



AIRFINANCE
JOURNAL

An *Airfinance Journal*

special supplement

Leasing Top 50 2020





Leasing top 50 2020



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Top 50 managers by number of aircraft

Rank	Manager	Total	% change since last year	Turboprop	Regional jet	Narrowbody	Widebody
1	GECAS	1,203	↑ 0.2%	21	234	796	152
2	Aercap	1,046	↑ 0.4%	-	10	778	258
3	Avolon	542	↑ 2.3%	-	-	430	112
4	BBAM	524	↑ 2.7%	-	2	391	131
5	Nordic Aviation Capital	486	↓ -4.5%	286	193	7	-
6	SMBC Aviation Capital	437	↑ 3.8%	-	2	382	53
7	Air Lease Corporation	383	↑ 6.1%	-	2	279	102
8	ICBC Leasing	350	↑ 6.4%	-	11	302	37
8=	DAE Capital	350	→ 0.0%	55	-	233	62
10	BOC Aviation	334	↓ -0.9%	-	-	272	62
11	Aviation Capital Group	306	↓ -3.2%	-	-	290	16
12	Aircastle	278	↓ -1.8%	-	5	245	28
13	Castlelake	255	↑ 14.3%	16	14	178	47
14	Carlyle Aviation Partners	248	↑ 3.3%	-	-	213	35
15	BOCOMM Leasing	233	↑ 7.4%	-	10	200	23
16	CDB Aviation	221	↑ 2.8%	-	20	158	43
17	ORIX Aviation	207	↓ -4.6%	-	-	176	31
18	Macquarie AirFinance	191	↓ -1.5%	-	3	176	12
19	Goshawk	183	↑ 7.0%	-	1	165	17
20	Jackson Square Aviation	169	↑ 7.0%	-	-	147	22
21	Avmax	140	↓ -6.7%	62	67	9	2
22	China Aircraft Leasing Company	134	↓ -2.2%	-	-	125	9
23	Standard Chartered Bank	132	↓ -0.8%	-	-	126	6
24	DVB AAM	132	↑ 9.1%	-	-	112	20
25	AMCK Aviation	131	↓ -8.4%	-	-	125	6
26	Falko	123	↑ 7.0%	15	108	-	-
27	CMB Financial Leasing	112	↑ 19.1%	-	5	91	16
28	Cargo Aircraft Management	104	↑ 1.0%	-	-	11	93
29	Fortress Transportation	97	↑ 38.6%	-	-	80	17
30	Altavair Airfinance	93	↑ 55.0%	-	-	39	54
31	Chorus Aviation	91	↑ 13.8%	74	15	2	-
32	Aircraft Leasing & Management	87	↑ 1.2%	-	13	59	15
33	Aviator Capital Management	86	↑ 352.6%	-	5	65	16
34	CCB Leasing	85	↑ 13.3%	-	-	73	12
35	VTB Leasing	79	↑ 6.8%	-	7	60	12
36	ALAFCO	77	↑ 10.0%	-	-	66	11
37	Merx Aviation	75	↑ 33.9%	-	-	72	3
37=	State Transport Leasing Company	75	↑ 8.7%	-	35	33	7
39	JP Lease Products & Services	71	↓ -1.4%	-	-	51	20
40	FPG Amentum	69	→ 0.0%	-	-	55	14
40=	Skyworks Leasing	69	↑ 19.0%	4	-	40	25
42	Elix Aviation Capital	66	↓ -9.6%	66	-	-	-
43	Genesis Aircraft Services	65	↑ 30.0%	-	-	63	2
44	Aviation Finance & Leasing	64	↓ -1.5%	-	-	64	-
45	VEB Leasing	63	↓ -11.3%	1	35	9	18
45=	Jetran International	63	↑ 3.3%	7	1	49	6
47	GTLK Europe	60	↑ 3.4%	-	1	49	10
48	Arena Aviation Capital	59	↑ 18.0%	-	-	42	17
49	Tokyo Century Leasing	56	↓ -8.2%	-	3	40	13
49=	Sberbank Leasing	56	→ 0.0%	-	20	30	6
Total		10,560	↑ 3.5%	607	822	7,458	1,673

Source: Lessors and Airfinance Journal's Fleet Tracker as of 30 June, 2020

Top 50 managers by \$MV of fleet (\$m)

Rank	Manager	Total	% change since last year	Turboprop	Regional jet	Narrowbody	Widebody
1	Aercap	\$28,587	↓ -27.8%	-	\$292	\$15,732	\$12,563
2	GECAS	\$20,215	↓ -22.3%	\$179	\$970	\$13,821	\$5,245
3	BBAM	\$19,447	↓ -16.6%	-	\$20	\$9,924	\$9,503
4	Avolon	\$17,343	↓ -15.8%	-	-	\$10,686	\$6,658
5	Air Lease Corporation	\$16,214	↓ -14.2%	-	\$24	\$8,217	\$7,973
6	SMBC Aviation Capital	\$16,201	↓ -11.4%	-	\$22	\$11,531	\$4,648
7	BOC Aviation	\$13,183	↓ -19.0%	-	-	\$8,366	\$4,816
8	ICBC Leasing	\$12,247	↓ -23.8%	-	\$181	\$9,481	\$2,585
9	DAE Capital	\$9,082	↓ -21.9%	\$586	-	\$4,991	\$3,504
10	Aviation Capital Group	\$8,570	↓ -23.8%	-	-	\$7,366	\$1,204
11	BOCOMM Leasing	\$7,725	↓ -17.1%	-	\$164	\$6,178	\$1,383
12	CDB Aviation	\$6,823	↓ -16.9%	-	\$269	\$5,017	\$1,537
13	Goshawk	\$6,411	↓ -19.5%	-	\$14	\$4,859	\$1,538
14	Jackson Square Aviation	\$6,349	↓ -13.7%	-	-	\$4,715	\$1,633
15	ORIX Aviation	\$5,833	↓ -20.3%	-	-	\$4,187	\$1,647
16	Aircastle	\$5,225	↓ -24.0%	-	\$68	\$4,311	\$846
17	Nordic Aviation Capital	\$4,821	↓ -25.0%	\$2,206	\$2,448	\$167	-
18	China Aircraft Leasing Company	\$4,154	↓ -21.9%	-	-	\$3,596	\$559
19	Standard Chartered Bank	\$4,084	↓ -17.1%	-	-	\$3,981	\$103
20	CMB Financial Leasing	\$4,031	↓ -17.0%	-	\$100	\$3,003	\$929
21	Castlelake	\$3,958	↓ -4.7%	\$35	\$83	\$2,835	\$1,005
22	AMCK Aviation	\$3,651	↓ -26.8%	-	-	\$3,535	\$116
23	Macquarie AirFinance	\$3,462	↓ -19.5%	-	\$29	\$3,218	\$214
24	CCB Leasing	\$3,369	↓ -11.7%	-	-	\$2,387	\$982
25	Aircraft Leasing & Management	\$3,240	↓ -14.0%	-	\$245	\$1,680	\$1,314
26	ALAFCO	\$3,195	↓ -4.8%	-	-	\$2,012	\$1,183
27	Carlyle Aviation Partners	\$3,157	↓ -3.8%	-	-	\$2,728	\$429
28	Altavair Airfinance	\$2,809	↓ -11.9%	-	-	\$755	\$2,054
29	Amedeo Limited	\$2,605	↓ -15.6%	-	-	-	\$2,605
30	FPG Amentum	\$2,505	↓ -18.8%	-	-	\$1,551	\$954
31	Tokyo Century Leasing	\$2,437	↓ -15.4%	-	\$38	\$1,123	\$1,276
32	Aviation Finance & Leasing	\$2,243	↓ -18.3%	-	-	\$2,243	-
33	EMP Structured Assets	\$2,195	↓ -16.7%	-	-	-	\$2,195
34	DVB AAM	\$2,192	↓ -16.2%	-	-	\$1,733	\$459
35	JP Lease Products & Services	\$1,880	↓ -26.4%	-	-	\$919	\$960
36	GTLK Europe	\$1,776	↓ -30.2%	-	\$20	\$979	\$777
37	Merx Aviation	\$1,721	↓ -29.7%	-	-	\$1,550	\$171
38	Investec	\$1,699	↓ -30.5%	\$53	\$79	\$134	\$1,433
39	IAFC	\$1,633	↓ -32.2%	-	-	\$1,013	\$620
40	Skyworks Leasing	\$1,531	↓ -36.3%	\$6	-	\$734	\$791
41	Minsheng Financial Leasing	\$1,489	↓ -36.6%	-	-	\$1,121	\$368
42	VTB Leasing	\$1,487	↓ -34.0%	-	\$8	\$1,413	\$66
43	Wings Capital Partners	\$1,469	↓ -28.7%	-	-	\$1,309	\$160
44	VEB Leasing	\$1,454	↓ -25.2%	\$5	\$512	\$216	\$721
45	Novus Aviation Capital	\$1,371	↓ -24.5%	-	-	\$424	\$948
45=	Sberbank Leasing	\$1,371	↓ -18.4%	-	\$221	\$917	\$233
47	Seraph Aviation Management	\$1,296	↓ -20.2%	\$10	\$82	\$572	\$632
48	GOAL	\$1,287	↓ -19.3%	\$84	\$36	\$1,141	\$26
49	SPDB Financial Leasing	\$1,254	↓ -14.2%	-	\$54	\$995	\$205
50	Falko	\$1,224	↓ -9.1%	\$74	\$1,151	-	-
Total		\$281,273	↓ -19.9%	\$3,238	\$6,901	\$179,365	\$91,768

Source: Lessors and Airfinance Journal's Fleet Tracker as of 30 June, 2020
 Source: Avitas Blue Book Market Values as of 01 October 2020

Top 50 beneficial owners by number of aircraft

Rank	Beneficial Owner	Total	Turboprop	Regional jet	Narrowbody	Widebody
1	GECAS	1,157	17	207	785	148
2	Aercap	1,005	-	10	740	255
3	Avolon	491	-	-	387	104
4	Nordic Aviation Capital	485	286	192	7	-
5	ICBC Leasing	362	-	11	314	37
6	Air Lease Corporation	319	-	1	225	93
7	BOC Aviation	310	-	-	252	58
8	Aviation Capital Group	299	-	-	284	15
9	DAE Capital	279	53	-	170	56
10	SMBC Aviation Capital	278	-	-	262	16
11	Aircastle	274	-	5	241	28
12	Castlelake	262	10	18	183	51
13	Carlyle Aviation Partners	248	-	-	213	35
14	CDB Aviation	224	-	20	163	41
15	BOCOMM Leasing	210	-	7	181	22
16	NBB Leasing	208	-	-	126	82
17	Macquarie Airfinance	191	-	3	176	12
18	Jackson Square Aviation	170	-	-	150	20
19	Goshawk	163	-	-	149	14
20	Avmax	135	58	66	9	2
21	JP Lease Products & Services	116	-	-	83	33
22	Standard Chartered Bank	114	-	-	108	6
23	China Aircraft Leasing Company	107	-	-	100	7
24	Cargo Aircraft Management	104	-	-	11	93
25	Fortress Transportation	98	-	-	80	18
26	Falko	96	15	81	-	-
27	Chorus Aviation	91	74	15	2	-
28	Aviator Capital Management	86	-	5	65	16
29	CCB Leasing	85	-	-	73	12
30	Accipiter Holdings	82	-	-	79	3
31	Fly Leasing	81	-	-	72	9
32	VTB Leasing	79	-	7	60	12
33	Deucalion Aviation Funds	78	-	-	62	16
34	ALAFCO	77	-	-	66	11
35	State Transport Leasing Company	75	-	35	33	7
36	Genesis Aircraft Services	73	-	-	71	2
37	Regional One	72	8	64	-	-
38	Merx Aviation	69	-	-	66	3
39	CMB Financial Leasing	68	-	1	60	7
40	Elix Aviation Capital	66	66	-	-	-
41	Altavair Airfinance	65	-	-	33	32
42	Aviation Finance & Leasing	64	-	-	64	-
43	Jetran International	63	7	1	49	6
44	VEB Leasing	61	1	35	7	18
45	Sberbank Leasing	56	-	20	30	6
46	IAFC	55	-	-	30	25
47	Incline Aviation	54	-	-	48	6
48	GTLK Europe	53	-	1	45	7
49	ORIX Aviation	51	-	-	42	9
50	Fuyo General Lease	50	-	5	40	5
	Total	9,359	595	810	6,496	1,458

Source: Lessors and Airfinance Journal's Fleet Tracker as of 30 June, 2020
 * ORIX Aviation and Merx Aviation got credit for 50% each of the Kornerstone aircraft

Top 50 beneficial owners by \$MV of fleet (\$m)

Rank	Beneficial Owner	Total	Turboprop	Regional jet	Narrowbody	Widebody
1	Aercap	\$28,713	-	\$292	\$15,115	\$13,306
2	GECAS	\$19,968	\$167	\$916	\$13,736	\$5,149
3	Avolon	\$16,794	-	-	\$10,015	\$6,779
4	Air Lease Corporation	\$14,751	-	\$14	\$7,180	\$7,557
5	BOC Aviation	\$13,052	-	-	\$7,993	\$5,059
6	ICBC Leasing	\$12,599	-	\$181	\$9,833	\$2,585
7	NBB Leasing	\$10,099	-	-	\$3,709	\$6,390
8	SMBC Aviation Capital	\$9,523	-	-	\$7,904	\$1,618
9	Aviation Capital Group	\$8,367	-	-	\$7,233	\$1,134
10	DAE Capital	\$8,023	\$568	-	\$4,033	\$3,421
11	BOCOMM Leasing	\$7,287	-	\$129	\$5,807	\$1,351
12	CDB Aviation	\$6,880	-	\$269	\$5,164	\$1,448
13	Jackson Square Aviation	\$6,383	-	-	\$4,842	\$1,541
14	Goshawk	\$5,734	-	-	\$4,478	\$1,256
15	Aircastle	\$5,051	-	\$68	\$4,137	\$846
16	Nordic Aviation Capital	\$4,815	\$2,206	\$2,442	\$167	-
17	Castlelake	\$4,339	\$25	\$153	\$2,991	\$1,170
18	Standard Chartered Bank	\$3,482	-	-	\$3,379	\$103
19	Macquarie Airfinance	\$3,462	-	\$29	\$3,218	\$214
20	CCB Leasing	\$3,369	-	-	\$2,387	\$982
21	China Aircraft Leasing Company	\$3,254	-	-	\$2,877	\$377
22	ALAFCO	\$3,195	-	-	\$2,012	\$1,183
23	Carlyle Aviation Partners	\$3,157	-	-	\$2,728	\$429
24	JP Lease Products & Services	\$2,923	-	-	\$1,496	\$1,427
25	CMB Financial Leasing	\$2,542	-	\$18	\$2,065	\$459
26	Accipiter Holdings	\$2,254	-	-	\$2,196	\$58
27	Aviation Finance & Leasing	\$2,243	-	-	\$2,243	-
28	Fly Leasing	\$1,981	-	-	\$1,442	\$539
29	Fuyo General Lease	\$1,721	-	\$85	\$1,217	\$419
30	Incline Aviation	\$1,692	-	-	\$1,314	\$378
31	IAFC	\$1,633	-	-	\$1,013	\$620
32	ORIX Aviation	\$1,582	-	-	\$994	\$588
33	Altavair Airfinance	\$1,569	-	-	\$513	\$1,056
34	Investec	\$1,558	\$53	\$79	\$134	\$1,292
35	VTB Leasing	\$1,487	-	\$8	\$1,413	\$66
36	GTLK Europe	\$1,482	-	\$20	\$946	\$516
37	Merx Aviation	\$1,462	-	-	\$1,291	\$171
38	VEB Leasing	\$1,394	\$5	\$512	\$156	\$721
39	Sberbank Leasing	\$1,371	-	\$221	\$917	\$233
40	AVIC Leasing	\$1,364	-	\$29	\$954	\$381
41	Minsheng Financial Leasing	\$1,327	-	-	\$1,121	\$207
42	Deucalion Aviation Funds	\$1,318	-	-	\$898	\$420
43	GOAL	\$1,287	\$84	\$36	\$1,141	\$26
44	Doric	\$1,273	\$30	-	\$99	\$1,144
45	Wings Capital Partners	\$1,268	-	-	\$1,108	\$160
45=	AMCK Aviation Holdings	\$1,268	-	-	\$1,210	\$58
47	Tokyo Century Leasing	\$1,206	-	-	\$930	\$276
48	Amedeo Air Four Plus	\$1,150	-	-	-	\$1,150
49	Chorus Aviation	\$1,123	\$790	\$272	\$61	-
50	FPG Amentum	\$1,067	-	-	\$996	\$71
Total		\$244,841	\$3,929	\$5,772	\$158,808	\$76,332

Source: Lessors and Airfinance Journal's Fleet Tracker as of 30 June, 2020

Source: Avitas Blue Book Market Values as of 01 October 2020

* ORIX Aviation and Merx Aviation got credit for 50% each of the Kornerstone aircraft

Top 50 lessors' orderbooks

Rank	Lessor	Total	Turboprop	Regional jet	Narrowbody	Widebody
1	Air Lease Corporation	401	-	-	328	73
2	Aercap	312	-	38	251	23
3	China Aircraft Leasing Company	279	-	30	249	-
4	SMBC Aviation Capital	263	-	-	263	-
5	Avolon	261	-	-	229	32
6	GECAS	260	-	-	244	16
7	Aviation Capital Group	140	-	-	138	2
7=	BOC Aviation	140	-	-	134	6
9	CDB Aviation	130	-	-	130	-
10	ICBC Leasing	125	-	50	75	-
11	Ilyushin Finance Corporation	93	-	27	65	1
12	Avia Capital Services	85	-	-	85	-
13	ALAFCO	73	-	-	73	-
14	Nordic Aviation Capital	70	48	2	20	-
15	Macquarie AirFinance	58	-	-	58	-
16	China Huarong Financial Leasing	50	-	20	30	-
17	ABC Financial Leasing	45	-	-	45	-
18	Goshawk	40	-	-	40	-
19	Timaero Ireland	38	-	-	38	-
20	BOCOMM Leasing	30	-	-	30	-
20=	Jackson Square Aviation	30	-	-	30	-
20=	Everbright Financial Leasing	30	-	-	30	-
23	VEB Leasing	27	-	2	25	-
24	Aircastle	26	-	26	-	-
25	Accipiter (AMCK Aviation)	20	-	-	20	-
25=	Lease Corporation International	20	-	-	20	-
27	Comsys Aviation Leasing	17	-	17	-	-
28	State Transport Leasing Company	15	-	15	-	-
29	Sberbank Leasing	14	-	-	14	-
30	Aerolease Aviation	10	-	10	-	-
31	Hong Kong Int. Av. Leasing	6	-	-	-	6
31=	Chorus Aviation	6	-	6	-	-
31=	Avation	6	6	-	-	-
34	SPDB Financial Leasing	5	-	-	5	-
34=	CIB Leasing	5	-	5	-	-
36	Middle East Leasing	4	-	-	4	-
36=	Novus Aviation Capital	4	-	-	-	4
36=	Minsheng Financial Leasing	4	-	4	-	-
39	ACIA-Aero	3	3	-	-	-
39=	GTLK Europe	3	-	-	3	-
39=	CIAF Leasing	3	-	3	-	-
42	Aerostar Leasing	2	2	-	-	-
43	CMB Financial Leasing	1	-	-	1	-
43=	DAE Capital	1	-	-	-	1
	Total	3,155	59	255	2,677	164

Source: Lessors and *Airfinance Journal's* Fleet Tracker as of 30 June, 2020
 Source: as per OEMs' input and press releases

Top 50 lessors' orderbooks (\$m)¹

Rank	Lessor	Total	Turboprop	Regional jet	Narrowbody	Widebody
1	Air Lease Corporation	\$34,263	-	-	\$21,696	\$12,568
2	Aercap	\$21,333	-	\$1,114	\$16,519	\$3,700
3	Avolon	\$19,433	-	-	\$14,212	\$5,221
4	GECAS	\$18,954	-	-	\$16,253	\$2,701
5	SMBC Aviation Capital	\$16,790	-	-	\$16,790	-
6	China Aircraft Leasing Company	\$16,155	-	\$660	\$15,495	-
7	Aviation Capital Group	\$9,651	-	-	\$9,312	\$339
8	BOC Aviation	\$9,067	-	-	\$7,965	\$1,102
9	CDB Aviation	\$8,052	-	-	\$8,052	-
10	ALAFCO	\$4,591	-	-	\$4,591	-
11	ICBC Leasing	\$4,083	-	\$1,173	\$2,909	-
12	Avia Capital Services	\$3,909	-	-	\$3,909	-
13	Ilyushin Finance Corporation	\$3,521	-	\$637	\$2,856	\$28
14	Macquarie Airfinance	\$3,093	-	-	\$3,093	-
15	Goshawk	\$2,518	-	-	\$2,518	-
16	Timaero Ireland	\$2,384	-	-	\$2,384	-
17	Jackson Square Aviation	\$2,006	-	-	\$2,006	-
18	Nordic Aviation Capital	\$1,421	\$482	\$43	\$897	-
19	VEB Leasing	\$1,348	-	\$56	\$1,293	-
20	China Huarong Financial Leasing	\$1,265	-	\$440	\$825	-
21	ABC Financial Leasing	\$1,238	-	-	\$1,238	-
22	Accipiter (AMCK Aviation)	\$1,180	-	-	\$1,180	-
23	Hong Kong Int. Av. Leasing	\$1,163	-	-	-	\$1,163
24	Lease Corporation International	\$989	-	-	\$989	-
25	Sberbank Leasing	\$936	-	-	\$936	-
26	Novus Aviation Capital	\$826	-	-	-	\$826
27	BOCOMM Leasing	\$825	-	-	\$825	-
27=	Everbright Financial Leasing	\$825	-	-	\$825	-
29	Aircastle	\$744	-	\$744	-	-
30	State Transport Leasing Company	\$417	-	\$417	-	-
31	Comsys Aviation Leasing	\$374	-	\$374	-	-
32	Middle East Leasing	\$285	-	-	\$285	-
33	Aerolease Aviation	\$260	-	\$260	-	-
34	DAE Capital	\$194	-	-	-	\$194
35	Groupe Dubreuil	\$169	-	-	-	\$169
36	Chorus Aviation	\$153	-	\$153	-	-
37	GTLK Europe	\$151	-	-	\$151	-
38	SPDB Financial Leasing	\$138	-	-	\$138	-
39	CIB Leasing	\$128	-	\$128	-	-
40	Avation	\$63	\$63	-	-	-
41	CMB Financial Leasing	\$59	-	-	\$59	-
42	ACIA-Aero	\$53	\$53	-	-	-
42=	CIAF Leasing	\$53	-	\$53	-	-
44	Minsheng Financial Leasing	\$33	-	\$33	-	-
	Total	\$195,095	\$598	\$6,285	\$160,201	\$28,011

Source: Lessors and Airfinance Journal's Fleet Tracker as of 30 June, 2020

Source: as per OEMs' input and press releases

¹ calculated as 55% of 2020 list price

Lessor firm orders

Figure 1: Firm orders by body type

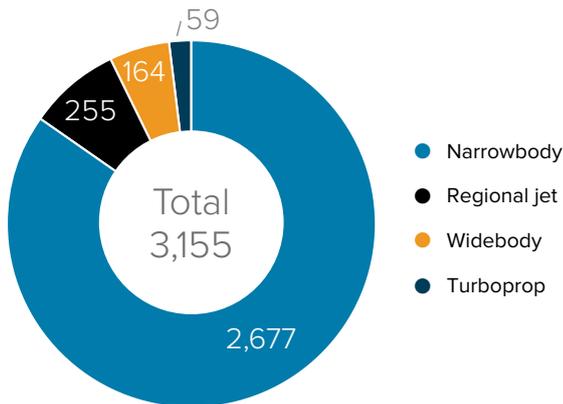


Figure 2: Firm orders by value by body type (\$m)

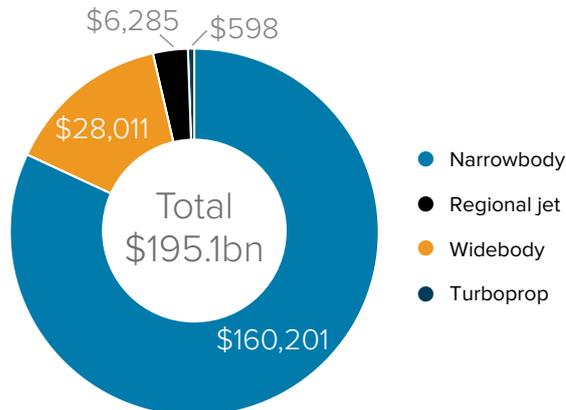


Figure 3: Firm orders by manufacturer

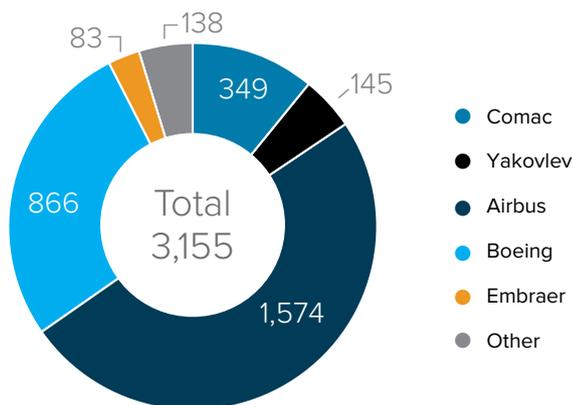


Figure 4: Firm orders by value by manufacturer (\$m)

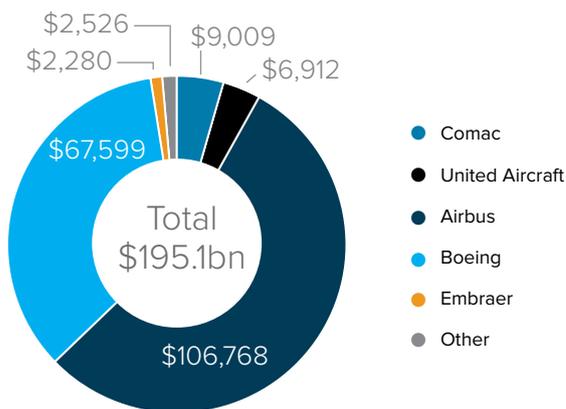


Figure 5: Firm orders by country of lessor

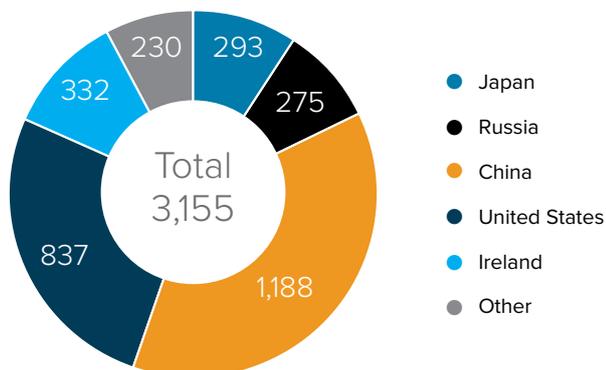
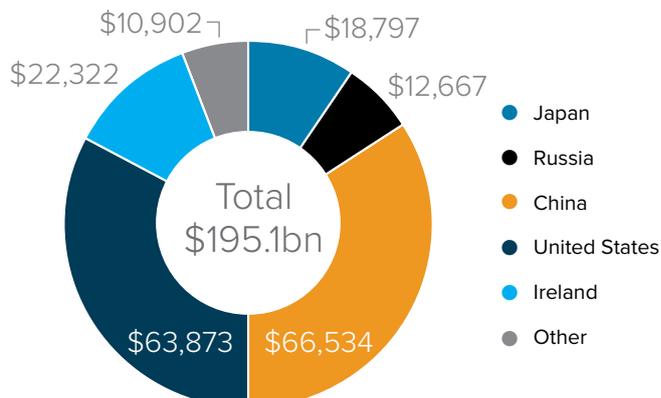


Figure 6: Firm orders by value by country of lessor (\$m)



Source: OEMs and internet research as of 30 June, 2020
 * Calculated as 55% of 2020 list price and estimated list prices



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Trend analysis – Global aircraft leasing companies’ financial performance

In addition to the “Lessor Comparisons” analysis in the next section, we present here an analysis of the global financial trends for the industry as a whole over the last five years. The survey group includes seven of the top 10 largest lessors (the exceptions being GECAS, ICBC Financial Leasing and BBAM - though it includes Fly Leasing).

DAE Capital is included for the third time. AWAS and CIT Aerospace are included for the periods before their change of ownership and when their financials were available. In total, the survey includes 24 lessors and enables us to review the industry’s growth rate, the trends in yields and financing costs, capital structure and profitability.

The scope of the study is the most recent full year financial statements for the lessors. In most cases this precedes the onset of Covid-19. A Supplement to the study covering 2020 financial performance is available to *Airfinance Journal* subscribers. If you would like to receive it, please contact your account manager.

Growth

Figure 1 shows the net income for the lessors whose financials have been continuously available over the last five years. We have shown GECAS separately as only a few figures are available from General Electric’s annual reports.

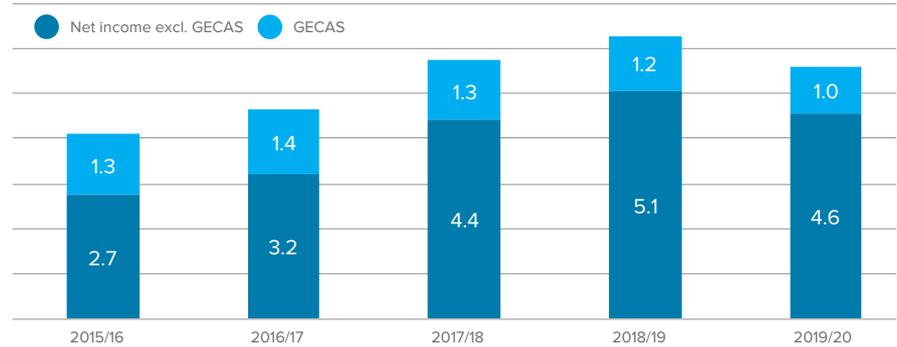
GECAS revenues were flat at \$4.9 billion and net income declined to \$1 billion from \$1.2 billion. Revenues for the group excluding GECAS were \$22 billion (a 6.8% increase) but net income declined to \$4.6 billion from \$5.1 billion.

Total property, plant and equipment (PP&E) assets for the population were \$171 billion (up 6% excluding GECAS) in the most recent financial year, despite the relatively high rate of asset sales among some of the larger lessors who are included in the survey. These sales have been to other leasing companies, into structured ABS deals and sidecars. PP&E value for GECAS is not available this year but total assets declined 9.7%, reflecting asset disposals and the sale of PK AirFinance assets in December 2019.

Yield and debt cost

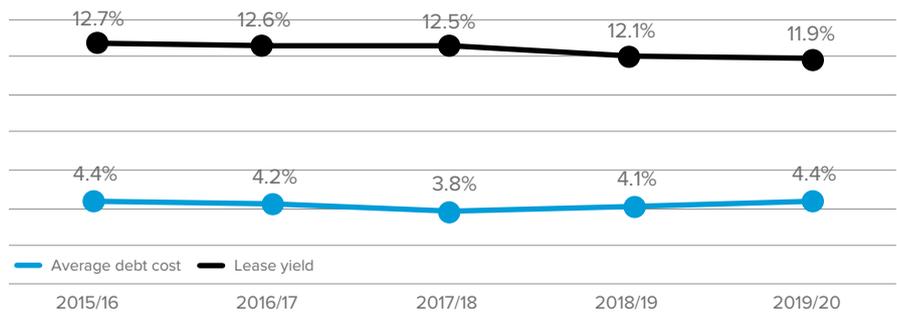
Figure 2 shows the yield and average debt cost trend over the last five years. In 2019/20, lease yield continued its

Figure 1 - Net income (\$ billion)¹



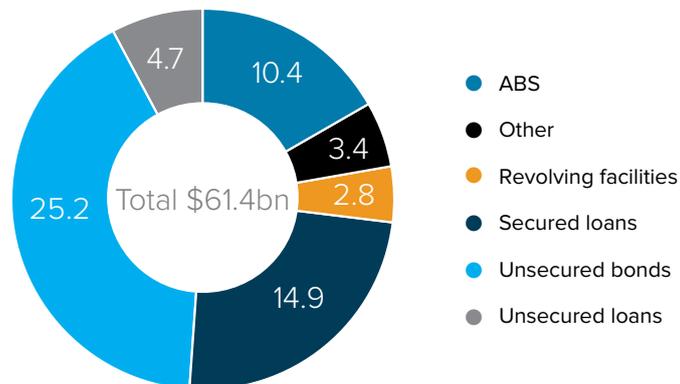
Source: Company reports and *The Airline Analyst*
¹ after adjusting for large 2017 tax credits for ALC, ACG and BOC Aviation

Figure 2: Lease yield & debt costs



Source: Company reports and *The Airline Analyst*

Figure 3: Lessor funding sources 2019 - \$bn



Source: *Airfinance Journal's Deal Tracker*

downward trend since 2015/16. Clearly one of the objectives of the lessors is to maximise the yield-interest cost spread. As shown in Figure 2, the downward movement in average interest cost in 2017/18 was good for profitability in that

year but was followed by a 30 basis points (bps) increase in 2018/19. The most recent year witnessed a further 30 bps increase in average debt cost, to 4.4%. Spread therefore declined from 8% in 2018/19 to 7.5% in 2019/20 pressuring profitability.

Funding sources

The lessors raised approximately \$61 billion from the debt markets in 2019, as shown in Figure 3.

The better rated leasing companies continued the trend of the last few years in tapping the unsecured debt markets, raising a total of \$25.2 billion according to AFJ's Deal Tracker.

Secured loans were the second biggest source followed by ABS transactions and other structures, as shown. The lessors have raised a further \$18 billion of unsecured public debt in 2020 but at noticeably higher coupons than in 2019. This will put pressure on 2020 and later financial performance.

Debt structure

The aggregate debt structure, shown in Figure 4, clearly shows the shift from secured to unsecured debt financing, with the latter reaching a total value of \$80.5 billion in the latest financial statements.

Some non-listed lessors continue to fund themselves with loans, senior and subordinated, from their parent groups of companies.

The improvement in the capital structure is also shown in Figure 5 where secured debt as a percentage of tangible assets has declined to 21% from 32% over the last five years.

Gearing

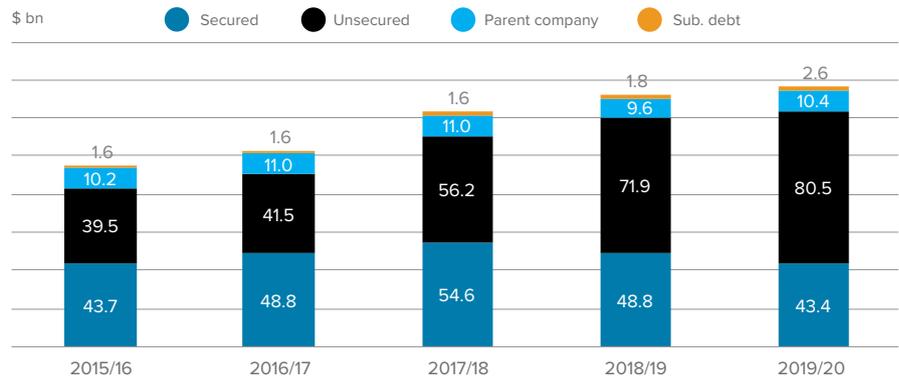
Gearing for the lessors in the survey remained benign as shown in Figure 6. This remains a conservative capital structure supported by a significant increase in retained earnings. The typical 4x or higher leverage of the last cycle is only evident in a few cases currently, though obviously this aggregate value is comprised of some very low and some quite high levels of gearing as presented in the "Lessor Comparisons" section. Clearly Covid-19 is putting liquidity and capital structure under scrutiny and this will be addressed in the Supplement to this study, available through your account manager.

Return on Equity

Return on equity for the group fell to 9.7% from 11.4% in the most recent period. The revenue increase was more than offset by higher depreciation and finance costs. This, combined with increased equity from retained earnings, were the causes of the decline. ^

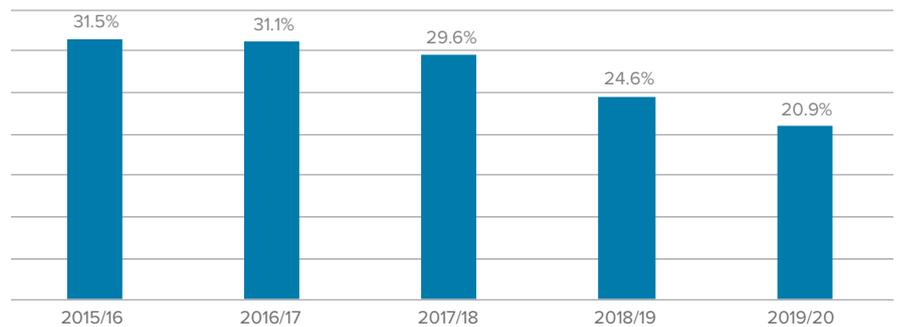
Companies included in the latest period are listed in Figure 1 in the next section. In addition, we included AWAS and CIT Aerospace as appropriate in historic years in order to make the data as consistent as possible.

Figure 4: Debt structure



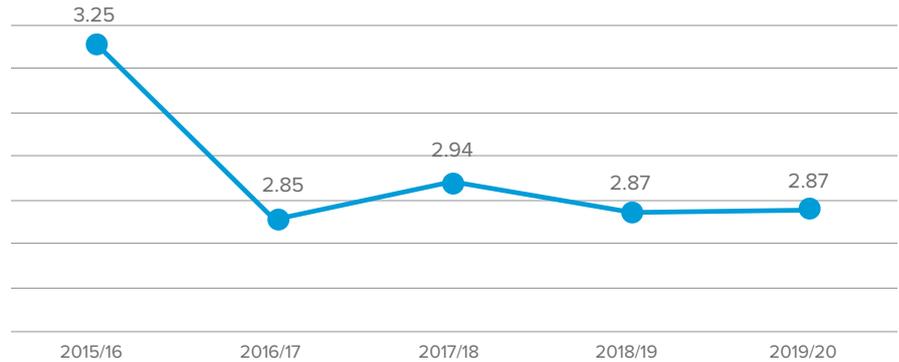
Source: Company reports and The Airline Analyst

Figure 5: Secured debt/tangible assets



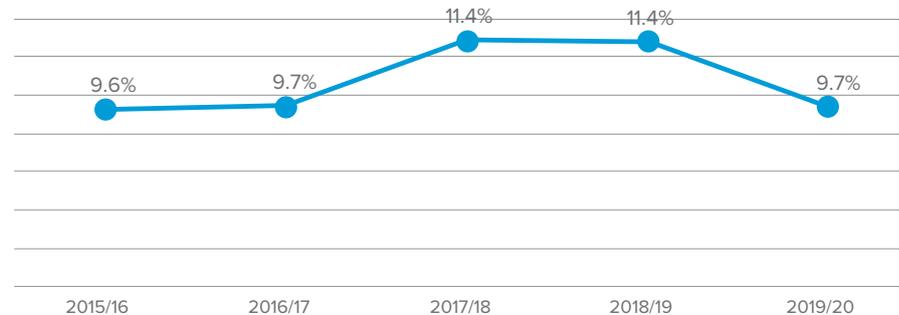
Source: Company reports and The Airline Analyst

Figure 6: Gearing (Debt/equity)



Source: Company reports and The Airline Analyst

Figure 7: Return on average equity¹



Source: Company reports and The Airline Analyst
¹ after adjusting for large 2017 tax credits for ALC, ACG and BOC Aviation

Lessor comparisons – 2019/20

This study offers a comparison of the financial performance and capital structures of the aircraft leasing companies based on their most recent available full year financial statements (ending either in 2019 or 2020).

Figure 1 identifies the entities included in the study. In total, we have been able to source the financials for 24 aircraft leasing companies.

While full financials are not available for GECAS, some headline numbers are available in the General Electric annual report. Fortress Transportation and Infrastructure Investors publish financials for their overall leasing business but break out some key numbers for the aircraft leasing segment. We include Avation plc from Singapore (listed in the UK) and CALC (listed in Hong Kong). Most of the lessors in the study are incorporated in the US or Ireland. However, two of the largest, AerCap and BOC Aviation, are incorporated in the Netherlands and Singapore, respectively. AerCap is listed on the New York Stock Exchange and BOC Aviation is listed in Hong Kong.

Four major privately owned lessors whose financials are in the public domain are Aircraftle, Aviation Capital Group (ACG), Avolon Holdings and SMBC Aviation Capital.

The significant absences from our coverage include ICBC Financial Leasing, Goshawk and Macquarie AirFinance (who do not file financial information publicly other than a few headline numbers). We include DAE but financials are not available for BBAM (though we do include FLY Leasing). We have included Jackson Square Aviation Ireland and include pro-forma aggregate numbers for Pembroke Capital and Pembroke Aircraft Leasing under "Standard Chartered". Some lessors that we have included previously are not included as they had not filed their 2019 financial statements at the date of preparing this compilation. We have included two special purpose listed aircraft leasing entities - Amedeo Air Four Plus and DP Aircraft I. Accipiter Holdings is included – one of the asset holding entities whose aircraft are managed by AMCK Aviation.

Several of the lessors' financial year-ends straddle the first quarter or first half of 2020 and therefore have been impacted by the effect of Covid-19. These lessors are Nordic Aviation Capital, Avation, SMBC Aviation Capital and Amedeo Air Four Plus.

The others have no Covid effect, which should be taken into consideration when interpreting the numbers. We will be producing a Supplement to the Leasing Top 50 shortly that will analyse and interpret the effect of the pandemic and the crisis facing

Figure 1: Lessors included in the study

Lessor	Country	FYE
Accipiter Holdings Limited (Accipiter)	China/Ireland	31-Dec-19
AerCap NV	Netherlands/Ireland	31-Dec-19
AerDragon	Ireland	31-Dec-19
Air Lease Corporation (ALC)	USA	31-Dec-19
Aircraftle	USA/Ireland	31-Dec-19
ALAFCO Aviation Lease & Finance (ALAFCO)	Bahrain	30-Sep-19
Amedeo Air Four Plus Limited (AA4+)	UK	31-Mar-20
Avation plc	UK/Singapore	30-Jun-20
Aviation Capital Group (ACG)	Japan/USA	31-Dec-19
Avolon	Ireland	31-Dec-19
Banc of America Leasing (BOA Leasing)	USA/Ireland	31-Dec-19
BOC Aviation (BOCA)	China/Singapore	31-Dec-19
China Aircraft Leasing Company (CALC)	China/Hong Kong	31-Dec-19
CDB Aviation Lease Finance (CDB ALF)	China/Ireland	31-Dec-19
Clover Aircraft Leasing Company Limited	China/Ireland	31-Dec-19
DP Aircraft I Limited	UK	31-Dec-19
Dubai Aerospace Enterprise (DAE)	UAE	31-Dec-19
FLY Leasing (FLY)	Ireland	31-Dec-19
Fortress Transportation and Infrastructure Investors' (FTAI)	USA	31-Dec-19
GECAS¹	USA/Ireland	31-Dec-19
Jackson Square Aviation Ireland (JSA)	Japan/Ireland	31-Dec-19
Nordic Aviation Capital (NAC)	Denmark	30-Jun-20
SMBC Aviation Capital (SMBC AC)	Japan/Ireland	31-Mar-20
Standard Chartered Pro-forma²	UK/Ireland	31-Dec-19

¹ Key data only

² Simple aggregation of Pembroke Aircraft Leasing Holdings Limited and Pembroke Capital Limited

the global airline industry on the aircraft leasing industry. The abbreviations used to refer to the lessors through the rest of this study are indicated in Figure 1.

We include the Irish leasing entities for three Chinese lessors: AerDragon, CDB Aircraft Lease & Finance (CDB ALF) and Ping An Leasing (renamed Clover Aircraft Leasing following the introduction of Mizuho as joint-venture partner).

The regional aircraft sector is represented by Nordic Aviation Capital

and Avation. Banc of America Leasing continues to maintain its low profile yet appears to be doing deals with \$2.5 billion of plant, property and equipment as of 31 December 2019, \$500 million higher than the prior year.

Note that for some lessors, the entities analysed do not represent the entirety of their global leasing business and may be impacted by internal funding arrangements and inter-company transactions. This applies particularly to some Chinese

lessors, Accipiter and SMBC Aviation Capital who have been heavily funded by shareholder loans so please interpret their numbers accordingly. Over the last three years, however, SMBC Aviation Capital has partially funded itself from external sources.

Adjustments

In order to enhance comparability in treatment and presentation of the financial statements we have made some adjustments as described in Figure 2. 

Figure 2: Adjustments to enhance comparability

Item	Treatment
Gain on sale of aircraft	Net gain included in revenue
Recognition of "excess" maintenance reserves	Included in lease revenue but not separately disclosed by every lessor
Maintenance and transition costs	Recognised under its own heading when disclosed, but not disclosed by every lessor
Staff cost, including stock-based compensation	Included in SG&A expenses
Interest income	Included in other revenue

Source: Company reports and *The Airline Analyst*



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Profitability

Figures 3 and 4 show the lessors ranked by revenue and net income. The revenue range of the lessors in the study is from \$4.9 billion for AerCap and GECAS to \$58 million for DP Aircraft. Avolon remains just over half the size of GECAS and AerCap. Air Lease (ALC), BOC Aviation and DAE come in fourth, fifth and sixth position followed by SMBC Aviation Capital.

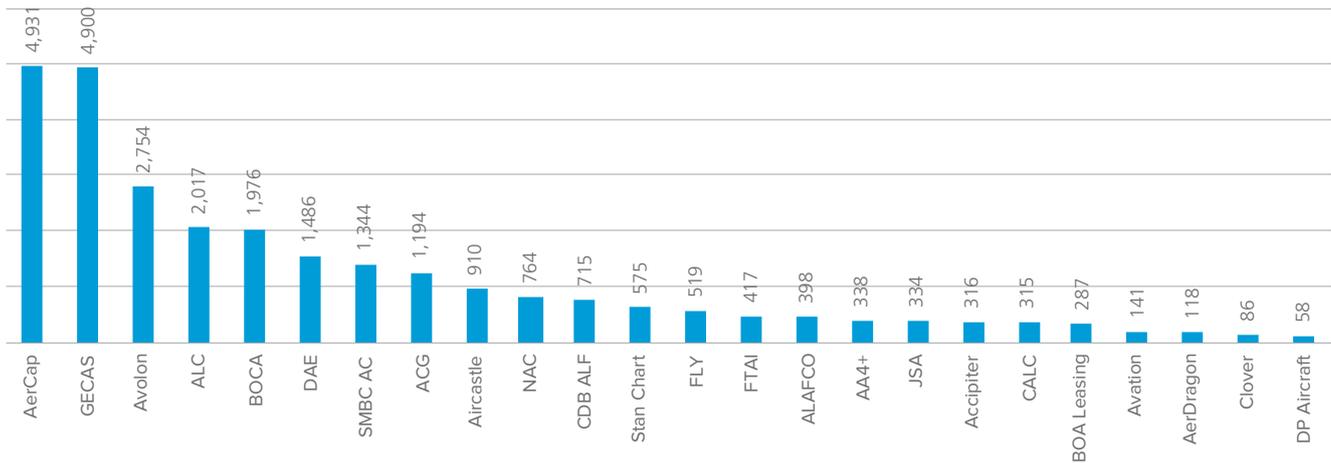
As mentioned in the previous section, aggregate yield for all lessors in the study decreased from 12.1% to 11.9% in 2019/20.



Among the bigger decliners were NAC and Aircastle. AerCap's and Avolon's yields declined by 1.9% and 3% year-on-year, respectively. Some of the lessors bucked the trend and squeezed some growth in yield, most notably FLY Leasing, ALAFCO, Avation, CDB ALF and Jackson Square Aviation Ireland.

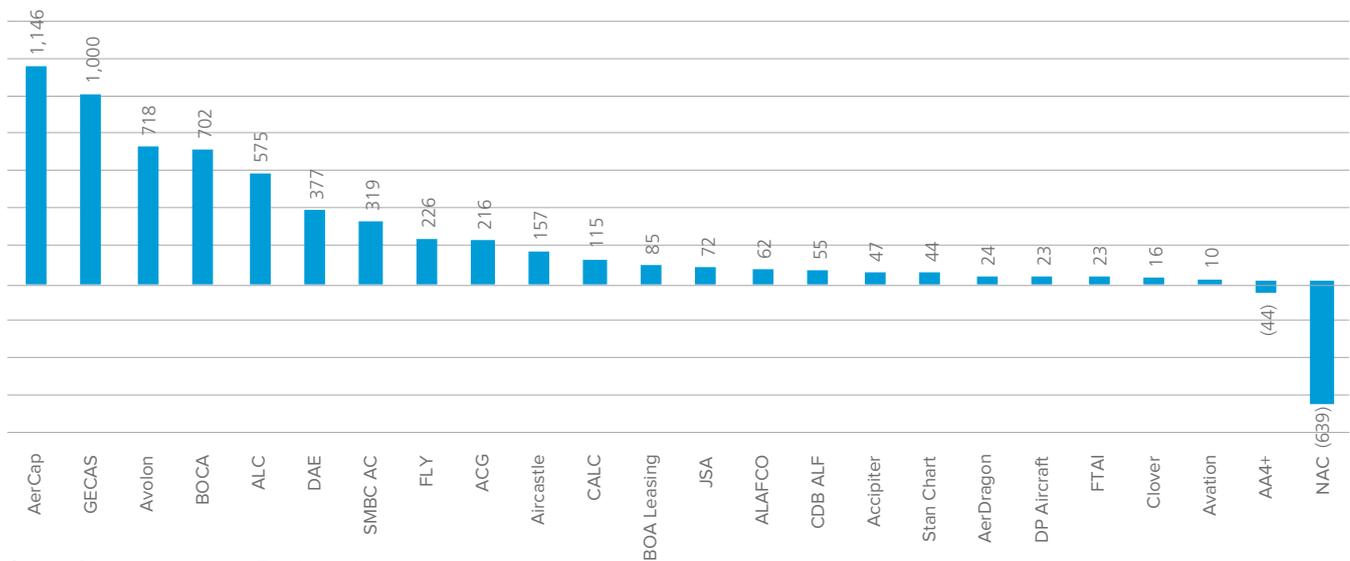
In aggregate the profit generated by the lessors in the study (and including GECAS) was \$5.6 billion, an 11% decrease on the previous year. Net income for the

Figure 3: Total revenue (\$ million)



Source: Company reports and *The Airline Analyst*

Figure 4: Net income (\$ million)



Source: Company reports and *The Airline Analyst*

first time was headed by AerCap at \$1.1 billion. GECAS came second at \$1 billion (down from \$1.2 billion) followed by Avolon at \$718 million and BOC Aviation at \$702 million. Coming fifth in profitability were ALC, followed by DAE and SMBC Aviation Capital.

Among the key drivers of lessor profitability is the spread between lease yield and debt cost of funds. Figure 5 shows all three, ranked in descending order of yield from 15.6% to 8.4%.

FLY, Amedeo Air Four Plus and DP Aircraft are the leaders on yield with FLY and Standard Chartered the highest on spread. Airastle also generated attractive yields but their relatively high debt costs result in lower spreads. The standouts in terms of lowest cost of (externally provided) funds are ALC at 3.5% and BOC Aviation at 3.7%. CALC and ALAFCO perform well, at 4.1%. Avolon, Accipiter and AerCap come

next, all at 4.4%. Some of the other lessors with low debt costs are heavily funded by their parents on attractive terms.

Gains/losses on sales

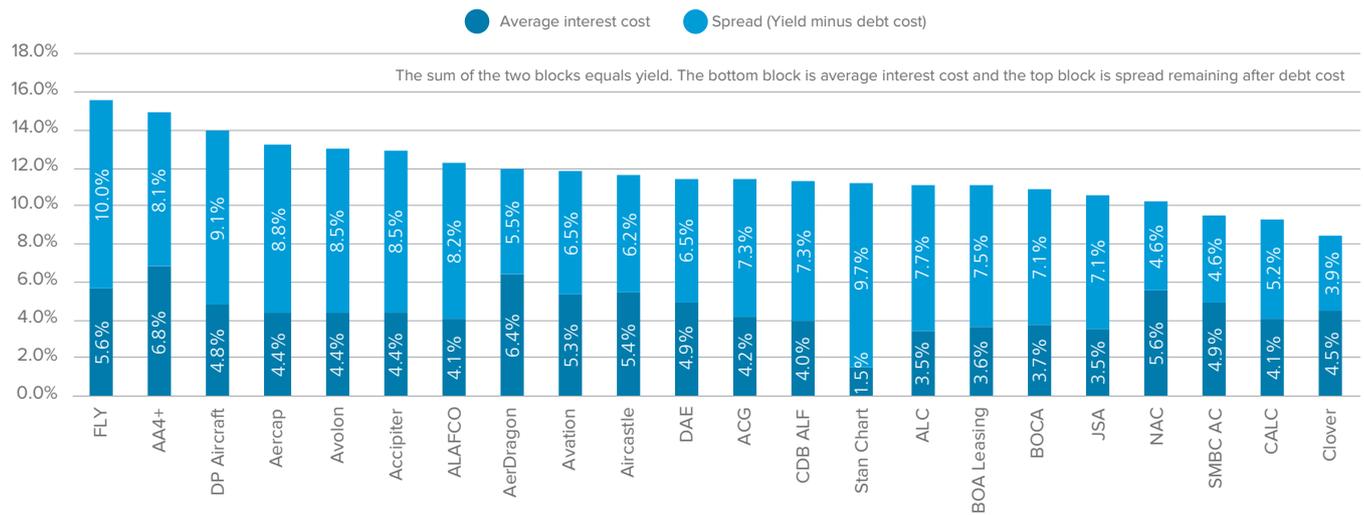
Aggregate plant, property and equipment for the lessors in the study amounts to \$171 billion. Gains booked on sales totalled \$1.1 billion, 24% up on 2018/19, and 20% of reported profit before tax. Gains from aircraft sales made a significant contribution to the profitability of a number of lessors as shown in Figure 6.

Impairments

Impairments totalled \$406 million, up from \$256 million the prior year. They were not universal but significant amounts were reported by ACG, AerCap, Amedeo Air Four Plus and CDB ALF, as shown in Figure 7. Overall, however, they were only 0.3% of opening net book value in aggregate. ▲

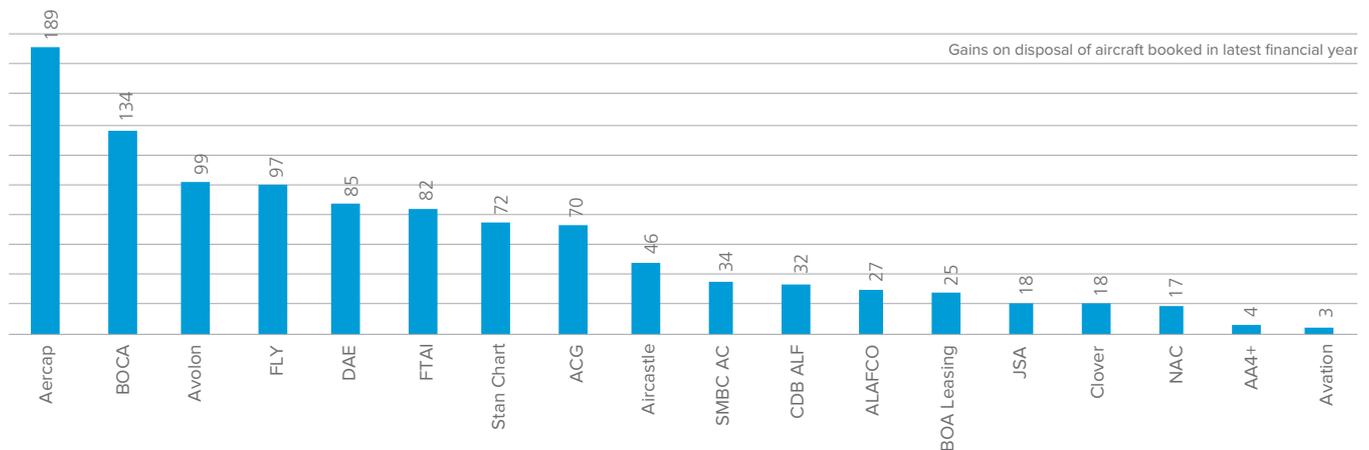


Figure 5: Yield, spread and debt cost



Source: Company reports and *The Airline Analyst*

Figure 6: Gain (loss) on disposal of aircraft (\$ million)



Source: Company reports and *The Airline Analyst*

Financial flexibility

We assess four elements of financial flexibility – leverage as measured by the debt/equity ratio, level of secured debt relative to tangible assets, EBITDA interest coverage and liquidity.

Leverage

The debt/equity ratio is the simplest measure of capital structure and is universally understood. Some of the lessors use significant amounts of inter-company debt which results in high

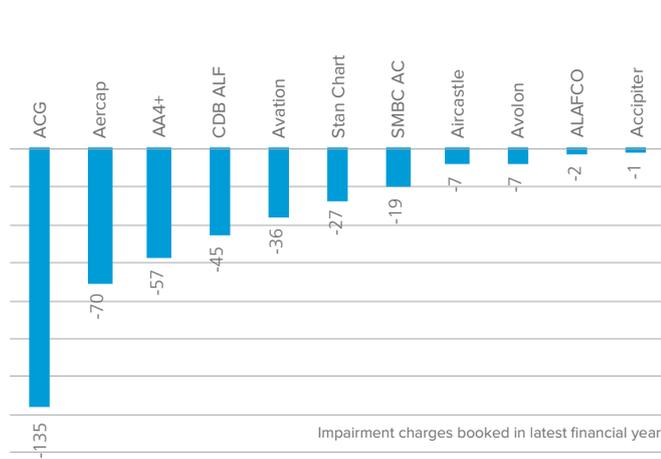
nominal leverage. The chart in Figure 8 shows leverage calculated assuming inter-company debt is debt and also assuming inter-company debt is equity. As the chart shows, the majority of lessors are in a range of 2-4x on this latter measure. CALC, Nordic Aviation Capital and Avation are well above this threshold. FLY was just above the 4x figure last year and are now down to 2.6x following a major fleet restructuring. The lowest leverage values are Jackson Square Aviation Ireland,

AerDragon, DP Aircraft, SMBC Aviation Capital, Standard Chartered and BOA Leasing.

Debt Structure

Borrowing unsecured has many attractions, being more flexible and having lower transaction costs than borrowing on a secured basis, though at the cost of higher coupons or margins. The ratings agencies generally cite low levels of secured debt as being a key consideration in granting

Figure 7: Asset impairment (\$ million)



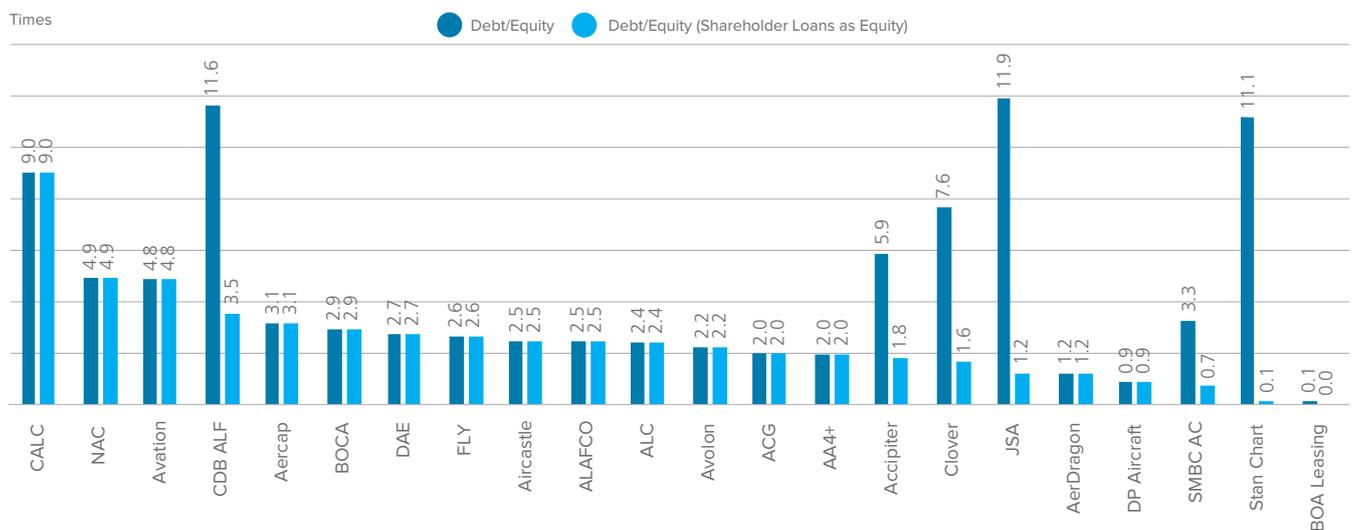
Source: Company reports and *The Airline Analyst*

Figure 9: Lessor unsecured credit ratings

	Fitch	Moody's	S&P	Kroll
AerCap	BBB-(neg)	Baa3(neg)	BBB(neg)	-
Air Lease Corp	BBB(neg)	-	BBB(neg)	A-(neg)
Aircastle	BBB(stable)	Baa3(neg)	BBB-(stable)	-
Avation PLC	B(watch neg)	-	CCC(watch neg)	-
Aviation Capital Group	WD	Baa2(neg)	BBB-(neg)	A-(neg)
Avolon Holdings Limited	BBB-(neg)	Baa3(neg)	BBB-(neg)	BBB+(neg)
AWAS Aviation Capital Limited	-	Baa3(neg)	BB+(stable)	-
BOC Aviation	A-(stable)	-	A-(neg)	-
CDB Aviation Lease & Finance	A+(stable)	A1(neg)	A(stable)	-
Dubai Aerospace Enterprise	BBB-(neg)	Baa3(neg)	BB+(stable)	BBB+(neg)
Fly Leasing	-	B1(neg)	BB(neg)	BBB(neg)
Park Aerospace Holdings	BBB-(neg)	Baa3(neg)	-	-
SMBC Aviation Capital	A-(neg)	-	A-(neg)	-
Voyager Aviation	BB-(watch neg)	B3(neg)	CCC+(watch dev)	BB-(neg)

Source: Ratings Agencies - 26 October, 2020

Figure 8: Debt/equity ratio



Source: Company reports and *The Airline Analyst*

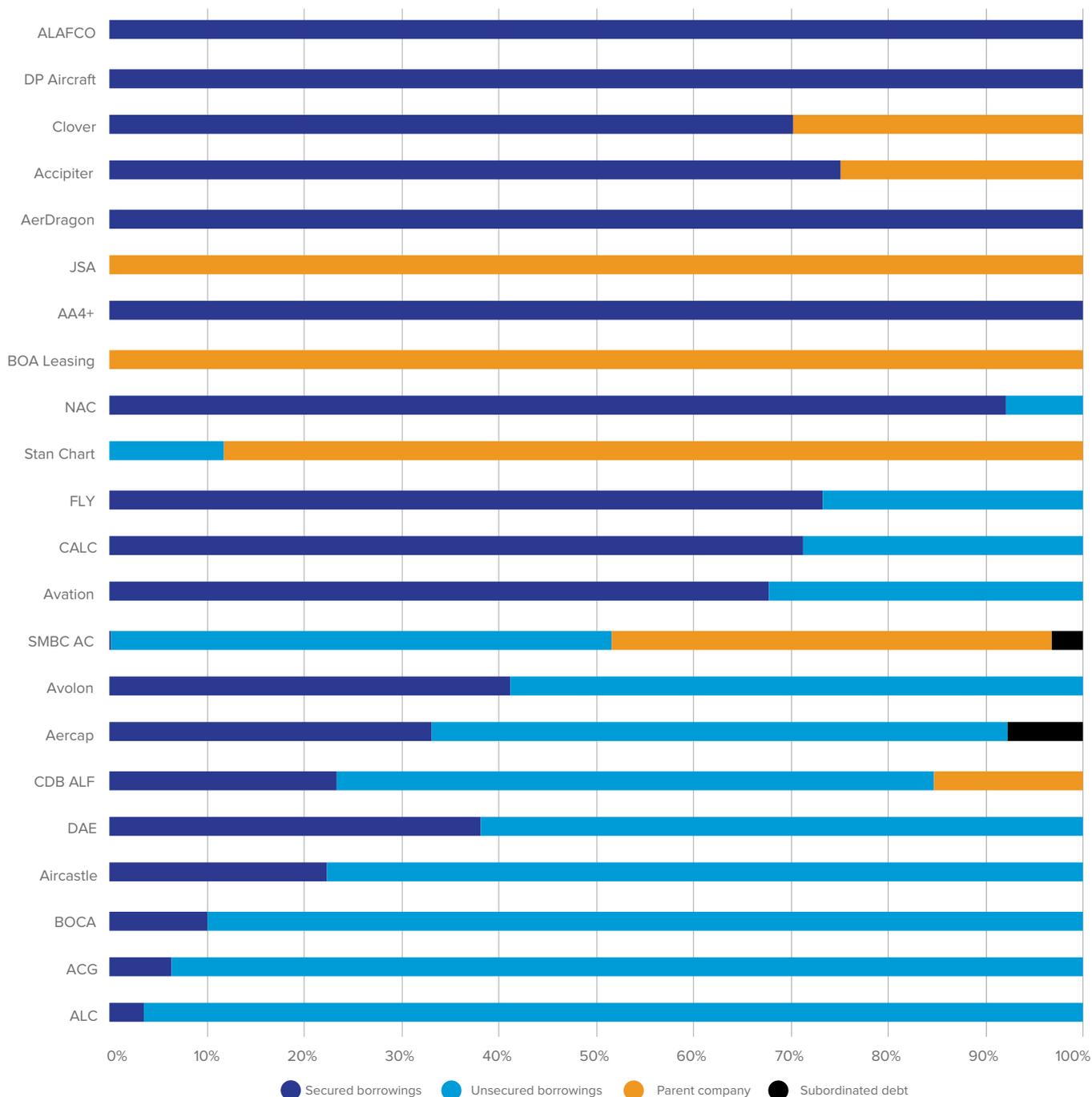
investment grade ratings to lessors. Lessors with investment grade ratings are Aircastle, ALC, CDB ALF, SMBC Aviation Capital, Avolon, DAE Capital, ACG (who have retained investment grade despite their sale to Tokyo Century) and BOC Aviation who, in addition to very strong financials, benefit from their Bank of China ownership.

Figure 10 shows the debt structures on a proportional basis for the lessors

ranked in order of the highest proportion of unsecured debt at the bottom to least at the top. The chart also shows shareholder loans and other loans. As discussed in the previous section there has been a significant increase in unsecured funding by the industry as a whole, reaching 59% of total debt in 2019/20. The lessors with the highest percentage of external unsecured funding are ALC, ACG, BOC Aviation, Aircastle and DAE Capital. NAC

had 46% unsecured debt as of 30 June 2019 and raised a further \$858 million in an unsecured private placement in February 2020. However, as a consequence of the severe Covid-19 impact on their rental receipts, the regional aircraft lessor entered into a scheme of arrangement to delay debt payments. As a condition, they had to give collateral to most of their unsecured creditors and had only 8% unsecured debt as of 30 June 2020.

Figure 10: Debt structure



Source: Company reports and *The Airline Analyst*

Financial flexibility

Figure 11 shows secured borrowing as a percentage of tangible assets, which indicates the level of protection available for unsecured creditors. The data for SMBC Aviation Capital, BOA Leasing, Standard Chartered and Jackson Square Aviation Ireland reflects their heavily shareholder funded debt structures. The other lessors on the right of Figure 11 represent the strongest position for unsecured creditors, led by ALC, ACG and BOC Aviation with their significant unsecured funding

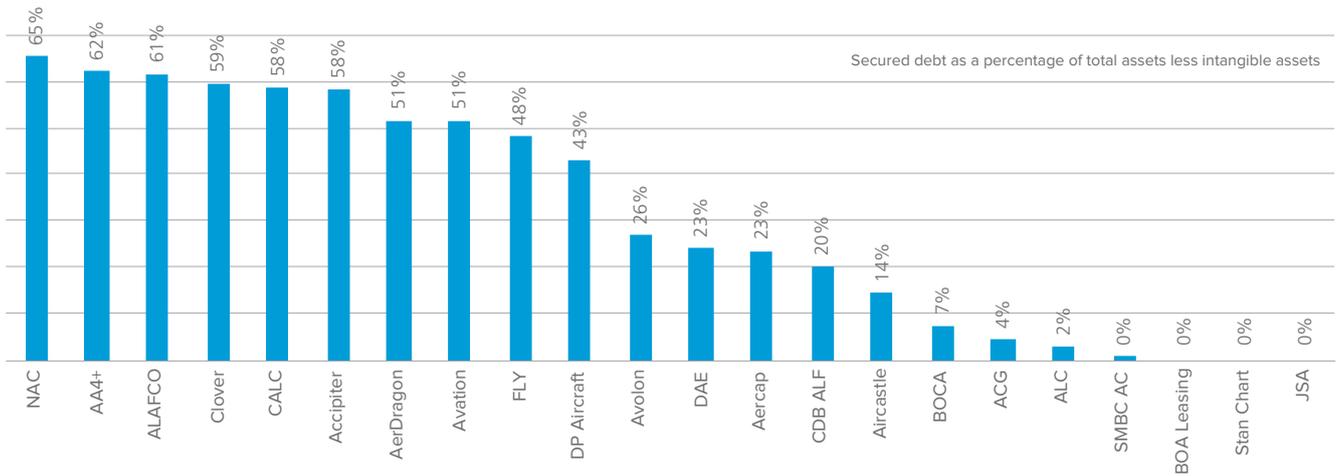
programmes. Those at the left-hand side demonstrate the least protection for unsecured creditors, notably NAC.

Interest Coverage

Interest coverage measured as EBITDA/finance costs is another key aspect of financial flexibility. From Figure 12 we see that the majority of lessors covered by the study have a healthy coverage of at least 2x and many have much better coverage than that, particularly DP Aircraft, ALC, BOC

Aviation and ALAFCO. The main outliers on the weaker side are Avation and CALC with coverage of 1.5-1.6x. DP Aircraft's high ranking is rather unhelpful as 100% of their fleet is leased to restructuring airlines Norwegian Air Shuttle and Thai Airways and the "Earnings" in their EBITDA are now zero. Amedeo Air Four Plus had coverage of 2.5x, which will be challenged in the current year due to the restructuring of lessee Thai Airways but supported by cash flow from their exposure to Emirates Airline.

Figure 11: Secured debt/gross tangible assets



Source: Company reports and *The Airline Analyst*

Figure 12: Ebitda/total finance costs



Source: Company reports and *The Airline Analyst*



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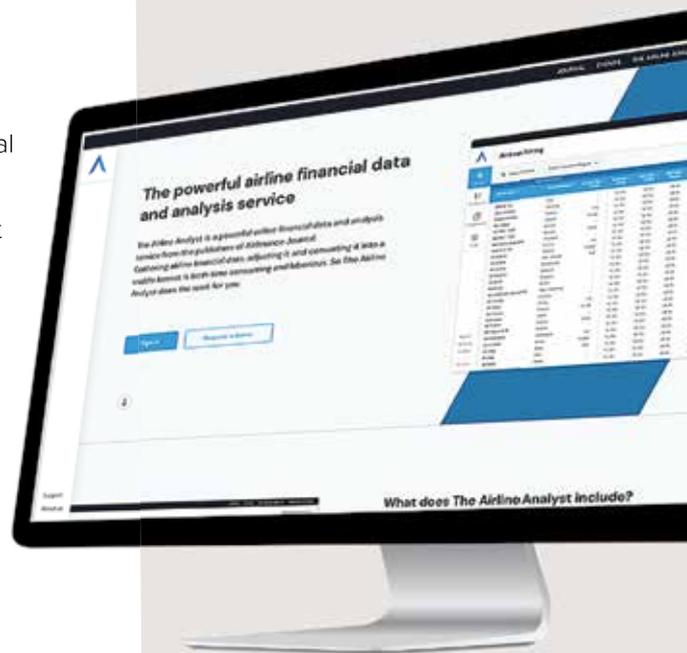
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Financial flexibility

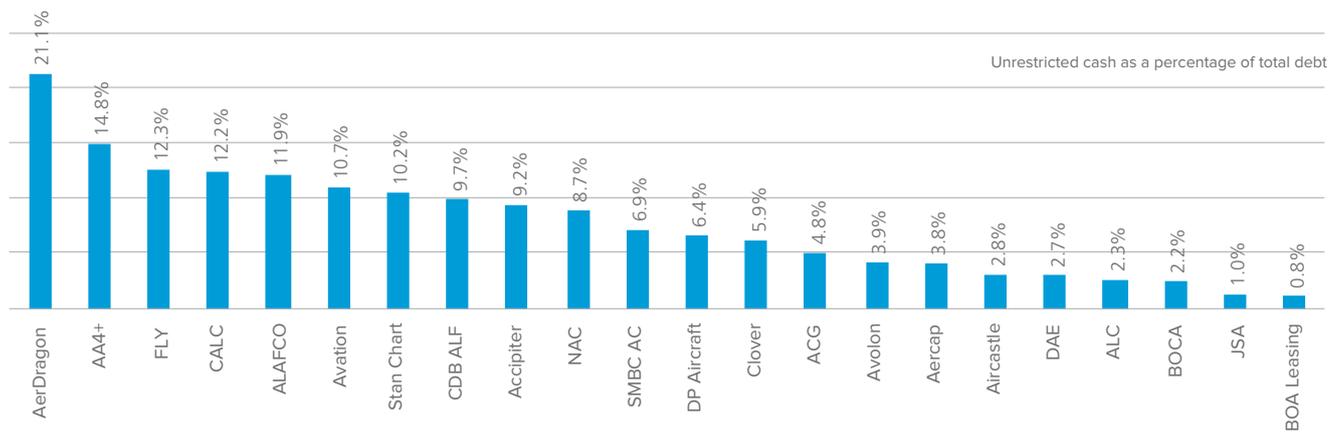
Liquidity

Figure 13 shows unrestricted cash liquidity as a percentage of total borrowings. At the extremes of the range are AerDragon at 21.1% and BOA Leasing at 0.8% after paying a large dividend in 2019. The next four strongest are Amedeo Air Four Plus (AA4+), FLY, CALC and ALAFCO. AA4+

had \$277 million of unrestricted cash at 31 March 2020. From this, they distributed £98.5 million (\$122 million) to shareholders in October and created a £30 million contingency reserve to prepare for the possibility of having to cover 18 months of interest and repossess and remarket the Thai Airways aircraft. For the other lessors,

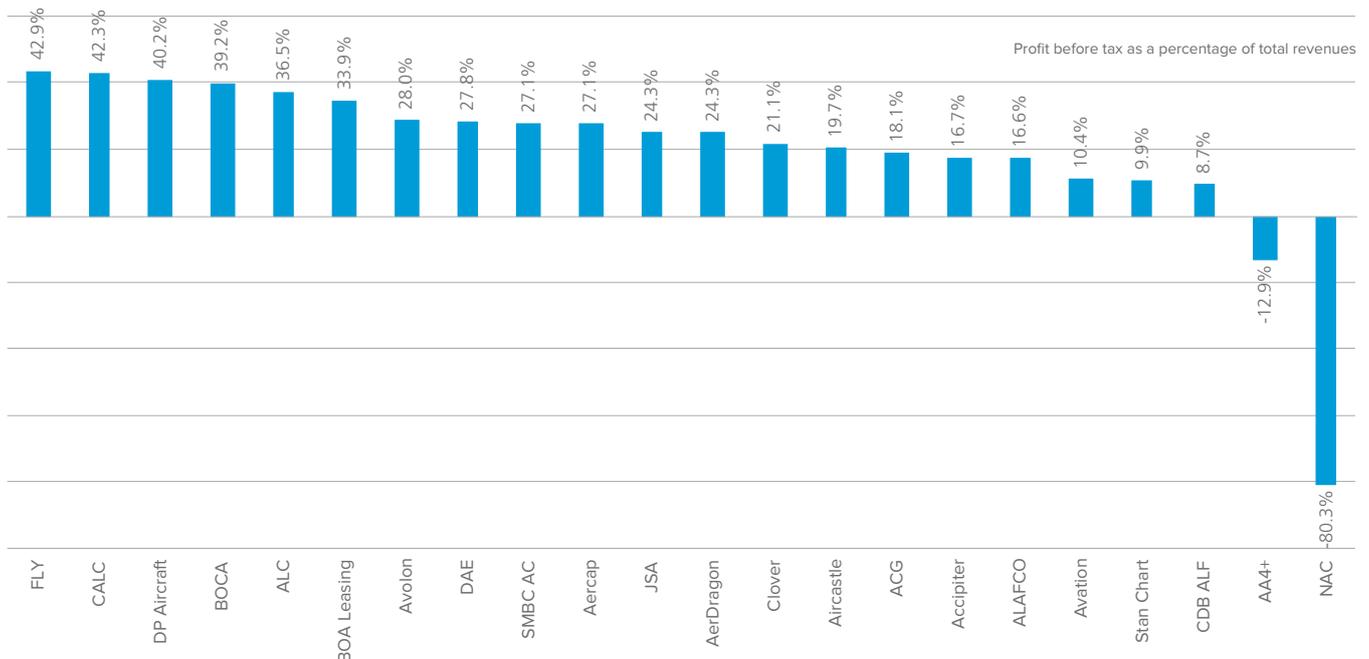
this liquidity/borrowing measure ranges from a low of 1% for Jackson Square Aviation Ireland, 2.2% for BOC Aviation and low numbers for ALC, DAE Capital, Aircastle and AerCap. All of these lessors additionally have substantial committed revolving credit facilities or have access to funding from their parent groups. ▲

Figure 13: Cash/total debt



Source: Company reports and *The Airline Analyst*

Figure 14: PBT margin



Source: Company reports and *The Airline Analyst*

Returns

Profit before Tax

As an overall measure of profitability, we have evaluated profit before tax as a percentage of total revenue as shown in Figure 14. This suggests that the lessors at the left side of the chart have a favourable combination of lease yield, funding cost, SG&A costs and leverage – as well as factors not assessed in this study like fleet utilisation and maintenance/transition costs. The lessors with the highest margins were FLY, CALC, DP Aircraft (subject also to the caveat in the previous paragraph), BOC Aviation, ALC, BOA Leasing and Avolon. At the other end of the scale were NAC as a result of the significant reduction in their lease revenue.

Tax Charge

One of the drivers of net profitability is the tax rate on profits. Figure 15 shows that, with two exceptions, tax charges were all below 20% of profit before tax. So, it is not just Ireland and Singapore that would appear to offer attractive fiscal regimes for aircraft operating lease companies. With the US corporation tax reform of three years ago, even the US is looking competitive.

Return on Equity

Return on average of opening and closing equity is shown in Figure 16. More than two-thirds of the lessors delivered a return on equity in excess of 10%. Jackson Square

Aviation, FLY and BOC Aviation generated attractive returns but Jackson Square Aviation was boosted by its relatively higher nominal leverage.

Standard Chartered, Accipiter, AerCap, DAE Capital and ALC also performed well. Of the larger lessors with regular capital structures, Avolon, Aircastle and ACG were below 10%.

Conclusion

This study has shown some of the key dynamics affecting aircraft lessors' business models which are more varied than would appear the case at first inspection. Lease yield, debt cost, asset selection, asset utilisation and re-marketing capabilities are all critical components of the aircraft operating leasing business.

Get these correct, and the aircraft leasing business in normal times can offer substantial "LIBOR-plus" returns to equity investors as demonstrated by most members of the study group.

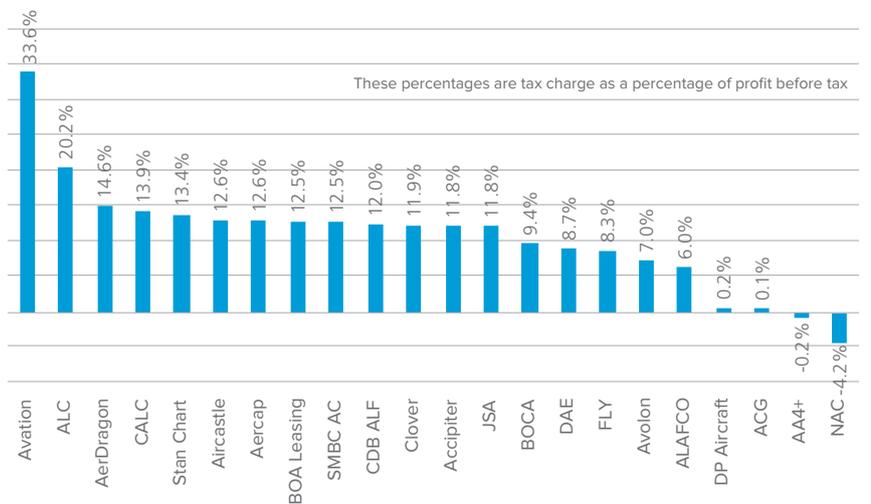
However, Covid-19 is testing these assumptions and has introduced significant volatility to cash flows and balance sheets as seen with NAC and Aviation.

We will be producing a Supplement to the Leasing Top 50 that will update the lessors' performance through 30 September 2020.

Please contact your account manager at accountmanager@airfinancejournal.com if you would like to receive a copy.

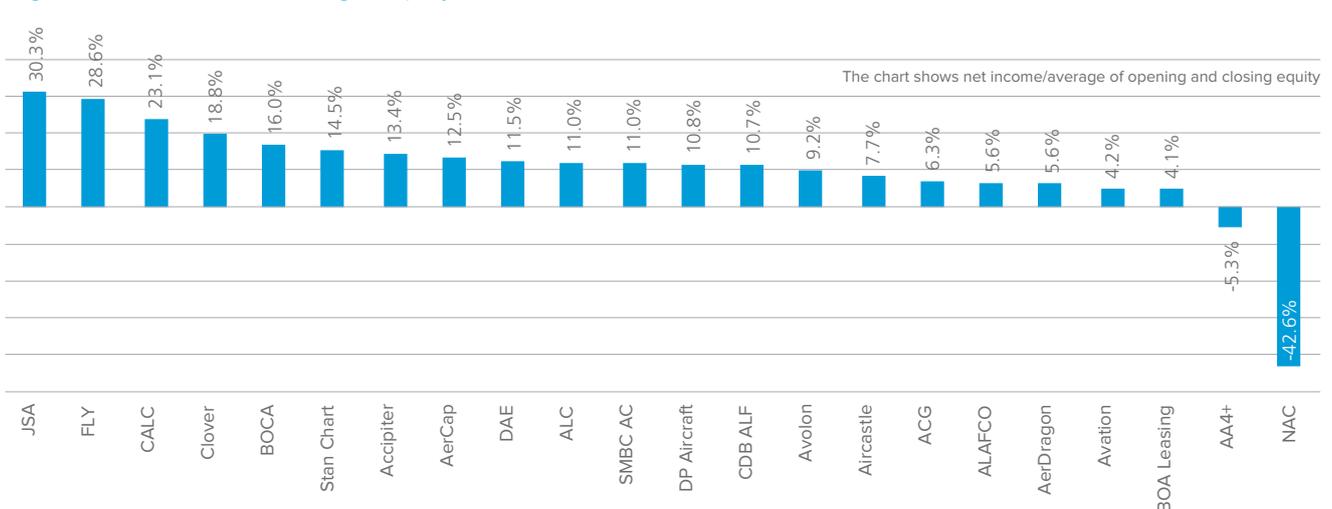
Please direct any questions or comments to mduff@theairlineanalyst.com.

Figure 15: Tax rate



Source: Company reports and The Airline Analyst

Figure 16: Return on average equity



Source: Company reports and The Airline Analyst

Analysis of the global leased fleet

The *Airfinance Journal Fleet Tracker* database includes 11,312 aircraft on operating lease (data as of 30 June 2020). Aircraft leased by “captive” lessors such as Synergy, Sunrise Asset Management, Arctic Aviation Assets, Aircraft Purchase Fleet, Transportation Partners and by the OEMs are excluded. Aggregate orders by the commercial lessors total 3,155 aircraft with an estimated cost of close to \$200 billion. The average age of the existing leased fleet is 10.2 years.

The industry is heavily concentrated. The top 10 lessors (5,561 aircraft) account for 49% of the total fleet count. Nevertheless, the smaller lessors provide value to the marketplace in dealing with older or more

specialised aircraft. They also may be prepared to do business with some of the more challenging regions of the world or have leading positions in their niche markets.

Airlines with the most leased aircraft

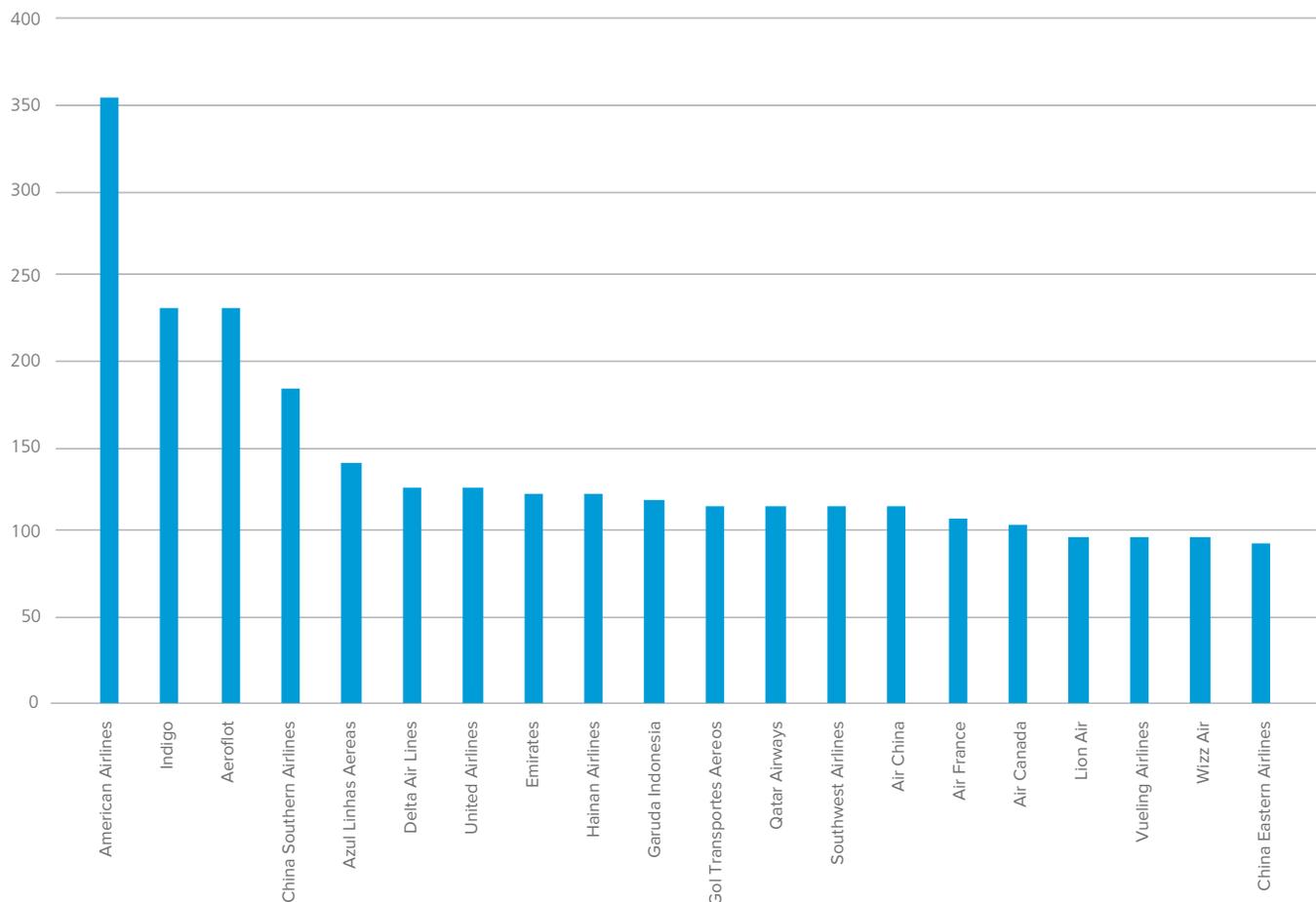
Figure 1 shows the top 20 lessees by number of aircraft. Just as the leasing industry is heavily concentrated in a relatively small number of players, the airlines to whom they are leasing are forming increasingly concentrated groups. Such concentration could reduce the ability of the lessors to diversify their portfolio risks due to concentrations of exposure. This is particularly the case in the Covid-19 era which has significantly reduced the

credit quality of airlines. American Airlines is far-and-away the largest lessee resulting from the merger with US Airways. The other US majors are also significant lessees but there is geographic diversity too across Europe and many emerging markets.

Geographic distribution of leased aircraft

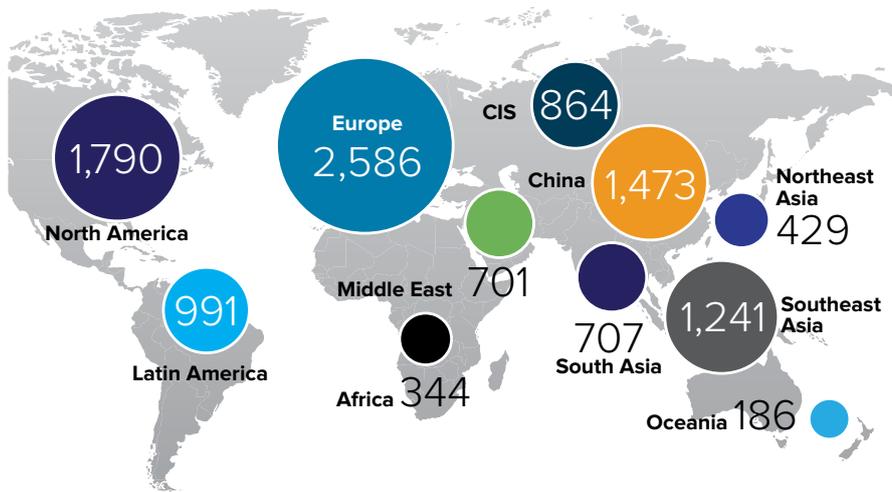
The geographic distribution of leased aircraft is shown in Figure 2. While the chart shows Europe in the lead, this is because we split Asia-Pacific into sub regions given their varying dynamics. The territories of Hong Kong, Macau and Taiwan are included in the China segment. We also decided to show Russia and the CIS as a segment separate from Europe.

Figure 1: Biggest lessees by number of aircraft



Source: *Airfinance Journal's Fleet Tracker*

Figure 2: Geographic distribution of leased aircraft



Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

By contrast, a total of 92 A320neo family aircraft have been delivered to lessors during 2020. The lessors' fleets include a total of 435 dedicated freighters.

Regional Jets

As can be seen, GECAS remains the largest player despite its significant fleet reductions over the last few years. Nordic Aviation Capital comes in second place, having increased its fleet to nearly 200. Falko and TrueNoord have been investing and increasing their exposure to this segment.

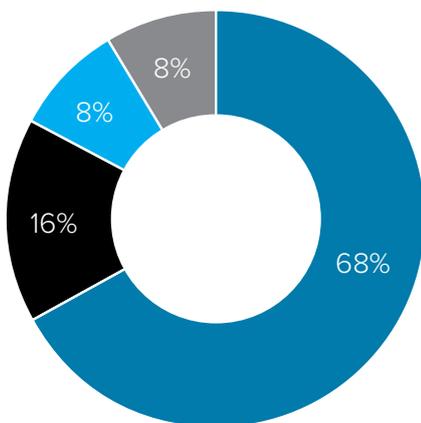
Turboprops

Turboprops are a significant niche market, dominated by one lessor, Nordic Aviation Capital. However, other lessors have a presence, as shown in Figure 5, attracted by relatively higher yields. Leading the way in terms of new investment is Chorus Aviation Capital. The other major players in the segment are shown on the chart. ▲

Breakdown of Leased Fleet

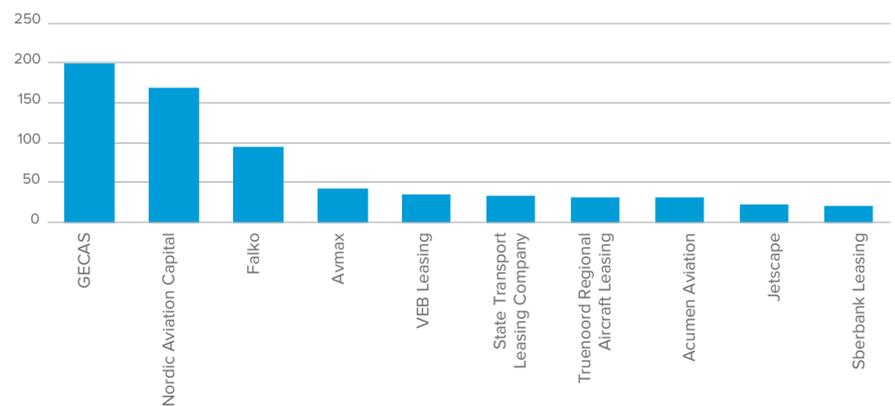
Figure 3 shows a breakdown of the leased fleet by body-type of aircraft. A full 68% of the leased fleet is in the narrow-body category split mostly between the A320 and 737 families. Only 16% is widebody, though in value terms their share would be much more significant, especially with the A350 and 787 finding a lot of favour among lessors. A total of 74 delivered 737 Max aircraft are included in the lessors' fleets and 774 remain in the lessors' orderbooks even after 288 cancellations during 2020.

Figure 3: Leased aircraft body type



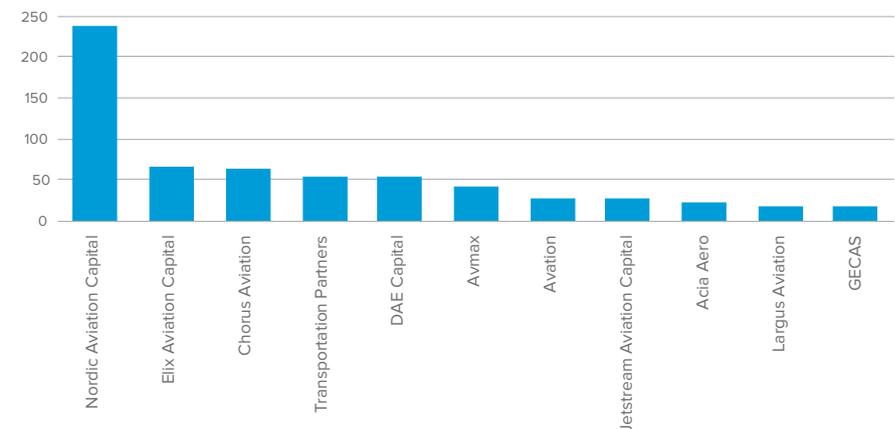
● Narrowbody	7,665
● Widebody	1,805
● Regional jet	923
● Turboprop	919

Figure 4: Top 10 lessors of regional jets



Source: Lessors and Airfinance Journal's Fleet Tracker

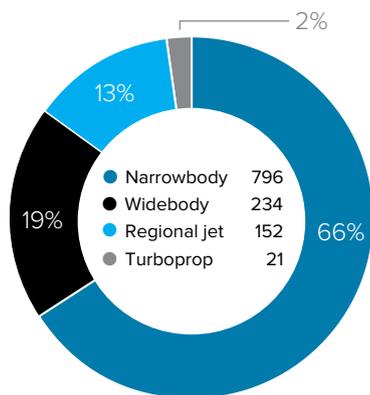
Figure 5: Top turboprop lessors



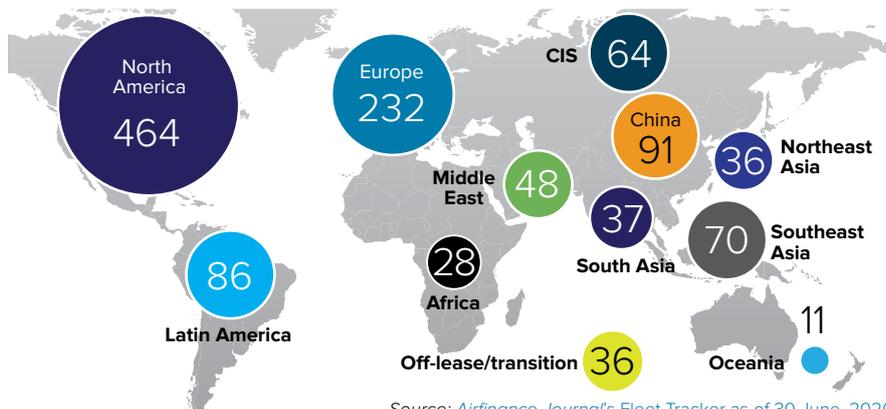
Source: Lessors and Airfinance Journal's Fleet Tracker

1 GECAS

GECAS fleet by aircraft type

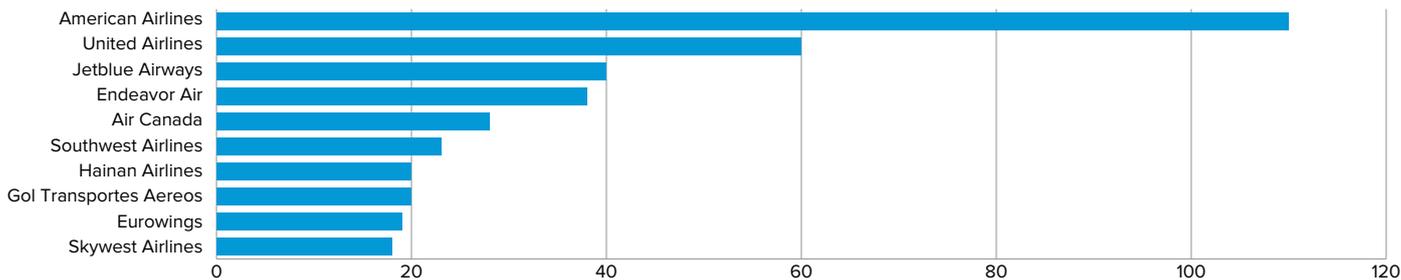


GECAS fleet by region of lessee



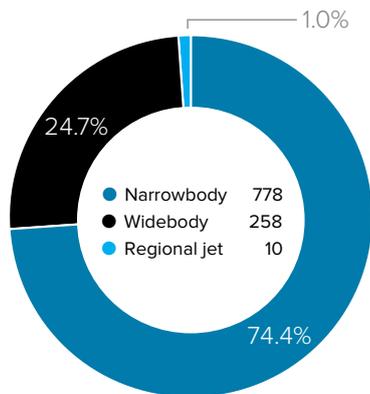
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

GECAS top lessees

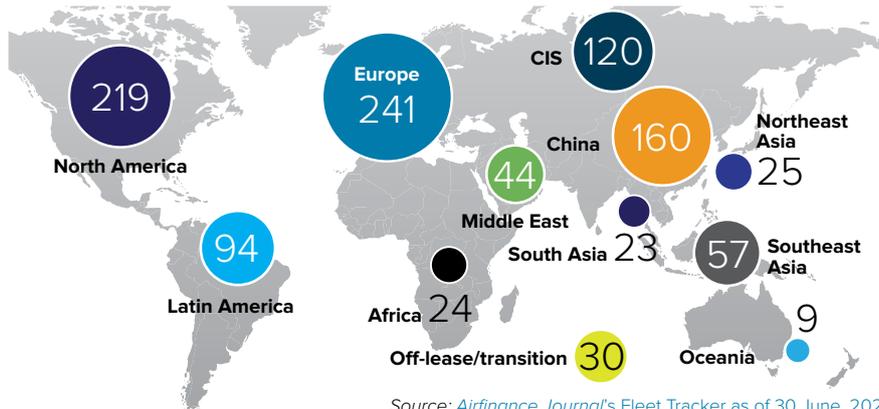


2 Aercap

Aercap fleet by aircraft type

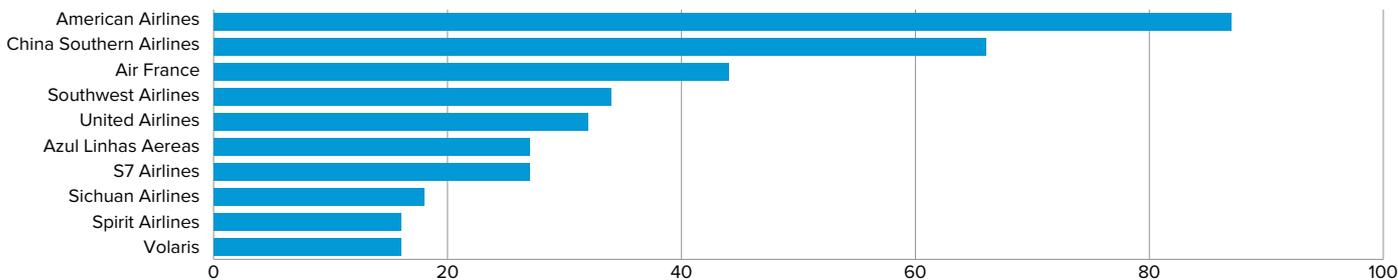


Aercap fleet by region of lessee



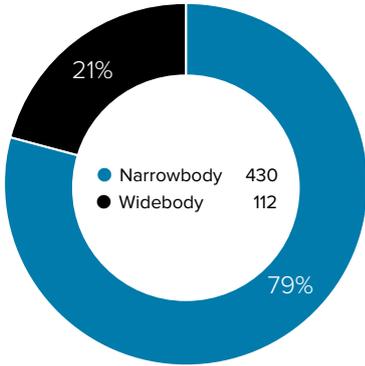
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

Aercap top lessees

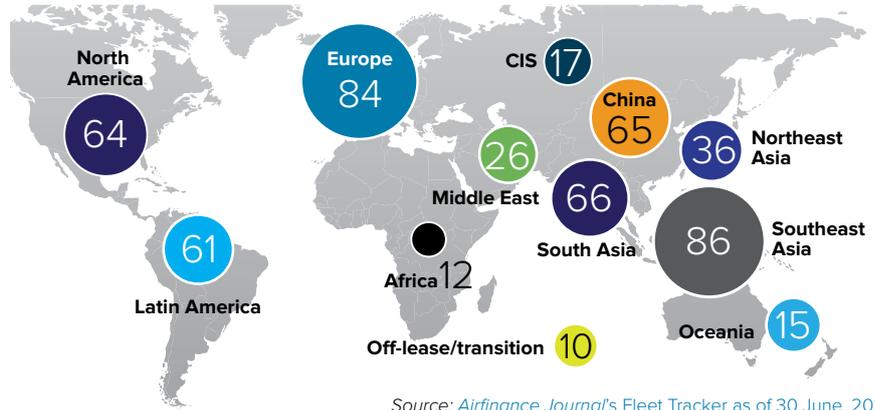


3 Avolon

Avolon fleet by aircraft type

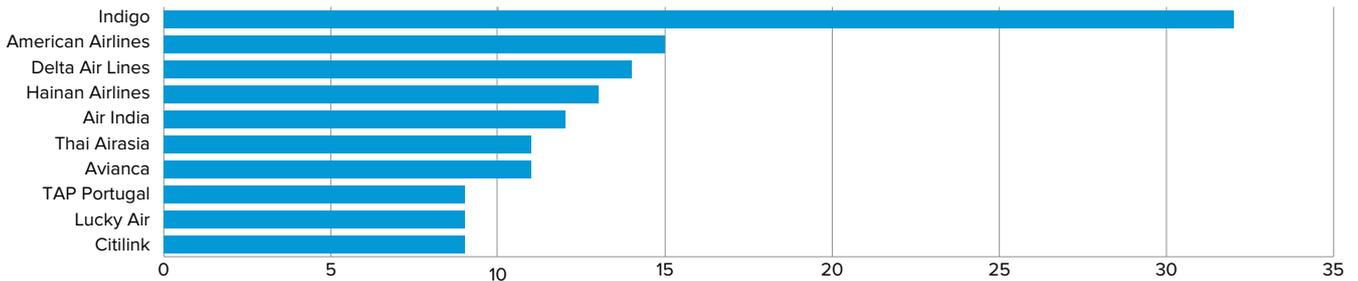


Avolon fleet by region of lessee



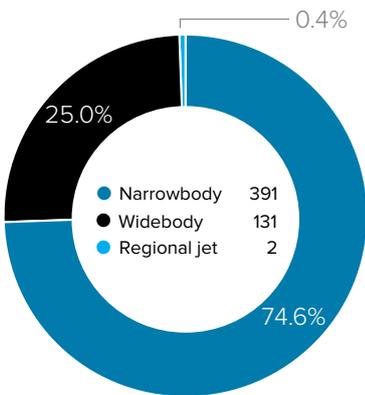
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

Avolon top lessees

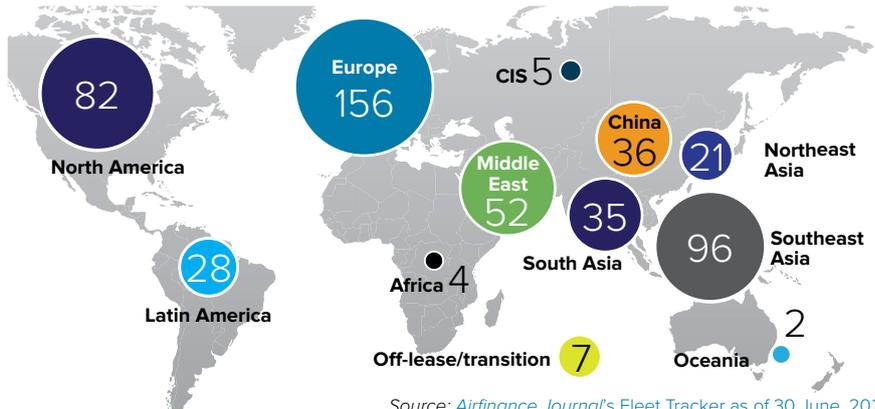


4 BBAM

BBAM fleet by aircraft type

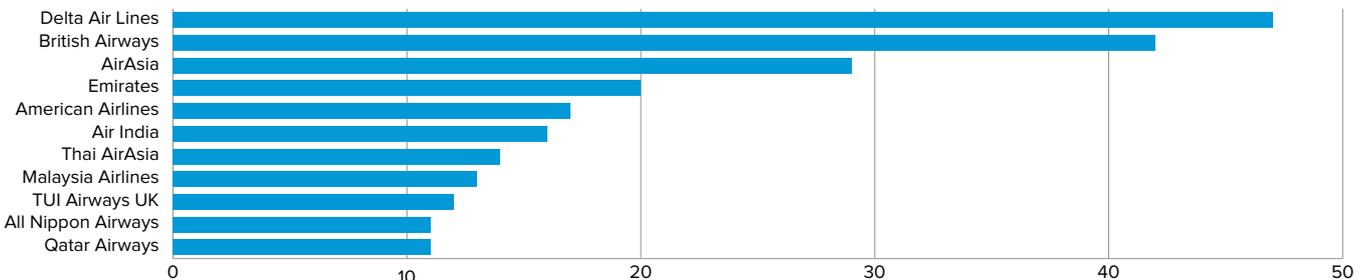


BBAM fleet by region of lessee



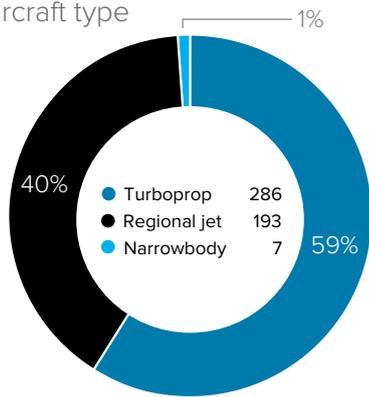
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

BBAM top lessees

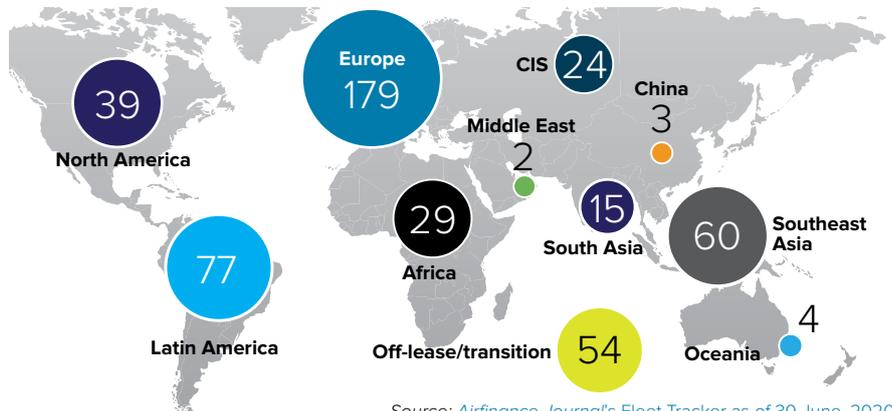


5 Nordic Aviation Capital

Nordic Aviation Capital fleet by aircraft type

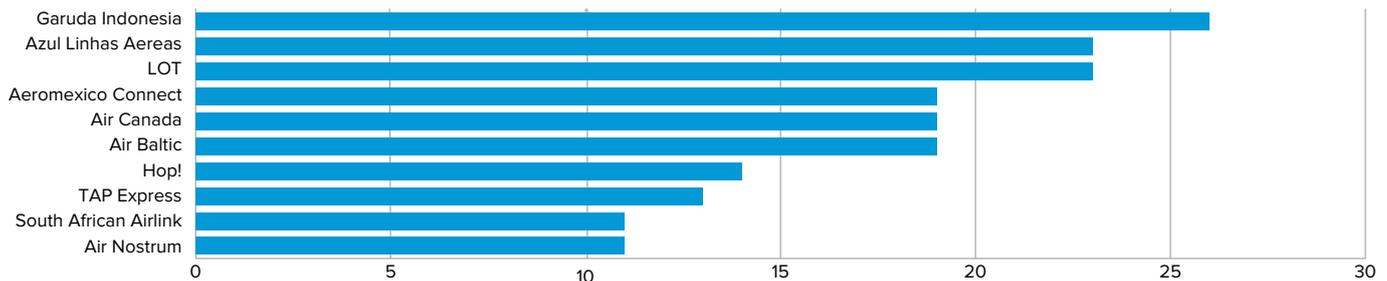


Nordic Aviation Capital fleet by region of lessee



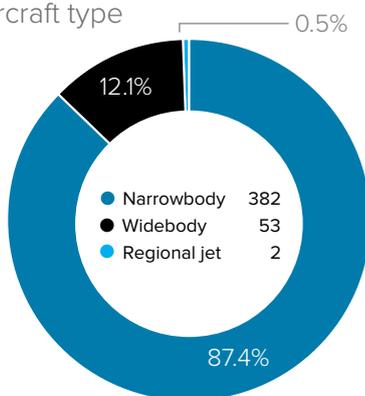
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

Nordic Aviation Capital top lessees

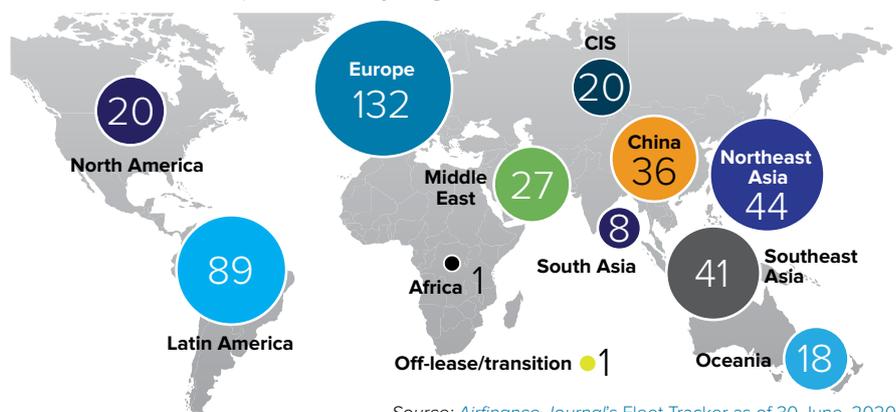


6 SMBC Aviation Capital

SMBC Aviation Capital fleet by aircraft type

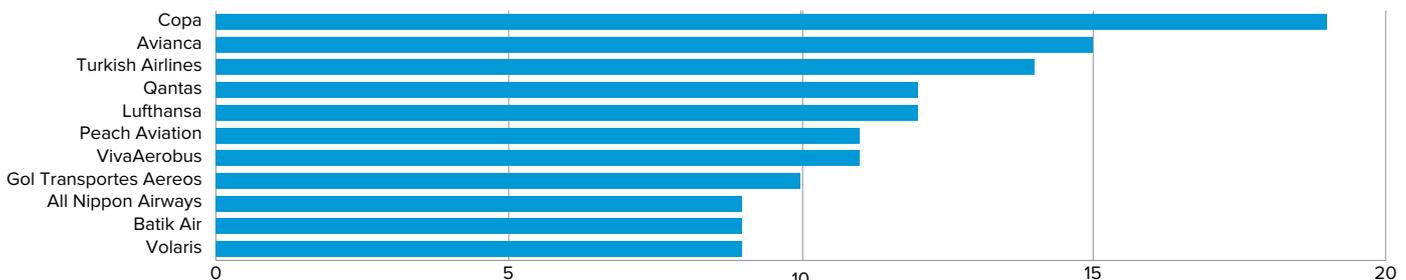


SMBC Aviation Capital fleet by region of lessee



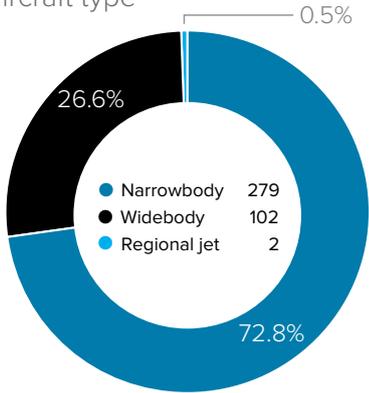
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

SMBC Aviation Capital top lessees

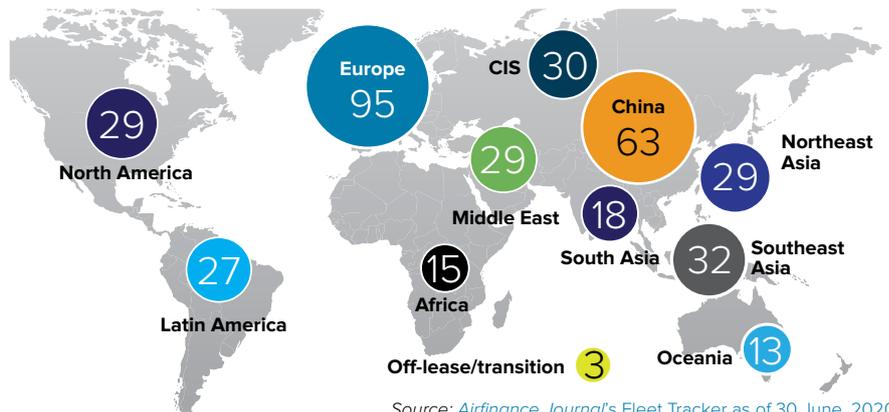


7 Air Lease Corporation

Air Lease Corporation fleet by aircraft type

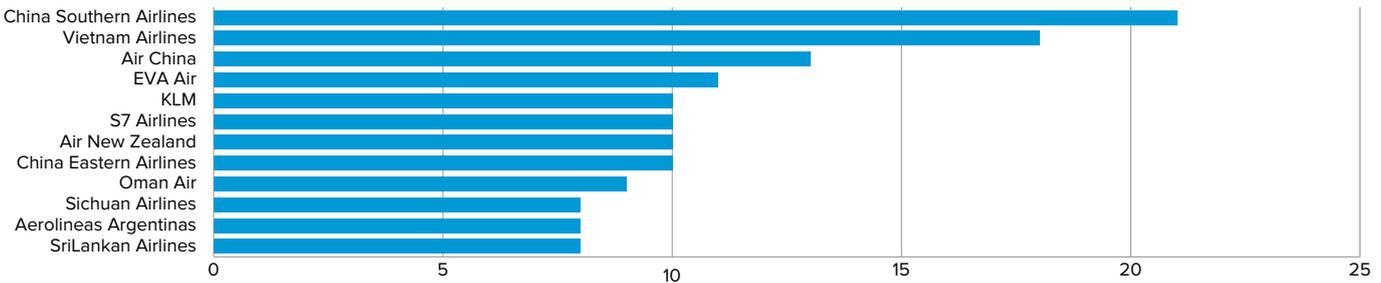


Air Lease Corporation fleet by region of lessee



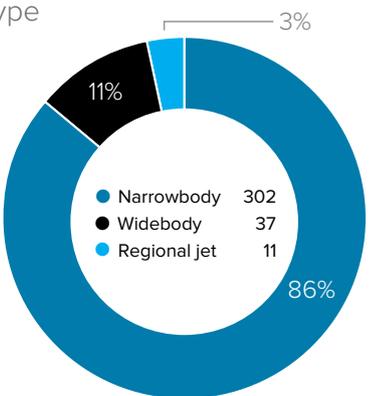
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

Air Lease Corporation top lessees

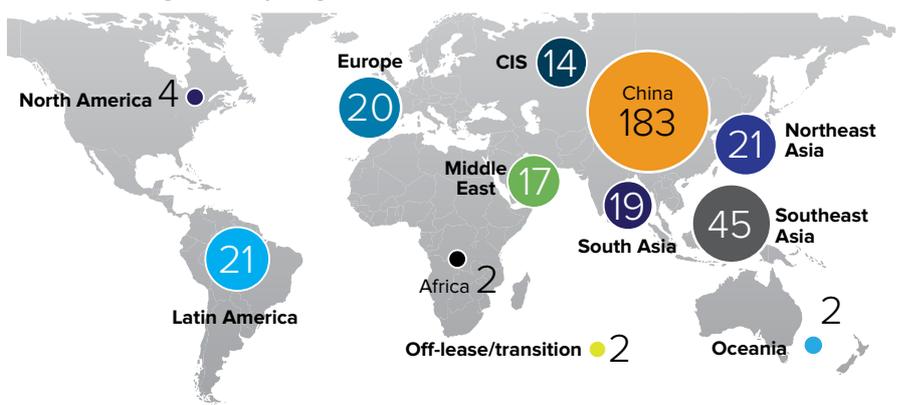


8= ICBC Leasing

ICBC Leasing fleet by aircraft type

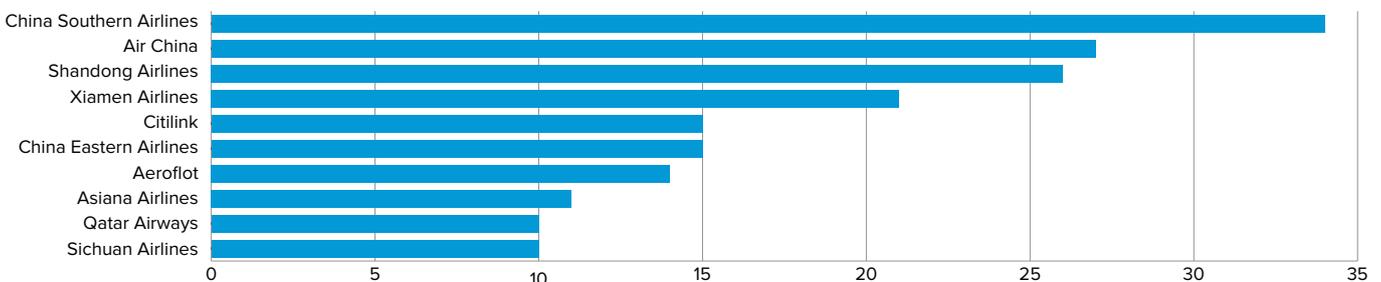


ICBC Leasing fleet by region of lessee



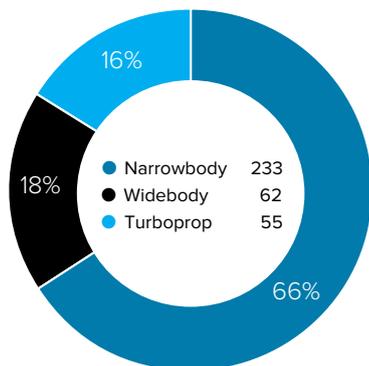
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

ICBC Leasing top lessees

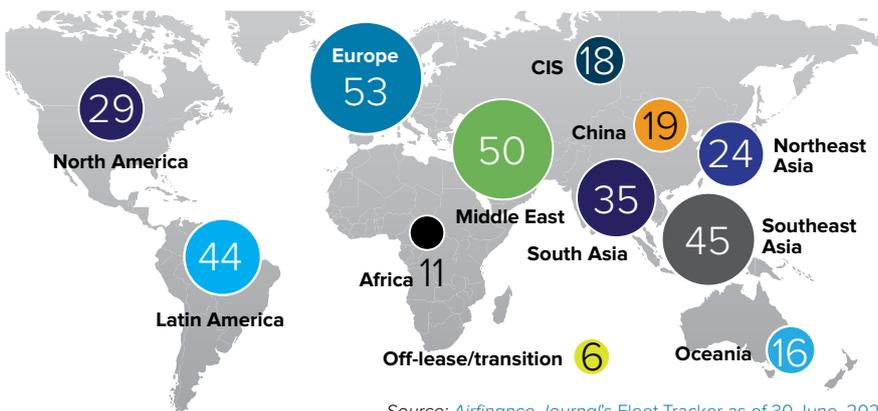


8= DAE Capital

DAE Capital fleet by aircraft type

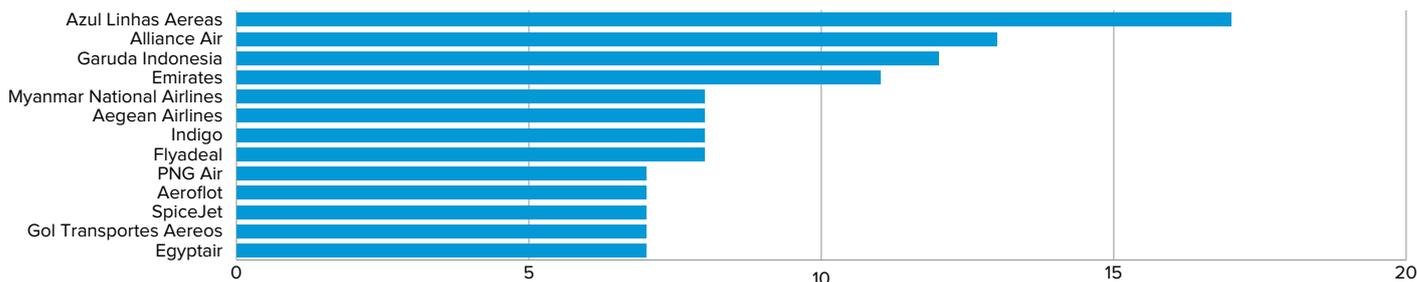


DAE Capital fleet by region of lessee



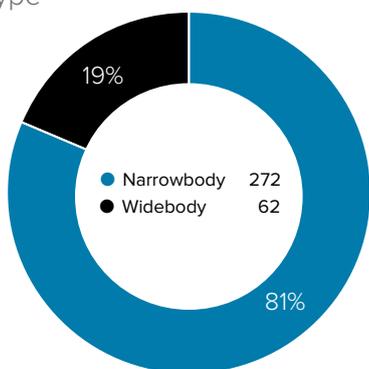
Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

DAE Capital top lessees

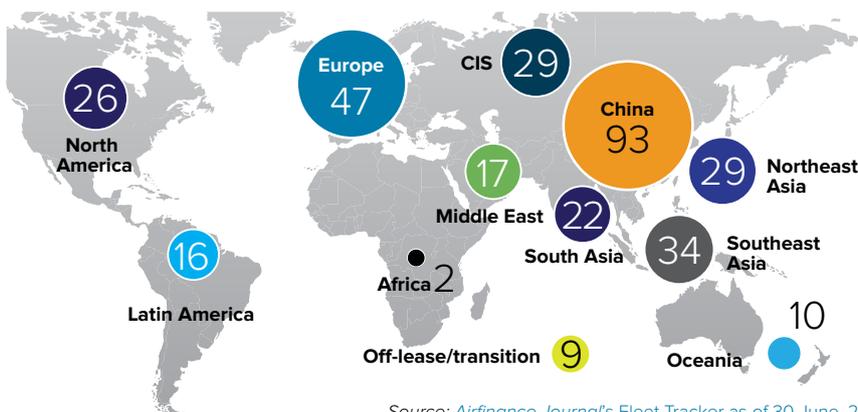


10 BOC Aviation

BOC Aviation fleet by aircraft type

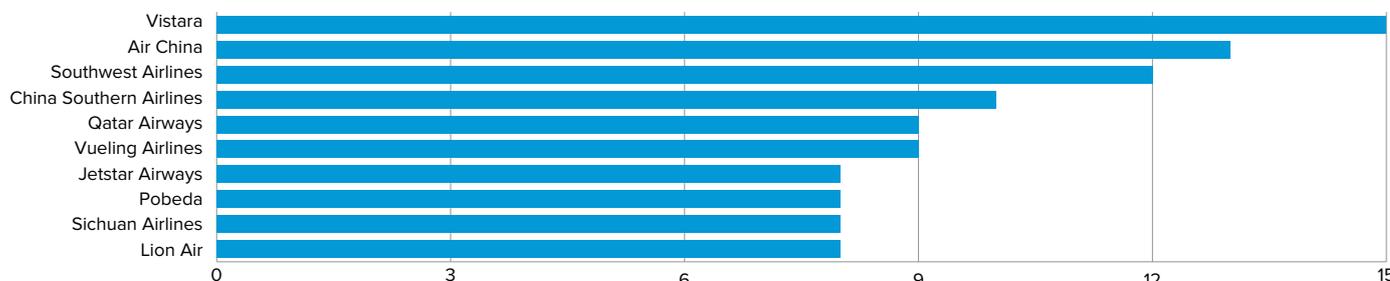


BOC Aviation fleet by region of lessee



Source: Airfinance Journal's Fleet Tracker as of 30 June, 2020

BOC Aviation top lessees



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