	Nordic Regional Airlines	31-Dec-2017
103	Norwegian Air Shuttle	31-Dec-2017
104	Oman Air	31-Dec-2017
105	Omni Air International	31-Dec-2017
106	PAL Holdings	31-Dec-2017
107	Peach Aviation	31-Mar-2018
108	Pegasus Airlines	31-Dec-2017

Nie	Atulia	EVE
No.	Airline	FYE
109	Polar Air Cargo	31-Dec-2017
110	Primera Air Scandinavia	31-Dec-2017
111	PSA Airlines	31-Dec-2017
112	Qantas Airways	30-Jun-2017
113	Qatar Airways	31-Mar-2017
114	Regional Express Holdings	30-Jun-2017
115	Republic Airlines	31-Dec-2017
116	Royal Jordanian Airlines	31-Dec-2017
117	Ryanair	31-Mar-2018
118	S7 Airlines	31-Dec-2017
119	SAS	31-Oct-2017
120	Scoot	31-Mar-2017
121	Shandong Airlines	31-Dec-2017
122	Shenzhen Airlines	31-Dec-2017
123	SIA Cargo	31-Mar-2017
124	SIA Group	31-Mar-2018
125	Silkair	31-Mar-2017
126	Skymark Airlines	31-Mar-2018
127	Skywest, Inc.	31-Mai-2016 31-Dec-2017
128	Small Planet Airlines	31-Dec-2017
128	Solaseed Air	
		31-Mar-2018
130	South African Airways	31-Mar-2017
131	Southwest Airlines	31-Dec-2017
132	Spicejet	31-Mar-2018
133	Spirit Airlines	31-Dec-2017
134	Spring Airlines	31-Dec-2017
135	SriLankan Airlines	31-Mar-2017
136	Starflyer	31-Mar-2018
137	Sun Country Airlines	31-Dec-2017
138	Swiss International Air Lines	31-Dec-2017
139	TAP Group	31-Dec-2017
140	Thai Airasia	31-Dec-2017
141	Thai Airways	31-Dec-2017
142	Thomas Cook Airlines Limited	30-Sep-2017
143	Tianjin Airlines	31-Dec-2017
144	Tigerair	31-Mar-2017
145	Transat A.T.	31-Oct-2017
146	TUI Airways	30-Sep-2017
147	Turkish Airlines	31-Dec-2017
148	Tway Airlines	31-Dec-2017
149	United Continental Holdings	31-Dec-2017
150	UPS Airlines	31-Dec-2017
151	USA Jet	31-Dec-2017
152	UTair	31-Dec-2017
153	Vanilla Air	31-Mar-2018
154	Vietjet Air	31-Dec-2017
155	Vietnam Airlines	31-Dec-2017
156	Virgin Atlantic	31-Dec-2017
157	Virgin Australia	30-Jun-2017
158	Volaris	31-Dec-2017
159	Vueling Airlines	31-Dec-2017
160	Westjet	31-Dec-2017
161	Wizz Air	31-Mar-2018
162	Xiamen Airlines	31-Dec-2017

## The study

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 162 airlines (up from 150 last year) whose financials are available in the public domain and which have released financial statements for periods ending between March 2017 and March 2018. The data includes the 31 March 2018 releases for ANA Holdings, Japan Airlines, Jet Airways, Ryanair, Singapore Airlines, Spicejet and a few smaller carriers.

Disappointingly, Qatar Airways has delayed the publication of its results for the year ending 31st March, 2018 and we have yet to see the Etihad financial statements despite their announced intention to publish them. Our numbers therefore do not include two of the three largest airlines in a key region for traffic and the aircraft manufacturers.

Of the 162, 29 are separately reporting subsidiaries such as British Airways, Iberia, Vueling, Austrian Airlines, Swiss, Air France and KLM, meaning that we have 133 airline groups in the study.

The sample does not include airlines whose financial statements are not available publicly (e.g. Etihad, Lion Air, LOT, Saudia) or those whose most recent available financials are for periods prior to March, 2017 (e.g. Adria Airways, Air India, SAA). However the sample is estimated to include airlines representing around 85% of global RPKs. There is additional representation this year from South Korea, China, Japan and Eastern Europe using financial statements sourced from regulatory filings.

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. 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 US\$ using the spot rates prevailing on 15th August 2018. We believe using the spot rates rather than the historic exchange rates produces a more valid comparison by delivering a "constant currency" set of values.

#### Revenue and profitability

Headed by the "big three" US carriers, total revenues in our sample of 133 airline groups whose financials are available in the public domain are \$651 billion (after eliminating double counting of subsidiaries that are included in the sample separately). Total revenues for our Top 50 by Revenue airlines (again adjusted for double counts) are \$555 billion or 85% of the total sample. The degree of concentration within the Top 50 is apparent - the top 10 airlines account for 54% of the Top 50's revenues.

Of the total sample of 133 parent groups, 105 recorded aggregate positive net income of \$36.9 billion while 28 reported losses aggregating \$2.8 billion for a net positive figure of \$39.7 billion, up from \$33.8 billion last year. Overall, the net profit margin for all airline parent groups combined was 5.7%, up from 5.4%.

As we can see from the Top 50 by Net Income Margin, 25 airlines achieved a margin in excess of 10%, headed by Republic Airline, Vietjet Air and Ryanair. Other LCCs have strong representation at the top of the list including Air Arabia, Southwest, Airasia and Spirit Airlines.

Eight US carriers, including Delta but not American or United made it onto the list. Indicative of the continuing stress on network business models, none of Cathay Pacific, Qantas, Emirates, Turkish Airlines, Latam, Air France-KLM or Singapore Airlines had a net income margin high enough to make the cut. One creditable exception to this is Air New Zealand, coming in at 42nd position.

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
DASK CASK margin

RASK-CASK margin

Ebitdar margin Leverage

Fixed charge cover

Liquidity

Return on invested capital

Equity market capitalisation

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

	Cargo	LCC	Leisure	National	Network	Regional	Grand Total
Europe	1	6	4	5	21	7	44
North America	9	4	4		7	13	37
North East Asia	1			7	6	4	18
South East Asia	1	8	1		6		16
China		2		1	9		12
Latin America		4			7		11
Middle East		3			6	-	9
Africa		1		1	3	1	6
South Asia		3			2		5
Oceania					3	1	4
Grand Total	12	31	9	14	70	26	162

## Analysis: Revenue and income

Top 50 by Total revenue

Doub	Airline	, drug
Rank	Airline	\$m
1	American Airlines Group	42,207
2	Lufthansa Group	41,902
3	Delta Air Lines	41,244
4	United Continental Holdings	37,736
5	Air France-KLM	29,533
6	International Airlines Group	26,312
7	Emirates	25,011
8	Southwest Airlines	21,171
9	Lufthansa Parent	18,780
10	China Southern	18,675
11	ANA Holdings	17,789
12	Air China	17,755
13	British Airways	15,632
14	China Eastern	14,974
15	Japan Airlines	12,480
16	Air Canada	12,410
17	Cathay Pacific	12,394
18	KLM - Royal Dutch Airlines	11,843
19	Qantas Airways	11,753
20	SIA Group	11,458
21	Turkish Airlines	11,054
22	Qatar Airways	10,913
23	Korean Air	10,724
24	Latam Airlines Group	10,164
25	Hainan Airlines	8,753
26	Ryanair	8,191
27	Aeroflot	7,942
28	Alaska Air Group	7,933
29	Jetblue Jetblue	7,015
30		6,452
31	Easyjet Thai Airways	5,761
	Thai Airways	
32	Iberia	5,624
33	Asiana Airlines	5,522
34	Eva Airways	5,327
35	UPS Airlines	5,274
36	China Airlines	5,084
37	SAS	4,696
38	Swiss International Air Lines	4,604
39	Avianca Holdings	4,442
40	Garuda Indonesia	4,177
41	Shenzhen Airlines	4,040
42	Xiamen Airlines	3,817
43	Latam Brasil	3,799
4.4	Norwegian Air Shuttle	3,710
44		
45	Virgin Australia	3,692
	Virgin Australia Vietnam Airlines	3,692 3,573
45		
45 46	Vietnam Airlines	3,573
45 46 47	Vietnam Airlines  Jet Airways	3,573 3,562

Top 50 by Net income

. ор о	s by rectificante	
Rank	Airline	\$m
1	Delta Air Lines	3,577
2	Southwest Airlines	3,488
3	Lufthansa Parent	2,812
4	Lufthansa Group	2,708
5	International Airlines Group	2,292
6	United Continental Holdings	2,131
7	American Airlines Group	1,919
8	British Airways	1,771
9	Ryanair	1,661
10	Air Canada	1,556
11	ANA Holdings	1,298
12	Japan Airlines	1,222
13	Jetblue	1,147
14	Air China	1,059
15	Alaska Air Group	1,034
16	China Eastern	927
17	China Southern	871
18	Emirates	761
19	Korean Air	702
20	SIA Group	651
21	Qantas Airways	624
22	Qatar Airways	547
23	Hainan Airlines	486
24	Swiss International Air Lines	443
25	Republic Airlines	434
26	Skywest, Inc.	429
27	Spirit Airlines	421
28	Airasia	399
29	Easyjet	399
30	Copa Holdings	370
31	Hawaiian Airlines	364
32	Aeroflot	341
		326
33	Indigo Wizz Air	
34		315
35	Xiamen Airlines	
36	Air New Zealand	252
37	Atlas Air Worldwide	224
38	Asiana Airlines	223
39	Turkish Airlines	223
40	Vietjet Air	219
41	Westjet	217
42	Shenzhen Airlines	210
43	Allegiant Travel Company	195
44	Finnair	194
45	Juneyao Airlines	194
46	Eva Airways	187
47	Spring Airlines	184
48	Atlas Air, Inc.	172
49	Air Arabia	172
50	Frontier Airlines	165

Top 50 by Net income margin

10p 5	o by Net income margin	
Rank	Airline	%
1	Republic Airlines	36.3%
2	Vietjet Air	22.5%
3	Ryanair	20.3%
4	Euroatlantic airways	18.2%
5	Air Arabia	16.6%
6	Southwest Airlines	16.5%
7	Airasia	16.5%
8	Jetblue	16.4%
9	Spirit Airlines	15.9%
10	Lufthansa Parent	15.0%
11	Horizon Air	14.8%
12	Copa Holdings	14.6%
13	Jazeera Airways	14.5%
14	Wizz Air	14.1%
15	Hawaiian Airlines	13.5%
16	Skywest, Inc.	13.4%
17	Alaska Air Group	13.0%
18	Allegiant Travel Company	13.0%
19	Air Canada	12.5%
20	Chorus Aviation	12.3%
21	Cebu Pacific	11.6%
22	Spring Airlines	11.5%
23	British Airways	11.3%
24	Juneyao Airlines	10.7%
25	Atlas Air Worldwide	10.4%
26		10.4%
27	Indigo	9.8%
28	Japan Airlines Swiss International Air Lines	9.6%
29	Pegasus Airlines	9.4%
		9.2%
30	Atlas Air, Inc.	
	International Airlines Group	8.7%
32	Delta Air Lines	8.7%
33	Frontier Airlines	8.6%
34	Skymark Airlines	8.5%
35	Jin Air	8.3%
36	Xiamen Airlines	8.2%
37	Luxair Group	8.1%
38	Compass Airlines	8.0%
39	Mesa Airlines	7.9%
40	Jeju Air	7.8%
41	Thai AirAsia	7.5%
42	Air New Zealand	7.5%
43	Grupo VivaAerobus	7.4%
44	ANA Holdings	7.3%
45	Spicejet	7.3%
46	Peach Aviation	6.8%
47	Azul S.A.	6.8%
48	Tway Airlines	6.8%
49	Korean Air	6.5%
50	Eastarjet	6.5%



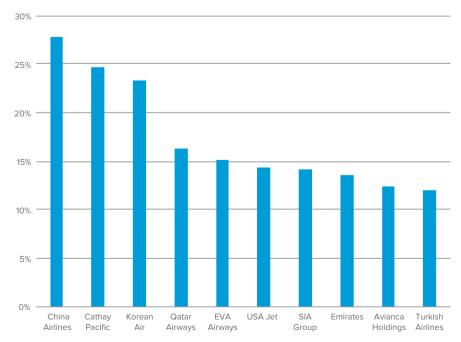
#### Top 50 by Cargo Revenue

After a number of difficult years, growth has returned to the air cargo sector. Other than UPS Airlines, the Top 50 by Cargo Revenue ranking is dominated by the network carriers from Europe and Asia. Retaining the number 2 spot is Emirates with \$3.4 billion, 14% of its total revenues. Dedicated freight carrier Cargolux is in 7th place by revenues. Other dedicated cargo providers in the list include Kalitta Air, Polar Air Cargo and ABX Air. Some 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.

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, South Korea and Hong Kong top the list. A

#### Cargo revenues as % of total revenues



Source: The Airline Analyst

#### Top 50 by Cargo revenue

	o by Cargo revenue	
Rank	Airline	\$m
1	UPS Airlines	5,184
2	Emirates	3,387
3	Lufthansa Group	3,358
4	Cathay Pacific	3,045
5	Korean Air	2,491
6	Air France-KLM	2,390
7	Cargolux	2,211
8	Qatar Airways	1,770
9	SIA Group	1,617
10	Air China	1,498
11	SIA Cargo	1,427
12	ANA Holdings	1,426
13	China Airlines	1,411
14	China Southern	1,327
15	Turkish Airlines	1,317
16	KLM - Royal Dutch Airlines	1,284
17	International Airlines Group	1,242
18	Latam Airlines Group	1,119
19	United Continental Holdings	1,035
20	British Airways	873
21	Japan Airlines	831
22	Eva Airways	809
23	American Airlines Group	800
24	Delta Air Lines	729
25	Kalitta Air	625
26	Thai Airways	610
27	Qantas Airways	591
28	Avianca Holdings	551
29	China Eastern	529
30	Swiss International Air Lines	527
31	Air Canada	496
32	Polar Air Cargo	396
33	ABX Air, Inc.	317
34	Iberia	296
35	Latam Brasil	295
36	Cargojet Airways	290
37	Aeroflot	246
38	Garuda Indonesia	246
39	Amerijet International	245
40	Grupo Aeromexico	231
41	Finnair	226
42	Air New Zealand	221
43	Hainan Airlines	205
44	Southwest Airlines	173
45	SAS	162
46	PAL Holdings	158
47	Indigo	147
48	Air Transport International	138
49	South African Airways	129
50	Alaska Air Group	114
30	Aluska Ali Oloap	114

### Analysis: Passenger revenue and yield

Top 50 by Passenger revenue per passenger<sup>1</sup>

lop 5	0 by Passenger revenue	e per passenger'	
Rank	Airline	Ave. trip length <sup>2</sup> (km)	\$
1	Air Transport International	3,895	3,790
2	Atlas Air, Inc.	4,978	1,725
3	Omni Air International	4,590	641
4	Miami Air International	1,726	398
5	Air Greenland	1,308	366
6	Emirates	4,997	344
7	EL AL Israel Airlines	3,775	333
8	British Airways	3,245	312
9	KLM - Royal Dutch Airlines	3,166	293
10	SIA Group	3,856	283
11	Air Mauritius	4,346	283
12	Air France-KLM	2,960	278
13	Lufthansa Parent	2,338	263
14	Copa Holdings	3,372	259
15	Qatar Airways	N/A	256
16	Eva Airways	3,779	248
17	Korean Air	3,028	243
18	Cathay Pacific	3,638	243
19	Air Canada	2,847	230
20	Royal Jordanian Airlines	2,548	228
21	Lufthansa Group	2,008	224
22	International Airlines Group	2,412	221
23	Icelandair	2,899	221
24	Starflyer	961	221
25	China Airlines	2,656	220
26	United Continental Holdings	2,351	219
27	ANA Holdings	1,659	216
28	TUI Airways	3,201	213
29	Swiss International Air Lines	2,408	213
30	Japan Airlines	1,587	208
31	Thomas Cook Airlines Limited		206
		3,643	205
32	Hawaiian Airlines	2,281	
33	Kenya Airways	2,301	202
34	Kenya Airways	2,353	197 195
35	Austrian Airlines	1,558	
36	Finnair Thai Ainways	2,583	194
37	Thai Airways	2,916	193
38	Qantas Airways	2,258	189
39	Delta Air Lines	1,880	187
40	American Airlines Group	1,825	181
41	Air New Zealand	2,182	181
42	Regional Express Holdings	387	172
43	Sun Country Airlines	2,188	169
44	Jetblue	1,899	157
45	Oman Air	2,555	156
46	Alaska Air Group	1,913	155
47	Air China	1,980	151
48	South African Airways	2,504	149
49	SriLankan Airlines	2,801	148

Top 50 by Passenger yield<sup>1</sup>

.000	o by I asseriget yield		
Rank	Airline	Ave. trip length <sup>2</sup> (km)	US cents
1	Air Transport International	3,895	97.3
2	Regional Express Holdings	387	44.5
3	Atlas Air, Inc.	4,978	34.7
4	Air Greenland	1,308	28.0
5	Miami Air International	1,726	23.1
6	StarFlyer	961	23.0
7	Flybe	529	16.4
8	Omni Air International	4,590	14.0
9	Croatia Airlines	767	13.4
10	Japan Airlines	1,587	13.1
11	ANA Holdings	1,659	13.0
12	Austrian Airlines	1,558	12.5
13	Envoy Air	798	12.3
14	Air Wisconsin	582	11.8
15	Horizon Air	537	11.3
16	Lufthansa Parent	2,338	11.3
17	Lufthansa Group	2,008	11.2
18	Delta Air Lines	1,880	9.9
19	American Airlines Group	1,825	9.9
20	Fastjet	775	9.8
21	British Airways	3,245	9.6
22	SAS	1,333	9.5
23	Air France-KLM	2,960	9.4
24	United Continental Holdings	2,351	9.3
25	KLM - Royal Dutch Airlines	3,166	9.3
26	Southwest Airlines	1,594	9.2
27	International Airlines Group	2,412	9.2
28	Luxair Group	1,112	9.1
29	Hawaiian Airlines	2281	9.0
30	Nok Air	665	9.0
31	Royal Jordanian Airlines	2,548	8.9
32	EL AL Israel Airlines	3,775	8.8
33	Avianca Holdings	1,366	8.8
34	Kenya Airways	2,301	8.8
35	Swiss International Air Lines	2,408	8.8
36	Azul S.A.	943	8.4
37	Aegean Airlines	1,048	8.4
38	Kenya Airways	2,353	8.4
39	Qantas Airways	2,258	8.4
40	Virgin Australia	1,555	8.3
41	Air New Zealand	2,182	8.3
42	China Airlines	2,656	8.3
43	Jetblue	1,899	8.3
44	Alaska Air Group	1,913	8.1
45	Air Canada	2,847	8.1
46	Korean Air	3,028	8.0
47	PSA Airlines	628	7.8
48	Sun Country Airlines	2,188	7.7
49	Copa Holdings	3,372	7.7
50	Air China	1,980	7.6
50	All Cillia	1,300	7.0

**Southwest Airlines** 

Source: The Airline Analyst 'Pas

147

1,594

<sup>1</sup>Passenger revenue divided by RPKs <sup>2</sup> RPKs divided by number of passengers

<sup>&</sup>lt;sup>1</sup>Passenger revenue divided by RPKs <sup>2</sup> RPKs divided by number of passengers

#### Top 50 by passenger revenue per passenger

Air Transport International, Atlas Air, Omni Air International and Miami Air head this list based on their limited and specialised non-scheduled passenger activity. The next few in the ranking are scheduled airlines: Air Greenland, Emirates EL AL and British Airways. The data shows the expected correlation with average trip length (RPKs divided by number of passengers). Exceptions to that include 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 1,600 km.

Other than Southwest which sneaks in at number 50 there are no LCCs 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 Air Transport International, Regional Express, Atlas Air 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, Delta, American, British Airways and SAS with their relatively short average trip length and Air France-KLM.

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. \(\lambda\)





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## 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 45% of the total RPKs for the sample of 133 airline groups.

The phenomenon of Emirates' growth is evident from their ranking in 4th place, up from 8th five years ago, edging out Lufthansa, IAG and Air France-KLM. The Chinese majors come in at numbers 8, 10 and 11. Latam at number 22 is the largest of the Latin American carriers. Low cost carrier Southwest comes in at number 9 and Ryanair at number 12.



#### Top 50 by Passenger Load Factor

Heading the list for the second time is Ryanair at 95.5%, followed by Easyjet, Spicejet, TUI Airways, Wizz Air, Spring Airlines and jet2.com all of which had load factors in excess of 90%. All of the Top 50 achieved load factors in excess of 80% including two US and two European "mega" carrier groups.  $\wedge$ 



Top 50 by RPKs

Rank         Airline         RPKs (m)           1         American Airlines Group         364,269           2         Delta Air Lines         350,374           3         United Continental Holdings         348,038           4         Emirates         292,221           5         Lufthansa Group         261,156           6         International Airlines Group         252,819           7         Air France-KLM         248,475           8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air Canad         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,579           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,178           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693	100 0	O DY RPKS	
2         Delta Air Lines         350,374           3         United Continental Holdings         348,038           4         Emirates         292,221           5         Lufthansa Group         261,156           6         International Airlines Group         252,819           7         Air France-KLM         248,475           8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23 </th <th>Rank</th> <th>Airline</th> <th>RPKs (m)</th>	Rank	Airline	RPKs (m)
3         United Continental Holdings         348,038           4         Emirates         292,221           5         Lufthansa Group         261,156           6         International Airlines Group         252,819           7         Air France-KLM         248,475           8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487	1	American Airlines Group	364,269
4         Emirates         292,221           5         Lufthansa Group         261,156           6         International Airlines Group         252,819           7         Air France-KLM         248,475           8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25	2	Delta Air Lines	350,374
5         Lufthansa Group         252,819           6         International Airlines Group         252,819           7         Air France-KLM         248,475           8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26	3	United Continental Holdings	348,038
6         International Airlines Group         252,819           7         Air France-KLM         248,475           8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27	4	Emirates	292,221
7         Air France-KLM         248,475           8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetbl	5	Lufthansa Group	261,156
8         China Southern         230,697           9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways	6	International Airlines Group	252,819
9         Southwest Airlines         207,672           10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines	7	Air France-KLM	248,475
10         Air China         201,078           11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shut	8	China Southern	230,697
11         China Eastern         183,182           12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Sh	9	Southwest Airlines	207,672
12         Ryanair         162,579           13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo <td>10</td> <td>Air China</td> <td>201,078</td>	10	Air China	201,078
13         Lufthansa Parent         152,750           14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia	11	China Eastern	183,182
14         British Airways         146,561           15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         <	12	Ryanair	162,579
15         Air Canada         137,015           16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines	13	Lufthansa Parent	152,750
16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways	14	British Airways	146,561
16         Turkish Airlines         136,947           17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways	15	•	
17         Aeroflot         130,222           18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,21			
18         SIA Group         129,798           19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia <t< td=""><td></td><td>Aeroflot</td><td></td></t<>		Aeroflot	
19         Cathay Pacific         126,663           20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         <			
20         Hainan Airlines         121,223           21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines<		•	
21         Qantas Airways         121,178           22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines </td <td>20</td> <td></td> <td></td>	20		
22         Latam Airlines Group         115,693           23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet			
23         KLM - Royal Dutch Airlines         103,487           24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet         41,688      44         Avianca Holdings         40,243 <td></td> <td>•</td> <td></td>		•	
24         Easyjet         89,685           25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet         41,688           44         Avianca Holdings         40,243           45         China Airlines         40,171 <td></td> <td></td> <td></td>			
25         ANA Holdings         89,405           26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet         41,688           44         Avianca Holdings         40,243           45         China Airlines         40,171           46         SAS         40,078			
26         Alaska Air Group         84,230           27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet         41,688           44         Avianca Holdings         40,243           45         China Airlines         40,171           46         SAS         40,078           47         Grupo Aeromexico         39,836 <td></td> <td></td> <td></td>			
27         Korean Air         77,843           28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet         41,688           44         Avianca Holdings         40,243           45         China Airlines         40,171           46         SAS         40,078           47         Grupo Aeromexico         39,836           48         Spirit Airlines         39,599			
28         Jetblue         76,025           29         Thai Airways         71,634           30         Japan Airlines         67,656           31         Norwegian Air Shuttle         63,320           32         Latam Brasil         57,668           33         Indigo         55,524           34         Iberia         54,967           35         Airasia         50,805           36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet         41,688           44         Avianca Holdings         40,243           45         China Airlines         40,171           46         SAS         40,078           47         Grupo Aeromexico         39,836           48         Spirit Airlines         39,599           49         Virgin Australia         37,57		•	
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36         Shenzhen Airlines         49,346           37         Jet Airways         48,664           38         Wizz Air         47,210           39         Garuda Indonesia         46,300           40         Eva Airways         45,841           41         Swiss International Air Lines         45,597           42         Asiana Airlines         44,211           43         Westjet         41,688           44         Avianca Holdings         40,243           45         China Airlines         40,171           46         SAS         40,078           47         Grupo Aeromexico         39,836           48         Spirit Airlines         39,599           49         Virgin Australia         37,576	_		
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50 <b>GOL</b> 37,230		<u> </u>	
	50	GOL	37,230

Top 50 by Passenger load factor

·	o by rassenger load r	
Rank	Airline	Load factor
1	Ryanair	95.5%
2	Easyjet	93.6%
3	SpiceJet	93.6%
4	TUI Airways	93.5%
5	Wizz Air	91.6%
6	Spring Airlines	90.6%
7	Jet2.com	90.5%
8	Thomas Cook Airlines Limited	89.9%
9	Grupo VivaAerobus	89.9%
10	Jeju Air	89.3%
11	KLM - Royal Dutch Airlines	88.4%
12	Norwegian Air Shuttle	87.5%
13	Indigo	87.4%
14	Thai AirAsia	87.2%
15	Airasia	87.1%
16	Juneyao Airlines	86.9%
17	Peach Aviation	86.9%
18	Air France-KLM	86.8%
19	Frontier Airlines	86.4%
20	Hainan Airlines	86.1%
21	Hawaiian Airlines	85.9%
22	Delta Air Lines	85.6%
23	Nok Air	85.6%
24	Vanilla Air	85.5%
25	S7 Airlines	85.2%
26	Latam Airlines Group	84.8%
27	Vueling Airlines	84.7%
28	EL AL Israel Airlines	84.7%
29	Pegasus Airlines	84.6%
30	Skymark Airlines	84.6%
31	Avianca Brasil	84.5%
32	Cathay Pacific	84.4%
33	Jetblue	84.4%
34	Volaris	84.4%
35	Alaska Air Group	84.3%
36	Latam Brasil	84.1%
37	Iberia	84.1%
38	Southwest Airlines	83.9%
39	Jet Airways	83.6%
40	Westjet	83.6%
41	Finnair	83.3%
42	Spirit Airlines	83.2%
43	Copa Holdings	83.2%
44	Aegean Airlines	83.2%
45	Avianca Holdings	83.1%
46	Aeroflot	82.8%
47	International Airlines Group	82.6%
48	Air New Zealand	82.6%
49	Shenzhen Airlines	82.5%
50	United Continental Holdings	82.4%

### Analysis: Staff costs

#### 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 LCCs and carriers based in emerging economies. The Top 50 by Lowest Staff Costs to Revenue ranking shows this very clearly. That said, Ryanair's pilot shortage and strike experience of the last 12 months shows that the LCCs are not immune from cost pressures.

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 Vietnam Airlines though this may suggest that disclosure is insufficient to calculate this ratio reliably. The list of passenger carriers with possibly more reliable data are Xiamen Airlines, S7, Wizz Air, Interjet, and Scoot.

They are then followed by creditable performances by other LCCs and leisure carriers (including Airasia X, Nok Air, Vueling, Ryanair, Vietjet, Spicejet, Volaris and Indigo). With cost pressures in China, none of the Chinese Big 3 make the Top 50. Their average staff cost increased to almost \$40,000 in 2017/18, up from \$26,600 two years ago.

The developed mega carrier groupings also do not qualify for a Top 50 ranking. Lufthansa's ratio is 25.4% (down from 25.9%) while IAG and Air France-KLM are 16.5% (down from 17.5%) and 29.6% (down from 30.1%) respectively. After big increases last year, the US majors with the exception of Delta saw their cost ratios continue to rise in 2017/18. Delta's ratio is 27.9%, UAL's 29.3% and American Airlines is 31.4%. These were all around 25% - 26% two years ago. Southwest is an unexpectedly high 34.6%, presumably reflecting their shorter average trip length.

Neither Virgin Atlantic nor Emirates make the list, despite their long average trip lengths offsetting their higher average staff costs, nor does Singapore Airlines with a ratio of 17.3%. However its low cost subsidiaries are on the list. The major Latin American carriers had quite varied results. Copa's ratio increased from 13.2% to 16.4%, Avianca's ratio was 15.9% while Latam remain laggards at 19.9%.



Top 50 by Staff costs

		Ave cost per	Employee costs
Rank	Airline	employee (\$k)	as % of revenue
1	Polar Air Cargo	120.9	1.8%
2	Vietnam Airlines	3.6	2.1%
3	Enter Air	21.6	3.1%
4	Xiamen Airlines	N/A	4.4%
5	SIA Cargo	83.4	5.1%
6	S7 Airlines	35.5	5.7%
7	USA Jet	N/A	6.4%
8	Air Italy	15.1	6.7%
9	Lucky Air	N/A	7.5%
10	Wizz Air	55.4	7.6%
11	Evelop Airlines	63.1	8.0%
12	Cargojet Airways	28.5	8.2%
13	Scoot	N/A	8.3%
14	Interjet	N/A	8.6%
 15	Airasia X	41.8	9.2%
16	Hainan Airlines	45.5	9.4%
17	Air Astana	14.4	9.4%
18	Blue Panorama	54.0	9.8%
19	Tigerair	N/A	9.8%
20	Nok Air	N/A	9.9%
21	Tianjin Airlines	N/A	10.2%
22	Vueling Airlines	65.0	10.3%
23	Ryanair	80.7	10.3%
24	Vietjet Air	36.6	10.7%
25	Spicejet	N/A	11.1%
26	Volaris	32.2	11.4%
27	Indigo	60.0	11.5%
28	Aegean Airlines	23.0	11.5%
29	PAL Holdings	44.4	11.8%
30	Kenya Airways	27.0	12.0%
31	Jet2.com	50.3	12.3%
32	Jin Air	N/A	12.3%
33	Air Busan	56.8	12.4%
34	Transat A.T.	N/A	12.4%
35	TUI Airways	81.5	12.6%
36	Cargolux	143.7	12.7%
37	Air Seoul, Inc.	52.1	12.7%
38	Jet Airways	N/A	13.0%
39	Pegasus Airlines	22.1	13.3%
40	Thomas Cook Airlines Limited	N/A	13.6%
41	Garuda Indonesia	N/A	13.6%
42	Royal Jordanian Airlines	29.5	14.1%
43	Easyjet	79.5	14.2%
44	Emirates	57.1	14.2%
45	Jetstar Asia	N/A	14.3%
46	Asiana Airlines	N/A	14.4%
47	Starflyer	75.6	14.5%
48	Eastarjet	58.3	14.7%
49	Kenya Airways	N/A	14.8%
50	Brussels Airlines	68.2	14.9%
		00.Z	14.5/0

## Analysis: RASK-CASK margin



#### Top 50 by RASK-CASK

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

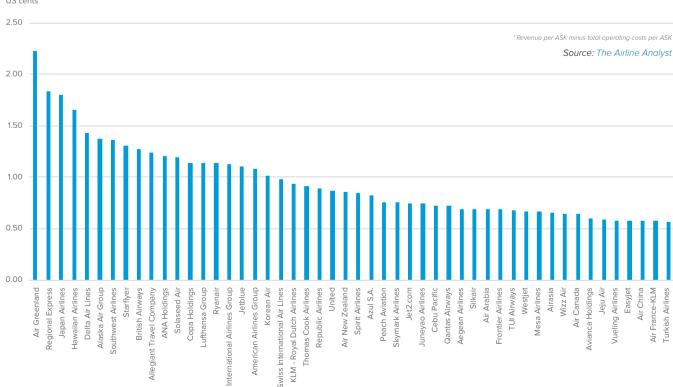
is supporting a premium revenue structure such as with BA or the US majors. However if it is not, the strength of competitive forces will root out the airline's weakness over time.

Nineteen of our Top 50 achieved a RASK-CASK margin in excess of US\$1 cents, seven of them from the US. Excluding the US airlines, Japan Airlines, a major network carrier, topped the list at US\$1.8 cents followed by Hawaiian Airlines at US\$1.66 cents. Copa was the highest ranked Latin American carrier in 13th position, much improved on last year's 33rd. Demonstrating the volatility of this key ratio, RASK-CASK margin for Air New Zealand declined from 1.55 cents to 0.86 cents.

Outside these leaders British Airways and Lufthansa were the highest ranked of the European majors. Air-France-KLM showed progress by making it into the Top 50.

#### Top 50 by RASK-CASK margin<sup>1</sup>





## 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.

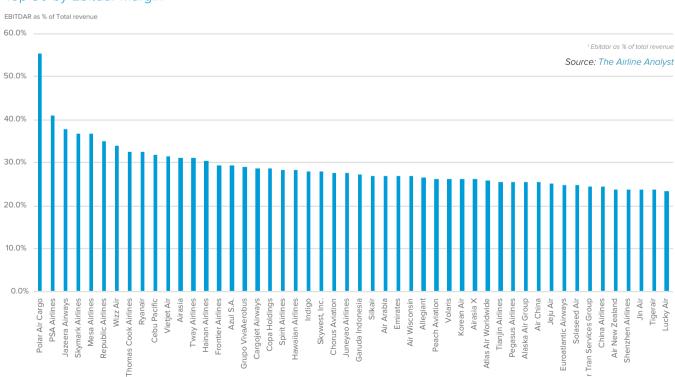
Reflecting the competitiveness of the industry and fuel and staff cost pressures, the Ebitdar margin for the sample of 133 airline groups declined from 21.5% to 20.5%.

The passenger carriers on the list are headed by PSA Airlines, Jazeera Airways,

Skymark and Mesa Airlines. Some other LCCs also had great results such as Allegiant, Spirit, Volaris, Indigo and Frontier. Hainan Airlines, Alaska Air Group, Garuda Indonesia and Air China are the highest ranked network carriers.

None of the "mega" carrier groupings of the US and Europe are in the Top 50 and only Air China of the 3 Chinese "majors" made it.  $\Lambda$ 

#### Top 50 by Ebitdar margin<sup>1</sup>



## Analysis: Financial flexibility

e 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 3.1x for Qatar 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 more than half a decade ago. Other majors on the list include Ryanair, Southwest, easyJet, Delta and British Airways. Air France-KLM and Emirates made the list for the first time since we first published "Airline Top 50" five years ago but Cathay Pacific and SAS are not in the Top 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 5	0 by Lowest Leverage <sup>1</sup>	
Rank	Airline	Times
1	Luxair Group	0.0
2	Compass Airlines	0.0
3	SIA Cargo	0.0
4	Japan Airlines	0.0
5	Air Greenland	0.0
6	Regional Express Holdings	0.1
7	Ryanair	0.4
8	Southwest Airlines	0.4
9	USA Jet	0.4
10	Easyjet	0.7
11	Jet2.com	0.7
12	Swiss International Air Lines	0.8
13	Lufthansa Group	0.9
14	Jetblue Jetblue	1.1
15	Delta Air Lines	1.1
16	British Airways	1.2
17	Icelandair	1.2
		1.5
18	Air Arabia	
19	International Airlines Group	1.5
20	Copa Holdings	1.6
21	Hawaiian Airlines	1.6
22	Alaska Air Group	1.6
23	UPS Airlines	1.8
24	Wizz Air	1.9
25	SIA Group	1.9
26	Qantas Airways	1.9
27	Air Italy	1.9
28	Allegiant Travel Company	2.0
29	Westjet	2.0
30	Transat A.T.	2.0
31	Silkair	2.1
32	Air New Zealand	2.1
33	Jin Air	2.2
34	Air Canada	2.2
35	Air Transport Services Group	2.3
36	Kalitta Air	2.6
37	Thomas Cook Airlines Limited	2.7
38	KLM - Royal Dutch Airlines	2.7
39	Air France-KLM	2.7
40	Comair Limited	2.8
41	United Continental Holdings	2.8
42	Skymark Airlines	2.9
43	Cebu Pacific	2.9
44	Frontier Airlines	2.9
45	Jeju Air	2.9
46	Spirit Airlines	3.0
47	Horizon Air	3.0
48	Iberia	3.0
49	ANA Holdings	3.1
50	Qatar Airways	3.1
Adjusted	l net debt/Ebitdar	

Top 50 by Highest Fixed Charge Cover<sup>1</sup>

iop 5	o0 by Highest Fixed Charg	je Cove
Rank	Airline	Times
_1	Air Arabia	Infinite
2	Luxair	Infinite
3	USA Jet	308.0
4	Air Greenland	34.0
5	Southwest Airlines	21.0
6	Japan Airlines	19.5
7	Regional Express Holdings	19.0
8	Lufthansa Group	17.7
9	Ryanair	16.5
10	Swiss International Air Lines	11.5
11	Delta Air Lines	11.3
12	Allegiant Travel Company	10.9
13	British Airways	9.3
14	Jetblue	8.6
15	Air Transport Services Group	8.6
16	SIA Cargo	8.4
17	UPS Airlines	8.3
18	Alaska Air Group	6.2
19	Qantas Airways	6.2
20	Icelandair	5.7
21	Easyjet	5.6
22	Air New Zealand	5.5
23	Copa Holdings	5.4
24	Westjet	5.0
25	Scoot	5.0
26	International Airlines Group	4.9
27	Hawaiian Airlines	4.9
28	Turkish Airlines	4.6
29	United Continental Holdings	4.4
30	SIA Group	4.2
31	Cargolux	4.2
32	Korean Air	4.1
33	Air Canada	4.0
34	Cebu Pacific	3.7
35	American Airlines Group	3.7
36	KLM - Royal Dutch Airlines	3.6
37	ANA Holdings	3.6
38	Kalitta Air	3.5
39	Horizon Air	3.5
40	Republic Airlines	3.5
41	Xiamen Airlines	3.4
42	Air France-KLM	3.3
43	China Airlines	3.3
44	Spirit Airlines	3.1
45	Air Italy	3.0
46	Thomas Cook Airlines Limited	3.0
47	Air China	3.0
48	Comair Limited	2.9
49	Cargojet Airways	2.9
50	China Southern	2.9
30	Cimia Southerll	2.3

<sup>1</sup>Ebitdar/Net interest + Rent Source: The Airline Analyst

#### Top 50 by Highest fixed charge cover

A meaningful Fixed Charge Cover ratio 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 such as Korean Air and two of the Chinese majors make this list despite their higher leverage (China Eastern has dropped out of the Top 50). 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 dropped out of the list after returning 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, grounding of all or a portion of its fleet, drying up of capital markets or withdrawal of government support.

Top of the list for liquidity are a number of very successful LCCs. At the other end of the scale, many market participants consider that liquidity of 3 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. This year

39 airlines achieved this level, up from 30 last year. Three out of the top 4 are from China, including Hainan Airlines at the figure of 53.2%, which may surprise given all the speculation about its controlling shareholder.

A factor to consider is that some airlines increasingly rely on committed liquidity facilities which are not captured in our data, as with Qantas, British Airways and the other majors. Others may keep a buffer of unencumbered aircraft to be converted into cash if required. It is notable that none of the US majors made it into the Top 50 by Liquidity. Emirates made it on to this list after missing out last year.  $\wedge$ 



Top 50 by Highest liquidity

100 5	bo by riighest liquidity	
Rank	Airline	%
1	Tianjin Airlines	93.7%
2	Lucky Air	92.0%
3	Air Arabia	67.8%
4	Hainan Airlines	53.2%
5	Ryanair	51.0%
6	Wizz Air	50.3%
7	Qatar Airways	50.1%
8	TUI Airways	48.3%
9	Euroatlantic Airways	47.7%
10	Scoot	45.4%
11	Fastjet	43.5%
12	Jazeera Airways	41.2%
13	Spring Airlines	38.9%
14	Luxair Group	38.7%
15	Jin Air	38.2%
16	Copa Holdings	37.3%
17	Pegasus Airlines	37.2%
18	Finnair	37.2%
19	Frontier Airlines	37.1%
20	Spirit Airlines	34.1%
21	Silkair	33.8%
22	Jet2.com	32.8%
23	Japan Airlines	32.5%
24	Vueling Airlines	32.4%
25	Indigo	31.2%
26	Westjet	30.5%
27	Vietjet Air	30.4%
28	S7 Airlines	30.3%
29	Jeju Air	29.3%
30	International Airlines Group	29.1%
31	Atlantic Airways	28.3%
32	Volaris	28.0%
33	Flydubai	27.6%
34	Allegiant Travel Company	27.4%
35	Grupo VivaAerobus	27.3%
36	Air New Zealand	26.8%
37	Easyjet	26.3%
38	Aegean Airlines	25.7%
39	Eva Airways	25.5%
40	Air Canada	23.4%
41	Azul S.A.	23.4%
42	Cebu Pacific	23.0%
43	British Airways	22.9%
44	Emirates	22.5%
		21.4%
45	Skywest, Inc.	20.6%
46	Republic Airlines	
47	Alaska Air Group	20.4%
48	SAS	20.4%
49	Jetstar Asia	20.4%
50	Virgin Atlantic	20.2%

### Analysis: Equity market capitalisation and return on invested capital

#### Top 50 by Equity market capitalisation

The Top 50 airline stocks had a total value of \$438 billion as of 3rd August 2018, up from \$338 billion last year. Delta continues to be the top ranked airline with a market capitalisation of \$38 billion, followed by three of its US rivals.

China contributes three of the top 15 (Hainan Airlines has dropped from number 14 to number 21) while the "mega" European carriers of IAG, Lufthansa, and Air France-KLM make it into positions 5, 9 and 25, respectively. Latam remains the highest ranked Latin American carrier in 17th position, up from 20th last year and 7th two years ago, followed by Copa in 26th.

Southwest leads the LCC stakes, ahead of Ryanair (6), Easyjet (15), Spirit (31), Allegiant (37), Westjet (42), Wizz Air (29). The two major Japanese carriers come in at numbers 8 and 10. Azul, which completed its IPO in 2017 comes in at \$4.1 billion and 24th position.



#### 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 two small carriers with limited capital bases. Among the larger carriers, the best performance came from British Airways at 20%, Swiss at 19%, KLM at 18% and Hawaiian and Lufthansa at 17%. A total of 32 generated returns in excess of 10%, down from 39 last year. As before, many of the long established network carriers like Latam and Cathay Pacific earned returns that are unlikely to have exceeded their cost of capital. A



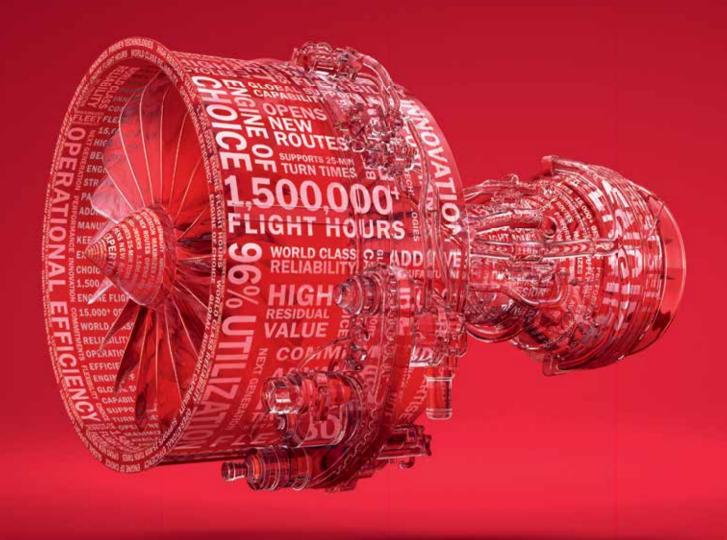
Top 5	0 by Market capitalisatio	n¹
Rank	Airline	\$m
1	Delta Air Lines	37,512
2	Southwest Airlines	33,287
3	United Continental Holdings	22,207
4	American Airlines Group	17,692
5	International Airlines Group	17,655
6	Ryanair	17,166
7	Air China	14,323
8	Japan Airlines	12,644
9	Lufthansa Group	12,592
10	ANA Holdings	11,862
11	China Eastern Airlines	10,300
12	Qantas Airways	8,677
13	China Southern Airlines	8,629
14	SIA Group	8,317
15	Easyjet	7,868
16	Alaska Air Group	7,728
17	Latam Airlines Group	6,792
18	Cathay Pacific	5,954
19	Jetblue	5,712
20		
21	Indigo	5,564 5,404
	Hainan Airlines	
22	Air Canada	4,937
23	Spring Airlines	4,368
24	Azul S.A.	4,143
25	Air France-KLM	4,119
26	Copa Holdings	4,028
27	Turkish Airlines	3,952
28	Juneyao Airlines	3,440
29	Wizz Air	3,118
30	Skywest, Inc.	3,086
31	Spirit Airlines	2,906
32	Airasia	2,859
33	Air New Zealand	2,444
34	Korean Air	2,443
35	Hawaiian Airlines	2,088
36	Eva Airways	2,052
37	Allegiant Travel Company	2,010
38	Aeroflot	1,955
39	PAL Holdings	1,945
40	China Airlines	1,740
41	Atlas Air Worldwide	1,613
42	Westjet	1,515
43	Virgin Australia	1,424
44	Air Arabia	1,334
45	Norwegian Air Shuttle	1,290
46	Air Transport Services Group	1,254
47	Finnair	1,140
48	Grupo Aeromexico	1,069
49	Jeju Air	988
50	Thai Airways	940
Closing p	orices 28 July, 2018	

<sup>1</sup>Closing prices 28 July, 2018

Top 50 by Return on invested capital<sup>1</sup>

Rank	Airline	Load Factor
1	Jet2.com	30.4%
2	USA Jet	26.2%
3	British Airways	20.0%
4	Air Italy	19.6%
5	Swiss International Air Lines	18.8%
6	Air Greenland	18.1%
7		17.9%
	KLM - Royal Dutch Airlines	
9	Thomas Cook Airlines Limited	17.6%
	Hawaiian Airlines	
10	Lufthansa Group	17.0%
11	Frontier Airlines	15.6%
12	Regional Express Holdings	15.5%
13	Evelop Airlines	15.2%
14	International Airlines Group	14.6%
15	Vueling Airlines	14.4%
16	Japan Airlines	13.8%
17	TAP Group	12.8%
18	Delta Air Lines	12.3%
19	Alaska Air Group	12.0%
20	Air Canada	11.6%
21	Jetblue	11.6%
22	TUI Airways	11.6%
23	Comair Limited	10.8%
24	Skymark Airlines	10.7%
25	Air France-KLM	10.5%
26	United Continental Holdings	10.5%
27	Jin Air	10.4%
28	Aegean Airlines	10.2%
29	Euroatlantic Airways	10.1%
30	Sun Country Airlines	10.0%
31	Solaseed Air	10.0%
32	Cargolux	10.0%
33	S7 Airlines	9.9%
34	Air Mauritius	9.9%
35	Westjet	9.9%
36	Air Astana	9.8%
37	Qantas Airways	9.7%
38	Air New Zealand	9.7%
39	Tway Airlines	9.7%
40	Peach Aviation	9.7%
41	Wizz Air	9.7%
42	StarFlyer	9.7%
43	American Airlines Group	9.5%
44	Cebu Pacific	9.4%
45	Omni Air International	9.2%
	Air Busan	9.0%
46		
46 47	Spirit Airlines	8 9%
47	Spirit Airlines  Fasviet	
	Spirit Airlines Easyjet Jeju Air	8.9% 8.8% 8.8%

1(EBIT plus 1/3 Rental)/(Book or Market equity plus Adjusted net debt) Source: The Airline Analyst



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