





With over 40 years of industry experience, GECAS is recognized as the pre-eminent commercial airline leasing company in the world. We offer a wide range of aircraft types and financing options, including operating leases and secured debt financing.

And GECAS' adjacency solutions include: spare engine leasing, aviation consulting services, and spare parts financing and management.

GECAS, a unit of GE Capital, has offices in 23 cities around the world, and services customers in 75+ countries.

Imagination at work.





EDITORS' LETTER

Lessors lap up cheap liquidity

Dickon Harris,
Airfinance Journal
editor, and
The Airline Analyst's
managing director,
Michael Duff,
introduce the latest
supplement that
examines the largest
aircraft lessors in the
market.

The clear trend from this year's Leasing Top 50 highlights, again, the gulf between the size and power of the top 10 lessors. As we show in the guide, the top 10 lessors account for 56% of the world's total leased fleet and 63% by value.

Lessors are fascinating corporates to study for several reasons. They fall somewhere between a finance company, an asset trader and an aircraft marketer while often combining the technical expertise of a maintenance, repair and overhaul shop.

In this year's leasing guide we have presented the top 50 lessors by the number of aircraft, as well as by aircraft value. Again, we have profiled the top 10 lessors based on the number of aircraft and selected lessors from Japan, Russia, China and the Middle East. The top 50 lists, along with the fleet analysis in the guide have been created using fleet data from AtlasData and aircraft values from Avitas, while the data in the key facts boxes on each profile have been provided by the lessors. In some cases there are minor discrepancies between the two.

Booming market

Generally, lessors represent much better credits than most of the airlines they service. Several lessors are now investment-grade rated, they tend to have much more liquidity than airlines and, unlike airlines, they have fewer overheads because they have fewer employees and can dispose of their assets much more easily. These differences are represented in the revenue and margins that lessors report compared with the airline industry.

The top 10 lessors whose financials are in the public domain all reported pre-tax margins of more than 20% in their most recent financial years. However, with less leverage than in earlier cycles, return on equity is not hitting the previous highs.

Relatively poor returns from other asset classes in the past few years has prompted an army of investors to look at aircraft, primarily using leasing companies, either through the acquisition of debt or through buying equity stakes. The combination of more investors, more liquid banks and new aircraft lessors has prompted increasing competition for sale/leaseback deals. This competition has become more intense because many airlines have more choices of funding.

Lessors have been big beneficiaries of the recent cheap liquidity but the flip-side is that many airlines which were forced to use the leasing channel, because of the lack of available financing during the financial crisis, are now able to borrow money directly. Again, this limits the amount of sale/leaseback transactions on the market.

Speaking to the biggest lessors in the industry, they indicate they are using the abundance of liquidity to help off-load a large portion of their fleet to willing buyers from other leasing firms. Lessors, such as Gecas, are very focused on keeping the age of their fleet young, and need to trade more than \$3 billion-worth of aircraft each year as they replace their fleet with newer aircraft.

Lessors have never been as powerful or been able to attract as much liquidity. As a result, several lessors with private equity owners are using a receptive market either to leave the leasing business, or do a partial sale.

Avolon is owned by Singapore's sovereign wealth fund, as well as private equity firms Cinven Ltd, CVC Capital Partners Ltd and Oak Hill Capital Partners.

Earlier this year sources confirmed the lessor was on a dual track process and filed for a US initial public offering in June, but has also mandated banks to help arrange a private sale as its existing shareholders look to sell the business. Aviation Industry Corporation of China, the Chinese state-owned aerospace firm, is rumoured to be linking up with China Investment Corporation, the Chinese sovereign wealth fund, to buy the Dublin-based lessor.

The planned sale by Awas of 100 younger jets is also taking advantage of the large numbers of willing investors, such as Hong Kong's Cheung Kong and SMBC Aviation Capital, to sell aircraft it purchased at a time when financing was at a premium.

AerCap's acquisition of ILFC has changed the leasing space by creating a second mega-lessor to accompany Gecas. The intense bidding for the Awas sale suggests that plenty of other leasing firms have ambitions to get much bigger and to try to close the current large gap between them and the big two. However, after the Awas and Avolon sales it is not obvious which lessors will allow themselves to be acquired. Leasing consolidation seems inevitable given the capital-intense nature of the leasing industry and the benefits of scale but it is anyone's guess on what time scale this will occur and who the participants will be.

DICKON HARRIS, Editor, Airfinance Journal

MICHAEL DUFF, Managing director, The Airline Analyst

Dickon Harris

+44 (0)20 7779 8853 dharris@euromoneyplc.com

Contributor Michael Duff

The Airline Analyst +44 (0) 7736 804460

Reporter

Joe Kavanagh +44(0)20 7779 8072

joe.kavanagh@euromoneyplc.com

Reporter

Michael Allen

+44(0)20 7779 8029

Michael.allen@euromoneyplc.com

Technical editor Geoff Hearn

Group sub editor Peter Styles Wilson

Production editor **Clare Wood**

Bryn Hossack +44 207 779 8857

bhossack@euromoneyplc.com

Advertising Executive

Ben Sharpington +44 (0)20 7779 8231

bsharpington@euromoneyplc.com

Business group manager

Andy Cook +44 (0)20 7779 8207

andy.cook@euromoneyplc.com

Divisional director

Roger Davies

SUBSCRIPTIONS / CONFERENCES HOTLINE

+44 (0)20 7779 8999 / +1 212 224 3570

hotline@euromoneyplc.com

CUSTOMER SERVICES

+44 (0)20 7779 8610

Nestor House, Playhouse Yard, London, EC4V 5EX

Executive chairman: Richard Ensor

Executive chairman: Richard Ensor
Directors: Sir Patrick Sergeant, The Viscount Rothermere,
Neil Osborn, Dan Cohen, John Botts, Colin Jones, Diane Alfano,
Christopher Fordham (managing director), Jaime Gonzalez,
Jane Wilkinson, Martin Morgan, David Pritchard, Bashar Al-Rehany
Printed in the UK by Wyndeham Grange Ltd
Southwick, East Sussex.
No part of this magazine can be reproduced without
the written permission of the Publisher. The Airfinance
Journal Ltd. Registered in the United Kingdom 1432333
(ISSN 0143-2257).

Aufmance Journal (USPS No: 022-554) is a full service business website and e-news facility with printed supplements for \$1750/€1295*/£1015* a year by Euromoney Institutional Investor PLC . (*£] and € prices are

subject to VAT)

Although Euromoney Institutional Investor PLC has made every effort to ensure the accuracy of this publication, neither it nor any contributor can accept any legal responsibility for consequences that may arise from errors or omis-sions or any opinions or advice given. This publication is not a substitute for specific professional advice on deals.

©Euromoney Institutional Investor 2013

CONTENTS

Editors' letter /02

Top 50 lessors by number of aircraft /04

Top 50 lessors by fleet value /05

Lessors' financials /06

An analysis and comparison of the financials behind some of the bestperforming aircraft leasing companies.

Top 10 leasing profiles /16

The leading lessors by size of fleet.

Gecas chases choppers /27

The world's largest lessor branches out into new asset classes as it begins to offer helicopter and ship financing.

Analysis of the world's leased fleet /30

Regional leasing focus: Russia /35

We analyse the regional leasing sector of Russia.

Lessor profile: VTB Leasing /37

Regional leasing focus: China /39

We analyse the regional leasing sector of China.

Lessor profile: CDB Leasing /41

Regional leasing focus: Japan /42

We analyse the regional leasing sector of Japan.

Lessor profile: MCAP /44

Regional leasing focus: Middle East /45

We analyse the regional leasing sector of the Middle East.

Lessor profile: ALAFCO /47

Lessor profile: Sahaab Leasing /48

Data providers: AtlasData, Avitas.

Photos by: exetermogs, Anthony Stanley, Dave Subelack, Edward Dalmulder, Altug Karakoc, Tiberio Frascari and Danis Jariys via flickr.com.



Airfinance Journal is a member of the Audit Bureau of Circulations. www.abc.org.uk

Top 50 lessors by number of aircraft*

Rank	Lessor	Total A	verage Age (yrs)¹	Turboprop	Regional jet	Narrowbody	Widebod
1	GECAS	1,659	10.9	28	392	1,069	17
2	AerCap	1,278	10.5	0	6	966	30
3	BBAM (incl FLY)	403	9.0	0	2	356	4
4	SMBC Aviation Capital	371	6.2	0	10	352	
5	CIT Aerospace	300	7.5	0	25	231	4
6	AWAS	297	8.3	0	0	244	5
7	Aviation Capital Group	267	9.4	0	0	258	
8	BOC Aviation	249	4.0	0	16	193	Δ
9	Air Lease Corporation	218	4.7	19	31	135	
10	Nordic Aviation Capital	177	10.7	156	9	12	
11	Aircastle	166	13.2	0	5	92	
12	ICBC Leasing	149	4.1	0	13	112	
13	Avmax	145	19.7	101	44	0	
14	Macquarie Airfinance	136	10.9	0	4	120	
15	CDB Leasing	124	4.8	0	20	71	
16	Avolon	122	2.9	0	6	102	
17	Jackson Square Aviation/MUFJ	111	3.7	0	0	100	
18	ORIX Aviation	106	10.9	0	2	91	
19	MC Aviation Partners	102	6.2	0	0	75	
20	Pembroke	101	5.8	0	0	86	
21	VEB Leasing	80	9.0	3	21	27	
 22	Hong Kong Aviation Capital	79	7.6	0	8	53	
 23	Skyworks Leasing	77	17.1	0	19	43	
24	Falko	75	15.8	3	64	8	
	ASL Aviation Group	62	24.4	29	0	26	
<u> 26</u>	Jet Midwest	56	27.1	0	2	35	
<u>2</u> 7	DAE Aerospace	54	7.3	0	0	31	
28	AerSale	52	23.5	0	0	42	
<u>29</u>	Investec	52	7.7	10	2	30	
<u>2</u> 3	Apollo Aviation Group	52	16.6	0	3	40	
30 31	Sky Holding	51	23.8	0	0	40	
31 32	ALAFCO	50	6.2	0	0	41	
32 33	Ilyushin Finance Corporation	49	7.2	0	14	22	
34	Bocom Leasing	49	3.3	0	0	37	
	0 	48	16.7	0	0	21	
35 26	Guggenheim Aviation Partners	48					
36 27	Jetran Lic	43	25.8	0	<u>6</u> 5	34	
37 20	Amentum Capital		6.8	0		26	
38	Goiania Leasing	43	14.4	0	20	16	
39	GOAL	42	8.3	18	9	12	
40	Aerocentury	42	20.3	31	11	0	
41	VTB Leasing	40	16.1	0	2	24	
42	Jetscape	38	5.7	2	34	2	
43	Deucalion	38	13.7	0	0	21	
44	VX Capital	37	23.2	1	0	33	
45	Aergo Capital	37	24.1	0	2	32	
46	Doric	36	5.0	0	0	6	
47	GA Telesis	36	19.7	0	10	20	
48	Acia Aero	35	21.3	35	0	0	
49	Rockton Aviation	35	21.2	35	0	0	
50	Jetstream Aviation Capital	35	21.3	35	0	0	
	Grand Total AtlasData * - includes aircraft on lease an	7,946	11.4	506	817	5,394	1,2



Top 50 lessors by value of fleet (\$m)*

						<u> </u>	
Rank	Lessor	Total	Average Age (yrs)	Turboprop	Regional jet	Narrowbody	Widebod
1	AerCap	\$36,933	8.4	\$0	\$87	\$21,828	\$15,01
2	GECAS	\$36,753	7.1	\$334	\$3,039	\$24,357	\$9,02
3	BBAM (incl FLY)	\$12,931	6.1	\$0	\$43	\$8,997	\$3,89
4	SMBC Aviation Capital	\$11,928	5.0	\$0	\$165	\$10,899	\$86
5	BOC Aviation	\$11,042	3.5	\$0	\$485	\$6,636	\$3,92
6	CIT Aerospace	\$9,482	5.5	\$0	\$664	\$6,424	\$2,39
. <u></u> 7	AWAS	\$9,387	5.3	\$0	\$0	\$6,961	\$2,42
. ' 8	Air Lease Corporation	\$8,413	3.7	\$325	\$803	\$4,547	\$2,73
9	Aviation Capital Group	\$7,034	5.8	\$0	\$0	\$6,824	\$21
10	ICBC Leasing	\$6,373	3.3	\$0	\$242	\$4,045	\$2,08
10 11	Avolon	\$5,619	2.7	\$0 \$0	\$140	\$3,918	\$2,08
ւ <u>։</u> Լ2	Aircastle	\$5,438	8.6	\$0 \$0	\$146	\$1,520	\$1,50
				\$0 \$0	\$543	\$2,377	\$3,77
13	CDB Leasing	\$5,218	4.4				
L4	Jackson Square Aviation/MUFJ	\$5,117	3.2	\$0	\$0	\$3,730	\$1,38
L5	Doric	\$4,145	4.1	\$0	\$0	\$150	\$3,99
L6	Pembroke	\$3,833	4.8	\$0	\$0	\$2,768	\$1,06
<u>.7</u>	MC Aviation Partners	\$3,686	5.3	\$0	\$0	\$2,555	\$1,13
L8	VEB Leasing	\$3,282	4.0	\$36	\$456	\$708	\$2,08
L9	Macquarie Airfinance	\$3,144	10.1	\$0	\$73	\$2,621	\$45
20	DAE Aerospace	\$2,983	5.1	\$0	\$0	\$850	\$2,13
21	ORIX Aviation	\$2,679	6.9	\$0	\$59	\$2,095	\$52
22	Hong Kong Aviation Capital	\$2,609	6.9	\$0	\$190	\$1,463	\$95
23	Bocom Leasing	\$2,509	2.3	\$0	\$0	\$1,334	\$1,17
24	Nordic Aviation Capital	\$1,974	5.6	\$1,686	\$245	\$43	\$
25	Amentum Capital	\$1,815	6.1	\$0	\$98	\$687	\$1,02
26	Guggenheim Aviation Partners	\$1,778	7.0	\$0	\$0	\$221	\$1,55
27	ALAFCO	\$1,729	5.2	\$0	\$0	\$1,377	\$35
28	Intrepid Aviation	\$1,722	1.9	\$0	\$0	\$51	\$1,67
29	Investec	\$1,671	6.9	\$124	\$41	\$877	\$62
80	China Aircraft Leasing Company	\$1,306	2.7	\$0	\$0	\$966	\$34
1	Banc Of America Leasing	\$1,092	5.8	\$0	\$0	\$544	\$54
2	Novus Aviation	\$1,050	5.2	\$0	\$5	\$58	\$98
3	Deucalion	\$962	10.7	\$0	\$0	\$324	\$63
4	Aircraft Leasing & Management	\$890	6.7	\$6	\$6	\$574	\$30
35	Titan Aviation Leasing	\$885	4.3	\$0	\$0	\$73	\$81
6	Dragon Aviation Leasing	\$861	3.2	\$0	\$0	\$755	\$10
	Showa Leasing	\$817	4.9	\$123	\$121	\$230	\$34
8	DS Aviation	\$811	3.2	\$0	\$0	\$0	\$81
9	Jetscape	\$784	5.2	\$19	\$722	\$43	······································
0	Apollo Aviation Group	\$694	15.5	\$0	\$8	\$545	\$14
1	GOAL	\$682	8.1	\$225	\$195	\$219	\$4 \$4
2	East Merchant	\$646	2.9	\$0	\$0	\$0	\$64
3	Skyworks Leasing	\$637	16.6	\$0	\$50	\$457	\$13
4	Goiania Leasing	\$524	8.8	\$0	\$146	\$286	\$9
5	Avmax	\$506	18.9	\$424	\$82	\$0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Sberbank Leasing	\$485	5.4	\$424 \$0	\$0	\$69	\$41
16							
17	Hong Kong Int. Av. Leasing	\$473 \$471	4.4	\$0 \$0	\$179	\$0 \$199	\$29
8	VTB Leasing	\$471	15.6	\$0 ¢0	\$4	\$188	\$28
19	Aldus Aviation	\$459	5.9	\$0	\$459	\$0	Ç
50	Al Sahaab Aircraft Leasing	\$442	4.8	\$0	\$0	\$442	ć o
	Grand Total : AtlasData/Avitas * - includes aircraft or	\$226,705	6.0	\$3,302	\$9,495	\$136,638 et Value as of Augus	\$77,27

veighted average by value

Lessors' Financials Compared

This study offers a comparison of the financial performance and capital structures of the aircraft leasing companies based on their most recent available financial statements (ending either in 2013 or 2014).

Lessor coverage

To make this report as comprehensive as possible, we have reached beyond the four major publicly listed lessors to the public filings of lessors in Ireland, Denmark and Singapore, and those that have recently published initial public offering (IPO) prospectuses.

Figure 1 identifies the entities included in the study. In total we have been able to source the financials for 18 leasing companies. Financials are not available for Gecas, but some headline numbers are available in GE's annual report.

SMBC Aviation Capital is included for the first time from its public filings, as well as Avolon and China Aircraft Leasing Corporation based on their IPO filings.

In addition to the obvious major players, we include the listed AviaAM from Lithuania (listed in Poland) and Avation plc from Singapore (listed in the UK). Most of the lessors in the study are incorporated in the USA or Ireland – though, of course, two of the largest, AerCap and BOC Aviation, are incorporated in the Netherlands and Singapore, respectively. The abbreviations used to refer to the lessors through the rest of this study are also indicated in Figure 1.

The lessors included in the study represent a total current fleet of 5,581 aircraft or 60% of the 9,365 aircraft analysed in the World's Leased Fleet section of this supplement. The significant absences

Figure 1 - Lessors Included in the Study

Lessor	Country	FYE	Abbreviation
AerCap Holdings NV	Netherlands	31-Dec-13	AerCap
Air Lease Corporation	USA	31-Dec-13	ALC
Aircastle Limited	USA	31-Dec-13	Aircastle
ALAFCO Aviation Lease & Finance Co KSC	Kuwait	30-Sep-13	ALAFCO
Avolon Investments SARL	Ireland	31-Dec-13	Avolon
Avation PLC	UK	30-Jun-14	Avation
AviaAM Leasing AB	Lithuania	31-Dec-13	AviaAM
Aviation Capital Group Corp.	USA	31-Dec-13	ACG
AWAS Aviation Capital Limited	Ireland	30-Nov-13	AWAS
BOC Aviation Pte Ltd	Singapore	31-Dec-13	BOCA
China Aircraft Leasing Group Holdings Ltd	China	31-Dec-13	CALC
FLY Leasing Limited	Ireland	31-Dec-13	FLY
Gecas	USA	31-Dec-13	GECAS
International Lease Finance Corporation	USA	31-Dec-13	ILFC
MCAP Limited	Ireland	31-Mar-14	MCAP
Nordic Aviation Capital	Denmark	30-Jun-13	NAS
ORIX Aviation Systems Limited	Ireland	31-Mar-13	ORIX
SMBC Aviation Capital Limited	Ireland	31-Mar-13	SMBC
VGS Aircraft Holding (Ireland) Limited (Volito)	Ireland	31-Dec-13	Volito

Source: company reports and The Airline Analyst

from our coverage include CIT and Macquarie, which do not file financial information publicly other than a few headline numbers, and BBAM (though we do include Fly).

Some lessors we included last year are not included because they had not filed their 2013 financial statements at the date of preparing this compilation. These are AerDragon, Banc of America Leasing (Ireland), CIT Aerospace International, Lease Corporation International, Pembroke Capital and Triangle (Falko).

For some lessors the entities analyzed 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 MCAP, SMBC and Orix, which have been heavily funded by shareholder loans, so interpret their numbers accordingly.

Adjustments

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



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
Impairment costs	Included in in operating costs
Staff cost, including stock based compensation	Included in SG&A expenses
Interest income Source: company reports and The Airline Analyst	Included in Other Revenue



Experience

KPMG is a leading provider of cross-border advisory services to the international aviation finance and leasing sector.

Tom Woods

tom.woods@kpmg.ie +353 1 410 2589

Killian Croke

killian.croke@kpmg.ie +353 1 410 2446

Declan Keane

declan.keane@kpmg.ie +353 1 410 1335

kpmg.ie/aviation





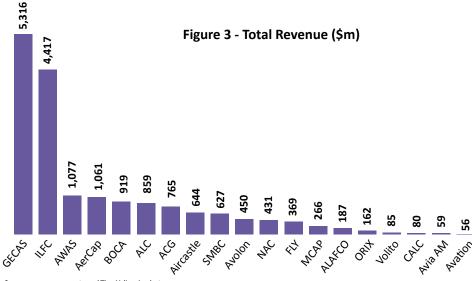


© 2014 KPMG, an Irish partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. The KPMG iname, logo and "cutting through complexity" are registered trademarks of KPMG International Cooperative ("KPMG International"), a Swiss entity. All Irights reserved. Figures 3 and 4 show the lessors ranked by revenue and net income. The revenue range of the lessors in the study is from \$5.3 billion for Gecas to \$56 million for Avation. The combined value of AerCap and ILFC would have put them in the number one position. The chart shows clearly how much the two leading players are ahead of the next tier of lessors, which include Awas, BOCA, ALC, ACG and Aircastle.

Net income ranged from \$896 million for Gecas (down from \$1.2 billion in 2012) to a loss of \$517 million for ILFC, driven by asset impairments. Volito and SMBC also posted losses, the latter largely because of breakage costs resulting from unwinding swaps with RBS. BOCA came third in profitability after Gecas and AerCap, up from fourth last year.

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 spread.

The top spots in the lease yield and spread ranking are dominated by lessors with the following characteristics: lessors of older and smaller aircraft with low book values to more challenging lessees and markets. Coming at the top in spread is AviaAM,



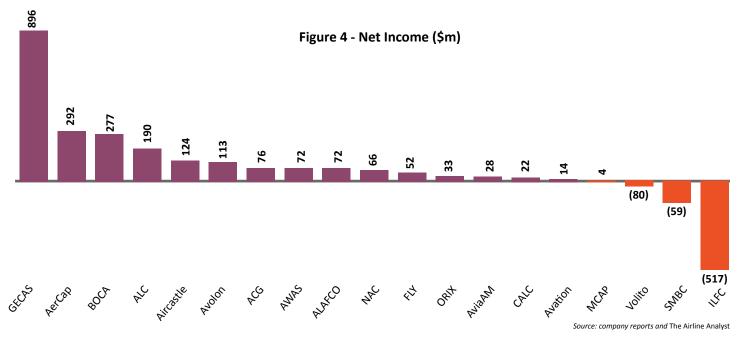
Source: company reports and The Airline Analyst

followed by NAC, Orix and Volito. Surprisingly BOCA comes close to the bottom of the lease yield, ranking at 9.7%, but makes it up with the lowest debt finance cost of 2.1%, resulting in a mid-range spread of 7.6%. Notably SMBC had the lowest lease yield in the group, a full 100 basis points lower than the next lowest, Alafco. Four of the major les-

sors – ACG, Avolon, SMBC and ILFC – made up the bottom four in spread achieved.

Finance costs range from BOCA's low of 2.1% to AviaAM's 13.5% as shown in Figure 5. Others at the low end of the scale include MCAP and SMBC but most of their debt was shareholder provided.

ALC and AerCap show a very creditable mid-300

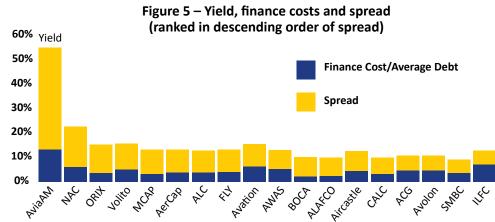


"AviaAM is at the efficient end of the SG&A expenses scale, with the benefit of its Lithuanian cost base, as are CALC, ACG and BOCA."

basis points cost of debt.

Other lessors at the higher end include ILFC and Avation. With their strategy to increase the proportion of unsecured debt, NAC and Aircastle are also showing a relatively high cost of borrowing. ILFC's profitability was impacted by the impairment losses mentioned above and the uncertainty about its future, which increased its funding costs to 6.5%, the fifth highest in the group.

Another measure of efficiency is sales, general and administrative (SG&A) expenses as a percentage of revenues as shown in Figure 6. The growing and larger lessors should benefit from economies of scale and operating leverage. Unfortunately, the disclosure on this parameter is inconsistent between



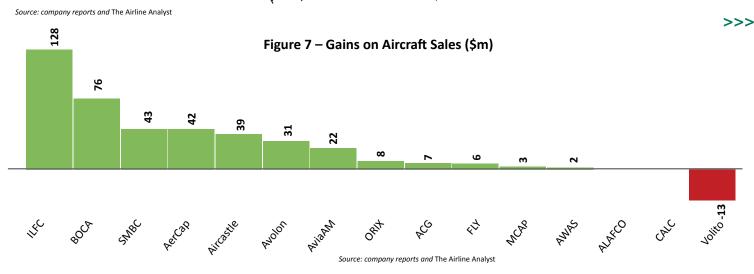
Source: company reports and The Airline Analyst

Figure 9 Services as \$ 0 of reverse to 10.3% | 12.4% | 12.4% | 12.2% | 10.1% | 12.4% | 12.2% | 10.1% | 12.4% | 12.2% | 10.1% | 12.4% | 12.2% | 10.1% | 12.4% | 12.2% | 10.1% | 12.4% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.1% | 12.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% | 10.2% |

the lessors, so this metric should be interpreted with caution. AviaAM is at the efficient end of the scale, with the benefit of its Lithuanian cost base, as are CALC, ACG and BOCA. At the higher end are MCAP, Orix, Avation, SMBC and ALC. Volito's leasing and administrative functions appear to be performed by third parties or other members of the group.

Gains/losses on sales

Although gains from aircraft sales were thin on the ground, they nevertheless made a significant contribution to the profitability of a number of lessors as shown in Figure 7.



"Impairments had a significant impact on ILFC, Gecas and Awas in particular."

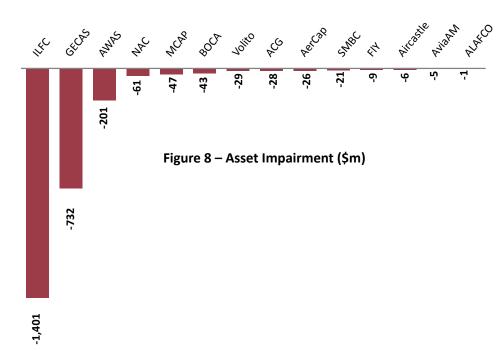
Impairments

Impairments were similarly not universal but had a significant impact on ILFC, Gecas and Awas in particular, as shown in Figure 8.

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, earnings before interest, taxes, depreciation and amortization (Ebitda) interest coverage and liquidity.

Leverage: the debt/equity ratio is the simplest measure of capital structure and is universally understood. The chart in Figure 9 shows the majority of lessors in a range of two times to four times on this measure, with Volito and CALC above this range. We have excluded SMBC, Orix and MCAP from this chart because their shareholders provide most of their leverage, which enables them to support a more highly leveraged debt structure.



Source: company reports and The Airline Analyst

Figure 10 – Lessor credit ratings

Fitch

BB+

BBB-

A+

Moody's

Ba2

Ba2

Ba3

(pos)

Ba3

В3

B1

S&P

BB+

BBB-

BB+

BBB-

BB+

BBB

ВВ

													_		
			Fi	gure (9 – I av	uerage	. Det	nt/Fai	uity (x	١			12.1	AerCap	E
				guic .	Le	rcrage	DCk) t, Eq.	uity (A	,				Air Lease Corp	-
														Aircastle	-
														Aviation Capital Group	E
												6.3		AWAS Aviation Capital Limite	d ⁻
										6	4.1			BOC Aviation	ļ
						2.6	2.7	3.4	3.8	3.9	4			CDB Leasing Co., Ltd.	ļ
	2.1	2.2	2.3	2.3	2.5	2	2							CIT Group Inc	-
0.4														DAE Aviation Holdings	-
Maji	NAS	_{sk} O	PIC	sile	ation	a Coo	W.C	43	&OCP	MAC	₽Ç [©]	Jolito	CALC.	FLY Leasing	-
<i>b</i> ₂ .	Υ.	by.	,	pisc	12 July 1	₽ _E					eports and			Source: Fitch, Moody's and S&P	

"MCAP has the least amount of secured debt and is 100% funded by shareholder loans."

Debt structure: borrowing on an unsecured basis 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. ALC obtained an investment-grade rating from Standard & Poor's (S&P), which cited its low level of secured debt as being a key consideration.

The only other lessors with an investment-grade rating are ACG, which has been issuing unsecured debt and paying down secured debt in recent years, and BOCA, which benefits from its Bank of China ownership. AerCap lost its investment-grade ratings as a result of its acquisition of ILFC, which increased leverage significantly. The lessor, however, intends selling assets and reducing leverage with a view to regaining investment-grade levels as soon as possible in order to obtain

an improvement in its financing terms.

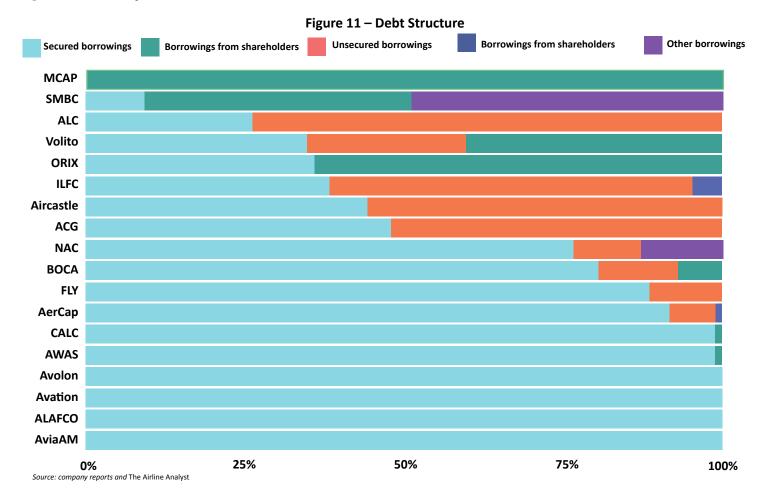
Standard & Poor's cites a ceiling of a BB+ unsecured rating for private equity-owned lessors, such as Awas, because of financial policy concerns

Figure 11 shows the debt structures on a proportional basis for the lessors ranked in order of the lowest proportion of secured debt at the top to least at the bottom. The chart also shows shareholder loans and other loans that could not be classified due to lack of information.

Ranking with the least secured debt is MCAP which is 100% funded by shareholder loans. SMBC's debt structure also features a large element of shareholder funding and a \$2.9bn loan from a third-party (which refinanced an earlier shareholder loan), the source and structure of which is not disclosed in the financial statements.

ALC is next, with its 75/25 unsecured/secured debt structure which supports its BBB- investment grade rating. Then follow ILFC, Aircastle and ACG who all have significant portions of unsecured debt in their debt structures.

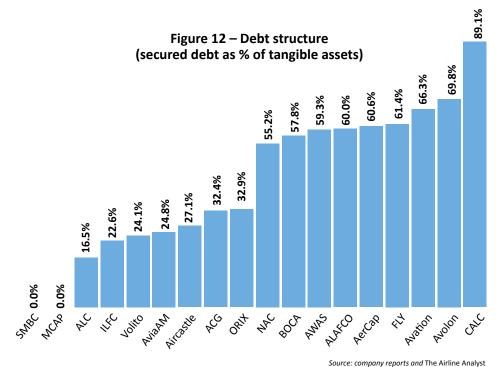
NAC raised a \$230m unsecured 5 year term loan facility in 2012/13 of which \$130m was outstanding at balance date. BOCA has been a regular visitor to the unsecured capital markets in several jurisdictions but secured borrowing remains the dominant source of debt which causes S&P to "notch down" by one notch their rating on specific unsecured issues. FLY raised a \$300m 7 year unsecured facility at a coupon of 6.75% in November 2013. AerCap had \$450m of unsecured financing outstanding at balance date. The remaining six lessors all have 100% or near 100% secured debt structures.

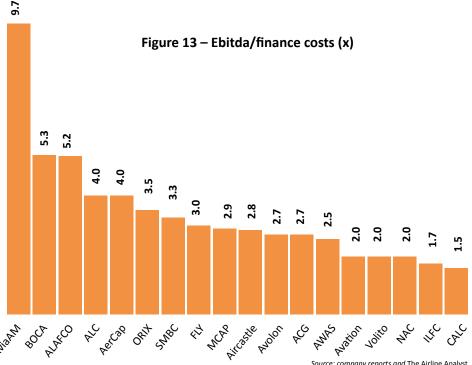


"The majority of lessors covered by the study have an Ebitda twice that of their finance costs."

Figure 12 shows secured borrowing as a percentage of tangible assets, which indicates the level of protection available for unsecured creditors. The data for MCAP reflects its 100% shareholder funding debt structure. For SMBC, we have assumed its \$2.9 billion third-party loan is unsecured.

The next five best ranked lessors reflect significant amounts of unsecured funding. The two with the least protection for unsecured creditors are those most recently preparing for or executing IPOs: Avolon and CALC. Notably, however, much of Avolon's secured debt does not have recourse to the general credit of the company, and some of Awas's debt is structured in the same manner.

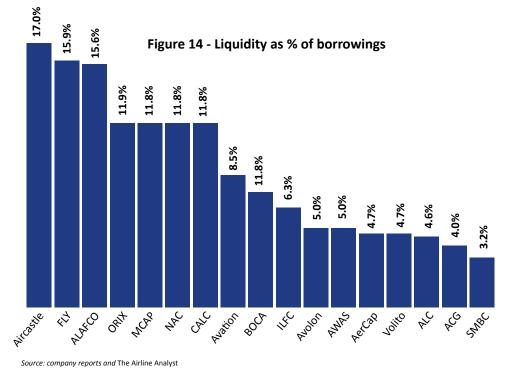




Interest coverage: interest coverage measured as Ebitda/finance costs is another key aspect of financial flexibility. From Figure 13 we see that the majority of lessors covered by the study have a healthy coverage of at least two times and many have much better coverage than that, particularly AviaAM, BOCA, Alafco and ALC. A sharp contrast can be seen with those further down the chart such as CALC and ILFC.

Liquidity: Figure 14 shows unrestricted cash liquidity as a percentage of total borrowings. We have removed AviaAM from this chart because its value of 137% is much higher than the others for which this measure ranges from a low of 3.2% for SMBC (which has access to parent funding) to a high of 17% for Aircastle. Some of the lessors additionally have committed bank facilities, such as BOCA, which has \$2 billion-worth of such lines from its parent group, Aircastle, which put in place in

Source: company reports and The Airline Analyst

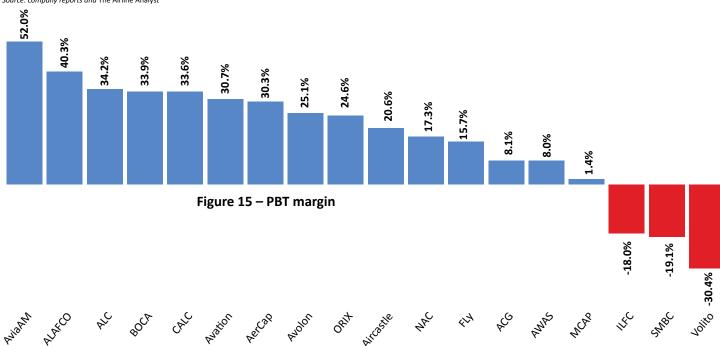


2013 a \$750 million unsecured revolving credit, and ALC, which put in place a \$1.7 billion four-year unsecured revolving bank facility.

As of December 31 2013 ACG had slightly in excess of \$1 billion available under its unsecured revolving credit facilities and, as part of its acquisition of ILFC from AIG, AerCap obtained a committed five-year \$1 billion unsecured revolving credit facility from AIG.

Returns

Profit before Tax: As an overall measure of profitablity, we have assessed profit before tax as a percentage of total revenue as shown in Figure 15. This suggests that the lessors at the top 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 - fleet ultilisation and maintenance/transition costs.

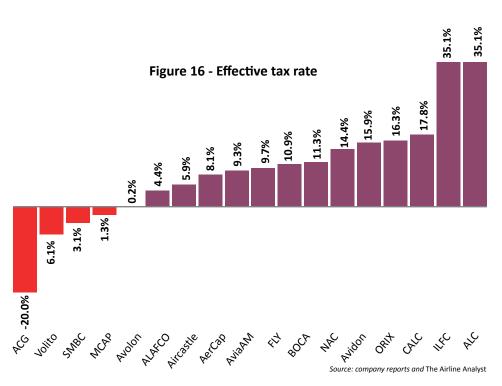


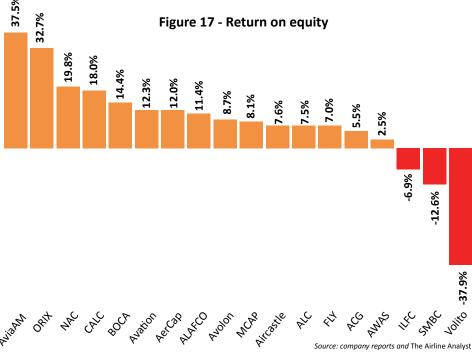
Source: company reports and The Airline Analyst

"Few lessors generated a return on equity substantially more than 10% a year despite improving rental markets and low interest rates."

Tax rate: one of the drivers of net profitability is the effective tax rate on profits. Figure 16 shows that, with two exceptions, effective tax rates are all below 20%. So it is not just Ireland and Singapore that would appear to offer attractive fiscal regimes for aircraft operating lease companies.

Return on equity: return on average equity is shown in Figure 17. Of note, despite some meaningful leverage, return on equity of more than 10% was achieved by slightly fewer than half of the lessors under study. Those that exceeded this threshold include AviaAM, Orix, NAC, CALC and BOCA. The returns for Awas, ILFC and Volito were severely dragged down by impairment charges and SMBC by swap breakage costs.





Conclusion

This study has covered much material in a relatively few pages and it may have raised as many questions as it answers. If that is the case then it has achieved its objectives. It has shown some of the key dynamics affecting aircraft lessors' business models, which are more varied than would appear the case at first inspection.

And it has concluded with a surprising one: few lessors generated return on equity substantially more than 10% a year despite improving rental markets and low interest rates.

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

A world of growth.



A diverse and expanding customer base, over \$1.5 billion in new capital and 240% growth - just look where Genuine Agility gets you.



Stamford

Phone: +1 203 905 4220

Singapore

Phone: +65 6408 0192

Dublin

Phone: +353 1 901 8400

See more at IntrepidAviation.com

Gecas

Gecas remains the world's largest lessor by number of aircraft, with more than 1,500 aircraft and a further 267 on order, and about \$44 billion-worth of assets on its books.

Although it has done some ABS deals in the past, the leasing firm continues to be prodominantly funded by its parent company, GE. This has given it access to considerably cheaper financing than practically all of its peers, and means the leasing firm is less exposed to market volatility.

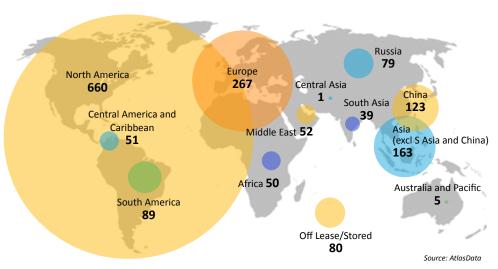
The firm says demand and lease rates remain solid for all in-production types. A Gecas spokesman adds: "Softness is seen on some out-of-productions types such as the MD-11, 767 and 747-400 but our exposure to these types is limited and shrinking."

Gecas generally takes delivery of half its total fleet from its order book and does the other half through purchase/leaseback transactions. In addition, it finances additional aircraft through its secured lending team.

Speaking to Airfinance Journal last year, Norm Liu, Gecas's chief executive officer, explained that the firm was "tapering" its acquisitions of current technology aircraft in preparation for the newest narrowbodies set to deliver in the next two years.

Commenting on the firm's fleet plans for next year, a spokesman says: "Gecas will continue to acquire aircraft, albeit at a slower pace than the traditional about 100 per year, due to the upcoming

GECAS Fleet by Region of Lessee

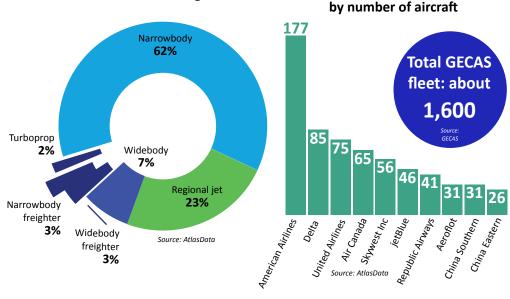


technology shift."

Gecas has been an active buyer in the past few years so, as a result, has substantially restocked its order book. The spokesman adds: "The biggest hurdle to placing additional orders is the lack of availability for anything other than very distant order positions. We will, however, continue to buy new aircraft when the right opportunity arises."

GECAS Top Lessees

GECAS Aircraft Categories



GECAS Key Facts

OLCAS NEW Facts					
Name:	GE Capital Aviation Services				
	(Gecas)				
Country:	US/Ireland				
Founded:	1993				
Ownership:	General Electric Company				
Hoad Office:	Dublin				
Number of Employees:	510				
Size of Fleet:	About 1,600				
Size of Fleet:	(owned and serviced)				
Average Age of Fleet:	Seven years				
Number of Lessees:	230-plus				
Order Book:	267 aircraft				
Delivery commitments (as of June 30 2014)	\$31.5 billion (at list prices)				
Unsecured Credit Ratings:	Gecas does not have a standalone credit rating because it is part of GE Capital				
Fitch	n/a				
Moody's	n/a				
Standard &Poor's	n/a				
Total assets (as of June 30 2014)	\$44 billion (as of June 30 2014)				
Net income (as of June 30 2014)	\$695 million (YTD)				

Source: GECAS

AerCap

AerCap's \$7.6 billion acquisition of International Lease Finance Corporation (ILFC) has changed the leasing landscape and created a leasing firm that has a chance of challenging Gecas as the world's

AerCap Holdings paid \$3 billion in cash to AIG, in addition to the American corporation taking 46% of AerCap's ordinary shares. Earlier this summer AerCap issued \$2.6 billion-worth of privately placed senior notes to help with the acquisition. AerCap's main shareholder, Waha Capital, has stated it will retain about a 14.1% stake in the new combined leasing firm.

The closure of a sale deal has been a long-time coming for AIG, which announced its intention to offload its non-core leasing business ILFC in the wake of the global financial crisis. A bid for the company by a Chinese consortium last year failed to go ahead.

AerCap now has 1,300 owned and managed aircraft in its fleet and a further 400 high-demand, fuel-efficient aircraft on order. In August AerCap, in an earnings presentation, stated that its integration with ILFC was "on track", and that 90% of ILFC aircraft had been transferred to AerCap's existing operations in Ireland.

AerCap has enviable slots for new-technology aircraft. The company boasted it had committed to purchase 350 aircraft with scheduled delivery dates up to 2022. It added that more than 90% of

AerCap Fleet by Region of Lessee



its committed aircraft purchases delivering 2014 through to December 2016 and approximately 50% of its committed aircraft purchases delivering 2014 through to 2022 are placed, either under lease contract or a letter of intent.

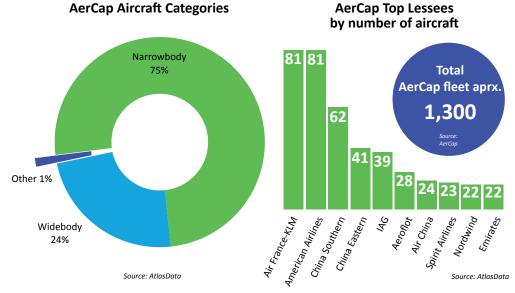
The merger between the two firms has been the product of cheap and readily available liquidity. Since the announcement of the transaction AerCap has raised \$7 billion-worth of funding

through a combination of an unsecured revolver, a term loan and an ILFC acquisition-related take-out financing. A

AerCap Key Facts

_	
Name:	AerCap
Country	The Netherlands
Founded:	1995
Ownership:	Public company (NYSE: AER), 46% AIG 14% Waha, for other top holders see
	http://www.aercap.com/investor
	relations/shareholder-information
Head Office:	Amsterdam Schiphol Airport
Number of Employee	
Size of Fleet:	Approx. 1,300 aircraft
Number of Lessees:	200+ lessees in 90+ countries
Order Book:	Approx. 400 aircraft
Delivery Commitments of 30 June 2014):	
Unse	ecured Credit Ratings:
Fitch	BB+
Moody's	Ba2
Standard &Poor's	BB+
Total Assets (\$) (as of 30 June 2014)	\$44 hillion
Net Income (\$) (as of 30 June 2014) H1 2014	Reported \$193 million Adjusted \$292 million
Source: AerCap	

AerCap Aircraft Categories



BBAM (incl FLY)

BBAM is the largest independent aircraft manager with about 403 aircraft under management, including 122 aircraft owned by Fly Leasing. Fly uses BBAM's worldwide network for all of its marketing, technical, legal, financial and administration needs.

Listed lessor Fly states its strategy is to diversify its debt from wholly secured in 2013 to partly unsecured

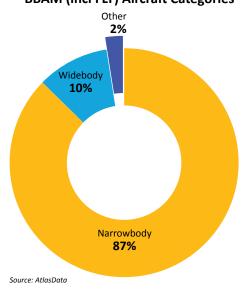
In a recent earnings call the lessor reported that lease rates for the aircraft Fly focuses on, which are mainly the latest generation narrowbodies, including the Boeing 737 Next Generation and A320-family aircraft, have been strong, and demand has been very good. As the firm closed out its second-quarter 2014, demand for in-production narrowbodies remained healthy.

This year the lessor reported a \$19.8 million drop in its net income compared with the same second quarter last year. Fly attributed the decline to a decrease in operating lease revenue because of the off-lease aircraft and expenses from delivering aircraft to new lessees.

Fly states it expects its annual fleet growth rates to remain at about 15%. It has acquired 16 aircraft so far in 2014, and has a committed pipeline to acquire more aircraft.

In September the company announced it is to acquire two Airbus A330-300 aircraft that were manufactured in 2013 and are on lease to a leading airline in Asia on a sale/leaseback transaction. In

BBAM (incl FLY) Aircraft Categories



BBAM (incl FLY) by Region of Lessee

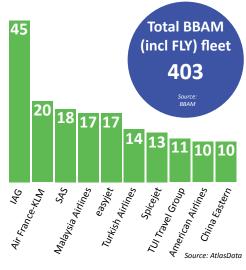


August it acquired a Boeing 737-800 to be leased to a leading airline in North America and an Airbus A330-300 on lease to a major carrier in Asia.

In July Fly signed agreements with a leading Asian airline to purchase/leaseback three A330-300 aircraft.

In addition to fleet growth Fly is also rebalancing its portfolio and has reduced its out-of-production aircraft from 20% of net book asset value to 7.9%.

BBAM (incl FLY) Top Lessees by number of aircraft



BBAM*/FLY Key Facts

BBAM*/FLY Key Facts						
Name:	Fly Leasing					
Country:	Ireland					
Founded:	2007					
Ownership:	Publicly listed (NYSE: FLY); 8% ownership by management					
Head Office:	Dublin, Ireland					
Number of Employees:	Zero (fleet managed by BBAM)					
Size of Fleet:	403* as of August 2014					
Average Age of Fleet:	8.7 years weighted by net book value of each aircraft at June 30 2014					
Number of Lessees:	65					
Order Book:	None					
Delivery Commitments (as of 30 June 2014):	-					
Unsecured Cre	dit Ratings (FLY):					
Moody's	B1					
S&P	ВВ					
Total Assets (FLY) (as of 30 June 2014):	\$3.58 billion					
Net Income (FLY) (as of 30 June 2014):	\$25 million (first six months of 2014)					

Source: BBAM/Ratinas Agencies

SMBC Aviation Capital

SMBC Aviation Capital (SMBC AC) has plans to increase the size of its leasing platform. The firm has been linked with consistent rumours that it is in the market to acquire a rival lessor since the acquisition by an SMBC-led consortium to buy RBS Aviation Capital in 2012. *Airfinance Journal* reported that SMBC AC is one of the five bidders for Awas's 100-aircraft portfolio.

In July the Japanese leasing firm has placed firm orders for 110 A320neos and five A320ceos. The deal is worth about \$11.8 billion at list prices. The lessor states the order will increase its aircraft portfolio by about 10%. As part of the order SMBC AC has the option of converting the majority of the A320neos and all of the A320ceos into Airbus A321 variants.

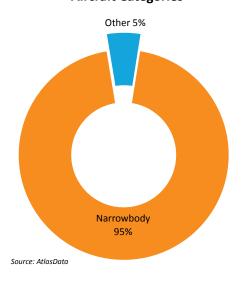
Since 2012 the lessor has completed 146 new deals, traded more than 50 aircraft and delivered 73 aircraft.

The firm sold 13 aircraft recently to Chineseowned Minsheng Financial Leasing, and plans to grow its portfolio and remain active in the market, assuming that a suitable risk reward-ratio is maintained.

Its fleet totals 350 aircraft with an average age of four-and-a-half years. It leases to 95 airlines and has an order book of 125. The financing strategy remains unchanged: it continues to source funds directly from its owners.

SMBC is primarily involved in the narrow-

SMBC Aviation Capital Aircraft Categories



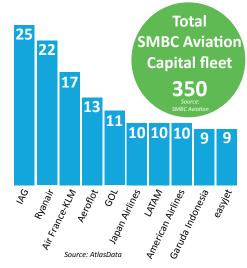
body market. Lease rates in the sale/leaseback market are, it says, driven by new entrants, which

seem keen to build their business. Rates for the

older aircraft are more a function of supply fac-

On balance, the firm says it still sees the 737-800 command a lease premium to the A320 but that demand remains good for both aircraft types.

SMBC Aviation Capital Top Lessees by number of aircraft



SMBC Aviation Capital Fleet by Region of Lessee



Source: AtlasData

Source: SMBC

SMBC Aviation Capital Key Facts

0111201	or and the production of the state
Name:	SMBC Aviation Capital
	Republic of Ireland
Country:	(headquarters)
Founded:	2001
Ownership:	Consortium consisting of Sumitomo Mitsui Banking Corporation, Sumitomo Mitsui Finance & Lease and Sumitomo Corporation
Head Office:	Dublin
Number of Em	ployees: 127
Size of Fleet:	350
Average Age	of Fleet: 4.5 years
Number of Le	•
Order Book:	125
Delivery commitments (as of June 30	51 aircraft
Unsecured Cr Ratings:	edit n/a
Fitch	n/a
Moody's	n/a
Standard & Po	oor's n/a
Total assets (as of June 30	2014) Undisclosed
Net income (as of June 30	2014) Undisclosed

Airfinance JOURNAL

CIT Aerospace

US-based CIT Aerospace owns more than 350 aircraft. The company states it is actively increasing the number of different types it owns to offer "the whole gambit" of aircraft products, citing its expectation that aircraft are set to double in number over the next 20 years.

It has both new and used aircraft on offer for sale/leasebacks, and claims 98% of the fleet are in-production aircraft.

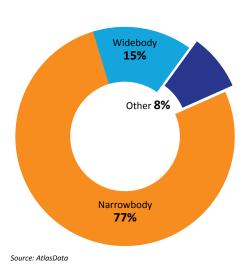
CIT continues to grow its portfolio, with significant new orders this year. The North American lessor announced at the Farnborough Airshow it had committed to ordering 15 A330-900neo and five A321-200ceo Airbus aircraft, as well as 10 787-9 Boeing Dreamliners. It has also finalized a deal with Rolls-Royce for Trent 7000 engines for its Airbus A330-900neo aircraft.

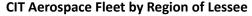
Speaking at a recent investor day, Jeff Knittel, president of CIT Transportation & International Finance, said the firm's strategy was to offer newer in-demand aircraft that provide better fuel efficiency. CIT claims these new types of aircraft also offer higher yields.

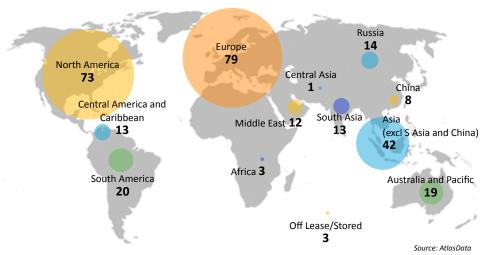
CIT states it is starting to place the aircraft on order, with the single-aisle models typically being placed 12 to 18 months ahead of delivery and the widebodies two to three years ahead.

The lessor adds it will rely increasingly on

CIT Aerospace Aircraft Categories



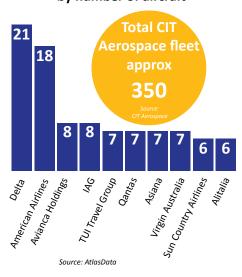




CIT Bank to fund its incoming deliveries. The bank already provides more than 40% of funding to the company, and offers a great competitive advantage for the leasing business.

CIT states it is well diversified in terms of customer spread, with Asia accounting for 38% of the current book. The US is a prime target because of the country's profitable airlines, which are looking to replace their fleet.

CIT Aerospace Top Lessees by number of aircraft



CIT Aerospace Key Facts

CIT ACTOSPACE KEY FACES					
Name:	CIT Aerospace				
Country:	USA				
Founded:	`1908 (CIT Group Inc.)				
rounded.	1908 (CIT Gloup IIIc.)				
Ownership:	CIT Group Inc. (Parent Company) – Public				
Head Office:	New York, NY				
Number of Employees:	3,170 (CIT Group Inc.)				
Size of Fleet:	Approx 350 (owned and financed commercial aircraft)				
Average Age of Fleet:	Approx 6 years				
Number of Lessees:	Approx 100				
Order Book:	139 Aircraft				
Delivery Commitments (as of 30 June 2014):	Approx \$9.1 billion				
Unsecured	Credit Ratings:				
Moody's	Ba3 (CIT group Inc.)				
S&P	BB- (CIT group Inc.)				
Total Assets (as of 30 June 2014):	Approx \$9.8 billion				

Source: CIT Aerospace

AWAS

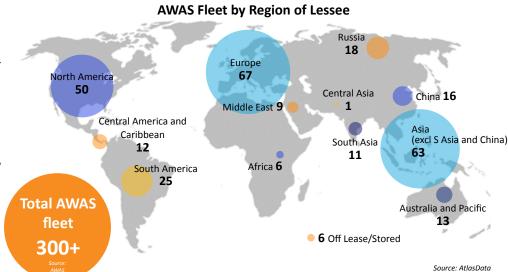
Awas hit the headlines this summer when it annouced its intention to sell 100 aircraft valued at between \$4 billion and \$5 billion. Cheung Kong Holdings, SMBC AC, HKAC, Macquarie and Orix have all been shortlisted in the second round of bids for a portfolio consisting mainly of A320s and 737s, including a few widebodies.

Awas began life as a joint venture between TNT and News Corporation, the then owners of Ansett Airlines between 1985 and 2000, when it was sold to an affiliate of Morgan Stanley for nearly \$600 million and called Ansett Worldwide. Then, in 2004, it was rebranded to Awas. In 2006, ownership of the lessor transferred again when it was sold to UK hedge fund Terra Firma.

Mark Tender, Awas's vice-president of marketing and communications, explains to *Airfinance Journal*: "Awas believes in a balanced financing approach so as to not over-extend in one area. This includes unsecured, term loans, capital markets, bank debt and Jolco [Japanese operating lease with call option] structures. Awas has a pro-active corporate finance approach and has strong, tenured global banking relationships."

The lessor has been acquiring \$1 billion to \$1.5 billion of assets – above its order book with Airbus and Boeing – in the secondary market every year for the past several years.

"We plan for this successful strategy to continue and increase in velocity," says Tender.

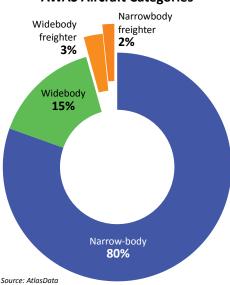


Awas has a total fleet of more than 300 aircraft with over 100 operators in more than 50 different countries. It has more than 20 different aircraft types in its leasing portfolio, including A319-100s, A320-200s, A321s, 737 family, 757-200s, A330 family, A340-300s, 767 family, 777 family, 747-400, as well as several types of freighter aircraft.

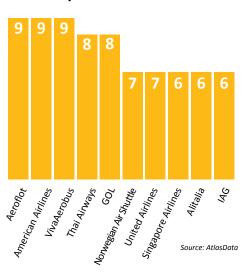
When asked whether it is likely to make a direct order from a manufacturer in the next 12 months,

Tender says: "Due to the historic long lead times for new aircraft from the OEMs [original equipment manufacturers] combined with airlines' almost 12,000 airliners on order, Awas will continue to focus on acquiring assets in the secondary market via bespoke portfolios of aircraft as well as assisting airlines via PLB [purchase/leaseback] financing solutions. However, we do not rule out a speculative order should the correct opportunity present itself."

AWAS Aircraft Categories



AWAS Top Lessees by number of aircraft



AWAS Key Facts

Name:	AWAS
Country:	Ireland
Ownership:	Terra Firma and Canada Pension Investment Board
Head Office:	Dublin
Number of Employees:	135 at 30 November 2013
Size of Fleet:	300+
Number of Lessees:	100+
Unsecured Credit Ratings:	
S&P	BB+
Total Assets (as of 30 June 2014):	\$10+bn

Aviation Capital Group

Based in California, Aviation Capital Group (ACG) is owned by 146-year-old A+-rated insurance vendor Pacific Life. Founded 25 years ago, it is also one of the oldest-running aircraft lessors. ACG's 260-aircraft fleet consists mostly of A320s (50% of value) and 737s (47%).

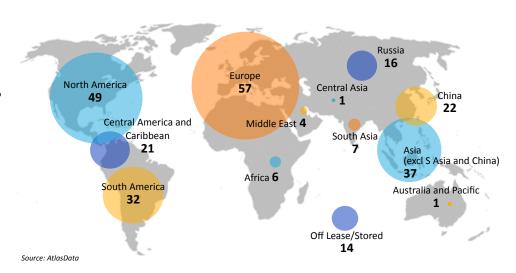
The lessor plans to increase the percentage of widebody aircraft in its fleet from about 4% to 15%. In particular, it is eyeing up A350s and 787-9s to complement the Dreamliners it already has on order. Chief executive officer Denis Kalscheur says ACG will seek these aircraft opportunistically, either through sale/leaseback deals or through trading on the secondary market.

"We can improve our risk-adjusted returns by blending in some portion of widebodies with our narrowbody fleet," adds Kalscheur.

ACG is able to buy aircraft because of its ability to access debt. The lessor's unsecured credit ratings of BBB- with Standard & Poor's and Fitch mean it is able to meet the bulk of its financing needs with corporate unsecured debt, at what Kalscheur refers to as "very competitive rates". He adds that secured debt accounts for less than 30% of the lessor's assets.

"We have issued unsecured capital markets financing in the US and in Asia. But on the

ACG Fleet by Region of Lessee



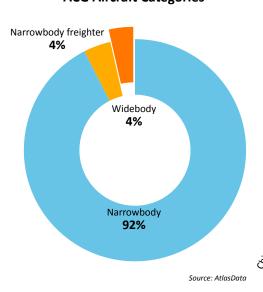
liquidity side, we have \$1.1 billion of committed bank revolving credit available to us. We're investment-grade rated and we get very competitive pricing on all of our debt, including our bank revolving credit pricing," he adds.

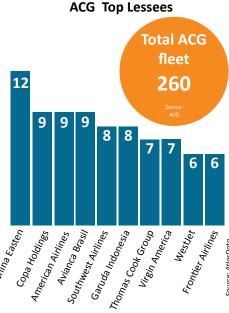
Over the past 18 months ACG has issued about \$2.8 billion-worth of debt, in a

combination of bank and institutional investor financing. Kalscheur says this is proof of the lessor's ability to "issue attractively termed debt at scale".

ACG has about 120 aircraft on order, of which about 95 are new-technology models, such as the 737 Max, A320neo

ACG Aircraft Categories





ACG Key Facts

Name:	Aviation Capital Group Corp.
Country:	U.S.A.
Founded:	1989
Ownership:	Pacific Life Insurance Company (100%)
Head Office:	Newport Beach, California (U.S.A.)
Number of Employees:	95
Size of Fleet:	260
Average Age of Fleet:	5.9 yrs.
Number of Lessees:	Approximately 90
Order Book:	124 aircraft
Unsecured Credit Ratings:	BBB-/BBB- (S&P/Fitch)
Total Assets (as of 30 June 2014):	\$8.6 billion
Net Income (as of 30 June 2014):	\$56 million Source: ACG

BOC Aviation

BOC Aviation has been owned by Bank of China since 2006. The Singapore-based lessor states its all-in cost of financing has been below 2% for the past four years. Commercial banks make up about 40% of the lessor's financing. In addition, the firm's parent company, Bank of China, provides some \$2 billion-worth of back-stop lines to the company.

The lessor adds that it plans to increase its amount of unsecured debt. Bonds currently consist of 19% of the lessor's total debt funding – up from just 5% in 2012.

Speaking to *Airfinance Journal*, the lessor states it expects this portion to increase up to 40% in the next five years while also seeing less demand for export credit financing. Last year the firm issued Australian dollar bonds for the first time, as well as its first 10-year offshore renminbi bond.

BOC Aviation confirms it is focused on acquiring and investing in young, in-demand, fuel-efficient aircraft that are easily tradeable because of the broad operator base.

Speaking to *Airfinance Journal*, Robert Martin, BOC Aviation's chief executive officer, says lease rates have remained "firm" thanks to the high demand for narrowbodies.

"There is both high demand and high supply of aircraft for operating lease at the moment. Airlines around the world are looking for aircraft from the A320 and B737 families and this is keeping the lease rates firm," says Martin.

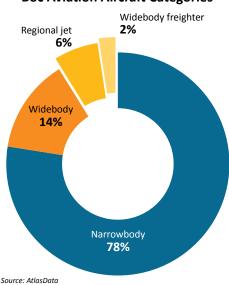
Boc Aviation Fleet by Region of Lessee



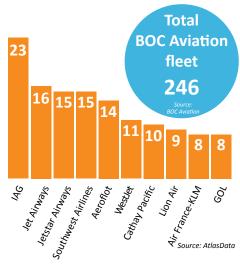
Source: AtlasData

He adds: "There are some areas of the world where there has been overcapacity such as South-East Asia, but these aircraft have been snapped up very quickly by others in need of immediate lift. These two aircraft types remain the in-demand aircraft, with interest in A320neo and the 737 Max on the horizon. Demand for widebodies is not so high, with airlines looking hard at the upcoming newer widebodies and waiting until there is greater clarity on EIS and availability." \wedge

Boc Aviation Aircraft Categories



Boc Aviation Top Lessees by number of aircraft



Boc Aviation Key Facts

DUC Aviat	ion key racis
Name:	BOC Aviation Pte Ltd
Country:	Singapore
Founded:	1993 (as Singapore Aircraft
Ownership:	Bank of China
Head Office:	Singapore
Number of Employees:	125 (as at August 31 2014)
Size of Fleet:	246 (as at August 31 2014) 251 (as at June 30 2014)
Average Age of Fleet:	3.3 years
Number of Lessees:	56 airlines in 30 countries (as at June 30 2014 and August 31 2014)
Order Book:	206 (as at August 31 2014) 80 (as at June 30 2014)
Unsecured	Credit Ratings:
Fitch	Α-
Moody's	Nil
Standard &Poor's	BBB
Total assets (as of June 30 2014)	\$10.8 billion
Net income (as of June 30 2014)	\$163 million in net profit after tax
	Source: ROC Aviation

Source: BOC Aviation



Air Lease Corporation

Air Lease Corporation (ALC), the Californian aircraft lessor, has rapidly ascended into the list of the world's largest lessors. Founded in 2010, it owns and manages 222 aircraft.

Part of ALC's success has been the age and nature of its fleet. The lessor's assets are the youngest, most technologically advanced and fuel-efficient aircraft available to the market, and the lessor boasts it is achieving consistent and healthy lease rates. The firm adds it has not seen any change in lease rates.

The leasing firm has been busy acquiring plenty of desirable narrowbody and widebody aircraft.

"ALC has the largest order book among lessors, and over the next year you can expect a steady flow of aircraft deliveries. Between June 6 2014 and June 6 2015 ALC will deliver 42 narrowbodied aircraft (22 737-800s, 16 A320-family and four ATR 72-600s) and 10 widebodied aircraft (nine 777-300ERs and one A330-300). We are satisfied with our overall fleet composition for the next year, and believe it is well aligned with global demand," confirms a company spokesman.

ALC made headlines earlier this summer as the launch customer of the A330neo. When asked by Airfinance Journal if it was likely to make a direct order from a manufacturer in the next 12 months, the lessor responded that it was "constantly in communication with the manufacturers to fine-tune our order book and evaluate new technology aircraft".

ALC Fleet by Region of Lessee



Source: ALC

Discussing its financing ambitions, ALC states it remains focused on raising unsecured debt in the global bank and capital markets and reinvesting cash flow from operations.

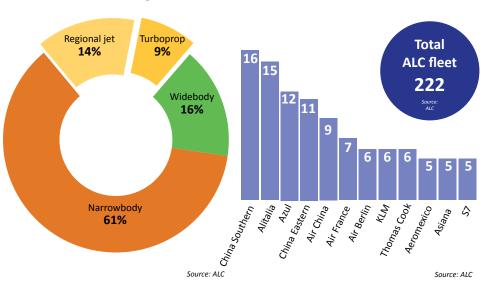
The ALC spokesman says: "We continually look to diversify our sources of capital, to include foreign issuances, private placements and, to a limited extent, export credit financing."

ALC Key Facts

Name:	Air Lease Corporation
Country:	United States
Founded:	2010
Ownership:	Public
Head Office:	Los Angeles, California
Number of Employees (as of August 2014):	63
Size of Fleet:	222 aircraft
Average Age of Fleet:	3.6 years
Number of Lessees:	78
Order Book (as of 30 June and through August 7 2014)	379
Delivery Commitments (as of 30 June 2014 and through August 7 2014)	\$29.8 billion
Unsecured Credit Ratings:	
Kroll	A-
S&P	BBB-
Total Assets (as of 30 June 2014)	\$10.1 billion
Net Income (as of 30 June 2014):	\$230.9 million

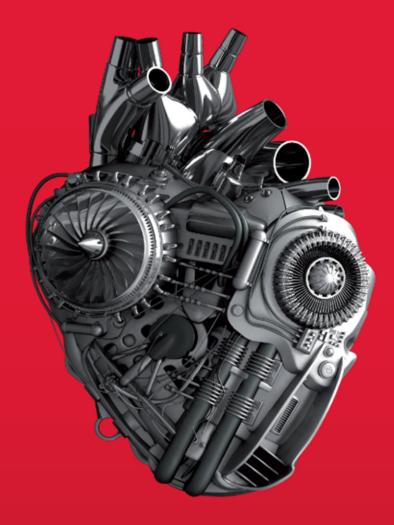
ALC Aircraft Categories

ALC Top Lessees



Source: ALC

OUR EXPERIENCE DRIVES YOUR EXCELLENCE.



When what matters is finely tuned, everything works. Iberia's merger with British Airways has made us stronger. Our technicians have more than 85 years of experience and are experts in their field. With our extended product range and joint resources we can offer you the high quality service that you demand.

STRONGER TOGETHER.





Nordic Aviation Capital

Nordic Aviation Capital (NAC) was founded in Skive, Denmark, in 1990 by Danish entrepreneur Martin Møller Nielsen. The lessor leased aircraft for humanitarian aid and supplies to remote areas before focusing on regional commercial airlines in Europe and North America then later throughout Asia, South America, the Middle East, Russia and Africa.

NAC is primarily a turboprop lessor, but also has a small portfolio of A320 and 737 jets. In July it signed a \$108 million Cofacebacked deal for six new ATR 72-600s. During the same month another turboprop specialist lessor, Elix Aviation Capital, agreed to buy 25 aircraft – a mix of ATR 42-320/500s and DHC8-100/-300s – from NAC in a deal worth \$100 million.

Jim Murphy, its chief commercial officer, tells *Airfinance Journal* the lessor's financing strategy for 2014 would involve "a combination of capital reserves, an unsecured loan of \$230 million issued last year, as well as senior bank debt and ECA financing".

NAC increased its ATR order at July's Farnborough Airshow because of "strong" demand for the ATR 72-600 and ATR 42-600.

"New ATR slot availability over the next 24 to 36 months is very limited, and

Nordic Aviation Capital Fleet by Region of Lessee Europe Central Asia North America 103 Central America and Caribbean South Asia 8 (excl S Asia and China) Africa 2 South America 19 Total Nordic Aviation **Capital fleet** 13 Off Lease/Stored 182

given most airlines want aircraft within this timeframe, lease rates are climbing," says Murphy.

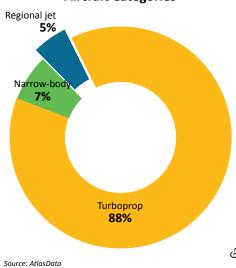
"Nothing really stands out in relation to which assets are seeing relatively low lease rates except perhaps older aircraft such as Fokker 50s, Saab 2000s and some first-generation ATR aircraft – ATR 72-200 and ATR 72-212."

NAC is committing to adding 26 new and 25 used aircraft, including turboprops and regional jets, to its fleet of 182 within the next 12 months.

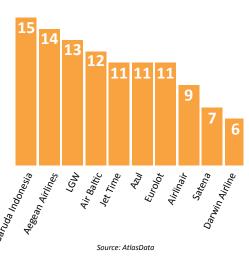
Source: AtlasData

Murphy says: "Given we have placed direct orders at three out of the last four Paris or Farnborough airshows we are more likely to make a direct order in the next 12 months but it will not be before mid-2015."

Nordic Aviation Capital Aircraft Categories



Nordic Aviation Capital Top Lessees by number of aircraft



Nordic Aviation Capital Key Facts

Name:	Nordic Aviation Capital
Country:	Denmark
Founded:	1990
Ownership:	100% Private
Head Office:	Billund
Number of Employees:	96
Size of Fleet:	182
Average Age of Fleet:	10 years
Number of Lessees:	38
Order Book:	86
Delivery Commitments (as of 30 June 2014):	\$2.2B over next 5yrs
Total Assets (as of 30 June 2014):	\$2.376 billion
Net Income (as of 30 June 2014):	\$81 million Source: NAC

LESSOR CEO INTERVIEW

Gecas chases choppers

Providing helicopter and shipping financing is the next target for Gecas, the world's largest lessor, says its chief executive officer Norman Liu.

By Ronan McCaughey.



After spending the past 20 years steadily acquiring and growing related aviation businesses, helicopter and shipping finance is the latest venture for Gecas, the world's largest lessor.

Norman Liu, Gecas's chief executive officer, confirms the lessor has already closed its first helicopter finance deal via its subsidiary, PK AirFinance, for EC225s, and plans to do more. He explains this means considering loans, leases and a modicum of orders. He also hints that the lessor could be looking at acquiring a portfolio of helicopters.

Airfinance Journal understands the lessor is targeting mediums, super-mediums and large helicopters, which will include models such as the AW139, AW169, AW189, EC225 and S-92. In short, the world's largest aircraft lessor is expanding into helicopter leasing and is busy recruiting a team to work on these new areas.

News reports from the start of the year stated that Gecas could spend at least \$4 billion in ship financing and helicopter leasing. Liu declines to comment on how much Gecas is setting aside to venture into the two new businesses, or how big he envisages the two areas to be, but does imply that the firm has big plans, for its new helicopter leasing unit.

"We don't hobby horse things. We go after them. We always want ways to be a significant player," says Liu.

The move into helicopter and shipping financing marks a departure for Gecas given its range of traditional activities.

Since its merger with Guinness Peat Aviation in the early 1990s Gecas has been steadily acquiring and growing related aviation businesses, including aircraft trading, engine leasing, secured lending and, most recently, airline and airport consultancy services. In addition to its main operating leasing business, it offers structured lending through its PK AirFinance operation and an aircraft parts trading unit, formerly known as the Memphis Group.

The player is also one of the world's largest spare engine lessors, and it offers airline and airport consultancy services through another subsidiary, AviaSolutions. Liu says expanding into helicopter finance is a logical step for Gecas, given parent GE's footprint in manufacturing turboshafts.

It also solves another dilemma for the company – which is how to expand. Having the world's largest leasing fleet also means Gecas constantly has to sell about \$3 billion-worth of aircraft to renew its fleet. Increasing the size of its core leasing platform is easier said than done. The lessor's underlying asset base has remained largely flat for the past seven years at between about \$47 billion and \$50

"We don't hobby horse things. We go after them. We always want ways to be a significant player."



billion. Engaging with two new product areas allows the leasing firm avenues for strategic growth.

Ship lending on the horizon

Gecas is also "looking at a bunch" of shipping deals, while continuing to build a team for its expansion into helicopter and shipping finance, says Liu. The lessor has created a separate arm of PK Airfinance, dubbed internally in Gecas as PK Seafinance, to finance ships. Liu explains the new venture will share a similar asset underwriting and loan-underwriting

model as Gecas's existing PK Airfinance.

He says: "In helicopters we want to be large, and in shipping it will be more of a boutique operation." The loan-to-value ratios in helicopter financing are also similar to the aviation business, says Liu.

All the indications are that Gecas intends to be a major player in helicopter financing. However, Liu adopts a more cautious tone when discussing the shipping finance space where he emphasizes Gecas will be "more selective".

In his view, there is probably some oppor-

tunity for shipping finance in container and product tankers, and potentially some in the oil or supply space. When asked what markets the lessor will target for ship financing, Liu says some of the traditional markets in southern Europe appear interesting.

"Most shipping departments have got into aviation, but fewer aviation guys are getting into shipping and that is why we need to move cautiously. We just hired some people. I want to build something with some long-term staying power."

He adds that shipping is similar to aviation with lower loan-to-value ratios because of market volatility.

"Perhaps three years ago it was better, but just as liquidity has come back into aviation in a big way, it has come back, albeit to a lesser extent, into ship finance."

Liu says the moves into helicopter and ship financing typify Gecas's ability to exploit opportunities.

He adds: "We are going to go for helicopters, and for ships we are building up the team. That is only senior debt loan focused. Helicopters will be lease and loan.

"We have been bidding for transactions and we will take it as it goes. We have been looking at some portfolios and what makes sense for us."

Staff relocation

As a unit of GE Capital, Gecas is an international player with offices in 23 cities around the world, and services customers in 75-plus countries.

Liu says the business's strong Irish connection, and the fact that Singapore is the commercial hub for its emerging markets activity, explain why it is shifting some staff to both of these countries.

Asked if Gecas will expand into other regions, Liu says Gecas has already grown its global footprint heavily.

[In the past] if there was a crisis in the US you had to go to the emerging markets. Right now, the US market is quite healthy, and they don't need so much leasing on their incremental buys."

Gecas's vast distribution footprint – the world's largest lessor has more than 1,600 owned and serviced aircraft and over 230 customers – creates economies of scale that

VIEWPOINT ON RUSSIAN SANCTIONS

The European Union and US sanctions applied to Russia after the shooting down of Malaysia Airlines flight MH17 is one of the hottest topics in the aviation and leasing industry. The measures have forced one carrier to suspend operations and could push Russian airlines to look to foreign lessors and banks for their new aircraft deliveries.

The view of Norman Liu, Gecas's chief executive officer, on the Russian

sanctions matters because Gecas has the second-largest amount of aircraft leased to Russian airlines after AerCap. The lessor has 80 aircraft leased to Russian airlines, while AerCap has about 130.

Asked how the sanctions are impacting the leasing industry, Liu says Gecas is like any western business and is adopting a "wait and see" approach. "We are hoping things get back to normal."



"It's a market where there is too much money and probably too much metal."

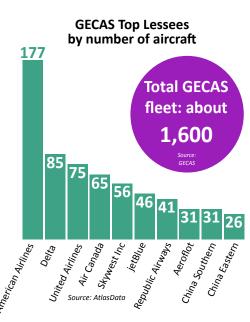


enable it to keep its unit costs low. At the end of 2013 Gecas had total assets of about \$45.9 billion.

The lessor's business model also means it has several advantages over its competitors because it receives the bulk of its financing directly from its parent company, GE Capital.

In spite of these competitive advantages, Gecas has had to weather challenges, and last year the lessor booked \$732 million of pre-tax impairments in 2013, its largest charge in at least 10 years.

Responding to this, Liu stresses that Gecas



still made \$900 million of profit for 2013.

He adds: "Comparatively speaking, we performed fairly well. Hopefully, we will be back up this year. We have already made \$600 million-plus this year. That is what we have reported."

An important aspect of the Gecas business model is that having the world's largest leasing fleet means in any given year Gecas sells between \$3 billion and \$4 billion to renew its fleet, and will buy \$6.5 billion to \$7 billion of assets. The lessor also has \$3.5 billion of depreciations and amortization in any one year.

Liu says Gecas has been the most active seller, and this is a trend that has increased in recent years because of the large amount of liquidity available.

In Liu's view, this hunger for yield means there will be more asset-backed securitizations by Gecas in the short term.

"I think in the years ahead as long as the capital markets and the bond markets are good, and there are good execution levels for us, we will tap into them," says Liu.

He adds: "[For ABS deals] it's a good way to liquefy assets and realize capital appreciation and also manage risk exposures to different airlines. So, we will always be active in this role."

Preparing for technology shift

Like all lessors, the onset of new technology and aircraft is another hurdle facing Gecas. The lessor stated last year it had already tapered its order stream. Liu previously said Gecas would eventually half the number of 737NGs and A320s it buys over the next few years, as it readies for the transition to the Neo and the Max.

Liu's latest update is that: "For the A320s, we are dampening our plays. We are still active and we do some deals, but we are being a little bit judicious."

He is clear that the technology shift with the Neos and Maxs means it's a market where it is better to sell than buy. "It's a market where there is too much money and probably too much metal."

Asked what the major sellers for Gecas are, and who is buying them, Liu says "the large dollars" are in the traditional narrowbody and widebody aircraft.

Looking ahead, Liu's airlines may purchase

Norman Liu's biography



Norman Liu joined GE Capital in 1988 in the transportation and industrial funding business, where he maxnaged the leasing, capital markets and business development groups. He later worked on the

headquarters staff of GE Capital as vice-president business development and served briefly as a managing director at Kidder Peabody, an investment banking firm, where he was a member of the management committee.

Liu joined Gecas in 1995 and served as executive vice-president of commercial operations from 1996 to 2009. He was named a corporate vice-president of GE Capital in 1992, and was appointed a corporate vice-president of GE in 2002.

Before joining GE he held investment banking positions at Dean Witter Reynolds (now Morgan Stanley) and Samuel Montagu (now part of HSBC).

Liu earned his bachelor's degree in economics from Yale and an MBA from Harvard Business School.

aircraft and finance them using the bond markets in future.

"If there were a handful of airlines, they could simply tap the bond markets. But since there are hundreds of airlines, they need us," he says.

Before heading to another meeting, Liu concludes with a sage piece of advice. "What you have to do is stay disciplined and do what makes sense for yields."

ANALYSIS

The world's leased fleet

The AtlasData database includes 9,365 western- and non-western-built aircraft, leased by 254 commercial lessors to 687 airlines in 156 countries (data as of August 2014). Aggregate orders by the commercial lessors total 2,672 aircraft, including the Farnborough Airshow orders and BOC Aviation's latest Boeing order. Aircraft leased by captive lessors such as Synergy and Aircraft Purchase Fleet and by the original equipment manufacturers (OEMs) are excluded. The average age of the existing fleet is 11.4 years, and 860 (9%) are reported as being off-lease/in storage or pending part out. This latter category of aircraft has an average age of 21.7 years.

The industry is heavily concentrated. The top 10 lessors account for 56% of the total fleet count and 63% by value. Nevertheless, the smaller lessors provide value to the market place in dealing with older or more specialized 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, such as Skyworks, Triangle (Falko) and Nordic Aviation Capital.

We have analyzed the fleet in two broad categories - geographic and hardware and then conclude with a section on the lessors' order books for new aircraft.

Nationality of ownership of leased aircraft

Figure 1 shows the ownership of the world's leased fleet by nationality of the lessor or the lessor's ultimate parent company. While this cannot reveal the nationality of the ultimate individual or corporate shareholders of the leasing companies, it does reveal the capital markets that have supported the growth

Figure 1 - Nationality of owners of leased aircraft



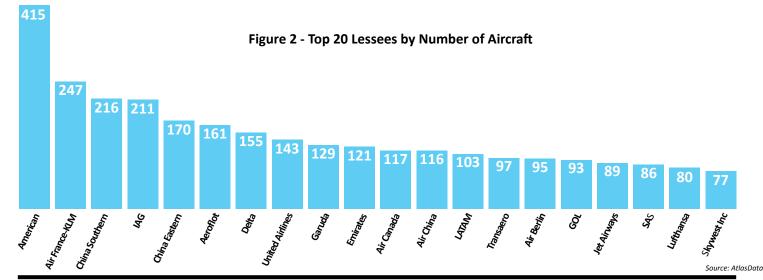
Airlines with the most leased aircraft

of the industry over recent years. The acquisition of ILFC by AerCap and the continued growth by the Japanese and Chinese lessors has materially altered the geographic distribution since last year. Coming a distant third after the US and the Netherlands is Ireland, but much of that capital is originated from offshore capital markets.

Next are the growing ranks of Chinese-owned operating lessors (BOC Aviation, Hong Kong Aviation Capital, CDB, CALC, ICBC and Minsheng), followed by Russia, the Middle East and Australia, represented by Macquarie and Commonwealth Bank.

Figure 2 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 which they are leasing are forming increasingly concentrated groups. Such concentration could reduce the ability of the lessors to diversify their portfolio risks, because not all of the top 20 can be considered undoubted credits.

While they may be at low risk of financial failure, restructurings could lead to reductions in fleet size for some of the carriers, which can cause severe lessor pain.





"Just as the leasing industry is heavily concentrated in a relatively small number of players, the airlines to which they are leasing are forming increasingly concentrated groups."

Geographic distribution of leased aircraft

The geographic distribution of leased aircraft is shown in Figure 3. While the chart shows Europe in the lead, this is because we split Asia-Pacific into sub regions given their varying dynamics. Hong Kong and Macao are included in the China segment. We also decided to show Russia as a segment separate from Europe.

Regional penetration of lessors

The different lessors have their own regional strengths, weaknesses and preferences. Figure 4 shows the relative market position of the top 10 in the regional groupings as shown. Breakdown of leased fleet

>>>

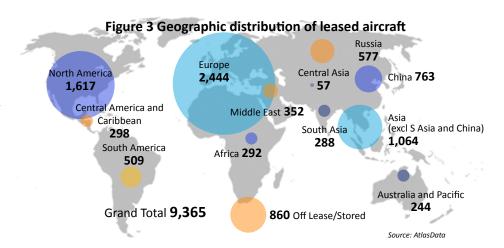


Figure 4 - Regional ranking of lessors by number of aircraft

Rank Africa	Asia (excl S Asia and China)	Australia and Pacific	Central America and Caribbean	Central Asia	China
1 GECAS	GECAS	SMBC Aviation Capital	GECAS	AerCap	AerCap
2 AerCap	AerCap	BOC Aviation	AerCap	AviaAM Leasing	GECAS
3 Avia Aero	AWAS	Avation	Aviation Capital Group	Nordic Aviation Capital	ICBC Leasing
4 Avmax	SMBC Aviation Capital	CIT Aerospace	SMBC Aviation Capital	BOC Aviation	CDB Leasing
5 ASL Aviation Group	BBAM (incl FLY)	AerCap	Air Lease Corporation	Sky Holding	Air Lease Corporation
6 Macquarie Airfinance	Pembroke	ORIX Aviation	CIT Aerospace	Mass Lease	Bocom Leasing
7 Pembroke	CIT Aerospace	Avmax	AWAS	Air Lease Corporation	BBAM (incl FLY)
8 Skytech-AIC	BOC Aviation	AWAS	Ilyushin Finance Corp	Aerovista	CALC
9 Air Lease Corporation	Aviation Capital Group	HK Aviation Capital	BOC Aviation	World Star Aviation	SMBC Aviation Capital
10 SMBC AC/BBAM (incl FLY)	Air Lease Corporation	Falko	Macquarie Airfinance	Jetscape	Aviation Capital Group
Rank Europe	Middle East	North America	Russia	South America	South Asia
Rank Europe 1 AerCap	Middle East AerCap	North America GECAS	Russia AerCap	South America GECAS	South Asia GECAS
·				0	
1 AerCap	AerCap	GECAS	AerCap	GECAS	GECAS
1 AerCap 2 GECAS	AerCap GECAS	GECAS AerCap	AerCap GECAS	GECAS AerCap	GECAS AerCap
1 AerCap 2 GECAS 3 BBAM (incl FLY)	AerCap GECAS Doric	GECAS AerCap CIT Aerospace	AerCap GECAS VEB Leasing	GECAS AerCap Aviation Capital Group	GECAS AerCap BOC Aviation
 AerCap GECAS BBAM (incl FLY) SMBC Aviation Capital 	AerCap GECAS Doric DAE Aerospace	GECAS AerCap CIT Aerospace Skyworks Leasing	AerCap GECAS VEB Leasing VTB Leasing	GECAS AerCap Aviation Capital Group SMBC Aviation Capital	GECAS AerCap BOC Aviation Investec
 AerCap GECAS BBAM (incl FLY) SMBC Aviation Capital Nordic Aviation Capital 	AerCap GECAS Doric DAE Aerospace BBAM (incl FLY)	GECAS AerCap CIT Aerospace Skyworks Leasing AWAS	AerCap GECAS VEB Leasing VTB Leasing Ilyushin Finance Corp	GECAS AerCap Aviation Capital Group SMBC Aviation Capital AWAS	GECAS AerCap BOC Aviation Investec BBAM (incl FLY)
 AerCap GECAS BBAM (incl FLY) SMBC Aviation Capital Nordic Aviation Capital CIT Aerospace 	AerCap GECAS Doric DAE Aerospace BBAM (incl FLY) ALAFCO	GECAS AerCap CIT Aerospace Skyworks Leasing AWAS Aviation Capital Group	AerCap GECAS VEB Leasing VTB Leasing Ilyushin Finance Corp SMBC Aviation Capital	GECAS AerCap Aviation Capital Group SMBC Aviation Capital AWAS CIT Aerospace	GECAS AerCap BOC Aviation Investec BBAM (incl FLY) CDB Leasing
 AerCap GECAS BBAM (incl FLY) SMBC Aviation Capital Nordic Aviation Capital CIT Aerospace AWAS 	AerCap GECAS Doric DAE Aerospace BBAM (incl FLY) ALAFCO CIT Aerospace	GECAS AerCap CIT Aerospace Skyworks Leasing AWAS Aviation Capital Group Avmax	AerCap GECAS VEB Leasing VTB Leasing Illyushin Finance Corp SMBC Aviation Capital AWAS	GECAS AerCap Aviation Capital Group SMBC Aviation Capital AWAS CIT Aerospace Nordic Aviation Capital	GECAS AerCap BOC Aviation Investec BBAM (incl FLY) CDB Leasing CIT Aerospace

Source: AtlasData





Powerful insight to the absolute and relative strength or weakness of over 135 global airlines.

Financial Ratings can be used to help predict baseline credit ratings or sense check your own ratings.

The Airline Analyst Financial Ratings are:

- updated regularly
- easy to understand

 one
 easy to understand
 easy to understand
- **★ founded** on transparent methodology
- based on the Latest Twelve Month data

For more information on **Financial Ratings** or **The Airline Analyst** contact Harry Sakhrani **hsakhrani@theairlineanalyst.com** +44 (0) 20 7779 8203



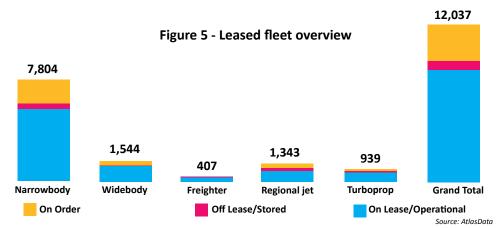
"Only 155 of the 860 off -lease aircraft are owned or managed by the top 10 lessors -giving them an off-lease rate of only 3% compared with the overall figure of 9%"

Figure 5 shows a breakdown of the leased fleet and orders by category of aircraft. A full 63% of the leased fleet is in the narrowbody category, split mostly between the A320 and 737 families. Only 13% is widebody, though in value terms their share would be much more significant, especially with the A380 and 787 joining the lessors' portfolios.

Off-lease fleet

Analysis of the 860 off-lease aircraft shows a very strong skewing in favour of older aircraft, as shown in Figure 6. As many as 516 are more than 20 years old and represented heavily by 737 classics, MDs, 737-200s and 757s.

Only 155 of the 860 are owned or managed by the top 10 lessors (giving them an off-lease rate of only 3% compared with the overall figure of 9%, while 537 were owned or man-



aircraft types the A340 is the most noticeably

aged by the top 50 lessors. Of the more recent

represented, with 20 units, and there are also nine A330s on the list. There is only one 777 showing as off-lease.

Among narrowbodies there are 14 737NGs and 40 A320-family aircraft appearing, 25 of the latter over 15 years old. CRIs and ERIs are the most notable aircraft types in the 10- to 15-year-old category.

Breakdown by manufacturer

Figure 7 shows the predictable near tie between Airbus and Boeing, which are followed distantly by Bombardier, Embraer and ATR. In a few years' time this profile will look somewhat different, with the lessors' orders for the Bombardier CSeries, the Irkut MC-21 and the Comac C919.

>>>

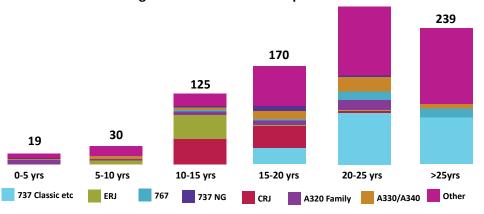
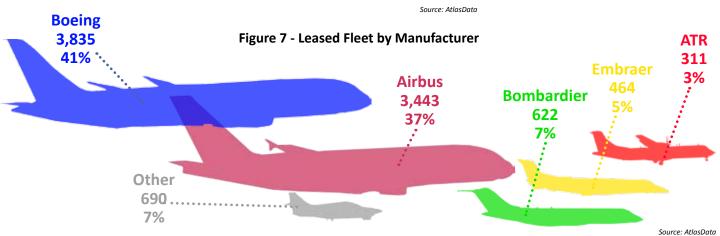


Figure 6 - Off-lease aircraft profile



"Turboprops are a significant niche market, dominated by one lessor."

Regional jets

The regional jet segment is fast growing and has seen some of the major lessors enter in recent years, most notably Gecas and Air Lease Corporation. The segment has also attracted capital into the secondary market with Triangle (Falko) acquiring BAE Systems' fleet of leased RJ/Avroliners and, in July, signing two letters of intent for the purchase of up to 24 firm Bombardier CS100 mainline jets.

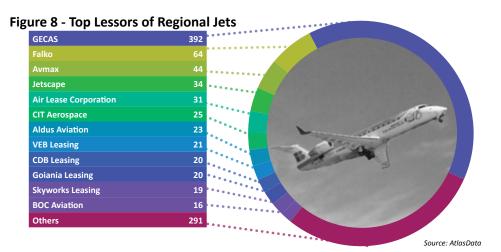


Figure 9 - Top Lessors of Turboprops

• • • • •	
Nordic Aviation Capital	156
Rockton Aviation	35
Jetstream Aviation Capital	35
Acia Aero	35
Aerocentury	31
Erik Thun	29
ASL Aviation Group	29
GECAS	28
Largus Aviation	19
Air Lease Corporation	19
Othor	200

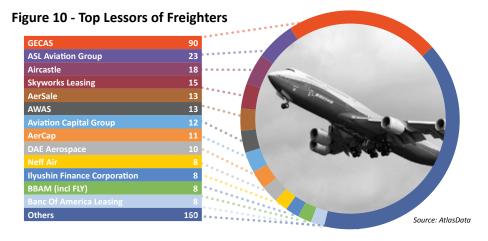
Turboprops

Turboprops are a significant niche market, dominated by one lessor, Nordic Aviation Capital. However, other lessors have a presence, as shown in Figure 9.

Source: AtlasData

Freighters

Figure 10 shows Gecas taking up 23% of the freighter segment but joined by other notable major players.





Welcome to the family.

Introducing our new order for 10 Boeing 777-300 ERs just look where Genuine Agility gets you.



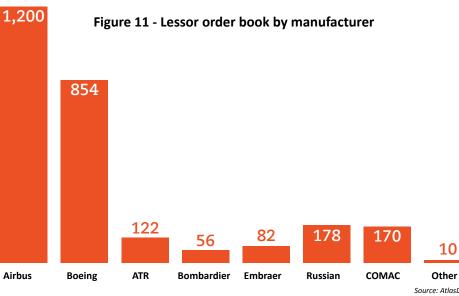
Stamford +1 203 905 4220 Singapore +65 6408 0192 Dublin +353 1 901 8400

See more at IntrepidAviation.com

Order books

Forty lessors have a total of 2,672 aircraft on order from the OEMs. At list prices this backlog has a value of more than \$300 billion. Applying an assumed average 40% discount to list price still results in the huge number of \$180 billion. The breakdown of these orders by manufacturer is shown in Figure 10.

The lessors with the 10-largest numbers of aircraft on order account for 1,998 or a full 75% of the total backlog. The top 10 with the approximate size of their backlogs is shown in Figure 11. Some national policy considerations may be seen in the Chinese and Russian lessors' orders for their respective new national aircraft types. The other lessors tend to grow their fleets through secondary market purchases or purchase/ leasebacks with airlines.



Source: AtlasData



Global Fleet and Valuations Software

with AVITAS® BlueBook Values and Airfax® Aircraft Availability Data

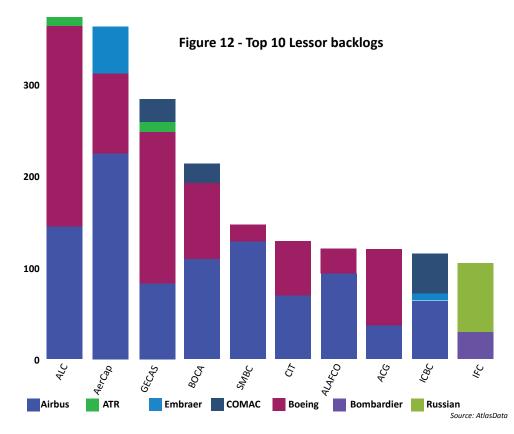
The most powerful and easy to use online tool available to track the world's aircraft fleet, value and market availability.





Innovative Software and Services for Aviation www.aerdata.com_info@aerdata.com





Conclusion

Analysis of the global leased fleet reveals a huge diversity of portfolios of aircraft and lessees, and explains why the industry has attracted and will continue to attract new market entrants which believe they can deliver value and generate acceptable returns on capital with their chosen fleet strategies and business models.

The top lessors have a dominant position in the market today with great strengths in access to capital, availability of aircraft and ability to offer customers overall fleet solutions rather than just single aircraft. Given their domination of the order books for new aircraft, we can expect to see a further concentration of the market. This may increase further if we see some consolidation of the second tier of lessors to create another lessor of size to compete with Gecas and AerCap.

Russia

Russian lessors continue to take more share of the domestic market, although their access to financing has been made more difficult by the US and European Union sanctions.

The five lessors with headquarters in Russia – VEB Leasing, VTB Leasing, Ilyushin Finance Corporation, Sberbank Leasing and GTLK Europe – have a combined fleet size of about 180 aircraft, with a similar number on order. More than 90% of these aircraft are placed with Russian carriers. In addition, Ilyushin Finance Corporation and VEB Leasing are supportive of Russian manufacturers, with fleets that contain aircraft built by Ilyushin, Sukhoi and Yakovlev.

Sanctions – what is the impact for lessors?

Crucially for the Russian leasing market, some of the region's largest lessors are affiliated to state-backed financial institutions, which have been squeezed by economic sanctions from the EU and US after perceived Russian aggression in Ukraine.

As a result of the European Union sanctions, several of these banks are prevented from accessing debt with a maturity of more than 30 days on EU capital markets, which could impact their own ability to finance aircraft purchases.

VEB Leasing, VTB Leasing and Sberbank Leasing, which are very active lessors in Russia, are affiliates of some of the state banks impacted by the sanctions. The other two banks on this list are Gazprombank and Rosselkhozbank.

In particular, the sanctions are making the financing of new aircraft more difficult, as well as leading to an increase in lease rates.

Andrei Konoplev, VTB Leasing's chief executive, says: "Lease rates grow due to the limitations for attracting finance on the western markets by the key Russian banking institutions – the more limited the resources are the more expensive they become."

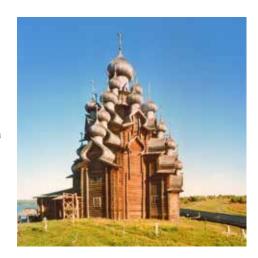
He adds: "The price of funding will also inevitably be affected by the complications for acquiring the support of export credit agencies in US and European countries, which is important for financing the acquisition of highly expensive aircraft, especially widebodies."

In addition, Airfinance Journal has learned that the US Export-Import Bank has put all applications for financing from Russian lessors and airlines on hold, which will make new aircraft purchases more difficult. However, other export credit agencies are still progressing, according to sources in the banking industry.

Airfinance Journal also understands that, with the exception of sanctioned companies, UK Export Finance is still dealing with Russia for the time being.

Market share

Western lessors dominate the Russian market, but Russian lessors are increasing their share of the domestic leasing market. Out of the 20 lessors with the most aircraft in Russia, just five have their headquarters in Russia. *Airfinance Journal* calculates that of about 540 aircraft on lease to Russian airlines, 29% are owned by Russian lessors. However, domestic lessors are closing this gap: VTB Leasing research forecasts that its market share will increase from 20% to nearly 40%



by 2020, as Russian lessors make their presence felt in the operating lease market.

Konoplev believes that lessors will begin placing more orders for new aircraft once the current political turbulence has subsided.

He says: "Direct orders from manufacturers are dependent on the overall market situation, which is currently influenced by a wide range of non-economic factors affecting both the cost of funds for the lessors and the credit stability of the aircraft operators. Therefore, the players in the Russian market will be ready to return to the projects for the acquisition of large batches of newly built aircraft after the situation becomes more stable and predictable."

Fleet Size and Order Book of Russian Lessors						
	Total	Off Lease / Stored	On Lease / Operational	On Order		
Ilyushin Finance Corporation	156	10	39	107		
VEB Leasing	147	6	74	67		
VTB Leasing	106	0	61	45		
Sberbank Leasing	32	3	17	12		
GTLK Europe	5	0	5	0		
Grand Total	446	19	196	231		
Source: AtlasData						

VTB Leasing

Founded in 2002, the leasing arm of VTB – one of Russia's largest banks – has a fleet of 61 aircraft. However, its aircraft leasing business accounts for just a quarter of the lessor's income. VTB Leasing is active also in the railway, oil production and engineering sectors, which account for 60%, 8% and 5%, respectively, of its activity.

With an order book of about 45 aircraft, the lessor is not looking for a significant number of new acquisitions, and is pursuing a "conservative and well-balanced" financial strategy. The lessor says its order pipeline is providing sustainable growth for its fleet.

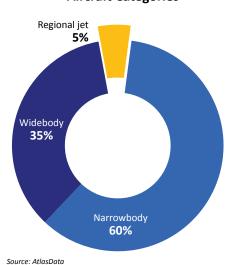
Chief executive officer Andrei Konoplev says that although the lessor will not make many new orders this year, it does anticipate some deals for regional jets.

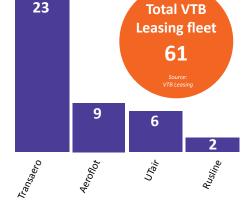
"We are expecting a few deals for the financial lease of business jets, which traditionally constitute an important part of the company's portfolio, in case the political and economic environment around Russia changes," he says.

Konoplev adds that governmental support for Russian-built aircraft means that these assets are set to improve in value.

"We expect that due to the measures planned by the Russian government for support of the supply of the Russian-built aircraft, the attractiveness and reliability of such assets is likely to increase," he says.

VTB Leasing Aircraft Categories





Source: AtlasData

VTB Leasing Fleet by Region of Lessee



Source: AtlasData

The lessor's restrained financial plan for this year involves little change from previous years and includes both finance and operating leases.

Konoplev adds: "We plan to follow the conservative and well-balanced strategy for the year 2014 with particular attention to risk. We will keep our presence both in the financial and operational lease market. The traditional lease deal and funding structures are likely to stay

VTB Leasing Top Lessees by number of aircraft

unchanged: VTB Leasing will use the funds of the VTB Group, as well as funds attracted in the open market." $\, \blacktriangle \,$

VTB Leasing Key Facts

	.0,	
Name:	OJSC VTB Leasing	
Country:	Russia	
Founded:	2002	
Ownership:	JSC VTB Bank	
Head Office:	VTB Leasing, Moscow	
Number of Employees:	1,442	
Size of Fleet:	61	
Average Age of Fleet:	12	
Number of Lessees:	8	
Order Book:	45 aircraft	
Delivery Commitments (as of 30 June 2014):	\$2.3 billion	
Unsecured	Credit Ratings:	
Fitch	n/a	
Moody's	n/a	
S&P	BBB- (JSC VTB Bank)	
Total Assets (as of 30 June 2014):	\$6.9 billion	
Net Income (as of 30 June 2014):	\$73.2 million (for the 6m 2014)	

China

William Mace reports on a year of unparalleled growth in China's leasing market. The past year has been one of the most significant yet for Chinese lessors as the nation's domestic aviation markets continue to grow.

All of the major global trends are accelerating at great pace in China. Low-cost carriers are popping up, regional airports are building infrastructure and seeking airline partners to meet their capacity, and leasing companies are becoming the financier of choice.

The growth of lessors owned by Chinese interests and with their headquarters in China has been rapid, and these firms are challenging many of the more established leasing rivals.

China's local leasing market is dominated by the likes of ICBC Leasing, CDB Leasing, Bocom Financial Leasing and China Aircraft Leasing Company, as well as up-and-coming players such as Minsheng Commercial Leasing, CMB Leasing, CIB Leasing and Comsys Leasing.

However, international lessors are also actively expanding into the country using their greater resources and higher levels of expertise.

Both global and local lessors are butting heads, and the level of competition is defined in several key areas that will continue to develop through 2014 and 2015.

The prospect of further consolidation in the leasing industry also continues, with Chinese companies among those willing to acquire portfolios and companies to bolster their fleet sizes and order books.

Costs of doing business

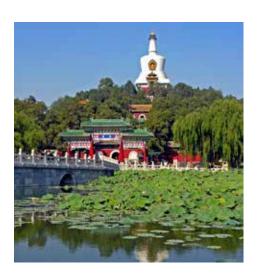
A key development in 2014 has been Chinese lessors' ability to take advantage of new regulations allowing them to set up special purpose companies inside free-trade zones, which help them to compete with international lessors on Chinese deals.

Previously, Chinese lessors would pay VAT of 17% on aircraft they imported, whereas airlines would have to pay only 4% to 5%. Lessors typically gross-up the VAT to the airline via the lease contract, which decreased the attractiveness of domestic leasing for domestic airlines.

Meanwhile, foreign lessors could structure their leases through offshore special purpose vehicles (SPVs), in Ireland, for instance, and airlines would retain the responsibility to import the aircraft – attracting the lower VAT rate.

The playing field has been levelled since the beginning of 2014 when domestic lessors with SPVs within free-trade zones began importing their own aircraft at the lower 5% rate.

While China-based SPVs are attractive, the rela-



tively murky regulatory waters that prevail in China are keeping international lessors from establishing their own subsidiaries there.

They prefer to continue to structure their deals through Dublin or Singapore, as do those Chinese leasing companies which consider themselves international players, including those mentioned above.

But another tax-beneficial hub looms on the horizon. *Airfinance Journal* understands Hong Kong is a new option for both Chinese and international lessors, as the Chinese special administrative zone looks to establish itself as a leasing and aerospace financing hub.

A large enough concession on the withholding tax levied on lease and rental payments across the border from China could make Hong Kong a much more enticing prospect for leasing companies than either mainland China or Dublin.

Airlines making use of operating leases

Chinese airlines are interested in every inch of saving and flexibility they can gain for their financing structures, so leasing is becoming very popular.

A source from one of China's big three airlines has told *Airfinance Journal* the carrier only accepts leases from domestic lessors that are structured through SPVs established in Chinese free-trade

Another source from a Chinese airline which has not engaged in domestic operating leases recently says it is willing to look at domestic leases after tax advisers became more confident about the risk and reward behind free-trade zones and their new tax regulations.

"We currently have about 60 aircraft, and if we can acquire an existing leasing company we can double or triple our size in just one second."

Chinese airlines are believed to have paid, and to be continually paying, slightly more for their Boeing and Airbus aircraft than other global customers.

This means sale/leaseback deals have become less popular recently, as leasing companies are less willing to absorb that same high price when airlines sell-down to them.

A senior Asian aviation lawyer told Airfinance Journal earlier this year: "The lessors are slightly less sensitive to the pricing than the international lessors, so it was a good outlet to have Chinese aircraft lessors to help with growth of the aviation industry, which has had to buy aircraft agreed at an overprice to the market. Essentially, the lessor then gets laden with the expensive aircraft rather than the carrier."

Reflecting a maturing market, a senior Chinese lessor said the purchase premium had dropped to below 5% in some cases when the aircraft reach sale/leaseback negotiations, and Chinese lessors are no longer obliged, or able, to accept such high prices if they want to survive in an increasingly international market.

"The Chinese lessors are not picking up the airlines' aircraft with a very high sale price – this is not possible for us to accept those kinds of high sale prices because we all also have our own risk management systems, which will prohibit us from buying the aircraft at a price higher than the market value," said the lessor.

In August China Southern Airlines tested the market by sending out two request for proposals for the same group of 10 A320-family aircraft: one

asked for bids using any and all sources of financing, while the other asked specifically for sale/lease-back proposals.

Acquisitions to drive growth

China's appetite for leasing is probably best illustrated by a bid from Aviation Industry Corporation of China (Avic) for Irish lessor Avolon.

At the time of writing Avic had confirmed it was planning to buy the private equity-owned company, which has grown rapidly in its four years of existence.

Chinese interests entered the market unsuccessfully in late 2012 in an attempt to buy ILFC, the world's second-largest leasing company.

In June 2013 the consortium of Chinese buyers succeeded in making a delayed sale deposit payment but ILFC's owner, AIG, was forced to extend the sale deadline twice, and publicly admitted it would consider an initial public offering (IPO) in 2014 if the Chinese deal fell through.

The subsequent uncertainty over the future of one of the largest lessors made for uncomfortable viewing for many owners of leasing firms, highlighting the potential problems for private lessors in leaving the industry.

The prize of ILFC eventually went to Netherlands-based AerCap earlier this year, but the latent demand from China is still bubbling away, as confirmed by the bid for Avolon.

While government backing for the bid will greatly increase its chances of being trusted by Avolon's private equity owners, and succeeding, the leasing company still has its IPO iron in the fire.

At the China Airfinance Conference in June, bank-owned Chinese lessors openly considered the possibility of acquiring existing lessors to grow their own fleet books and tap into existing manufacturer order books.

Sixiang Gao, deputy general manager of aviation leasing, Bank of Communications Leasing (Bocom), said, in general, buying a foreign leasing company would benefit Bocom's business.

"We currently have about 60 aircraft, and if we can acquire an existing leasing company we can double or triple our size in just one second," he said.

But he added that there would be challenges, including obtaining approval from head office, from Chinese authorities, and in merging Chinese and western cultures.

"BOC Aviation was very successful and Bank of China did a good job in 2006, but today is different because the Chinese leasing companies already have our existing teams – maybe not strong and not as much knowledge compared to competitors but we are growing," said Gao.

"Personally, if we can acquire an existing leasing company it would be very good for our business. One significant step for us is that we can use their order book." he added.

There is no doubt that Chinese lessors will grow one way or another as the air travel consumer segment grows, regulation catches up with the trading and leasing market's dynamics, and leasing becomes the flexible financing method of choice for airlines.

Fleet Size and Order Book of Chinese Lessors						
Lessor	Total	Off Lease / Stored On Le	ase / Operational	On Order		
BOC Aviation	464	1	248	215		
ICBC Leasing	268	0	149	119		
Hong Kong Aviation Capital	149	3	76	70		
CDB Leasing	134	1	123	10		
China Aircraft Leasing Company	80	0	30	50		
Bocom Leasing	78	0	48	30		
Shenzhen Financial Leasing	23	2	1	20		
Dragon Aviation Leasing	23	0	23	0		
Hong Kong Int. Av. Leasing	18	0	12	6		
Minsheng Financial Leasing	12	0	12	0		
Grand Total	1,249	7	722	520		

Source: AtlasData

CDB Leasing

China-based CDB Leasing has been a subsidiary of China Development Bank since 2008. CDB Leasing began life as Shenzhen Finance Leasing in 1984 but changed its name when it became a bank subsidiary. The bank now owns 88.95% of CDB Leasing's shares.

The past year has been strong for the leasing firm. In July Fitch Ratings assigned CDB Leasing a long-term Issuer Default Rating (IDR) of A+ and a short-term IDR of F1 with a stable outlook.

The ratings will prove invaluable for the lessor's capital-raising efforts. The company has used a combination of export credit agency debt, long-term commercial loans and, last year, a \$1.5 billion bond.

The rating agency has described the leasing firm as a "core subsidiary" for the bank. This is despite the fact that CDB Leasing is relatively small compared with CDB – in 2013 the leasing firm accounted for only 1.7% of CDB's total assets, and its contribution to CDB's net profit in 2013 was merely 2.4%. Nonetheless, the leasing firm is one of the largest operating in China and is strategically important for the Chinese aviation industry.

CDB Leasing has a backlog of 10 C919s, and Fitch estimates it has about 14% market

CDB Leasing Fleet by Region of Lessee

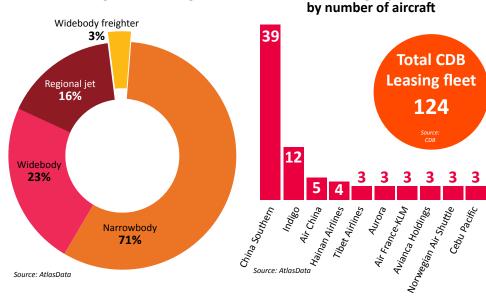


Source: AtlasData

share of the leasing business to Chinese airlines.

According to AtlasData and *The Airline Analyst*, the leasing firm has about 124 aircraft with an average age of 4.4 years. Its total assets were Rmb142.4 billion (\$23.1 billion) at the end of 2013.

CDB Leasing Aircraft Categories CDB Leasing Top Lessees



CDB Leasing Key Facts

022 2000	
Name:	CDB Leasing
Country:	China
Founded:	1994
Ownership:	China Development Bank (government owned)
Head Office:	Beijing
Number of Employees:	3,500 (the whole of CDB, 2013 figure)
Size of Fleet:	124
Average Age of Fleet:	4.4 yrs (weighted by value)
Number of Lessees:	43
Order Book:	10 C919s
Delivery commitments	\$680m est list price
Unsecured Credit Ratings:	N/A
Total assets (as of June 30 2014)	N/A
Net income (as of June 30 2014)	N/A
Source: AtlasData, The Airline An	alyst

Japan

Japanese investors are seeking a return on capital and the country's lessors are benefiting as a result.



The Japanese leasing market has been busy in 2014 and looks set to maintain its pace. The aviation industry has welcomed back the influx of Japanese liquidity over the past two years.

Japanese firms have invested heavily in the sector recently. SMBC and Mitsubishi UFJ forked out \$8.6 billion to acquire RBS Aviation and Jackson Square Aviation

Both lessors are now effectively integrated and are still growing. More recently Japanese trading company Marubeni invested \$209 million in US lessor Aircastle. The deal sees the firm acquire a 15% primary stake in the aircraft-leasing firm with the option to acquire additional shares in the secondary market capped at a maximum of 21% of the company over the next three years.

Simon Collins, a partner at White & Case, notes this is nothing new. "In Japan there is a long-standing interest in investing in aviation, and a significant aspect of this is investing in the lessor market; most major Japanese banks have lessor subsidiaries and many have been actively expanding the scale of their investment," he adds.

These lessors in turn are in competition with the banks' leasing arms. Examples include Century Toyko Leasing, which is affiliated with Mitsubishi, and Financial Products Group, which is affiliated with Momentum Capital.

SMBC is still very much in expansion mode. The lessor has placed \$11.8 billion (at list prices) of firm orders and is rumoured to be one of the bidders for Awas's 100-aircraft portfolio. Market sources

"Balance sheets of Japanese leasing companies were shrinking a few years ago, so senior management were pushed to grow their balance sheets through acquiring secondary market aircraft finance debt, taking senior and junior lender positions in transactions and looking at more finance leases than

state that the leasing companies are aggressively chasing deals and seeking better and more diversi-

"To succeed, credibility is essential. Japanese lessors have to be able to demonstrate that they can successfully manage their assets and have a plan for what they are going to do with returning aircraft."

fied yields from the international marketplace as they position themselves for the future.

The Japanese lessors are looking to new markets and airline clients but they are also looking to offer more services.

"Japanese leasing companies are looking at more cross-border transactions and new products to ensure they remain competitive. Balance sheets of Japanese leasing companies were shrinking a few years ago, so many boards of directors have pushed senior management to grow their balance sheets through acquiring secondary market aircraft finance debt, taking senior and junior lender positions in transactions and looking at more finance leases than before," says Robert E Melson, Jr, a partner K&L Gates. Another possible area where lessors are looking to invest is engine leasing, say market sources.

Japanese lessors face significant challenges

The presence of more lessors and abundant

liquidity in the market means Japanese lessors are facing considerable competition. Competition from the Chinese market is also present. Chinese banks and lessors are looking to ramp up their activity.

"The Chinese currency is strong, which gives them the edge. Numbers wise but experience wise, there is still work to do," notes one market source close to the Japanese market. SMBC is rumoured to be facing competition from Cheung Kong (Holdings) as it makes its bid for the Awas portfolio.

New Chinese lessors are also making an impact. Minsheng Financial Leasing, led by former Spring Airlines chief financial officer Johnny Lau, recently bought 13 on-lease aircraft off SMBC but was mainly a shipping and business jet lessor until it established a commercial aircraft-leasing arm in 2013.

Although the Chinese market is not sufficiently established to worry the Japanese lessors, the trend is towards profitable economies of scale via robust and diversified asset bases.

New assets and new challenges

Japanese lessors will need to assess how they anticipate the effect of a new generation of aircraft on the aviation market. In particular, they will need to try to predict which of the operating models will decrease in popularity in favour of the new aircraft.

Melson says: "Once the new aircraft have been operational for a couple of years, it will be much easier to predict which aircraft they will replace, and the leasing companies will need to try and anticipate that and adjust their business accordingly."

Lawyers agree that how Japanese lessors manage to deal with returning aircraft will dictate the long-term success.

Collins adds: "To succeed, credibility is essential. Japanese lessors have to be able to demonstrate that they can successfully manage their assets, know their lessees and also to have a plan for what they are going to do with returning aircraft. Through new investments and joint ventures we have seen several Japanese lessors taking steps recently to address these issues."

Fleet Size and Order Book of Japanese Lessors						
Lessor	Total	Off Lease / Stored	On Lease / Operational	On Order		
SMBC Aviation Capital	520	0	371	149		
Jackson Square Aviation/MUFJ	114	0	111	3		
ORIX Aviation	106	7	99	0		
MC Aviation Partners	102	0	102	0		
Showa Leasing	29	0	29	0		
Mitsui Bussan Aerospace	27	4	23	0		
Sojitz Corporation	10	0	10	0		
Itochu Airlease	6	0	6	0		
FGL Aircraft Ireland	2	0	2	0		
Sojitz Aircraft Leasing	2	1	1	0		
Grand Total	918	12	754	152		

Source: AtlasData

MC Aviation Partners

MC Aviation Partners (MCAP) is the aircraft leasing and trading arm of Mitsubishi Corporation (MC), with 100 owned and managed aircraft in its portfolio.

A fairly new player in the market, the group was established in 2008 as a wholly owned subsidiary of MC.

The lessor tells *Airfinance Journal* that although it is 100% funded by MC and aircraft operating leasing is a "capital intensive business", MC is not a financial institution and so it views non-MC capital as an alternative means of increasing its "operational universe" and assets under management.

"The recent inflow of capital from the broad investor community into the aviation finance market is caused by a combination of low interest and abundant liquidity, broad recovery in risk sentiment and a growing recognition of aircraft lease as an asset class, an object worth providing both debt and equity capital," MCAP tells Airfinance Journal.

"MCAP are seeking opportunities in various instruments/fields to take advantage of such development."

The lessor says that lease rents are generally on the rise because of "the resilient demand for aircraft and operating leases as a means of finance and asset procurement". It adds that the emphasis is on younger and more liquid assets, such as the A320 family, 737NG, 777 and A330.

"Increasing capital in-flow has caused tightness in the sale/leaseback markets, especially for the blue-chip names, where the entry of new investors

MC Aviation Partners Fleet by Region of Lessee



Source: AtlasData

are visible through issuance of multiple ABS [asset-backed securities], newly established funds, targeting a range of assets, including mid-aged aircraft, where the attraction lies in the relative richness of lease rents against their depreciated asset values," states MCAP.

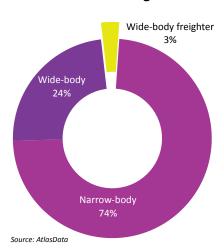
MCAP believes a combination of sales and acquisitions are "key success factor[s] in building a healthy and diversified portfolio".

It adds: "Our core principle will continue to apply in this current market, and there is no fixed

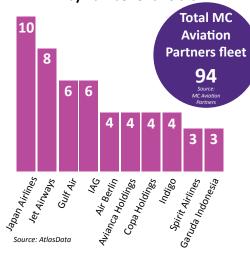
target or budget limitation in our attempt to acquire new assets."

On new deliveries, MCAP states: "If placed under the right pricing and timing, speculative orders can not only produce attractive commercial terms, but also aid us [in securing] a constant delivery stream, which will lead to profit stability in the mid to long term. Due to current tight market conditions early delivery slots are not readily available; however, we are continuously seeking for chances to place such orders."

MC Aviation Partners Aircraft Categories



MC Aviation Partners Top Lessees by number of aircraft



MC Aviation Partners Key Facts

Country:	Japan
Founded:	August 1, 2008
Ownership:	Mitsubishi Corporation
Head Office:	Tokyo
Number of Employees:	64
Size of Fleet:	94
Average Age of Fleet:	4.0 years
Number of Lessees:	30
Total Assets (as of July 2014):	\$ 2.4bn
Net Income: Source:MCAP	n/a

Middle east

Middle Eastern lessors are expanding their portfolios, but are doing limited business with the major Gulf carriers.



So far, with the exception of one or two participants, the Middle East aircraft leasing industry has not shown the same rate of growth as the region's airlines, despite the amounts of capital available. In July Emirates placed an order with Boeing for 150 777-series aircraft, according to Boeing's website, while Qatar Airways received its first A380 in September from Airbus and has nine more on order with the manufacturer. Etihad is also engaged in a rapid fleet-expansion strategy, which aligns with its dream of making Abu Dhabi Airport into a hub for itself as Emirates did with Dubai.

In theory this should offer the region's lessors plenty of opportunities. However, the three major airlines in the Middle East are opting primarily for large widebody aircraft that may not fit the portfolio and risk profile of the leasing industry.

The three major leasing players in the region are Kuwait's Aviation Lease and Finance Co (Alafco), Dubai Aerospace Enterprise Capital (DAE Capital) and (indirectly through AerCap) Waha Capital from Abu Dhabi.

DAE Capital is the largest lessor in the Middle East with about 56 aircraft, including 737s, A320s, A330s, 777s and ATR 72-600s. Waha exchanged the majority of its aircraft assets for a 20% stake in AerCap, which rose

to 26.3% before diluting to 14.1% (worth about \$1.4 billion in early September) after the Dutch lessor's acquisition of ILFC this year.

DAE's portfolio is placed with 18 customers in 16 different countries and on five continents, demonstrating its global outlook. However, it substantially scaled back its expansion plans in 2011 when it cancelled orders for as many as 200 aircraft ordered from Boeing and Airbus.

Alafco has 50 aircraft, including a mix of A320s, 777-series and 737-series aircraft. While 28% of Alafco's fleet is leased to carriers in the Middle East, it also has significant exposure to Europe, Russia, China, South Asia and the rest of Asia.

The rise of strong and reliable regional financial institutions may pose a threat and opportunity to the business of Middle Eastern lessors: a threat because if Middle Eastern airlines have access to competitive financing structures and terms, then they may opt to purchase their aircraft through financing deals rather than to lease them; an opportunity because these financial institutions will understand the operating lease model and make more capital available to them for international expansion.

National Bank of Abu Dhabi is an example of one regional institution which is expanding its aircraft financing division, as its

"The Middle East's three major airlines are opting for widebody aircraft that may not fit the leasing industry's portfolio and risk profile."

executive director, Ahsen Rajput, told *Airfinance Journal* at September's Iata World Financial Symposium.

Expansion plans are varied among the region's lessors. Kuwaiti lessor Alafco, for instance, is significantly expanding its fleet, with 117 aircraft on order with Boeing and Airbus. DAE Capital has 22 aircraft on order, including one for 20 ATR 72-600s placed at the Singapore Airshow in February. Kuwaitbased Sahaab Leasing, meanwhile, is maintaining its all-A320 narrowbody fleet at the present figure of 15, a portion of them leased to its parent, Jazeera Airways.

Knafaim, the part owner of Israel's EL AL, is an active lessor with 17 aircraft and there is

a new entrant with MG Aviation, which has orders in place for four 787-9s, two of them to be leased to Norwegian Air Shuttle and two to Arkia Israeli Airlines. MG Aviation is part of Jordache Enterprises, the Nakash family's global conglomerate which also operates Arkia, serving domestic and European destinations from its base in Tel Aviv, Israel.

One recent development that may contribute to the growth of the region's aircraft leasing activity is the planned launch by International Airfinance Corporation of a \$5 billion sharia-compliant leasing fund (Alif fund), with Airbus and Islamic Development Bank. The targeted size of the fund is \$5 billion, which will be raised through a combination of equity

and debt: \$1 billion is being raised through equity, with Airbus investing 10% and the Islamic Development Bank investing up to 10%. The fund will operate according to sharia principles, and will purchase new and second-hand Airbus aircraft. These will be leased to carriers in the Gulf Cooperation Council and Organization of Islamic Conference member countries.

Only that of Asia surpasses the growth of aviation in the Middle East. The next few years will tell whether lessors in the region can seize the opportunity to attract the business of local and global carriers, or whether non-Middle Eastern lessors will step in and fill the gap.

Fleet Size and Order Book of Middle East Lessors						
Lessor	Total	Off Lease / Stored	On Lease / Operational	On Order		
ALAFCO	175	0	50	125		
DAE Aerospace	76	1	53	22		
Novus Aviation	19	5	14	0		
Knafaim	17	1	16	0		
Al Sahaab Aircraft Leasing	15	0	15	0		
Aerovista	11	0	11	0		
Aerospace Company FZE	6	2	4	0		
Palm Aviation	6	0	6	0		
MG Aviation	4	0	0	4		
Palma Holdings Limited	4	0	3	1		
Chabahar Air	3	2	1	0		
Skyone FZE	3	0	3	0		
Route Aviation FZC	3	1	2	0		
Grand Total Source: AtlasData	342	12	178	152		

ALAFCO

With its headquarters in Kuwait, Alafco is jointly owned by Kuwait Airways Company (KAC), which founded the lessor in 1992, and Kuwait Finance House (KFH), which acquired it in 1999. KAC holds an 11.5% stake and KFH a 53% stake, with the remainder of the shares owned by private investors.

Alafco's registration was changed from Bermuda to Kuwait in 2000, and it was converted to a sharia-compliant aircraft leasing company in 2000. Alafco mainly offers operating leases and sale/leasebacks on minimum three-year lease terms, as well as aircraft lease management services. The lessor has 50 aircraft – a mix of A320s, 737-800s, 737-900ERs, 777-200ERs and 777-300ERs – 47 of which are on lease to 14 different airlines.

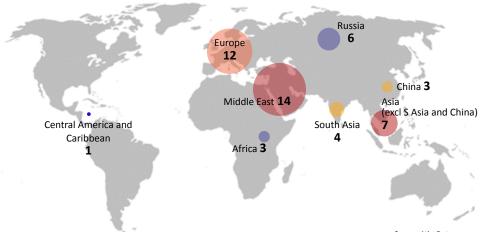
Its biggest customer – in terms of number of aircraft – is Saudi Arabian Airlines (operating as Saudia), which has 13 A320-200s on lease.

Alafco told *Airfinance Journal* it will finance most of its aircraft acquisitions this year by debt financing under commercial facilities.

"We have sufficient liquidity to cover our equity and PDP [predelivery payment] financing, hence we do not require any short-term financing in 2014," says Imtiaz Khot, vice-president, leasing.

"Alafoo's ordered aircraft shall start delivering in 2017. During the period between now and the commencement of our deliveries, we shall pursue sale and leaseback opportunities for up to 15 narrowbody and widebody aircraft with an envisaged

ALAFCO Fleet by Region of Lessee



Source: AtlasData

investment of up to \$800 million. The company shall also consider purchasing aircraft from other leasing companies."

He adds that Alafco does not plan to place a direct order with manufacturers in the next twelve months because it already has 117 aircraft on order with Boeing and Airbus.

In September last year the lessor secured a guarantee from US Ex-Im Bank to cover capital markets-sourced financing to fund the delivery of two 777-300ERs, which it placed with Garuda in a

ALAFCO Top Lessees

sale/leaseback transaction.

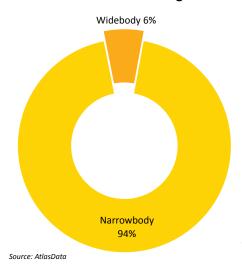
Source: ALAFCO

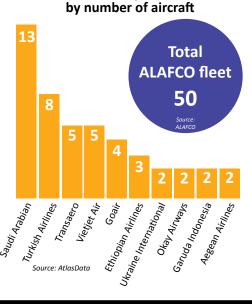
The lessor also signed an agreement with Boeing for 20 737 Max 8s at the Farnborough Airshow. 🔺

ALAFCO Key Facts

Name:	Alafco Aviation Lease and Finance Co. K.S.C.P.
Country:	Kuwait
Founded:	2000
Ownership:	53% Kuwait Finance House, 11.5% by Kuwait Airways Corporation and 35.5% others
Head Office:	Kuwait City, Kuwait
Number of Employees:	30
Size of Fleet:	50
Average Age of Fleet:	5 years
Number of Lossacs	14
Order Book:	117
Delivery Commitments (as of 30 June 2014):	\$5 billion
Unsecured Credit Ratings:	N.A.
Total Assets (as of 30 June 2014):	\$2.4 billion
Net Income (as of 30 June 2014):	\$44.3 million (for 9 months)

ALAFCO Aircraft Categories





Sahaab Leasing

Sahaab Leasing is the Kuwait-based leasing arm of Jazeera Airways. It officially launched in December 2008 with the acquisition of a seed portfolio of six aircraft sold and leased back by Jazeera Airways. The deal was funded by a provision of debt by Natixis, DVB Bank, Nord LB, Unicredit and the National Bank of Kuwait. Since its launched, additional debt has been provided by long term banking partners DVB, Natixis and NBK plus new lenders Arab Banking Corporation.

The lessor uses a mix of ECA-backed financing and commercial loans and has five current lessees, including Jazeera Airways, Virgin America, Sri Lankan Airlines, NAS Air and TAP Portugal. Its lease of two A320s to TAP was its first entry into the European market.

While Sahaab's current fleet consists of all CFM-powered A320 ceos, it is considering purchasing additional narrow body aircraft, such as A320 neo or 737-8 MAX aircraft within the next few years.

Subhail Homsi, chairman of Sahaab Leasing, told *Airfinance Journal:* "In 2014, we have experienced an improving market with increasing demand for our A320 aircraft and a corresponding impact on lease

Sahaab Leasing

Aircraft Categories

Narrowbody **100%**

Source: AtlasData

Sahaab Leasing Fleet by Region of Lessee



Source: AtlasData

rentals.

"We take a fairly conservative approach to building our leasing portfolio. We are not going to place aircraft in jurisdictions considered too risky. We are looking for solid lessees and take a more long-term approach where possible."

Sahaab Leasing Top Lessees



Sahaab Leasing Key Facts

Name:	Sahaab Leasing			
Country:	Kuwait			
Founded:	2008			
Ownership:	Jazeera Airways			
Head Office:	Kuwait			
Number of Employees:	n/a			
Size of Fleet:	15 x A320ceo aircraft			
Average Age of Fleet:	5.3 years			
Number of Lessees:	5 lessees			
Order Book:	None			
Delivery Commitments (as of date 30 June 2014):	Nil			
Unsecured Credit Ratings:				
Fitch	n/a			
Moody's	n/a			
S&P	n/a			
Total Assets (as of 30 June 2014):	\$632.2m			

Source: Sahaab Leasing

5	1	1	1	1	1.4	1.4	1.3
7	4	4	7	6	3.3		5.4
THE	THE AIRLINE ANALYST FINANCIAL RATINGS 8 5.6						
_	NEV	3.5					
Airlines' strengths and							2.0
4 L	11 1111	50 50	11 C11 E	GIID (AIIG	6.6	6.6
	3.6	3.9					
777	rookr	10000	C TO	veale	\d	1.7	1.7
W	Cari	16226	22 TE	veare	:u	3.5	3.8
			_			4.4	4.2
5	1	3	3	3	N/A	N/A	2.7
5	2	4	4	4	2.7	2.7	3.6
2	3	8	4	8	5.4	5.1	5.5
6	1	1	1	1	1.4	1.4	1.4
6	1	1	5	1	1.9	1.9	2.3

Liquidity

The Airline Analyst Financial Ratings are now available online



Avg. Fleet

Age

EBITDAR

Margin

FCC

Access powerful insight to the absolute and relative financial strength or weakness of over 135 airlines – now online.

LTM-2

Leverage

LTM-1

LTM

TAA Financial Ratings are based on the Latest Twelve Month data and unlike public ratings they are founded on completely transparent methodology.

Use TAA Financial Ratings to:

- Sense check your own internal airline ratings
- Ascertain 3-years' rating trend for individual airlines
- Instantly identify airlines' strengths and weaknesses
- Help predict baseline credit ratings

For more information on Financial Ratings or The Airline Analyst contact Harry Sakhrani hsakhrani@theairlineanalyst.com +44 (0) 20 7779 8203



Experience, Flexibility & Speed Matters

What matters to us is finding the right answers for your business model.

There are many options available to acquire new or mid-life aircraft.

But you don't just need an airplane ...

You need the right solution to meet unique business objectives.

A solution built upon unmatched industry expertise ...

Delivered from an established global platform of scale and flexibility.

Talk to us. Talk to AWAS. Ascending.

www.awas.com



