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a top-five lessor by 2025, CEO

Mike Poon explains





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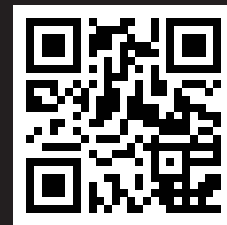
Project Finance & Infrastructure Journal

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24 September 2019
Seoul, South Korea

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Fightback starts for 737 Max

IAG's commitment stole the Paris air show, but concerns remain, including those about the Boeing aircraft's residual values, writes **Olivier Bonnassies**.

In many ways the 53rd Paris air show was similar to previous years: it featured orders and launches of new models, including the Airbus A321XLR and the ATR42-600S. A few days earlier, Mitsubishi Aircraft had officially announced its SpaceJet family of aircraft, which features the M90 (previously known by the developmental designation of MRJ90) and a new member, the M100.

However, two things stood out this time: fewer firm orders and the increasingly complicated and confusing terminology used by the original equipment manufacturers (OEMs) and their customers. Keen to demonstrate as strong a deal as possible, OEM PR departments are wielding the term "commitment" very loosely.

This is probably because there have been fewer firm order announcements at air shows over the past three years. In the past it was reasonably clear what was an order and what was something else, be it a memorandum of understanding, letter of intent or options and purchase options – terms we are used to. But this year's announcements have featured new constructions, such as "plan to extend... by adding", "commitment to purchase", "intent to acquire" and "memorandum of agreement", leaving the community mystified as to what has actually been agreed.

The A321XLR may have recorded lots of commitments in Paris but the talk of the show was the meaning of the International Airline Group (IAG) commitment for up to 200 Boeing Max aircraft, a mix of 737 Max 8 and Max 10 aircraft delivering between 2023 and 2027.

In fairness, no one saw this coming. There were rumours, before the air show, that one announcement could feature the Max model.

Boeing's top priority is to "fix" the Max problems and make sure it gets recertified soon. Therefore, an order announcement (or commitment, as it seems to be the fashion these days) at the air show, if any, had to send a strong message to the marketplace: top-tier group of airlines, huge number of aircraft.

Boeing did even better to make sure it will be the "announcement of the air show": stealing an Airbus narrowbody customer. *Airfinance Journal* understands that Airbus was not aware of this and no request for proposal was sent to manufacturers. Terms on the pricing and the Boeing commercial service agreement were no doubt attractive, but one source was not surprised by the announcement. "It was not a desperation move by Willie Walsh but a critical move," says the source,

adding: "Willie Walsh [IAG chief executive officer] has been a loyal Boeing partner and is not afraid to go against the grain. And he felt for the good of the industry and for his airlines, it was worth announcing now, when people are doubting the Max."

Financiers, recently briefed by Boeing over an update on the 737 Max programme, have growing concerns on two points: this year's budget capacity (short term) and residual values (long term).

One banking source says it has a pipeline of more than 10 aircraft, which had been mandated for 2019. According to the banker, the Max deliveries were part of different structures. Because of the grounding and no deliveries since March, the bank is now "under budget" for the year.

Another banking source is in the same position. Both banking sources agree that the situation is serious but have confidence in the US manufacturer to come up with a solution.


Assuming the Max returns to service this year or early next year, the main question is now on residual values.

"Risk is an issue for bankers," says another source. "Managing the risk of an aircraft whose future is potentially uncertain could be problematic," he says.

"The banks have financed the 737 product line over the years. This has led to a high degree of comfort because of the market acceptance and orderbook of the programme," he says. "It also led to higher loan-to-values," he adds.

The banker has exposure through a lessor's portfolio, but is more concerned about residual values, especially if a new Boeing product comes to market by 2035.

Another banker is also worried about the effect on the residual values. "We have different scenarios: one, the US authorities recertify the aircraft first and only US carriers start to operate the aircraft, in which case values will be impacted; two, all authorities recertify the aircraft at the same time so the impact on values will be less; and three, all authorities recertify the aircraft but then a question remains on an accelerated transition to a new narrowbody aircraft. In that scenario, values will be impacted," he says.

The banker adds: "The Boeing Max family has sold very well and assuming that deliveries resume soon and Boeing delivers its orderbook, the deliveries timeframe will be not before 2030. But how about if some customers cancel, or switch part of their orderbook to a new-generation aircraft?" 

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Asia finance editor
Dominic Lalk
+852 2842 6941
dominic.lalk@airfinancejournal.com

Greater China reporter
管沁雨 (GUAN Qinyu); Elsie Guan
+852 2842 6918
elsie.guan@airfinancejournal.com

Consulting editor
Geoff Hearn

Managing director
Laura Mueller
+44 (0)207 779 8278
laura.mueller@airfinancejournal.com

Managing director
Olivier Bonnassies
+44 (0)207 779 8062
olivier.bonnassies@airfinancejournal.com

Group sub editor
Peter Styles Wilson

Managing director, The Airline Analyst
Mike Duff
+44 (0)207 779 8058
mduff@theairlineanalyst.com

Advertisement manager
Chris Gardner
+44 (0)207 779 8231
chris.gardner@euromoneyplc.com

Head of Sales
George Williams
+44 (0)207 779 8274
george.williams@airfinancejournal.com

Head of Asia Subscriptions
Harry Sakhrani
+44 207 779 8203
hsakhrani@theairlineanalyst.com

Senior marketing manager
Andrew Rolland
+44 (0)207 779 8364
andrew.rolland@euromoneyplc.com

Divisional CEO
Jeffrey Davis

Production editor
Tim Huxford

Subscriptions / Conferences Hotline
+44 (0)207 779 8999 / +1 212 224 3570
hotline@euromoneyplc.com

Customer Services
+44 (0)207 779 8610, 8 Bouverie Street,
London, EC4Y 8AX

Board of Directors: Leslie van de Walle (chairman), Andrew Rashbass (CEO), Tristan Hillgarth, Jan Babiak, Imogen Joss, Lorna Tibbian, Colin Day and Wendy Pallot.

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Liquidation and consolidation are unavoidable

Hopes of a Jet Airways revival are fading after lenders launched bankruptcy and insolvency proceedings. Experts are saying flag carrier Air India could be next. The leasing community is bracing for impact, reports **Dominic Lalk**.

Bemoaning an abnormal supply of cheap capital and a growing reliance on sale and leaseback (SLB) transactions, CDB Aviation chief executive officer (CEO), Peter Chang, is convinced that consolidation and liquidation in the Asia-Pacific are unavoidable.

"The leasing sector is too crowded. Just because you like food you don't need to own a restaurant," says Chang. "It's shark-infested waters.

"We are avoiding SLBs because we can. The concept of 'must win at any cost' is still very much alive but this corrupts the rental rates for everyone else," he says, adding that abnormally low interest rates of 0.5% are a "very risky situation; a disaster".

Other leasing experts agree, arguing that it will be "incredibly difficult" to find second homes for thousands of aircraft that will be coming off lease in the region over the next three to five years. A primary concern is a lack of technical capabilities, particularly among mainland Chinese lessors and their limited relationships with carriers outside China.

Of equal concern is a proliferation of "non-tradable assets": aircraft with poor documentation and sub-par end of lease return conditions. "These assets are very difficult to trade or bear serious impairment," says Chang.

The CDB Aviation CEO believes the industry will see "a couple more" airlines collapse over the summer months. "The default rate is set to rise," he says.

"I fully agree with my boss. We need to get ourselves ready for repossession and remarketing. The cycle will come to an end. The music will stop. Are we ready is the question," says Nick Seah, CDB Aviation's head of commercial for greater China and North Asia. "We must be prepared for winter to come; to be cash-flow ready when winter comes."

India is of particular concern. Jet Airways is continuing to face a negative streak since collapsing in April. After the possibility of a quick sale has slowly slipped away, it seems more unlikely than ever that Jet will fly again. In late June, a



Nick Seah, head of commercial, CDB Aviation



Peter Chang, chief executive officer, CDB Aviation

“The leasing sector is too crowded. Just because you like food you don't need to own a restaurant.”

Peter Chang, chief executive officer, CDB Aviation

consortium of creditors, led by State Bank of India, decided to seek resolution under local insolvency and bankruptcy laws after only a conditional bid was received for Jet.

That bid was placed by Etihad Airways, which expected Jet's creditors to take

an 85% haircut from the Rs85 billion (\$1.2 billion) debt. Other potential investors, including Indigo Partners and Hinduja Group, decided not to get involved.

It does not stop there. Indian flag carrier Air India could be next to go. The state-controlled carrier is short by Rs90 billion to service debt maturing this fiscal year. Air India's total debt exceeds Rs540 billion, although the government has already offloaded more than half that amount to Air India Asset Holdings, a newly-formed special purpose vehicle, to reduce the flag carrier's annual debt servicing.

Air India keeps up to 25 aircraft on the ground, including Boeing 777s and 787s, because the airline lacks the funds to pay for their scheduled maintenance.

"If it's any consolation, at least the Jet collapse showed that assets are still relatively moveable at this point," a lessor source tells *Airfinance Journal*. "That was just for Jet though. It won't be this easy if the flag carrier collapses too, let alone one of the big players in South-East Asia."

Budget carriers IndiGo and SpiceJet are relishing Jet's demise. The latter has taken over countless Jet routes and aircraft, while IndiGo notes that revenues "have been strongly affected by the Jet Airways shutdown".

Having learnt their lesson from bankruptcies such as Air Berlin, Wow Air and Avianca Brasil, the leasing community gave short shrift to Jet. More than 20 affected lessors moved in very quickly to repossess their assets when it became clear that Jet would go down. Their fastidiousness paid off, as asset values remained relatively unaffected.

BOC Aviation and Castllake quickly placed former Jet 737s with SpiceJet, Fly Leasing put 737s with Vistara and GECAS found new homes for their narrowbodies in Russia, to name just a few.

Yet, a significant portion of the former Jet fleet remains unplaced, giving rise to those who maintain that the leasing community is in for a rude awakening over the next 18 months. Or, as Chang puts it: "We will see more airlines collapse. Default will increase." ▲

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New name, new targets

Embraer is confident it will secure more orders in the Asia-Pacific region after rebranding as Boeing Brasil, chief executive officer John Slattery tells **Dominic Lalk**.

In March, John Slattery took over the reins of the world's third-largest aircraft manufacturer, Embraer. The Irishman is poised to lead the original equipment manufacturer (OEM), which has its headquarters in São José dos Campos, Brazil, to new heights in the Asia-Pacific market after Boeing agreed to pay \$4.2 billion for an 80% stake in Embraer's commercial aircraft manufacturing business, valuing the Brazilian company at \$5.25 billion.

Embraer's commercial aircraft business was officially rebranded as Boeing Brasil Commercial in late May, prompting many in the industry to suggest Boeing forced Embraer's hand to rename the company. Nothing could be further from the truth, chief executive officer Slattery tells *Airfinance Journal* in this exclusive interview at the International Air Transport Association annual general meeting in Seoul.

"I think the characterisation that Boeing wanted to drop the Embraer name is inappropriate. I'm not pleased with how the media has characterised that. The new name – Boeing Brasil Commercial – emerged from our employees, from their employees and from our customers. Everybody was involved. It was an organic process. There seems to be a desire to portray that the name was pushed on us," says Slattery.

The Brazilian OEM believes the rebranding will result in greater brand equity and improved sales, particularly in Asian regional markets dominated by Airbus and Boeing.

"Boeing is the largest aircraft manufacturer. It's got enormous brand equity around the world. We need access to that brand equity, particularly in regions like South-East Asia and China, to help us sell our aircraft. We are very well known in North America – we've sold almost 600 aircraft in that market over the past five years – but we need to get better in Asia," says Slattery.

As *Airfinance Journal* went to press, there were about 150 E-Jets in operation with Asia-Pacific carriers. Embraer's backlog lists fewer than 20 aircraft, including two Embraer E190-E2s for Hainan Airlines and Air Kiribati, respectively.

"Our backlog in the region is not where it needs to be, no doubt about it. Those secondary and tertiary cosmopolitan areas need to be connected – they're



John Slattery

demanding point-to-point service. You can't do that profitably with an [Airbus] A320 or [Boeing] 737. People now for the very first time are saying we need the right size, not asset-abuse the narrowbodies. The way it works in that region is that you start with narrowbodies, you very quickly move to widebodies and then when you go through that cycle then you come to the large regionals. So our time will come," says Slattery.

Again, Boeing is expected to help Embraer sell. "It's physically sometimes hard to get in front of an airline in that region because they have to run their day-to-day business, so our Boeing branding will be big leverage.

Key industry influencers are predicting that the E-Jet family will be next in line for rebranding. Slattery cautions that this is definitely not a done deal.

"We haven't made a decision on that. If they come up with a great new name and we like it then we're going to rename the programme and if they don't then we won't. All we want is a name that makes sense and helps sales, not hinders sales. We'd like it done by year end, but hopefully much sooner," says Slattery.

The E-Jet E2 family is slated to become the OEM's bread-and-butter business. The family comprises the E175-E2 (80 seats in dual configuration), the E190-E2 (96 seats) and the E195-E2 (120 seats). Firm orders have been placed for 170 E2-family aircraft only, with more than 50% of that backlog belonging to lessors. AerCap has 50 E2s in its orderbook (plus 50 options), Aircastle got orders for 25 and ICBC Leasing has signed for 10 E2s.

"As AerCap, Aircastle and ICBC Leasing looked at the E2 they discovered an aircraft with over 75 operators in over 50

countries. The aircraft's performing well, the residual values are performing well, kind of mapping 737 residual values.

"We've been very careful and diligent around the number of lessors we have in the programme so we don't flood that distribution channel because in the end I uniquely appreciate that aircraft are bonds with wings. They're flying bonds. So if I overly impact the yield on the bond, if I push it down by selling too much inventory into the market my lessor customers will feel that pain and then ultimately so will I because I'm just pushing down the capital value of the asset," says Slattery.

"When we brought in AerCap, Aircastle and ICBC Leasing I said to the market place that I don't see the need for a fourth lessor at that moment. I have no desire to bring in a fourth lessor until I see a significant portion of the current inventory placed. We have honoured that. AerCap has now placed 47 out of their 50 and those aircraft are years away from being delivered," says Slattery, adding he believes the E2s of Aircastle and ICBC will be placed by the second half.

"I come from a leasing background. We've spent a lot of time when we were building the business case on making sure the E2 would be super easy to reconfigure from a lessor perspective. Frankly, reconfiguring an E2 will be quick and cheap relative to the E1," he says.

On AerCap's 50 E2 options, Slattery says he is "hopeful but not arrogant enough to say" they will be converted into firm orders. "We have invested a lot of time in each other, into developing this relationship. In our business trust is everything. It takes years and decades to build. When I think about how I interface with people like Gus Kelly [AerCap chief executive officer] and Phil Scruggs [AerCap president and chief commercial officer], things are done on a phone call now that in the past could have taken a month or a year. Just because we know and trust each other," he says.

Embraer received orders for nine commercial aircraft in the first quarter ended 31 March and delivered 11 aircraft, comprising 10 E175s and the first E190-E2. Its target is to achieve 85 to 95 commercial deliveries in 2019. At the beginning of June the OEM's backlog stood at 359 aircraft and its customer base comprised 76 global operators.

This is not good enough, according to Slattery. "I want to get to 100 operators around the world. Nothing short of that." ▲

Airlines grab the headlines

Lessors place fewer firm orders at this year Paris air show, which saw the launch of the A321XLR.

This year's Paris Air Show started with an expected announcement: Airbus launched the A321XLR first thing in the morning on the first day to achieve maximum impact. Air Lease, which was also the launch customer for the A321neo, was the first to commit to the new variant, signing a letter of intent (LOI) for 27 A321XLRs.

The European manufacturer booked 43 firm orders for the type at the show, commitments for a further 79 aircraft and 99 conversions from A321 to the XLR.

Airbus says the A321XLR is the next evolutionary step from the A321LR. It is designed to become the world's most-efficient and longest-range single-aisle aircraft, which will enable operators in this segment to access markets requiring more range and payload.

From 2023, the A321XLR will deliver an unprecedented narrowbody range of up to 4,700 nautical miles – 15% more than the A321LR.

With this added range, airlines will be able to operate a lower-cost single-aisle aircraft on longer and less heavily travelled routes – many of which can now only be served by larger and less-efficient widebody aircraft, says the manufacturer. This will enable operators to open new worldwide routes, such as India to Europe or China to Australia, as well as further extending the family's non-stop reach on direct transatlantic flights between continental Europe and the Americas.

Changes on the A321XLR vis-a-vis the A321neo(LR) include: A new permanent

rear centre tank (RCT) for more fuel volume; a modified landing gear for an increased maximum take-off weight of 101 metric tonnes; and an optimised wing trailing-edge flap configuration to preserve the same take-off performance and engine thrust requirements as today's A321neo.

In particular, the new optimised RCT holds more fuel than several optional additional centre tanks did previously, while taking up less space in the cargo hold – thus freeing-up underfloor volume for additional cargo and baggage on long range routes.

Airfinance Journal has recorded a total of 810 aircraft announcements during the air show week, comprising 140 firm orders placed by all-airline customers. Those included only 140 firm orders, all made by airline customers. Airbus booked 114 firm orders, while Embraer had 24 firm orders. There were no firm orders from Boeing.

On the "other commitments" side, airline customers represented 65% of the announcements.

Embraer announced two E1 orders (United Airlines and Fuji Dream), as well as one E2 order (Binter Canarias, exercising two purchase rights).

Airfinance Journal understands that a fairly large order for the E195-E2 was to be announced in Paris but got postponed at the 11th hour. That order for 25 E195-E2s followed a fiercely-contested battle with Airbus, which offered the A220. *Airfinance Journal* understands

that the E1 will be traded in, as part of the commitment. Bombardier and de Havilland of Canada did not record any new orders at the air show. Their combined total for the year remains at 15 aircraft: nine CRJ900s and six Q400s.

ATR banks on lessors

Turboprop manufacturer ATR arrived in Paris with only three orders but announced a total of 75 aircraft at the air show.

The Franco-Italian airframer chief executive officer Stefano Bortoli disclosed deals covering 23 more aircraft including a follow-on order for one ATR42-600 from Colombian carrier EasyFly and a further 22 ATR72 commitments from undisclosed customers.

These follow the letter of intent for 35 turboprops, spanning both ATR42-600 and ATR72-600 models, from lessor Nordic Aviation Capital (NAC) – which expects to firm the commitment shortly – and the 17 commitments secured for the new short take-off and landing variant of the ATR42-600 variant.

Those commitments include 10 aircraft for launch customer Elix Aviation Capital, two aircraft for Air Tahiti and five for undisclosed customers.

ATR is finalising the process for the official launch of the ATR42-600S and received authorisation to take in orders for the aircraft, subject to the final confirmation for launch from the company's board of directors, expected before year-end.



The variant offers capabilities to take-off from and land on runways as short as 800 metres. The ATR42-600S has a bright commercial outlook, says ATR, with 1,200 in-service turboprops of between 30 and 50 seats needing to be replaced in the coming years.

Thanks to its economic performance and operational flexibility, the ATR42-600S is ideally placed to meet this requirement. Beyond its performance on short runways, the aircraft offers 50 seats at the same operating costs as 30-seat aircraft.

Elix Aviation Capital commitment represents the first time the lessor has placed a strategic order directly with an aircraft manufacturer.

The lessor's chief operating officer John Moore says the new aircraft fits "well into Elix's long-term strategy" to offer a wide range of specialised and complete solutions to regional turboprop operators.

The NAC commitment for up to 105 aircraft represents a very successful and long-standing collaboration between the parties as well as a long-term vote in confidence in the ATR products.

Since 2010, NAC has taken delivery of in excess of 100 speculative ATR aircraft. During that time, NAC has risen to become the number one regional aircraft lessor with a portfolio of almost 500 regional aircraft.

"To plan for a successful future, it is vital for us to invest in the very best technology so that we can offer flexible and efficient solutions to our clients," says NAC chairman Martin Møller. "Aviation is moving towards a sustainable future, and with this 100+



NAC's chairman **Martin Møller** with ATR's CEO **Stefano Bortoli**

aircraft deal, we are making a strategic decision to ensure that airlines can lease and operate the most modern and eco-responsible regional aircraft available in the market."

CFM International stole the headlines at the show with a total of 1,060 LEAP engines ordered. The Franco-US manufacturer secured 370 orders from the leasing community with ALAFCO, Avolon, Macquarie Airfinance, and CDB Aviation all placing significant orders in Paris.

AirAsia finalised a deal for 200 LEAP-1A engines to power 100 A321neos. The aircraft order and intent to purchase the engines were announced in July 2016.

IndiGo ordered CFM International LEAP-1A engines to power 280 A320neo and A321neo aircraft. The Indian carrier

becomes a new LEAP customer, having until now used the Pratt & Whitney PW1100G to power its A320neos.

Peach Aviation selected the CFM LEAP-1A for its 2016 A320neo order. The Japanese low-cost carrier ordered 20 LEAP engines.

Pratt & Whitney announced SMBC Aviation Capital and an undisclosed lessor for 55 aircraft. Its airline customers included VivaAerobus for 41 A321neo aircraft AND JetSMART for 85 A320neo-family aircraft on firm order. An undisclosed airline selected the PW1100G for 28 A320neo-family aircraft.

General Electric announced orders for 110 engines from United Airlines (40 CF34-8Es), Qatar Airways (10 GE90s), Korean Air and ALC (60 GENx engines). ▲

GECAS boosts 737-800 conversion market

Operating lessor GECAS strengthened its relationship with Amazon's all-cargo airline Prime Air with the announcement of 15 additional Boeing 737-800BCFs (Boeing Converted Freighters) under lease agreements. The lessor already has an order with the US carrier for five aircraft that will be delivered by the end of this year.

Alex Burger, the GECAS chief executive officer, says the new commitment is the beginning of a new relationship. The 15 additional aircraft will be delivered through 2021.

Prime Air says it will base some of its 737-800BCFs in Cincinnati, a new hub it hopes to have in operation by 2021. By then Prime Air will have 70 aircraft, comprising 50 767 freighters and 20 737-800BCFs. GECAS was the launch customer for the 737-800 passenger-to-freighter conversion programme in 2016. The first 737-800BCF was delivered last

year to West Atlantic Group.

The 737-800BCF features a rigid cargo barrier and 12 maindeck pallet positions, with a maximum structural payload is 23.5t (51,800lb) and a maximum range in excess of 2,100 nautical miles – providing capability to open new markets. It also offers operators newer technology, lower fuel consumption and better reliability than other standard-body freighters. It primarily will be used to carry express cargo on domestic and short-haul routes.

At the show, GECAS exercised 10 purchase rights to firm orders and adding 15 more purchase rights. The announcement marked the third time GECAS had purchased Boeing's newest freighter aircraft. It has commitments for 55 firm orders and 10 options for the type.

"Our leasing customers are very pleased with the versatility and reliability of these freighters," says Richard

Greener, senior vice-president and manager, GECAS Cargo. "It's enabling operators to replace ageing freighters and meet the rapidly growing express cargo market."

Orders for the 737-800 freighter are beginning to take off as operators and lessors look for alternatives to the 737 freighters, which are seeing feedstock begin to dry up.

GECAS has delivered 13 converted cargo aircraft to customers since the second quarter of 2018. West Atlantic and Amazon Air have four units, Ethiopian Airlines and ASL Airlines Holdings have two, while Atran has one. Another six units are scheduled for delivery in the second part of this year.

"Many airlines are now operating the aircraft. The performance and reliability of the 737-800 freighter is the key reason why they are transitioning to this aircraft type," says Greener.

Airfinance Journal's 2018 deals of the year awards

Airfinance Journal reveal the winners of our prestigious annual Awards and China Awards, recognising the most innovative deals, individuals and teams in aviation finance.

Asia Pacific Deal of the Year: **Project Melville Macquarie AirFinance – \$4bn unsecured revolver and term loan**

Borrower/Issuer: Macquarie AirFinance

Structure: \$1bn unsecured revolving credit facility and \$3bn term loan

Assets financed: 135 aircraft

Lawyers (and role): Vedder Price acted for the borrower; Clifford Chance represented the lenders

Banks (RCF): Citi, Deutsche Bank, National Australia Bank, BNP Paribas, J.P. Morgan, Mizuho, Natixis as mandated lead arrangers

Banks (Term loan): Citi, Deutsche Bank, National Australia Bank, BNP Paribas, HSBC, ABN Amro, DBS, ING, Societe Generale, Wells Fargo, Westpac as mandated lead arrangers

Date closed: 30 June 2018

Two companies, Macquarie Aerospace Finance and Macquarie Aerospace Holdings acted as the borrowers of this combined \$4 billion financing for a total of 135 aircraft leased to 67 airlines.

The transaction is believed to be the largest non-recourse aircraft secured portfolio term loan globally. It represented the refinancing of the entire business moving to a wholly-independent funding structure. With this transaction, Macquarie AirFinance achieved significant goals, including the diversification of funding sources, allowing the company to efficiently fund the expansion of its businesses.

The financings were widely syndicated among Macquarie's core relationship banks, specialist aviation banks, and Asian commercial banks.

BNP Paribas, Citi, Deutsche Bank, HSBC, National Australia Bank acted as mandated lead arrangers, underwriting banks and

bookrunners on the term loan. Wells Fargo, Westpac, DBS, Societe Generale, ING and ABN Amro were the mandated lead arrangers on the term loan.

On the revolver facility, BNP Paribas, Citi, Deutsche Bank, HSBC, National Australia Bank acted as mandated lead arrangers, underwriting banks and bookrunners. BNP Paribas, J.P. Morgan, Mizuho and Natixis were the mandated lead arrangers of the RCF.

The \$3 billion term loan has a seven-year tenor with a margin of Libor + 150 basis points. It successfully refinanced and upsized a previous \$1.8 billion 2016 Spitfire term loan, which was set up to complete the acquisition of a portfolio from AWAS.

The term loan facility is paired with the \$1 billion unsecured revolving credit facility that is supported by existing unencumbered assets and provides funds for future growth over the next five years. ▲

Europe Deal of the Year: **Nordic Aviation Capital \$227m 12 Embraer 190 Jolco**

Borrower/Issuer: Nordic Aviation Capital

Structure: Japanese operating lease with call option (Jolco)

Assets financed: 12 Embraer 190 aircraft

Lawyers (and role): White & Case acted for the underwriter; Clifford Chance represented the sponsor's counsel, Nishimura & Asahi represented the equity underwriter

Banks (and role): Deutsche Bank as debt arranger, sole structuring agent and sole underwriter

Lessor: Financial Products Group

Amount: \$227 million

Tenor: Nine years

Date mandated: 1 April 2018

Date closed: 21 September 2018

number of aircraft, the largest lessor Jolco.

The transaction involved an innovative cross-collateralised structure whereby the aircraft were divided into batches and owned and leased by four Japanese borrower/lessors, leased to NAC owned special purpose vehicles SPVs and subleased to various airlines.

The transaction involved 12 aircraft leased to three airlines (three to Kenya Airways, seven to Air Europa and two to AeroMexico). In addition to the jurisdictions in which the aircraft were registered, English, Irish, Japanese and California law were all relevant to the transaction. The size and complexity of the transaction was significant given the number of aircraft,

multiple jurisdictions and short timeframe in which to complete the transaction.

The Jolco structure required security to be granted in three separate jurisdictions.

The Jolco nature of the structure allowed NAC to raise significant additional financing against the aircraft (100%) while uniquely maintaining operational flexibility when combined with the portfolio features relating to covenants and events of defaults, which the transaction entailed.

It provided Nordic Aviation Capital a diversification of its financing sources. Deutsche Bank successfully syndicated part of the debt to new lenders thereby diversifying the lessor's international debt investor profile. ▲



The Nordic Aviation Capital deal team, collecting their award from AFJ's managing director Olivier Bonnassies

The transaction marked the first ever lessor Jolco financing for regional jets and features the first ever cross-collateralisation within a lessor Jolco structure. It also represented the largest regional aircraft Jolco and, in terms of

Latin America Deal of the Year: Avianca UKEF-guaranteed Jolco financing for one Boeing 787 aircraft

Borrower/Issuer: Avianca

Structure: UKEF-guaranteed financing structured as a Jolco

Assets financed: One Boeing 787-8

Lawyers (and role): White & Case acted for Avianca; Allen & Overy represented ING and UKEF, Nishimura & Asahi, Tokyo represented Sumitomo Mitsui Finance and Leasing

Banks (and role): ING as UKEF debt arranger, initial lender, and ECA facility agent

Jolco arranger: Burnham Sterling

Equity provider: Sumitomo Mitsui Finance and Leasing

ECA: UK Export Finance (guarantor)

Tenor: 11 years

Date mandated: 1 August 2018

Date closed: 28 September 2018

Avianca mandated and successfully closed a loan guaranteed by UK Export Finance (UKEF) to finance one Boeing 787-8 delivery.

The UKEF loan was the debt portion of a Japanese operating lease with call option (Jolco), and was arranged by Burnham Sterling with Sumitomo Mitsui Finance and Leasing (SMFL) providing the equity on the transaction.

The Jolco equity combined with the UKEF debt provided Avianca with 100% financing for the aircraft at an attractive all-in cost.

ING's structured export finance team,

based in New York, acted as the arranger of the UKEF loan, initial lender and facility and UKEF agent. Burnham Sterling acted as adviser to Avianca for the Jolco equity structure.

The transaction marked Avianca's first UKEF-backed Jolco financing.

It was also the first UKEF-guaranteed financing structured as part of a Jolco for a Latin American carrier.

This was ING's first Jolco financing under a UKEF guarantee, and also the first time that ING could book Jolco debt outside of Japan. ▲



The Avianca UKEF deal team, winners of the Latin America deal of the year award

Middle East & Africa Deal of the Year: Ethiopian Airlines \$670m AFIC-supported financing for eight Boeing aircraft

Borrower/Issuer: Ethiopian Airlines

Structure: ANPI-insured loan facility

Assets financed: Five Boeing 737 Max 8s and three 777 freighters

Lawyers: Pillsbury, White & Case, Milbank LLP and Vedder Price

Banks: ING Capital, Investec, Societe Generale and SMBC Europe Ltd

Credit Enhancer: Aircraft Finance Insurance Consortium (AFIC)

Date mandated: 1 May 2018

Date closed: 29 June 2018

Ethiopian Airlines became the first African carrier to raise financing through the Aircraft Finance Insurance consortium (AFIC) structure.

The financing also marked the first AFIC structure with a commercial junior debt.

The transaction consisted of a 12-year

\$230 million loan facility covered by Aircraft Non-Payment Insurance ("ANPI") to finance five Boeing 737 Max 8 aircraft - Ethiopian Airlines' first aircraft of this type.

The 737 Max 8 senior loan facility was structured with ANPI cover under the AFIC programme and was coupled with a seven-year \$25 million junior loan facility from Investec Bank to provide Ethiopian Airlines with 95% financing for the aircraft at an attractive all-in cost.

Each of the Boeing 777 freighter facilities

were structured with \$137 million ANPI-covered loan. The senior loan had a 12-year tenor, the junior loan was seven years.

The 777 facilities were negotiated and closed on short timetables (approximately one month from start of documentation to closing).

Four of the six aircraft delivered over a weekend requiring the lenders to make special arrangements to pre-position the funds with Boeing to allow the delivery to occur during non-banking hours. ▲



The Ethiopian Airlines AFIC deal team, collecting their award

North America Deal of the Year: **Zephyrus Aviation Partners ZCAP 2018-1 \$336.6m 21 aircraft ABS**

Borrowers/Issuers: Zephyrus Capital Aviation Partners 2018-1 Ltd and Zephyrus Capital Aviation Partners 2018-1 LLC

Structure: Asset-backed securitisation

Assets financed: 21 aircraft

Lawyers (and role): Clifford Chance acted for the lead arranger; Vedder Price represented the issuer; A&L Goodbody as Irish counsel for the issuer, Maples Group

Banks (and role): Deutsche Bank as sole structuring agent and lead arranger

Adviser: Seabury Capital

Rating Agency: KBRA

Date mandated: 4 June 2018

Date closed: 9 October 2018

The transaction involved a newly-launched company acquiring a substantial portfolio of mid-life aircraft directly into an asset-backed securitisation (ABS) structure.

Zephyrus Aviation Capital was established in 2018, staffed by experienced executives from CIT and supportive equity backers: Virgo Investment Group (majority) and Seabury Capital (minority). The transaction is a tremendous start for a new company. It also marks the first time a newly-formed company launched its inaugural aircraft portfolio acquisition directly into an ABS.

The pace of the transaction saw most of the aircraft close into the structure within three months of the initial close of the ABS. Zephyrus Aviation Capital priced its debut ABS at 98.52% of par value, according to Damon D'Agostino, the new lessor's chief executive officer.

"We came in at 210 over swaps, which is within 10bps of other first time issuers," says D'Agostino in an interview with *Airfinance*

Journal. "For doing an ABS out of the box, that's a really favourable outcome, especially when you consider the age of the portfolio - 13.3 years is slightly higher touch."

The \$336.6 million single A-tranche deal was used to finance a portfolio of 21 aircraft, comprising 18 narrowbodies and three widebodies. The aircraft – seven Airbus A320s, three A319s, eight Boeing 737NGs and three A330s – have a weighted average age of 13.3 years and are on lease to 19 airlines.

"The book was more than two times oversubscribed which I think was also a nice outcome," he adds. "The investors who bought into this deal are very sophisticated players who know the space. That was also a very nice endorsement."

Under the \$336 million ZCAP 2018-1, ZAL Limited is the seller and Zephyrus Aviation Capital is the servicer.

The single Class A tranche of loans has a fixed coupon of 4.605%, yielding 5.153%. The loan-to-value (LTV) is 74.07%. ▲

Bank Loan Deal of the Year: **Limited recourse financing of four 777-300ERs leased to British Airways for Novus Aviation Capital**

Borrower/Issuer: Novus Aviation Capital

Structure: Limited recourse facility

Assets financed: Four Boeing 777-300ERs

Lawyers: Milbank LLP, Stephenson Harwood

Banks: BNP Paribas, MUFG

Date mandated: 6 September 2018

Date closed: 21 December 2018

provided by Mitsubishi UFJ Financial Group and BNP Paribas. Novus Aviation Capital is the overall arranger.

The transaction was structured to allow for financing terms to be agreed almost two years ahead of delivery in 2020 - which was a requirement for Novus. Total tenor of the risk is effectively 14 years from signing to final loan repayment.

The financing is a combination of Shariah compliant and conventional lease-in lease-out structure. MUFG Bank and BNP Paribas structured the transaction into an amortising tranche and balloon tranche.

MUFG says the large underwriting (total deal size was \$416 million) was successfully sold down to incoming participant banks.

The financing from the banks allowed Novus to secure end of line 777-300ERs that are to be placed with British Airways Bertrand Dehouck, head of aviation for BNP Paribas said: "There are three key elements that make this deal significant: One, it marks a substantial transformational phase for Novus Aviation Capital; two, it helps Boeing secure a new direct customer; and three, it supports the fleet expansion of a major European airline." ▲

The transaction represents the first direct order by Novus Aviation Capital with an OEM.

Novus Aviation Capital announced the four 777-300ER order at the 2018 Farnborough air show. The announcement also marked the first lessor order for the 777-300ER model since 2014 at the time of announcement.

The aircraft were placed under a long-term lease agreement with British Airways.

This transaction will be financed through a senior secured limited recourse facility



The Novus Aviation deal team, winners of the Bank Loan deal of the year award

Export Credit Deal of the Year: **Aeromar** ECA-guaranteed loans for eight ATR aircraft

Borrower/Issuer: Aeromar

Structure: ECA-backed loan

Assets financed: Two ATR42-600s and six ATR72-600s

Lawyers: Watson Farley & Williams, Norton Rose Fullbright, Matheson, Mason Hayes Curran, Carillo & Asociados, Patton Moreno & Asvat, Ritch Mueller

Banks: Apple Bank for Savings, Export Development Canada

ECA: Bpifrance Assurance Export, SACE, Export Development Canada

Date mandated: 1 December 2017

Date closed: 25 July 2018

The export credit deal of the year features takeout of manufacturer financing with export credit agencies support for turboprop aircraft into Mexico. The manufacturer financing was made available to the Mexican carrier on an interim conditional sale basis.

The transaction is an export credit agency-guaranteed debt that refinanced manufacturer supported sales of a batch of relatively new ATR42/72 aircraft.

The collateral includes two 2016-vintage ATR42-600s as well as six 2016/17-vintage ATR72-600s that were ordered by Mexican carrier Aeromar in November 2016. The order also included six options for the ATR72-600 model.

This deal was particularly complex as it involved the refinancing of sales finance, with export credit agency guaranteed financing (Bpifrance/SACE and Export Development Canada) separately supporting different aircraft. It also included commercial debt in respect of aircraft that were all in operation.

BNP Paribas acted as senior agent and security trustee on five aircraft while Apple Bank for Savings was lender on those aircraft. Export Development Canada acted as senior agent, security trustee and original senior lender on three ATR72-600s.

The transaction was disrupted on several occasions by the eruption of the Fuego volcano in Guatemala and a number of incidents relating to the aircraft. ▲



The Aeromar deal team

Tax Lease Deal of the Year: **Virgin Australia \$120m Jolco** financing for six used Boeing 737-800s

Structure: Japanese operating lease with call option

Amount: \$120 million

Tenor: 57 months

Lawyers (and role): K&L Gates (borrower), King & Wood Mallesons (lenders), Herbert Smith Freehills (airline)

Jolco arranger: Asset Brok'Air International

Equity underwriter: JP Lease

Lessee: Virgin Australia

Banks (and role): Australian and New Zealand Banking Group (debt arranger), DVB Bank, IBJ Leasing and Standard Chartered Bank as debt underwriters

Date mandated: 15 August 2018

Date closed: 31 October 2018

Virgin Australia's Japanese operating lease transaction with a call option (Jolco) for six Boeing 737-800s marked the carrier's debut for this financing product.

The transaction involved a portfolio of six aircraft, manufactured between 2003 and 2007, for a total amount of \$120 million.

The debt portion was provided in Australian dollars while the equity was disbursed in US dollars.

The transaction was executed in strict application of the Australian and Japanese tax scheme to avoid any withholding tax under the Japanese lease.

The deal's originality also came from the combination of financing complex assets in local currency (vintage aircraft) and having introduced a new name to the Jolco market.

It closed in a unique context following the company's recent business turnaround plan.

The overall transaction was co-arranged by Jolco specialist Asset Brok'Air International and Australian and New

Zealand Banking Group (ANZ).

DVB Bank, IBJ Leasing and Standard Chartered Bank were the debt underwriters for four aircraft in the transaction. DVB Bank was facility agent and security trustee on those aircraft.

Standard Chartered Bank acted as debt underwriter, facility agent and security trustee on the remaining two aircraft.

King & Wood Mallesons advised the lenders, Herbert Smith Freehills advised Virgin Australia and K&L Gates advised the lessor.

Asset Brok'Air International acted as overall arranger and JP Lease Products & Services as equity advisor. ▲



The Virgin Australia deal team, collecting their award

Islamic Finance Deal of the Year: **DAE Capital \$800m revolving credit facility**

Borrower/Issuer: DAE Capital

Structure: Unsecured revolving credit facility

Amount: \$800 million

Tenor: Four years

Lawyers: Clifford Chance, Clyde & Co

Banks: Ahli Bank of Kuwait, First Abu Dhabi Bank

Date mandated: 1 May 2018

Date closed: 1 October 2018

Dubai Aerospace Enterprise (DAE) signed an unsecured four-year revolving credit facility with an initial commitment of \$480 million in May 2018. The financing has an accordion feature that allows the facility to grow to up to \$800 million.

Al Ahli Bank of Kuwait was the mandated coordinating lead arranger and joint bookrunner of the transaction. First Abu Dhabi Bank was a mandated lead arranger and joint bookrunner as well as global agent and Islamic Investment Bank. Noor Bank acted as a mandated lead arranger.

The transaction closed in October 2018 and eight additional banks entered the deal using the accordion feature to bring the facility to \$800 million.

The facility is atypical. It features a conventional tranche of debt combined with an Islamic tranche, the first of its kind amongst lessor financings.

The facility has very limited covenants and does not have the standard unsecured revolving credit facility covenants such as interest coverage, leverage ratio or unencumbered assets test, making it very unique. It provides a good execution of the deal and full flexibility to the borrower.

The DAE Capital treasury team had a busy year in 2018.

The Dubai-based lessor signed a four-year unsecured revolving credit facility worth \$535 million, which can be increased up to \$600 million in December, to support its future financing needs. The RCF was arranged by Emirates NBD as sole mandated arranger and bookrunner.

In November BNP Paribas and Credit Agricole were involved in another new revolver for a total of \$720 million. The unsecured revolving credit facility has a maturity of five years.

The previous month DAE Funding, the wholly-owned subsidiary of Dubai Aerospace Enterprise, priced \$500 million aggregate principal amount of senior unsecured notes due 2021 and \$500 million aggregate principal amount of senior notes due 2023. The net proceeds from those offerings was to refinance existing secured indebtedness and to pay the related fees and expenses, and to use any remaining net proceeds for general corporate purposes. ▲

Operating Lease Deal of the Year: **airBaltic \$72.4m two A220-300 sale and leasebacks**

Borrower/Issuer: airBaltic

Structure: Sale and leaseback

Tenor: 12 years

Lawyers: Clyde & Co

Adviser: Skytech-AIC

Debt provider: Export Development Corporation of Canada

Lessor: Avation plc

Date mandated: 16 February 2018

Date closed: 12 June 2018

Leasing company Avation agreed a 12-year purchase and leaseback transaction with airBaltic for two Airbus A22-300s (formerly Bombardier CS300 aircraft), in a transaction arranged by Skytech-AIC.

The transaction represented the first open market sale and leaseback for the type: up to that point the asset was derided by competitors and shunned by investors with just 249 sales accumulated over eight years.

It also represented the first open market sale and leaseback for the Latvian carrier, which had narrowly escaped bankruptcy

previously and remained thinly capitalised.

The deal achieved a \$36.2 million per aircraft sale and leaseback price – a figure that was rejected by major lessors as being ‘unrealistically high’.

Skytech-AIC said the winning leasing party, Avation plc, showed real flexibility, understanding and creativity to win the competition and build an excellent relationship with the airline.

The Latvian airline was seeking to diversify its sources of funding away from a concentration on Export Development Corporation of Canada supported debt/finance leases and adding the flexibility of operating leases to its funding options

going forwards. The success of this transaction was also crucial to the future success of the aircraft type.

The two A220-300s formed part of a total sale and leaseback package of six aircraft conducted by Skytech-AIC on behalf of airBaltic in early 2018 with the finance of the balance of four aircraft awarded to CMB Leasing.

Since the transaction closed, Avation has been mandated another four A220-300 deliveries under a similar transaction arranged by Skytech-AIC. The first two aircraft closed in March and April 2019 while the remaining two aircraft are due in the third quarter of this year. ▲



The airBaltic deal team, collecting their award

Structured Lease Deal of the Year: **Smartwings Euro-equivalent \$140m AFIC supported financing of three Boeing 737 Max 8s**

Borrower/Issuer: Smartwings

Structure: AFIC supported finance

Amount: \$140 million

Lawyers: A&L Goodbody, Clifford Chance, Norton Rose Fullbright, Pillsbury

Credit enhancer: Aircraft Finance Insurance Consortium (AFIC)

Banks: Credit Agricole-CIB

Date mandated: 10 November 2018

Date closed: 19 December 2018

The Smartwings Aircraft Finance Insurance Consortium (AFIC)-supported multi-aircraft transaction wins the structured lease deal of the year.

The financing represents the first time the Czech carrier had availed of the AFIC-supported financing product.

It was also the first time an Irish structure has been used for an airline AFIC deal. The AFIC product has been a recent innovation

in aviation finance, which is growing in popularity but prior to this deal, no airline had structured an AFIC deal through Ireland. The structure demonstrated that airlines could avail of the AFIC support and maximise Ireland's extensive double-taxation treaty network.

The structure also ensured that no withholding tax would apply to payments of rent by the Czech carrier to the finance

lessor or payments of interest by the borrower under the loan agreement. Ireland was selected as the optimum jurisdiction for incorporation and Irish tax residency of the borrower/lessor.

The transaction was completed in a very short timeframe notwithstanding the fact that the structure was different to previous AFIC transactions and for some of the lenders this was their first AFIC-supported transaction. ▲



The Smartwings deal team, collecting their award from AFJ's managing director Olivier Bonnasies

Engine Deal of the Year: **Willis Lease Finance Corp. WEST IV \$373.4m ABS for 55 engines**

Borrower/Issuer: WEST IV

Structure: Asset-backed securitisation

Amount: \$373.4 million

Lawyers: Millbank LLP, Pillsbury

Rating Agencies: KBRA, Fitch Ratings

Banks: Bank of America, Wells Fargo, MUFG

Date mandated: 10 November 2018

Date closed: 19 December 2018

Engine lessor Willis Lease Finance closed an asset-backed securitisation debt offering covering 55 engines in the second half of last year through the Willis Engine Structured Trust IV (WEST IV), a subsidiary of, Willis Lease.

The \$373.4 million 144A transaction was the largest engine financing of the year.

The fixed-rate notes were issued in two series, with \$326.8 million of Series A notes and \$46.7 million of Series B notes.

The notes are secured by WEST IV's direct and indirect interests in a portfolio

of 55 engines and one Boeing 737-800 airframe only on lease to Scandinavian Airlines.

The Series A notes have a fixed coupon of 4.75%, an expected maturity of approximately eight years, an expected weighted average life of 6.3 years and a final maturity of 25 years.

The Series B notes have a fixed coupon of 5.438%, an expected maturity of approximately eight years, an expected weighted average life of 6.3 years and a final maturity of 25 years.

The Series A notes priced at 99.99504% of par and the Series B notes priced at 99.99853% of par. Bank of America, MUFG and Wells Fargo acted as active bookrunners in the transaction.

Willis Lease posted a record annual pre-tax profit of \$56 million last year, up 56% from \$36 million in 2017.

The engine lessor's 2018 pre-tax results were driven by 27% revenue growth, to a record \$348 million, from its core leasing business and higher spare parts and equipment sales. ▲



The WEST IV ABS deal team, winners of the Engine deal of the year award

Used Aircraft Deal of the Year: **Air Canada** 25 Embraer 190 sale and leasebacks

Borrower/Issuer: Air Canada

Structure: Sale and leaseback

Lawyers: Fafinski Mark & Johnson

Advisor: SkyWorks (exclusive remarketing agent for the seller)

Lessors: BeauTech Power Systems, Nordic Aviation Capital

Date mandated: 1 December 2017

Date closed: 1 August 2018

US part-out trader BeauTech acquired a 25-aircraft fleet from Air Canada. The 25-aircraft have short lease periods (terms at closing ranged from less than one month up to 20 months) with the Canadian carrier.

BeauTech plans to retain a portion of the fleet but the company also entered into a joint venture agreement with Nordic Aviation Capital (NAC).

The formation of the joint venture brought together two separate segments in the industry value chain.

BeauTech had one of the largest CF34 engine lease portfolios and well-established sale channels in the CF34 aftermarket,

which created certainty in managing the immediate aircraft deliveries. NAC, the world's largest regional jet lessor, had the network to re-lease a large volume of E190s and appetite to hold them long term.

The joint venture's unique blend of expertise and purchasing power meant it could manage the size of the transaction. At the same time, it offered an innovative solution allowing Air Canada to optimise the green-time remaining on the E190s, creating a significant degree of flexibility and cost savings as Air Canada gradually phase out the E190s.

The sale allows Air Canada to accelerate the removal of its 25 E190s from their mainline fleet in lieu of ageing A319s in advance of the first A220 delivery, which start in 2019.

SkyWorks says the market conditions for E190s had softened considerably after most of the original operators had started to phase out the type. Few if any of the prospective new operators would be in a position to purchase the aircraft, and many would be challenging lessees (from a credit/jurisdiction point of view) for Air Canada, a reluctant lessor in either case. ▲



The Air Canada deal team, collecting their award from AFJ's managing director Laura Mueller

Airline Unsecured Bond Deal of the Year: **Delta Air Lines** \$1.6bn unsecured notes

Borrower/Issuer: Delta Air Lines

Structure: Bond

Amount: \$1.6 billion

Lawyers: White & Case, Kilpatrick Townsend & Stockton

Joint Book-Running Managers: BNP Paribas, Credit Suisse, Deutsche Bank Securities, Fifth Third Securities, Morgan Stanley, Wells Fargo Securities, Barclays, BBVA, BofA Merrill Lynch, Citigroup, Goldman Sachs, ICBC Standard Bank, J.P. Morgan, PNC Capital Markets, SMBC Nikko, Standard Chartered Bank and US Bancorp

Co-managers: Credit Agricole, Natixis, Siebert Cisneros Shank and The Williams Capital Group

Date mandated: 17 April 2018

Date closed: 25 April 2018

Delta Air Lines tapped the capital markets with \$1.6 billion unsecured bonds over three series with varying maturities. The \$600 million first tranche

has a three-year term to 19 April 2021. The notes were priced at 3.4%, representing a 90 basis points (bps) spread to the benchmark Treasury.

The \$500 million second tranche has a five-year term to 19 April 2023. The notes were priced at 3.8%. This represented a 115bps spread to the benchmark Treasury.

The \$500 million third tranche has a 10-year term to 19 April 2028. The notes were priced at 4.375%. This represented a 155bps spread to the benchmark Treasury.

The notes were used to refinance the company's Pacific term loan B-1 and its 2015 term loan facility, which had a combined outstanding balance of just over \$1.5 billion at the end of 2017. The notes rank equally with Delta's existing unsecured debt.

Fitch Ratings rated the notes 'BBB-' and currently rates the airline at 'BBB-'; the corporate rating is unaffected by the proposed issuance.

According to Fitch, the transaction will continue Delta's transition from secured financing toward unsecured, and will free

up the collateral previously encumbered by the two term loans, including Delta's Pacific route rights and certain accounts receivable, aircraft and spare engines.

A key ratings driver, according to Fitch, is that "Delta's investment-grade corporate rating reflects the company's modest leverage, its ability to consistently generate positive and sizeable free cash flows, and its market position as one of the leading network carriers in the US". ▲



Delta's MD and assistant treasurer Andy Nelson

Equity Deal of the Year: Azul \$315m secondary equity offering on behalf of Hainan Airlines Holdings

Structure: Equity offering

Amount: \$315 million

Banks (and role): Citigroup, Deutsche Bank Securities, UBS Investment Bank as joint global coordinators. Bradesco BBI and Itaú BBA as joint bookrunners

Date closed: 30 June 2018

Azul's \$315 million follow-on offering wins the equity deal of the year. It follows the Brazilian carrier's R\$2 billion (\$644 million) initial public offering in April 2017.

The transaction saw Azul offering 19,379,335 in American depositary shares

(ADS) of the Brazilian airline in the United States and elsewhere outside of Brazil on behalf one of its shareholders, Hainan Airlines Holding (Hainan). Each ADS represented three preferred shares of Azul.

The follow-on offering was launched against a positive market backdrop (at the time the S&P 500 index was 12% up year to date, while the Bovespa index was 29% up). It concurrently represented an SEC registered offering in the USA, and a 476 offering in Brazil.

Given the strong messaging and demand generation, Azul's share price rallied during the execution of the transaction.

The deal achieved a 4.7% premium from launch-to-offer, representing the best US-listed market follow-on launch/offer at the time. The transaction gathered strong

interest from global institutional investors with 115 institutional orders and was five times oversubscribed.

The management engaged with around 35 investors through one-to-one (79% hit rate) and group meetings.

Citi was again involved in the transaction, having served as lead left book-runner on Azul's IPO. The offering represented all of Hainan's shares in Azul other than one share after formation of the ADSs. The offering was part of Hainan's strategic plan, which includes capital raising initiatives, selected divestments, as well as investments in airlines and in the aviation services sector.

It allowed Azul to broaden its ownership: 55% of the offering was allocated to new investors while 60% of demand was from long-only investors. ▲

Restructuring Deal of the Year: Bocomm Leasing \$200m French tax lease for seven Boeing aircraft

Borrower/Issuer: Bocomm Leasing

Structure: French tax lease

Amount: \$200 million

Lawyers: Allbright Law Offices, Bryan Cave Leighton Paisner, King & Wood Malleson, Norton Rose Fullbright, Vedder Price

French Lease arranger and investor: BNP Paribas

Banks: BNP Paribas, DVB Bank, National Australia Bank and Helaba as debt co-arrangers

Date mandated: 1 August 2018

Date closed: 27 December 2018

Bank of Communications Financial Leasing (Bocomm Leasing) had previously financed seven aircraft through a French tax lease financing structure in 2017, whereby that financing had incorporated flexibility to accommodate US Exim Bank support. However, US Exim Bank support was not forthcoming and the debt had to be restructured. The transaction combined two forms of financing/leasing structures:

1. French tax lease financing structure: where a special purpose vehicle (SPV) incorporated in France and being a direct subsidiary of BNP Paribas would be the legal owner of the aircraft and borrower under the commercial loan.

2. PRC SPC onshore leasing structure: a SPV incorporated in Tianjin, China would sublease the aircraft to the Chinese carrier. The Tianjin SPV would act as an intermediary lessor. This structure reduces withholding tax implications.

This transaction is unique given that it is arguably one of the first French leases combined with a PRC SPC onshore leasing structure, to be refinanced. The transaction required sensitive consideration of legal and tax issues to reflect a new syndicate of lenders, replacement securities which were tailored to accommodate the long term refinancing and calculated closing mechanics to bridge the transfer of the original French tax lease financing and replacing that with the subject refinancing whilst maintaining all key features

associated with the French tax lease intact.

Considering the complexity of refinancing, being a French tax lease combined with a PRC SPC onshore leasing structure, there were a number of complexities and obstacles that needed to be overcome. In particular, submissions and detailed explanations to the local PRC Tianjin authorities required discussions and submissions to facilitate approval and closing of the transaction.

Bespoke terms were required to convert US Exim Bank compliant financing terms to a commercial debt loan, but always with careful consideration that any such amendments or restructuring would not prejudice or adversely affect the economics (and financial benefits) afforded under the existing French tax lease. ▲



The Bocomm Leasing deal team, collecting their award

Lessor Unsecured Bond Deal of the Year: **Avolon \$1bn five-year senior unsecured notes**

Borrower/Issuer: Avolon

Structure: Bond

Amount: \$1 billion

Lawyers: Maples Group, Weil, Gotshal & Manges

Lead bookrunners: J.P. Morgan, Morgan Stanley

Joint Bookrunners: Barclays, BNP Paribas, Credit Agricole, Suntrust Robinson Humphrey, UBS Investment Bank

Date mandated: 6 September 2018


Date closed: 20 September 2018

Avolon, via special purpose vehicle Avolon Funding, raised \$1 billion Rule 144A via a private offering of senior unsecured notes in the third quarter of last year. The notes, which have a coupon rate of 5.125%, mature on 1 October 2023.

The issuance was upsized from the lessor's initial target volume of \$750 million and priced at 5.125%, benefitting

from improved market sentiment following the announcement of the ORIX transaction.

In that quarter, \$2.1 billion of debt capital was committed. Notably, the lessor increased its unsecured revolving credit facility by \$350 million to \$1.8 billion with the addition of two new lenders.

The lessor's focus on unsecured debt supports its corporate objective of reducing the quantum of secured debt on its balance sheet. Avolon has set up a target of reaching 30% secured debt over total assets in the medium-term, a level that will support Avolon's transition to investment grade. 



The Avolon deal team, winners of the Lessor Unsecured Bond deal of the year award

M&A Deal of the Year: **Goshawk Aviation/Sky Leasing acquisition and \$900m unsecured financing**

Structure: M&A

Lawyers: Milbank LLP, Maples Group, Gibson Dunn & Crutcher, Vedder Price, Simpson Tacher & Bartlett, Weil, Gotshal & Manges

Banks: J.P. Morgan, Citi, BNP Paribas, HSBC, Credit Agricole, Natixis, Mizuho, RBC, SunTrust as lenders

Financial advisers: J.P. Morgan, Morgan Stanley

Date mandated: 22 June 2018

Date closed: 13 September 2018

Goshawk Aviation acquired Irish lessor Sky Aviation Leasing International from the Public Sector Pension Investment Board, one of Canada's largest pension investment managers, and private-equity firm ATL Partners in September 2018.

Airfinance Journal reported on 31 May 2018 that Goshawk had been involved in the bidding process, along with Avic

International Leasing and Aviation Capital Group. Chinese lessor Avic was originally the frontrunner, but was pipped to the post by Goshawk.

The acquisition accelerates Goshawk's already fast growth trajectory with the addition of 51 young aircraft with long leases. As a consequence, Goshawk's portfolio, comprised of 77% narrowbodies, which have an average lease term of 7.7 years, is one of the youngest among the major lessors.


The deal also allows a diversification of Goshawk's customer portfolio through the addition of 17 new lessees and six new countries resulting in a pro-forma company with aircraft on lease to 65 lessees in 35 countries.

Upon completion Goshawk had 183 aircraft owned, managed and committed valued at \$9.1 billion.

This acquisition gives Goshawk the necessary scale for an investment grade rating, which will pave the way for access to the public bond market in 2019 and an IPO in Hong Kong (expected 2020). Goshawk entered into a \$900 million a two-year

unsecured term loan with a syndicate of nine banks to finance the acquisition.

"The acquisition is set to deliver synergistic values to Goshawk as both companies focus on young and in-demand narrow body aircraft with long lease terms," Goshawk said at the time.

Hong Kong-owned Goshawk is a 50/50 joint venture between NWS Holdings and Chow Tai Fook Enterprises. 



The Goshawk Aviation/Sky Leasing deal team, collecting their award

ABS Deal of the Year: **GECAS STARR 2018-1 \$687m for 24 aircraft ABS**

Borrower/Issuer: START Ltd and START USA LLC

Structure: Asset-Backed Securitisation

Amount: \$687 million

Collateral: 24 aircraft

Lead bookrunners/Structuring agents: Citi, Deutsche Bank

Liquidity provider: Natixis

Equity provider: Och-Ziff Management

Lessor: GECAS as servicer and manager

Rating Agencies: KBRA, Standard & Poor's

Lawyers: A&L Goodbody, Clifford Chance, Conyers Dill & Pearman, Milbank LLP, Vedder Price

Date closed: 26 June 2018

The GECAS 2018-1 transaction brought a new development into the asset-backed securitisation (ABS) market last year: the first aircraft ABS transaction to utilise a 144A Tradeable E-Note.

In STARR 2018-1, an affiliate of GECAS retained a small minority percentage of the equity.

The structuring agent said it was a game changer because the transaction was sold down to the E-notes.

The structure has transformed the E-note market by expanding the traditional E-note buyer base to institutional investors of all sizes to participate in the space with enhanced liquidity and significantly improved transparency on the performance of the underlying transaction.

The structure, which is repeatable, also allows investors to purchase both the debt and equity in a deal.

In STARR 2018-1, the \$430 million series A notes carry an interest rate of 4.089% and an initial loan-to-value (LTV) of 61.8%. The \$120 million series B notes have an

interest rate of 5.315% and an initial LTV of 79.1%, while the \$36.9 million series C notes have an interest rate of 6.899% with an initial LTV of 84.4%.

Proceeds from the sale of the notes were used to acquire 24 aircraft (23 narrowbodies and one widebody) on lease to 16 lessees. The initial weighted average aircraft age of the portfolio was approximately 7.7 years, with a weighted average remaining lease term of approximately 4.5 years.

GECAS is the servicer for the transaction, which is the 11th securitisation serviced by the lessor.

Oz Management serves as the asset manager for equity investors. ▲



The GECAS STARR 2018-1 deal team

News Event of the Year: **Boeing-Embraer Partnership**

While no one anticipated Airbus and Bombardier announcing a CSeries partnership in October 2017, the proposed Boeing-Embraer joint venture had been a rumour for most of the first half of 2018.

Boeing dismissed the Airbus-Bombardier tie-up but news emerged rapidly they were engaged in talks with the Brazilian manufacturer.

The US and Brazilian manufacturers announced a Memorandum of Understanding in July 2018 for a strategic partnership: Boeing will hold 80% of a joint venture for Embraer's commercial aircraft operations for \$4.2 billion, and Embraer will own the remaining 20%.

The companies have also agreed to the terms of another joint venture (JV) to promote and develop new markets for the multi-mission medium airlift KC-390. Under the terms of this proposed partnership, Embraer will own a 51% stake in the JV, with Boeing owning the remainder.

The partnership aims to generate \$150 million in synergies by the third year and

add to Boeing's earnings per share from 2020.

The closing of the transaction is subject to shareholder and regulatory approvals. The transaction is expected to close by the end of 2019. Boeing will control the new company, which will be managed from Brazil.

Heading the joint venture is John Slattery, the president and CEO of Embraer Commercial Aviation and executive vice-president of Embraer. He was named president and chief executive officer (CEO) for the commercial aviation and services joint venture between Boeing and Embraer. ▲



The Boeing-Embraer team, winners of the News Event of the year award

Airline of the Year: **Southwest Airlines**

Airfinance Journal selects its Airline of the Year on a 100% objective and quantitative basis using data from The Airline Analyst. The parameter used is Return on Total Capital (EBIT/Average of Adjusted Net Debt and Equity) which clearly conveys the airline that had the most success during the year in generating returns not just on its capital but also its resources such as aircraft and staff.

The winner for 2018 is Southwest Airlines which generated a phenomenal 27.6% Return on Total Capital. Runner-up was IAG and third-placed was Ryanair.

Southwest's performance was driven by an EBITDAR Margin of 20.2% and an EBIT of \$3.1 billion. Unit costs ex-fuel declined 0.4% and the RASM-CASM margin was a highly creditable 1.9 cents. Leverage (Adjusted Net Debt/EBITDAR) was an extremely low 0.22x, more than fitting for its Investment Grade Status. Return on Assets was 12%, significantly higher than its US peers. During the year it returned \$2.3 billion to shareholders in the form of stock buy-backs and dividends.

Southwest Airlines is a deserving winner of this award for 2018. ▲

Southwest's performance was driven by an EBITDAR Margin of 20.2% and an EBIT of \$3.1 billion. Unit costs ex-fuel declined 0.4% and the RASM-CASM margin was a highly creditable 1.9 cents.

Overall Capital Markets Deal of the Year: **Air Lease Corp. TBOLT II \$450m ABS for 18 aircraft**

Borrower/Issuer: Thunderbolt II Aircraft Lease Limited and Thunderbolt II Aircraft Lease US LLC

Structure: Asset-Backed Securitisation

Amount: \$450 million

Global Coordinator, Joint Lead Structuring Agent and Joint Lead Bookrunner (equity and debt): Bank of America Merrill Lynch

Joint Lead Structuring Agent and Joint Lead Bookrunner (equity and debt): Mizuho Securities, Goldman Sachs & Co

Joint Lead Bookrunner (equity and debt): Citigroup

Joint Lead Bookrunners (debt): BNP Paribas, MUFG

Rating Agency: KBRA

Lawyers: A&L Goodbody, Hughes Hubbard & Reed, Milbank LLP, Vedder Price, Walkers

Date closed: 1 July 2018

The transaction was described as a groundbreaking 144A tradeable E-note ABS for Air Lease. This innovative structure has transformed the aircraft ABS market into an investible and tradeable asset class for a broader set of both equity and credit buyers.

The collateral comprise a mix of narrowbody and widebody aircraft that had an average age of eight years (as of April 2018) and were leased to 16 lessees.

The Thunderbolt II ABS included issuing \$450 million of debt and \$215 million of equity, each issued pursuant to Rule 144A.

The structure included two series of fixed rate notes and equity in the form of Aircraft Portfolio Shares (APS), comprised of 90% Global Aircraft Portfolio Shares (GAPS) and 10% Certificated Aircraft Portfolio Shares (CAPS).

The CAPS were purchased by an investment vehicle controlled by ITE Management, and ALC retained 5% of the equity as planned.

Ryan McKenna, ALC's head of strategic

planning said at the time that there were 56 orders and oversubscription across all the three classes of securities, highlighted by 23 unique investors and 6.7 times oversubscription for the equity.

The transaction was the one of the largest aviation ABS marketing efforts in history comprising a four-week non-deal roadshow canvassing 60 investors across 21 cities.

Final pricing was seven basis points (bps) tighter than initial price talk for the A Notes, 37.5bps tighter for the B Notes and 100bps tighter for the GAPS.

Thunderbolt II was the first Deal to use a Passive Foreign Investment Company (PFIC) tax structure that facilitates off-shore ownership and removes tax related transfer restrictions, with the goal of further broadening distribution and secondary market liquidity.

The transaction used the DealVector platform to share more detailed models with investors in an effort to increase transparency and facilitate investor analysis. ▲



The ALC TBOLT II deal team

Innovative Deal of the Year: Spirit Airlines \$160m PDP financing for 43 A320neo

Borrower: Spirit Airlines

Structure: Revolver credit facility secured by Pre-delivery payment financing

Amount: \$160 million

Collateral: 43 Airbus A320neo aircraft

Banks: Crédit Agricole and Nord/LB as co-lead arrangers

Arranger and adviser: SkyWorks

Lawyers: Debevoise & Plimpton, Vedder Price

Date mandated: 1 July 2018

Date closed: 30 October 2018

ULCC Spirit Airlines closed a \$160 million pre-delivery payment (PDP) revolving facility, related to 43 Airbus A320neo aircraft in October 2018.

According to its fleet plan, the ULCC has 14 A320neo deliveries this year, five were planned for the first quarter of 2019, three in the third quarter and the remaining six in the final quarter.

In 2020 Spirit is due to take 16 new A320neo aircraft. The A320neo aircraft are scheduled to be delivered through December 2021.

The facility is traditionally secured by the collateral assignment of certain of Spirit's rights under its purchase agreement with Airbus. The facility was innovative as it allows the borrower draw down and repayment flexibility. As direct borrower, Spirit is free to decide how

much it wants to draw, repay or redraw on a monthly basis, subject only to pre-agreed maximum amounts as determined by the aggregate PDP payments made by Spirit to Airbus across all 43 aircraft under the facility.

The PDPs paid in by Spirit serve essentially as the borrowing base for the facility. In other words, unlike in traditional PDP financings, Spirit makes 100% of the PDP payments due directly to Airbus from its own cash first and subsequently decides how much it wishes to refinance with full flexibility to adjust on a monthly basis.

Despite the complexity of the structure, size of the facility and large number of aircraft involved, the facility was closed in record time (four weeks from signing of the term sheet in early October to closing at the end of October). ▲



The Spirit Airlines deal team, winners of the Innovative deal of the year award

Editor's Deal of the Year: Fly Leasing & Incline 84-aircraft portfolio acquisition

Seller: AirAsia

Buyers: Fly Leasing and BBAM

Structure: Portfolio acquisition

Mandated lead arrangers and bookrunners: MUFG, First Abu Dhabi Bank

Sell-Side Financial Advisors: BNP Paribas, Credit Suisse, RHB

Acquisition Financiers: BNP Paribas, Citi, Commonwealth Bank of Australia, Deutsche Bank

Lawyers: Clifford Chance, Milbank LLP, Vedder Price

Date closed: 28 February 2018

AirAsia Group entered into agreements to dispose of its aircraft leasing operations (Asia Aviation Capital) to entities managed by BBAM for \$1.18 billion.

Under the terms of the agreement, Fly Leasing purchased 33 aircraft and seven engines, Incline B Aviation (Incline) acquired 38 aircraft and seven engines, Nomura Babcock and Brown (NBB) acquired 13 aircraft. Of the 84-aircraft portfolio, 79 aircraft are leased back to AirAsia and its affiliates.

Fly and Incline also entered agreements to acquire 48 aircraft ordered by AirAsia, and took an option on a further 50 deliveries.

This transaction was described as a 'game changer' for Fly Leasing as it exposed the lessor to new technology aircraft.

Fly completed the acquisition of 33 used A320s and seven engines on lease to AirAsia group airlines in the fourth quarter of 2018.

Later this year, Fly will also start the second phase of the AirAsia project, with the first new-technology aircraft to be acquired under purchase and leaseback transactions.

Four A320neo deliveries are planned for late this year, six in 2020 and the final 11 in 2021. All aircraft will be under 12-year lease terms. As part of the transaction, Fly also acquired options to purchase up to 20 A320neo-family aircraft from AirAsia.

The transaction gave Fly more than 20% overall exposure to AirAsia group airlines but the lessor is looking to reduce its exposure.

Fly started to sell some A320's last December and has set a target towards a 3.5/1 leverage ratio.

"We're way ahead of our targets in deleveraging following the portfolio acquisition and we expect to be down very close, all else being equal to be very close to three times by the end of the year," says chief executive officer Colm Barrington. ▲

Overall Deal of the Year: **ORIX Aviation \$2.2bn acquisition of 30% stake in Avolon**

Structure: M&A

Seller: Bohai Leasing

Buyer: ORIX Aviation

Amount: \$2.2 billion

Lawyers: Clifford Chance, Linklaters, Maples Group, Milbank LLP, Pillsbury, Weil, Gotshal & Manges

Date closed: 5 November 2018

ORIX Aviation Hong Kong chief executive officer said his company will also benefit from the returns made from Avolon's orderbook, but it will not be taking any of the orders itself.

"We're buying into the business plan that Avolon has set out and we want Avolon to keep growing, increase in value and reach investment grade. That's very much our target for the investment. ORIX Aviation will continue to grow by its business plan."

Since the purchaser is owned by

Japanese corporation ORIX, one benefit of the deal may be greater market share for Avolon in Japan.

"ORIX and Avolon have been strong trading partners for the past three or four years with 45 aircraft valued at \$3 billion being traded between both companies," says Meyler.

He adds: "In knowing the Avolon business well from our close working relationship, we knew there was limited overlap in our business models which made it a fit." ▲

ORIX Aviation agreed to pay \$2.2 billion for a 30% stake in fellow Dublin-based lessor Avolon in early August 2018.

"ORIX is a strong, investment grade institution with a proven track record in the leasing sector over multiple industry cycles," said Avolon chief executive officer Dómhnaíl Slattery, adding: "We will benefit from ORIX's experience and relationships as we continue to build Avolon's financial strength and industry franchise."

As a 30% shareholder in Avolon, ORIX will benefit from the Chinese-owned lessor's cash flows and profits.

James Meyler, who at the time was ORIX Aviation deputy chief executive officer and



The ORIX Aviation/Avolon deal team, collecting their award

Airline Treasury Team of the Year: **AirAsia**

The AirAsia Group wins the Airline Treasury Team of the year prize after a very busy 2018.

In addition to managing the AirAsia Group Berhad group of airlines operations, the team handled two major aircraft divestment portfolio projects from its aircraft leasing business (Asia Aviation Capital). The team was instrumental and dedicated in closing:

1. M&A process of project Aladdin, or sale of a large portfolio to Fly Leasing,
2. M&A process of project Alibaba, or sale of a medium size portfolio to Castlake.

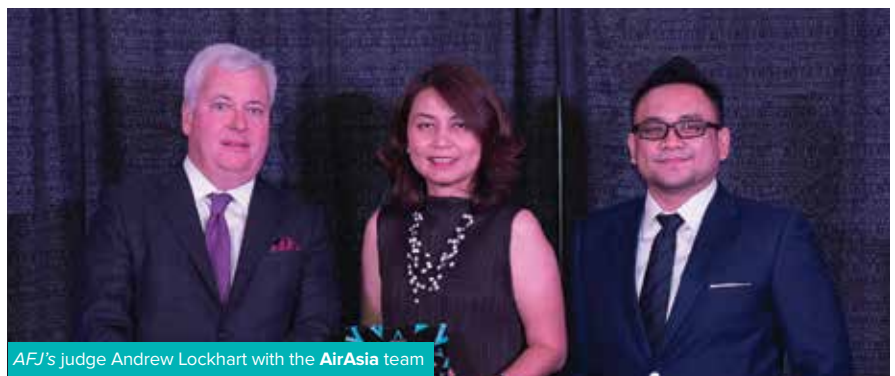
Project Aladdin was a major merger and acquisition transaction, which also represented the first partnership of this scale between an aircraft operating lessor and an airline. The transaction involved existing and future aircraft portfolios and engines on lease to a diversified group of AirAsia Group lessees. In spite of the scale and complexity of the transaction, as well as time zone differences between US and Asia, negotiation and signing of transaction documentation was completed

in four months. The team was instrumental in implementing the transaction structure, which was unique to the transaction. Combination of conditional sale and straight sale agreements were designed to facilitate the entire underlying assets transfer.

The sale of the other 25-aircraft portfolio, project Alibaba, was completed late in December. Asia Aviation Capital entered into a sale and purchase agreement with AS Air Lease Holdings 5T DAC and AS Air

Lease, two entities controlled by Castlake for the disposal of Merah Aviation Asset Holding, which owned 25 aircraft to be leased to AirAsia Berhad for an aggregate consideration of \$768 million.

The AirAsia team was concurrently coordinating with four banks (BNP Paribas, Citibank, Commonwealth Bank of Australia and Deutsche Bank), to arrange the financing in support of eventual buyer's acquisition of the underlying aircraft portfolio. ▲



AFJ's judge Andrew Lockhart with the AirAsia team

Lessor Treasury Team of the Year: **BOC Aviation**

BOC Aviation wins this year's Lessor Treasury Team of the year award after an impressive 12-month period.

In 2018 the Singapore-based lessor was active in the loan and bond markets, raising over \$2.7 billion in unsecured funding.

BOC Aviation continued to tap the capital markets and raised \$1.7 billion through five issuances with different terms under its \$10 billion 'Global Medium Term Note' programme.

Issuances of \$300 million, \$500 million and \$90 million had five-year terms, one \$500 million issuance had a three-year term and the lessor also issued \$350 million of unsecured notes with a seven-year term.

The May 2018 \$350 million floating rate transaction achieved a new benchmark: the transaction was the lessor's inaugural seven-year floating rate notes, the first out

of Asia in over two decades, as well as from the global aircraft lessor space.

Demand peaked in excess of \$3 billion (or oversubscription ratio of 8.6x) before pricing from more than 190 accounts at final price guidance, which represented a record high for BOC Aviation.

In 2018, The BOC Aviation treasury team also raised \$1 billion from loan markets, including a new benchmark \$750 million term loan that was un-utilised at 31 December 2018 and is available for 2019.

BOC Aviation has steadily reduced its secured debt over the past few years. At the end of 2018 that debt was composed of 57% from notes issuances in debt capital markets, 36% from commercial loans and 7% from the export credit agencies.

The lessor maintained strong liquidity with \$243 million in total cash and

short-term deposits, and \$3.6 billion in undrawn committed credit facilities, as of 31 December 2018.

BOC Aviation ended the year with a debt to equity ratio of 3.0 times.

The lessor supported a total of 55 deliveries through ongoing financing during the year and finished the year with a lending group of over 80 financiers, one of the largest in the aircraft leasing industry.

Once again, BOC Aviation achieved a very attractive overall debt cost in 2018 at 3.3%, based on the average of opening and closing debt. This reflects the strength of the credit, the strong investment grade ratings, the treasury team's experience and the tapping of different markets and tenors in size (total raised in 2018 \$1.8 billion).

It maintained 'A-' credit ratings from S&P Global and Fitch Ratings. ▲

Aviation Finance House of the Year: **BNP Paribas**

BNP Paribas wins this year's Aviation Finance House of the Year Award demonstrating a broad variety of transactions, as well as creativity across many financing structures. The bank particularly seemed to punch above its weight in the asset-backed securitisation (ABS) and debt capital markets.

The French bank's involvement in aviation transactions in 2018 totalled more than \$50 billion. It included more than \$39 billion of capital markets and revolving credit facilities and over \$11 billion of commercial loans.

Last year the bank was involved in more than 30 capital markets deals, 17 revolving credit facilities as well as 51 aircraft financings and refinancings.

BNP Paribas' Aviation teams in EMEA, Americas and Asia Pacific, were able to deliver significant value for their clients in a challenging context last year.

The depth and breadth of the French bank's aviation franchise can be summarised as below:

- First Aircraft Finance Insurance Consortium (AFIC) combined with first French tax lease with Royal Air Maroc for the financing of their first ever Boeing 787-9 and Max 8 aircraft,
- Project Aladdin - Sale of AirAsia's aircraft leasing operations to Fly Leasing as advisor and lender,
- Project Melville - \$3 billion secured term loan combined with \$1 billion

unsecured revolving credit facility, involving 135 aircraft on lease with 67 lessees,

- Sole non-AFIC non-sovereign-guaranteed aircraft financing (through commercial Jolco) in 2018 for Turkish Airlines,
- Virgin Atlantic's first ever revolving credit facility,
- Arranger/bookrunner in five Asset-

backed securitisations (ABS) transactions (Sapphire Aviation, CLAS 2018-1, TBOLT 2018-A, HORZN 2018-1, CARGO 2018-1),

- Goshawk's Schuldschein issuance,
- Goshawk TLA financing for the acquisition of SKY Leasing International, and
- Long term debt commitment for Novus Aviation Capital's first ever direct order from Boeing for four 777-300ERs. ▲



The BNP Paribas team, winners of the Aviation Finance House of the year award

BNP PARIBAS RECOGNISED BY EUROMONEY'S AIRFINANCE JOURNAL

As a **leading Aviation bank**, BNP Paribas has built a **strong track record** of originating and executing value-added transactions. It played a leading role in **8 landmark deals in Aviation finance** selected by AirFinance Journal in 2018 to become the overall **Aviation House of the Year**.



Overall Capital Market Deal of the Year

THUNDERBOLT II ABS
08-18 | 18xA/C



Editor's Deal of the Year

BBAM - FLY LEASING & INCLINE
PORTFOLIO ACQUISITION
AND FINANCING
03-18 | 84xA/C



Asia Pacific Deal of the Year

PROJECT MELVILLE MACQUARIE
AIRFINANCE | UNSECURED REVOLVER
+ TERM LOAN
05-18 | \$4BN



M&A Deal of the Year

GOSHAWK AVIATION / SKY
LEASING ACQUISITION
09-18 | \$900M 51xA/C



Bank Loan Deal of the Year

NOVUS AVIATION CAPITAL
ISLAMIC FINANCING
12-18 | 4XB777-300ER



Export Credit Deal of the Year

AEROMAR | ECA
GUARANTEED LOAN
07-18 | 8xA/C



Restructuring of the Year

BOCOM LEASING
FRENCH TAX LEASE
12-18 | \$200M | 7xA/C



Lessor Unsecured Bond Deal of the Year

AVOLON | SENIOR
UNSECURED NOTES
09-18 | \$1BN

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AVIATION HOUSE OF THE YEAR



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Lessor of the Year: **Avolon**

Avolon made the headlines in early 2018 because its parent company, the HNA Group, had been trying to liquidate assets and raise capital in a bid to reduce an estimated \$94 billion of debt.

Despite the problems at the parent level the Dublin-based lessor pushed ahead.

However the ORIX Aviation acquisition of a 30% stake in Avolon, was a turning point.

Since then it has been a smooth road and this is a testament to its chief executive officer Domnhal Slattery and his team.

Avolon, which is owned by HNA unit Bohai Capital, had a robust year in 2018.

It executed a total of 153 lease transactions, comprising new aircraft leases, second leases and lease extensions, plus 130 sale agreements. The lessor delivered 61 new aircraft including 28 transitions to 30 customers.

“Avolon enters 2019 following another strong quarter and full year. We now have a portfolio-offering that is focused exclusively on young, modern, new technology and fuel efficient single and twin aisle aircraft types,” said Slattery.

The lessor made the headlines at the end of the year with a 100 Airbus A320neo

family aircraft order, including 75 A320neos and 25 A321neos. Deliveries are scheduled from 2023 onwards.

The announcement made Avolon Airbus’ largest lessor customer by size of backlog. At 31 December 2018, Avolon had over 220 single-aisle and 45 twin-aisle aircraft on backlog.

“Our recently announced Airbus order provides us with locked-in growth for the medium-term, helping us support the fleet requirements of our airline customers around the world,” said Slattery.

During the year Avolon raised \$4.2 billion of debt (excluding its Sapphire ABS transaction) including \$1.5 billion of senior unsecured notes and \$1.3 billion of warehouse and other revolving credit capacity. It had total revolving debt facilities of \$4.2 billion at 31 December 2018.

“Our business continues to deliver strong results and our financial strength, coupled with our increasingly unencumbered asset base and diversified shareholder base, positions us well to achieve an investment grade rating,” said Slattery. ▲



The Avolon team, winners of the Lessor of the year award

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Aviation Finance Persons of the Year: **Robert Korn** and **Bill Hoffman** (Carlyle Aviation Partners)

Robert Korn and Bill Hoffman have been the architects of the rise of Apollo Aviation Group (now Carlyle Aviation Partners) since its inception in 2002.

The company they co-founded has grown from a mid-life trading company to a very active operating lessor.

The lessor's trajectory has further accelerated over the past 18 months.

Hoffman and Korn took full control of Apollo at the end of 2017.

In October 2018 the Carlyle Group agreed to acquire 100% of Apollo from its owners Korn and Hoffman. The transaction closed on 19 December.

Apollo became a new business line, operating as Carlyle Aviation Partners, within Carlyle's global credit segment.

The acquisition allows Carlyle's global credit platform to offer long-duration exposure to commercial aviation markets through a variety of credit, equity and structured finance instruments.

As of January 2019, Carlyle Aviation Partners had total assets under management of \$5.6 billion, with over 80 employees and offices in the US, Ireland and Singapore. Its portfolio included 246 aircraft owned, managed or committed to



Bill Hoffman

purchase with 107 airlines lessees in 57 countries.

Carlyle co-chief executive officer Kewsong Lee said: "This corporate acquisition expands Carlyle's Global Credit capabilities, particularly in the growing asset-based credit market. Apollo Aviation Group is a scalable platform with strong growth prospects given its 16-year history and track record of performance."

Hoffman said: "The Carlyle Group has demonstrated itself to be one of the leading alternative asset managers worldwide and Robert and I couldn't think of a better home for the business we've built over the past 16 years."



Robert Korn

"Joining forces with The Carlyle Group allows us to continue to support our airline customers and play an even greater strategic role in the aviation sector," said Korn.

Independently of the ownership change the company had an impressive year. According to *Airfinance Journal's* Fleet Tracker, the company was the most active buyer in 2018 with a total of 83 aircraft for an estimated \$1.6 billion by market value.

In 2018, the company also launched two asset-backed securitisations AASET 2018-1 and AASET 2018-2 with proceeds exceeding \$1 billion. The refinancings involved about 60 mid-life aircraft. ▲

Lifetime Achievement Award: **Dick Forsberg**

Richard (Dick) Forsberg retired as head of strategy at Avolon in March 2019, the culmination of almost 50 years of continuous experience in the commercial aviation industry.

During that time, he has held a variety of positions with airlines, operating lessors, arrangers and capital providers in areas that include business strategy, industry analysis, forecasting, asset valuation, portfolio risk management and airline credit assessment.

Forsberg began his career in the UK's national and independent airlines of the 1970s and '80s, in roles covering market analysis and forecasting, network and fleet planning, strategic planning and operations. This experience developed a firm grounding in airline economics and strategy that has been leveraged over the subsequent 30 years in the aircraft leasing, financing and arranger sectors.

He joined Guinness Peat Aviation (GPA), at that time the largest of the nascent aircraft lessors that was regarded as a pioneer of the industry.

Following GPA's acquisition by General Electric, he remained with GECAS for the next six years, primarily supporting the

development of its risk management and strategy activities.

In 1999, he re-connected with Dómhnal Slattery, previously a colleague in GPA, at IAMG, a boutique aviation advisory and arranger business that was acquired by the Royal Bank of Scotland in 2001 and became the nucleus of RBS Aviation Capital. As a founding executive and head of risk at RBS Aviation Capital, he shaped the investment strategy and risk management framework for what quickly grew into the world's third largest aircraft lessor.

While in GPA and IAMG Forsberg successfully advised airlines on their fleet strategy, which subsequently led to aircraft orders.

At RBS Aviation Capital he created the relative equity model and residual value model. He played a significant role in defining a capital allocation strategy for the bank's aircraft leasing business.

In 2010, he left RBS Aviation Capital to launch Avolon with a small group of close colleagues, leading the development of Avolon's strategic direction and risk management processes. There Forsberg worked closely with investors, financiers,

OEMs, ratings agencies and other key stakeholders to establish Avolon's brand and business credentials. He prepared industry analysis and trends for investors, financiers and rating agencies required by the IPO process, which resulted in a successful floating on the New York Stock Exchange in 2014.

He also led the lessor's Thought Leadership activities, publishing numerous White Papers ('Buckle up-2019' is the latest paper) and developing narratives on topics and issues affecting the industry.

Forsberg is currently serving on the ISTAT Appraisers International Board of Governors. ▲



Dick Forsberg

Airline of the Year: Spring Airlines

Shanghai-headquartered Spring Airlines wins the top-rated Chinese airline award for the second consecutive year after showcasing stellar financial performance.

Spring was the first low-cost carrier (LCC) in China. It was launched in 2005 and closed its initial public offering in January 2015. As of 24 May 2019, the airline had a market capitalization of RMB38.5 billion (\$5.6 billion). Its fleet size numbers 86 Airbus A320 aircraft with an average age of 4.8 years. Load factor has been above 90% since 2010. The budget carrier serves 100 destinations.

Spring has outstanding orders for 39 A320neos and 15 larger A321neos.

The airline has a subsidiary in Japan, Spring Airlines Japan, which is based at Tokyo Narita. It was the first Chinese airline to raise a Japanese affiliate. Spring partnered with Japanese investors in 2011 to establish the Japanese LCC with a 33% stake. With JPY1.5 billion in equity capital, Spring Japan received its air operator's certificate in December 2013. The remainder of the airline's capital was provided by Japanese financial institutions, IT enterprises and trading companies. Although its Chinese parent is an all-Airbus

operator, Spring Japan operates 737 aircraft exclusively. That decision was made because of Boeing's greater popularity in Japan and related relative ease of finding 737 cockpit crew (most of Spring Japan's pilots are former JAL pilots). Spring Japan's current operating fleet comprises six Boeing 737-800s. Unlike its ultra-low-cost parent, the Japanese affiliate offers 12 premium seats in the front.

Last year was very successful for Spring Airlines. Despite higher fuel costs and a weaker RMB, Spring posted a 2018 net profit of RMB1.5 billion (\$220 million), up 19.1% from RMB1.26 billion the previous year. Total operating income increased 19.4% year on year, to RMB13.1 billion,

while operating costs increased 22.9% to RMB11.8 billion, with fuel accounting for 33.8% of that figure. Excluding fuel, costs decreased 1.3% as a result of "improvements in major cost items".

This year started well, too. In the first quarter, Spring posted a profit of RMB475 million, up 23.1% year on year. This was achieved on 12.7% growth in operating revenue, to RMB 3.6 billion, and EBITDA of RMB702 million.

Due to the airline's high ratings across five parameters – average fleet age, EBITDA margin, fixed charge cover, liquidity and leverage – Spring Airlines is the top-rated Chinese airline in *Airfinance Journal's* Financial Ratings for 2018. ▲



Spring Airlines, collecting their award from AFJ's managing director Laura Mueller

Best Domestic Financing: CCB Leasing SPV for eight 737-800s

Borrower/issuer: A CCB Financial Leasing SPV in Tianjin Dongjiang Free Trade Zone

Structure: Mortgage loan with two currencies in two tranches

Asset Financed: Eight Boeing 737-800s

Lawyers (and roles): RuiBai as lender's legal counsel, CCB Financial Leasing used in-house lawyer

Banks (and roles including overall arranger): China Ex-Im Bank, Tianjin Branch

Date closed: 31/01/2018

Based on a RMB-denominated operating lease for eight Boeing 737-800s between CCB Financial Leasing and Xiamen Airlines, CCB drafted a two-tranche mortgage loan with two different currencies (RMB and USD) together with China Ex-Im Bank's Tianjin branch. One tranche is an amortised loan in RMB to match the RMB

rent, while the other is a balloon loan in USD to match the USD residual value.

This was the first aircraft mortgage loan in China using two currencies in two tranches for one aircraft.

CCB Financial Leasing was set up on 26 December, 2007. As a non-financial institution, CCB Financial Leasing is a wholly-owned subsidiary of China Construction Bank, with a registered capital of RMB8 billion (\$1.1 billion).

Its business covers financing, leasing,

assignment and acceptance of finance lease assets, investment in fixed income securities, lessees' security deposit acceptance, inter-bank lending, financial institution borrowing, offshore borrowing, sales and disposal of lease assets, economic consultancy and other business approved by Chinese regulator CBRC.

Total assets for CCB at 31 December 2018 were RMB147 billion, while net profit and net asset value were RMB1.3 billion and RMB14.5 billion, respectively. ▲



The CCB Leasing deal team, collecting their award from AFJ's managing director Laura Mueller



Best Cross-Border Financing: **Minsheng syndicated PDP for eight 737 Max 8s**

Borrower/issuer: Cayman orphan SPV managed by Minsheng Financial Leasing's Hong Kong subsidiary

Structure: Cross-border syndicated PDP financing

Asset Financed: Eight Boeing 737 Max 8s

Lawyers (and roles): King & Wood Mallesons (Hong Kong): Lead, English law counsel for Minsheng Financial Leasing and Hong Kong deal counsel Clifford Chance (Singapore): English law counsel to financiers Mourant Ozannes: Cayman counsel

Banks (and roles including overall arranger): Natixis, Bank of Communications and Mega Bank

Date closed: 22/03/2018

Natixis, Bank of Communications and Mega Bank co-arranged and co-funded Minsheng Financial Leasing's pre-delivery payments (PDPs) for eight Boeing 737 Max 8 aircraft.

The initial purchase agreement was signed onshore in China between Boeing and Minsheng, but the novation-out and financing took place offshore, in this case

via an SPV in the Cayman Islands.

As there is recourse back to Minsheng, this transaction is one of very few, if not the only, PDP transaction where the recourse is via a put option.

The initial purchase agreement was signed onshore, but the forward sale is to an offshore entity, Minsheng's HK platform. ▲



Best New Leasing Entrant: **Haitong UT Leasing**

Haitong UT Leasing HK Limited is a wholly owned subsidiary of Haitong UniTrust International Leasing. In January 2014, Haitong Securities, through its wholly owned subsidiary, Haitong International Holdings, completed the acquisition of Haitong UniTrust, setting a precedent in mainland China for acquisition of a financial leasing enterprise by a securities house. Haitong UT Leasing HK Limited was subsequently established in Hong Kong for conducting international leasing businesses, including aircraft leasing and financing.

At the end of 2018, the registered capital of Haitong UniTrust reached RMB7 billion and its domestic credit rating was AAA (stable outlook). Its total assets exceeded RMB80 billion of which net assets accounted for more than RMB12 billion. It has over 1,400 employees providing services to a large client base in more than 400 cities in mainland China. Haitong UniTrust has grown into a leading financial leasing company. Its parent company, Haitong Securities, is a Chinese state-owned financial conglomerate with total assets exceeding RMB 570 billion at the end of 2018.

Headquartered in Shanghai, Haitong UniTrust has branches and subsidiaries

in 26 provinces in mainland China. Its businesses span multiple fields, including industrial equipment, transportation and logistics, building and construction, healthcare, consumer financing.

Fully combining its finance lease business with capital market resources within Haitong group, Haitong Unitrust

is capable of providing comprehensive one-shop "investment banking + direct investment + leasing" financial services to customers. The listing of Haitong UniTrust on the Hong Kong Exchange has further enhanced its capital market strength to support further growth in aviation and other businesses. ▲



Best Finance Lease: ICBC Leasing French tax lease for 12 aircraft

Borrower/issuer: One French SPV (a subsidiary of BPCE) for one aircraft

Structure: French tax lease financing structure

Asset Financed: Three Boeing 737 Max 8s & five Airbus A320neos & four 737-800NGs

Lawyers (and role):

For ICBC Aviation Leasing: Lead English Law Counsel: Bryan Cave Leighton Paisner LLP (Hong Kong); PRC Counsel: Han Kun Law Offices

For borrower/lender: Lead English Law Counsel: Norton Rose Fulbright (Paris); PRC counsel: JunZeJun Law Offices; US counsel: Davis Wright Tremaine

For Lessee (China Southern Airlines): PRC Counsel: King & Wood Mallesons (PRC)

Banks (and roles including overall arranger): Natixis, Landesbank Hessen-Thüringen Girozentrale and BPCE as lenders; Natixis as facility agent and security trustee

Date closed: 13/08/2018

Chinese lessors have shown a strong appetite for combining French tax lease financing with domestic PRC sublease structuring to obtain secured debt financing for new aircraft.

In this deal, ICBC Financial Leasing (ICBCFL) sought secured debt financing for 12 aircraft leased to China Southern Airlines (CSA) using a French tax lease structure, highlighting how the French tax lease is capable of adapting to change and pushing the boundaries of traditional tax lease financings.

Special purpose vehicles (SPVs) incorporated in France are the legal owners and borrowers under the commercial loan. They then lease the

aircraft to PRC SPVs incorporated in Tianjin under a French tax lease structure.

This structure derives a combination of financial benefits from local French tax laws and depreciation allowances gained from French SPVs' ownership in aircraft. Tax rebates on interest-withholding taxes paid on loan interest payments between a Tianjin SPV and a French SPV also allows for significant savings to overall financing costs. The Tianjin SPVs sub-lease the aircraft to CSA. In this structure, CSA would not be obliged to pay withholding tax given the onshore nature of the sub-lease and this structure further enabled ICBCFL and CSA to continue to benefit from certain PRC tax credit/rebate benefits. ▲



Best Operating Lease: ICBC Leasing PDP, loan and SLB for four SpiceJet 737 Max 8s

Borrower/issuer: SpiceJet

Structure: PDP financing, commercial loan and sale and leaseback

Asset Financed: Four Boeing 737 Max 8s

Lawyers (and role):

For ICBCFL: Lead English Counsel: Bryan Cave Leighton Paisner LLP (Hong Kong), Indian Counsel: Wadia Ghandy and Co., Irish Counsel: A&L Goodbody

For Spicejet: Represented by its in-house legal team and led by Chandan Sand (General Counsel)

For HSBC: Lead counsel: Allen & Overy LLP, (Shanghai, China), Indian counsel: AZB & Partners, Irish Counsel: Arthur Cox

Banks (and roles including overall arranger): HSBC as facility agent/security trustee/arranger

Date closed: 22/12/2018

SpiceJet engaged Industrial and Commercial Bank of China Financial Leasing (ICBCFL) to enter into a sale and leaseback transaction for four Boeing 737 Max 8 aircraft. As part of the deal, SpiceJet also sought pre-delivery payment (PDP) financing support from an Ireland-incorporated affiliate of ICBCFL for the portfolio. The first SpiceJet 737 Max 8

delivery from this deal occurred on 27 September 2018 and the last of the four was delivered on 22 December 2018.

The PDP financing provided by ICBCFL was approximately \$60 million, with a tenor of 1-1.5 years. Long-term financing of approximately \$170 million covering, inter alia, the four 737 Max 8 aircraft, was provided by HSBC. ▲



Young Person in Chinese Aviation Finance: Wang Jing, Bocomm Leasing

At the age of 32, Ms. Jing Wang is the deputy head of the non-RMB financing department of Bank of Communications Financial Leasing (Bocomm Leasing), which is a wholly-owned subsidiary of the Bank of Communications.

Bocomm Leasing, established in 2007, has grown to be one of the largest leasing houses as well as one of the top aviation lessors in China.

To support the rapid growth of Bocomm Leasing's multi-billion-dollar non-RMB business,

Wang has leveraged her expertise across a variety of financing products while supervising the daily operation of the company's offshore treasury centre in Hong Kong.

Wang is responsible for the company's aviation and shipping asset financing. She has experience across diverse structures including Japanese operating lease with call option, French tax lease, export credit agency financing, portfolio financing and others.

In 2017, she closed the company's first French tax lease transaction, which

financed deliveries of seven Boeing 737s on lease to Hainan Airlines and Kunming Airlines. The deal has incorporated flexibility accommodating US Ex-Im support. In 2018, with US Ex-Im not being forthcoming, the debt was restructured from export credit financing to a commercial debt loan. As arguably one of the first French leases into PRC SPC being refinanced, the deal was awarded "2018 Restructuring Deal

of the Year" by *Airfinance Journal*. Wang oversees the company's capital market financing activities. Since joining the company in 2015, she has handled seven bond offerings with combined notional amount of \$7.5 billion.

In 2016, she participated in the company's first offshore asset-backed securities issuance, the back-leveraging of seven aircraft. ▲



Wang Jing, accepting her award from AFJ's managing director Laura Mueller

Innovative Deal of the Year: Three-year unsecured Samurai term loan with cross currency swap

Borrower/issuer: CMB International Leasing Management

Structure: Unsecured Samurai term loan

Financing tenor: Three years Lawyers (and role): Milbank acted for the borrower, B&M acted for the finance parties

Banks (and roles including overall arranger): MUFG Bank as original lender, agent and arranger

Date closed: 10/12/2018

This deal was a JPY10 billion (\$90 million) three-year unsecured Samurai term loan with a cross-currency swap with CMB Financial Leasing as parent via a Keepwell deed.

The deal was the first of its kind for CMB Financial Leasing, reflecting the lessor's increased range of financing options and its ability to choose between asset-based borrowing and corporate borrowing

at competitive rates with diversified investors.

The deal illustrates the savviness of Chinese lessors, particularly their ability to tap foreign currency funding options to meet their USD funding requirements, and couple such funding with complex cross-

currency derivatives in order to remain FX neutral despite foreign currency funding.

Japan's MUFG Bank acted as original lender, agent and arranger, while Milbank acted as legal agent for the borrower and B&M as legal counsel for the finance parties. ▲



The CMB International Leasing Management team, winners of the Innovative deal of the year award

Asia Editor's Deal: **CALC's CAG 18-aircraft seed portfolio**

Project Sponsor: CALC

Servicer: a wholly owned subsidiary of CALC

Borrower: China Aircraft Global Limited (CAG)

Structure: Joint venture, non-recourse portfolio financing, based on a sidecar structure

Asset financed: 18 aircraft

Lawyers (and role): Clifford Chance: as the legal advisor to the structuring agents and senior lenders

Linklaters: as the legal advisor to the borrower and project sponsor

Banks (and roles including overall arranger): Structuring agents: Credit Suisse Securities (USA) and Goldman Sachs

Date closed: 28/6/2018

This is a \$1.34 billion sidecar structure secured by a seed aircraft portfolio, as well as new deliveries and additional assets. The vehicle has been capitalized through debt, mezzanine capital and equity across several jurisdictions.

As part of the structure, CALC set-up China Aircraft Global Limited (CAG), a joint venture aircraft co-investment vehicle with a number of co-investors.

CALC then agreed to sell aircraft (and in the future to refer future sale opportunities) to the joint venture vehicle and to act, through its subsidiary, as servicer to the portfolio.

The \$1.34 billion facility comprises \$95 million of equity provided by CALC and \$380 million of mezzanine capital provided by co-investors, four reputable state-owned enterprises engaged in outbound investment, insurance business and aviation sector investment.

CAG also raised a senior syndicated loan of \$865 million, arranged by four global top-tier aviation/investment banks and three reputable PRC banks. The portfolio will be built up to around 18 aircraft. The facility provides for a revolving feature for up to 25% of the facility size. ▲



Chinese Lessor of the Year: **CDB Aviation**

CDB Aviation is a full-service aircraft leasing platform with a global footprint. Since the appointment of Peter Chang as chief executive officer in January 2017, the company has been rapidly accelerating its business to support the continued growth of its leasing platform.

CDB Aviation was chosen as Chinese lessor of the year for its outstanding performance in 2018. That year, the company executed a record 107 aircraft transactions, including lease transactions for 62 aircraft with 22 customers, agreements to sell 17 aircraft and acquire 28 aircraft and the acquisition of 42 aircraft on operating lease, representing more than 20% growth by number of aircraft in the fleet at the start of 2018.

During the year, CDB Aviation signed financing transactions worth \$3.2 billion. It ended the year with 104 employees, adding 36 new members of staff members in 2018, as well as nine new airline customers.

CDB Aviation is wholly owned by China Development Bank Financial Leasing, a 30-plus-year-old leasing company listed on the Hong Kong Stock Exchange. Its parent is the dedicated leasing arm of China Development Bank and enjoys Chinese sovereign credit rating (A1 / A / A+), one of the highest international credit ratings among Chinese financial institutions and the highest rating among all aviation lessors.

CDB Aviation prides itself in providing innovative and comprehensive aircraft fleet financing solutions to airlines in all key markets of the world, delivering a competitive cost of funding and an unrivalled customer-oriented, full-service approach that is focused on execution and is rooted in the culture of competency.

"This past year's growth is evidence of the strength and scale of our platform, as well as demonstrates our unwavering commitment to execution, through a combination of following our business model, opportunities with the manufacturers – a relationship we prize very highly, and strong relationships with the airlines," says Peter Chang.

"When CDB Aviation receives recognition for our performance – it is a reflection of a true team effort. I am very

proud of our team of industry's best-in-class professionals who are the backbone of CDB Aviation as that is what has and will continue to move us forward to succeed both in China – where our roots are – and across all global markets where we now are present," he adds.

"2018 was another benchmark year for CDB Aviation, setting an all-time record for activity across the many facets of our fast-evolving business. This past year's growth is evidence of the strength and scale of our platform, as well as demonstrates our unwavering commitment to execution, through a combination of following our business model, opportunities with the manufacturers – a relationship we prize very highly, and strong relationships with the airlines," concludes Chang. ▲



Overall Deal of the Year: **Haitong SPV portfolio purchase**

Borrower/issuer: Hong Kong SPVs

Structure: Portfolio purchase and financing

Asset Financed: A portfolio of aircraft including A350-900 aircraft, A320 aircraft and 737-800 aircraft

Lawyers (and role): Bryan Cave Leighton Paisner (Hong Kong) - legal counsel to purchasers, lessors and borrowers
Norton Rose Fulbright (Singapore and Hong Kong Offices) - legal counsel to lenders

Banks (and roles including overall arranger):

Mandated lead arrangers: BNP Paribas and Natixis

Lenders: BNP Paribas, Natixis, DVB Bank, Bank of China (NY Branch) and Korea Development Bank

Facility agent and security trustee: BNP Paribas

Swap bank: BNP Paribas

Account bank: BNP Paribas

Advisors (and roles):

PricewaterhouseCoopers - Tax advisor to purchasers, lessors and borrowers

Haitong UT Leasing HK Limited has entered into a sale and purchase agreement for the acquisition of a portfolio of aircraft being leased to airlines in a number of jurisdictions, utilising four new leasing structures under Hong Kong's new tax concessions regime.

The deal has set a precedent for the market to follow in respect of the use of those leasing structures in Hong Kong. It shows that the new tax concession regime for aircraft leasing in Hong Kong is compatible with market practices and is conducive to Hong Kong developing into an aircraft leasing and financing centre.

The aircraft were financed at delivery by a syndicate of lenders arranged jointly by BNP Paribas and Natixis, each acted as mandated lead arranger. BNP Paribas also acted as facility agent and security trustee.

The lender's syndicate included BNP Paribas, Natixis, DVB Bank, Bank of China (New York) and Korea Development Bank. Bryan Cave Leighton Paisner (Hong Kong) acted as the legal counsel to the purchasers, lessors and borrowers, and Norton Rose Fulbright (Singapore and Hong Kong) acted as the legal counsel to the lenders. ▲

Arranger and Bookrunners

Natixis
BNP Paribas



The Haitong deal team, winners of the Overall deal of the year award



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Building muscle

Mike Poon, chief executive officer of China Aircraft Leasing (CALC), tells **Dominic Lalk** that the group aims to be among the top five lessors by 2025.

China Aircraft Leasing Group calls itself a “full value chain aircraft solutions provider”. The group, its affiliates and subsidiaries offer services at every stage of an aircraft life cycle, from new aircraft, used aircraft, to aircraft coming to the end of their life, capturing the asset value of an aircraft fleet by proactive asset management. This is what gives CALC a unique position in the market, founder, chief executive officer (CEO) and executive director, Mike Poon, tells *Airfinance Journal* in an exclusive interview at the company’s Hong Kong (HK) headquarters.

The group’s scope of business includes basic operating leases, sale and leasebacks, structured financing, as well as value-added services such as fleet planning, fleet upgrades, aircraft disassembling and recycling, as well as component sales.

As of 31 December 2018, CALC’s fleet totalled 133 aircraft. While that is sizable, it is still small compared with the likes of AerCap, Air Lease (ALC) and GECAS. More interesting is CALC’s orderbook backlog, which stands strong at 242 aircraft.

It will not stop there, says Poon. The lessor is in the process of deciding on a widebody order. Ultimately, Poon aims to position CALC among the top five global lessors by 2025.

The early days

“CALC was founded by me in 2005. We were the first real operating lessor in China; before us there were only foreign leasing companies. Other Chinese lessors started only from 2007 onwards. We were always viewed as the real first mover in the market,” says Poon.

“We were quite creative from early on by creating the Tianjin leasing platform with the Tianjin municipal government. We were the first one there and have now placed approximately 60 to 70 aircraft through that platform since the introduction of the corporate tax regime. So we have a long history of understanding and working with the Chinese government,” he adds.

After the establishment of the Tianjin platform with Tianjin Dongjiang Free Trade Zone, CALC set up another Chinese domestic leasing platform in cooperation with Shanghai Free Trade Zone and an overseas platform in Dublin. This strategic “dual-platform” business model enables the group to provide airline customers with



Mike Poon

innovative, flexible and competitive leasing solutions inside and outside China.

As *Airfinance Journal* went to press, CALC had spread its wings further with wholly owned subsidiaries and representative offices in Beijing, Shenzhen, Labuan and Toulouse.

CAG

Last year marked another milestone for the company: it officially launched its aircraft leasing and investment vehicle, Bermuda-based China Aircraft Global (CAG), with an asset size expected to grow to \$1.3 billion, comprising \$95 million from CALC and \$380 million from mezzanine investors. CAG’s funding has been further supplemented by a senior syndicated loan of \$790 million arranged by four global aviation banks and three People’s Republic of China commercial banks. CALC and the mezzanine financiers own 20% and 80% of the ordinary shares in CAG, respectively.

As of 28 June 2019, 21 aircraft had been sold into CAG, with another seven to 10 aircraft expected to follow. This marks a major step for the group to transform into an asset manager role and asset-light business model, which has laid a solid foundation for further business expansion and opened up new growth opportunities.

Hong Kong hub

CALC was instrumental in establishing the Hong Kong tax regime for aircraft leasing and financing, halving the standard tax rates for lessors to 8.25%.

“Recently, we have worked hand in hand with the industry to convince the Hong Kong government to change the tax regime. Currently, the Hong Kong platform is less than 20 aircraft but we are trying to add more and more,” says Poon.

“Hong Kong is the perfect city to set up a global leasing centre. You have the people in Hong Kong, their spirit, you have the tax regime, you have the money, the financing means and you have the China market very close by. All these are good things that already exist in Hong Kong,” he adds.

“And now you have a government that fully understands what they can and need to do, although challenges remain with regards to the double tax treaty. Too few countries have already signed. We are working with the societies and associations to expedite this, make more parties sign the agreement. Maybe Hong Kong should partner with Tianjin to overcome the double tax,” suggests Poon.

About 45% of the global commercial fleet is leased, with that proportion expected to increase to more than 50% by the mid-2030s. Of that 50%, Hong Kong is aiming to secure an 18% share, which will entail HKD700 billion (\$90 billion) in financing of some 3,240 aircraft and is forecast to create more than 15,000 jobs. The government also expects the sector to bring an additional HKD10 billion to its coffers and a HKD430 billion contribution to the city’s gross domestic product.

“Hong Kong, unlike any other locales, has a great opportunity to partake in the Greater Bay Area project. Hong Kong as a leasing hub should leverage this advantage, doing something that Ireland and Singapore cannot,” says Poon.

Poon believes Hong Kong will rise to the top quickly. “Catching up with Ireland will be difficult but Singapore we can take on in five years. Hong Kong has a great future ahead,” says Poon, adding that he also wants to promote Hong Kong as a centre for older assets.

The lessor CEO cites CALC’s latest predelivery payment (PDP) financing as testament to the city’s growing status quo as an aviation finance hub.

“Our latest PDP financing is telltale,” says Poon. “Seventeen local banks were involved and most of them had never done an aviation deal before but now everyone’s hungry for it. Everyone wants a piece of it.”

On 28 May, CALC signed a five-year, \$840 million unsecured revolving syndicated loan to finance part of the PDPs for the company's new aircraft orders.

Bank of Communications Hong Kong Branch, China Everbright Bank Hong Kong Branch, Chiyu Bank, Chong Hing Bank, ICBC (Asia), Nanyang Commercial Bank, Agricultural Bank of China Hong Kong Branch, Ping An Bank Shenzhen Branch and Shanghai Pudong Development Bank acted as the mandated lead arrangers of the deal, while the aforementioned first six banks also acted as bookrunners.

ICBC (Thai) and Tai Fung Bank acted as lead arrangers. Mega Bank Hong Kong Branch, China Minsheng Banking Hong Kong Branch, Bank of East Asia, Bank SinoPac Macau Branch, China Minsheng Bank Shanghai Pilot Free Trade Zone Branch and Far Eastern Bank were arrangers of the deal.

The syndicated PDP revolver will be used for CALC's orderbook comprising 100 Boeing 737 Max aircraft, 132 Airbus A320neo-family aircraft, 20 Comac C919s (10 firm plus 10 options) and 30 ARJ21 (MoU).

737 Max

CALC has no intention of stepping away from its 100-strong order for the 737 Max.

"Objectively speaking, the market share of Boeing in the narrowbody segment will be seriously impacted by the 737 Max grounding. Currently, the economics when you're talking about the placement of 737 Max aircraft is below mathematically acceptable," he says.

"We really hope Boeing can move fast because when they bring back the aircraft everyone will benefit, including Airbus. The Airbus production line is squeezed and choked as it is. To be honest, this wasn't the best news for Airbus because they simply cannot produce that many aircraft to make up for the increased short-term demand," he says.

"It's a great lesson for the mature OEMs [original equipment manufacturers]. Even if you build on a mature product you still need to be extremely cautious to get things right. We feel truly sorry for the tragedies and all the lives lost but the global aviation industry also learned a lesson from it. Time and a proven track record will eventually fix the 737 Max image," he adds.

CALC has not yet taken delivery of any 737 Max aircraft and was due to receive three units in 2019 only, limiting the impact on the lessor's capital expenditure requirements. "The impact is very minor to us at this stage. There may even be an upside for us because all of a sudden after the Max accidents the used aircraft market became very, very hot. Just as an example, we've originally wanted to retire five A321s this year, either find a new home for them or if they're old enough even scrap them. But now that's changed. The airlines in question now are asking for an extension," says Poon.



Comac

More surprisingly perhaps, Poon revealed to *Airfinance Journal* that the lessor will be one of the launch customers of the Comac ARJ21, an aircraft competing head-to-head with Airbus's A220-family and Embraer's E-Jet family.

"Another aircraft we're very much keeping an eye on is the Comac ARJ21. In fact, we are one of the launch customers. I understand that there will be a rebranding of that aircraft soon. I urge everyone to take another look at the ARJ21 because they have really improved it a lot. Now that aircraft is much, much, much better. We have registered a lot of new interest for this model and are ready to place it with carriers outside China once the certification is done. We're very confident that now is the right time for airlines to look at Comac's products," he says.

"I think by 2020 the ARJ will start penetrating the Asian market," predicts Poon. "Comac can definitely compete with Airbus and Boeing on technology – it's not just price anymore. They have come a long way. The airframe design has improved a lot, mostly because they are latecomers. If you and I set up a new aircraft manufacturer today we can draft a much better aircraft than they have," he laughs.

The majority of CALC's fleet growth will be from 2021. Starting that year, the lessor will add more than 40 aircraft a year and in some years more than 60 aircraft.

"We plan to retire aircraft at approximately the equivalent rate. But if our model succeeds, then after three to five years, the rate should be approximately 2:1, with one aircraft retiring for every two fresh deliveries. We need to be able to handle 100 to 150 aircraft a year, new and old."

Widebody growth

Narrowbodies form CALC's bread-and-butter business, although the company has six A330s on its books which are leased out to Air China and Iberia.

This is only the beginning of CALC's widebody aspirations. "We are seriously considering a new widebody order at this moment. But we also want to keep the number of widebodies in our fleet at 20% or below of the fleet total," says Poon.

"We are looking at the A350, 787, 777 and even the A330neo. But it's all about the number of airline end users. My

team is always struggling counting the number of users, then we often resort to narrowbodies. But once the customer base grows, then the risk decreases a lot and it's becoming a lot more interesting for us as an asset," he discloses.

"I think the A350 has a very good market now, but it's also very expensive. I keep looking at the latest offers and every time I have to say 'sorry, not to my price yet'. So I agree with those airline CEOs who say the A350 is very expensive. They haven't come down much yet. So we keep waiting. It's a very good aircraft," he adds.

Asked about the A330neo, he says: "The A330neo has already been beaten by the A350. My relationship with Airbus is very good so I always ask them why they created two products that so closely compete with each other.

"However, the pricing they offer on the A330neo is much, much more reasonable. We are open to the A330neo but my team first needs to find users willing to take this aircraft," he says.

"There's four aircraft types that are total no brainers: the A320neo-family, the 737 Max series, the 787 and the A350. Those aircraft if at the right price will never create problems for us. For other types, I would say it is crucial to first find users for them before we order," adds Poon.

"With widebodies we are not only talking about acquisition risk but time and investment when you are doing transfers between operators, it can be very complex. So we always prefer our widebodies to be offered in a bundle solution to our airline customers. You need to bundle them so that they will give you the total solution," he says.

"Currently, we are quite open to mid-life widebodies because in our view we say OK, you may return your mid-life widebodies to us, then we give you some new narrowbodies like the A321neo/LR or some new widebodies so we can take care of the mid-life or late-life widebody through the value chain," says Poon.

The value chain

The value chain is CALC's favourite pursuit. To extend its downstream ecosystem, CALC established Aircraft Recycling International (ARI) in 2014. ARI's used aircraft solutions include aircraft and engine leasing, direct purchases and portfolio trades, aircraft purchase and leasebacks, supply of serviceable aircraft components, disassembly and recycling, maintenance, repair and overhaul (MRO), aircraft conversion and more. ARI's Harbin base is the first large-scale aircraft recycling facility in Asia.

In 2017, ARI fully acquired US-based Universal Asset Management, an industry leader in disassembly, full recycling solutions, as well as component sales, warehousing and third-party logistics.

A year later, ARI joined force with FL Technics to establish FL ARI Aircraft Maintenance & Engineering Company, an aircraft MRO joint venture also based in Harbin. “We are very strong now in trade-in deals, taking old aircraft out of our customers’ fleets and replacing them with new aircraft from our orderbook. This is how we distinguish ourselves from our competitors. We call that horizontal integration,” says Poon.

“This story sounds attractive when you talk to people, and the only reason why we can deliver 100% of the time is because we control the entire supply chain. Often in peak season the MROs will tell you ‘sorry, we don’t have capacity to reconfigure your aircraft for the next customer’, so we had to come up with our own in-house solution,” he explains.

“Some lessors have quickly built their portfolios by direct acquisitions from existing players – they fast tracked their growth. But we don’t think this strategy can really build strong muscle. We spent more than 12 years building up our skeleton, building our muscle. The main strategy of CALC is to demonstrate to airlines that we are unique because we offer the full value chain,” he adds.

Over the past couple years CALC has done a number of transactions Poon calls “signature deals” that fully utilise that value chain.

“Signature deals occur when there is fleet upgrade demand from a customer and we can fully demonstrate how CALC is different from the competition. Traditionally, the airlines had to do the whole fleet transformation themselves, upgrading from the Ceo to the Neo, for instance. You need a lot of people for that, not only internally but often through external consultants to help

them make informed decisions on the fleet plan and then how to retire the old fleet. With us, they can leave the hard work to CALC,” says Poon, citing a “very successful signature deal” the company did with Sichuan Airlines.

As part of that deal, CALC performed a sale and leaseback on the airline’s 15- to 20-year-old A320s. “When they retire, we will already have found a second home for them under our own book and then we perfectly match this with fresh deliveries from our OEM orderbook,” says Poon.

“The only challenge is how to expand these kind of transactions. Those people who have worked with CALC before, like Sichuan Airlines, Xiamen Airlines or China Eastern Airlines, they know of what we are capable. But in many other cases, when we talk to people they say ‘oh, you’re a financier. Can you tell me your cost of financing and please give me the cheapest financing lease’. Then we need to explain to them that we are more than just a financier, more than just another finance lessor,” Poon explains.

Other perceptions include: “Oh, you’re a Chinese lessor, you must have cheap money, so you only compete on pricing,” he adds. “Once they have done their first deal with us they go ‘wahh, how could you do that!’”

CALC reported a HKD808.9 million profit for 2018, a 10% year-on-year growth mainly on the back of increased lease income. Group revenues reached HKD3.3 billion last year, a 15.6% increase on 2017.

In 2018, operating lease income increased to HKD1.5 billion from HKD829 million during the 12-month period. The growth in operating lease income reflected the increase in the operating lease’s fleet to 52 aircraft at 31 December 2018 from 37 the previous year.

Finance lease income dropped to HKD792 million from HKD1 billion. The decrease was because of the disposal of the finance lease receivables of three aircraft and the reclassification of eight aircraft from finance leases to operating leases during the year.

The Hong Kong lessor’s operating profit was HKD916 million in 2018, a 6% year-on-year drop, while cash and cash equivalents decreased to HKD4 billion from HKD7 billion in 2017.

The way forward

Poon is determined to take CALC to the next level, making it one of the “top three to five” global lessors. “We must grow even stronger. We need to enhance our marketing, making people understand the exact one-stop solution that we offer. Many still don’t know,” he says.

“We never compare ourselves to others in terms of current fleet size. We always compare ourselves in terms of transaction effectiveness and how many new orders we can place with the OEMs. We want to be among the top three to five clients of the major OEMs within the next five years. We also want to be the market leader on end-life solutions because we understand that this can be the most complicated part for the airlines,” elaborates Poon.

“We need to be a market leader in the OEMs’ eyes, so when they think of the top lessors they will call me directly,” he says. “So that’s the main task for the next three years or so. Educating and convincing people in the market that we are the only one who can offer them a true one-stop solution backed up by a strong orderbook. We don’t want to compare on size but on quality, effective transactions.” ▲

CALC-China Eastern Airlines: the beginnings of a happy marriage

Mike Poon, CALC’s chief executive officer, tells *Airfinance Journal* how in 2013 the lessor first got a foot in the door with China Eastern Airlines, one of China’s top-three state-controlled carriers.

“They had three parked aircraft that had been sitting on the ground for almost four years. They were desperate to get rid of those [Airbus] A300s but could not find any good solutions. No lessor wanted to take them. Not because they didn’t have the capacity or capabilities but simply because they weren’t willing to spend the manpower. There was nothing wrong with the aircraft other than that they had been sitting idle for four years,” says Poon.

“In fact, their book values were extremely high, typically Chinese. But still, the traditional lessors weren’t keen to touch those aircraft. China Eastern

spent more than two years trying to find a solution globally, talking to GECAS, all the big guys. Everyone said no because it was a grounded asset, without airworthiness and most documents missing,” he continues, adding that a number of companies offered to pay \$1 million to \$2 million for part-out but nobody wanted to buy the A300s at their book value.

“In the end, we said OK, we will take this deal and use it to gain a reputation with China Eastern and the other big Chinese airlines. We spent half a year preparing the aircraft to re-enter service with a minimum investment on our part to regain IASA [International Aviation Safety Assessment] certification. Very soon thereafter we placed the aircraft with MNG Airlines. China Eastern was impressed with our hard work and effort

and we gained a strong reputation with them,” says Poon.

Not only did CALC build its reputation with the airline, but also China Eastern returned the favour.

“The big gain for China Eastern was that once they managed to get rid of those three aircraft, the National Development and Reform Commission [NDRC] gave them quota to import new aircraft. Because these were three ‘difficult’ assets, the NDRC allotted them an import quota for six new aircraft in lieu, kind of as a reward for getting rid of them,” reveals Poon.

“In return,” he concludes, “China Eastern rewarded us for our efforts by giving us the deal to lease those six new aircraft to them. That was how we first got a foot in the door with China Eastern. And this has become a signature deal for us.”

CSAL sets sights on mature aircraft

As an airline-background lessor, China Southern Air Leasing has a natural responsibility to serve its parent, general manager, Feng Xu, tells **Elsie Guan**.

In January 2019, China Southern Air Leasing (CSAL) signed an agreement with ZF Ireland Aircraft 77, an Irish platform of China Aircraft Leasing (CALC) to sell a portfolio of three second-hand Airbus A320 aircraft and one A320 airframe via Guangzhou Enterprises Mergers and Acquisition Services. The portfolio, which was previously operated by China Southern, has an average age of 22 years and will be disassembled at CALC's aircraft recycling facility in Harbin. Parts will be sold to committed overseas buyers.

"It is a tough, but beneficial trial for CSAL to find a market-oriented solution to maintain or add asset value of China Southern's aged aircraft," said Feng Xu, general manager of CSAL. He notes that the

path to building a portfolio based on market demand and aircraft condition is one of the most challenging steps when trading out mature or end-of-life aircraft.

"We must have a precise asset evaluation internally as much as possible. This is the most difficult part," says Xu. Every single part of an aircraft – the airframe, engine or other spare parts – has its own price, but the entire price of a portfolio is not a simple "1+1=2" issue. "We have to take market demand, time cost and other risks into consideration when making our bids," he adds.

"If there are no bidders at the first round of RFPs, then the bidding price must be lowered automatically at the second round, not only wasting the time and energy of both parties

but affecting CSAL's reputation." CSAL has set a high standard for the company's decision-making team to keep low-quality bidders away.

As a leasing company that is more familiar with airlines compared with some bank-background lessors, CSAL believes it is more experienced in judging its airline customers' capabilities. When evaluating new aircraft leasing business, a lessor needs to understand the type of aircraft, the capability of airline customers and overseas tax systems, but things are quite different in aged aircraft disposal.

First, a lessor needs to consider if it has provided a reasonable selling price for its potential buyers. Second, the selling price must reflect the aircraft asset value.



Third, the means of disposing of aged aircraft between sublease, modification and teardown also needs to be balanced by the lessor. After making all these decisions, a lessor still needs to find proper partners including exchange platforms, banks, foreign exchange administrations, customs offices and governments. "We need to communicate with all stakeholders and get their support if we want to dispose of aged aircraft successfully," adds Xu.

"Naturally, leasing firms must be competent asset managers. In a narrow sense, professional asset management capability is technical ability, while in a broad sense, it should be an asset management system comprising of finance, risk, technology and marketing. This asset management will be a driving force for the innovation and development of the aviation finance industry in the future," says Xu.

The transaction with CALC opened a door for CSAL to trade out second-hand or old aircraft. "It also reflects our diversified competitive strategy in 2018 – from single new aircraft leasing business to aged aircraft disposal, engine lease, aircraft spare parts lease and consulting and agency services," says Xu.

As an airline-background lessor, CSAL has a natural responsibility to serve its parent. "Stick to marketisation and serve carriers under the China Southern Group and other carriers" is how Xu describes the orientation of CSAL. As the biggest airline group in China, China Southern operated a fleet of 849 aircraft, including 283 owned, 240 under finance lease and 326 aircraft under operating lease, as of May 2019, according to a China Southern filing to the Shanghai Stock Exchange.

"Decreasing the cost of new aircraft purchasing, foreign exchange and other expenditures, including counsel fees and registration fees, and bringing about tax preferences to China Southern are what we consider to help the parent carrier introduce new aircraft," says Xu.

"CSAL also partakes in external biddings of China Southern to obtain leasing business. But meanwhile, it puts pressure on lessors with high bidding prices to create a 'catfish effect,'" he adds.

CSAL's catfish effect urges external lessors to partake in its RFPs more cautiously, affording China Southern a reasonable bidding price according to the market situation. "CSAL has saved approximately RMB149 million (\$21.5 million) in the cost of aircraft purchasing, foreign exchange and other expenditures for China Southern in two years," adds Xu.

China Southern Air Leasing was registered in Guangzhou Nansha Free Trade Zone in July 2016 with an initial registered capital of RMB1 billion. It is 75%-owned by China Southern Capital, with the remaining stake held by Nan Lung.



CSAL has saved approximately Rmb149 million [\$21.5m] in the cost of aircraft purchasing, foreign exchange and other expenditures for China Southern in two years.

Feng Xu, general manager, China Southern Air Leasing

Both shareholders are majority-owned subsidiaries of China Southern. In April 2018, the shareholders invested RMB1 billion to top up its registered capital to RMB2 billion.

The official start of CSAL was in 2017. In March that year, it completed a restructure with 28 people in its team. In May 2017, an A321, which was on finance lease from CSAL to China Southern, landed at Guangzhou Baiyun airport, representing that CSAL had tapped into its aircraft leasing business.

As a leasing company located in Guangzhou Nansha Free Trade Zone, CSAL has put two-thirds of its aircraft at Nansha, while the remainder are at Shanghai, Tianjin, Xiamen and Sichuan

Free Trade Zone. CSAL has established leasing platforms in the tax-bonded zones of Guangzhou, Tianjin, Xiamen and Shanghai, and signed investment agreements and memoranda of strategic cooperation with these local governments.

CSAL also signed memoranda of strategic cooperation with customs of Nansha and Baiyun airport to solve customs clearance of aged aircraft export. "CSAL is one of the main contributors to the entire leasing tax revenues in the Nansha Free Trade Zone. When it comes to aircraft leasing tax revenues specifically, CSAL accounts two-thirds. We hope to become a main force of aircraft leasing in Nansha," says Xu.

CSAL delivered 16 aircraft in 2017, with a total asset investment of RMB9.7 billion. It closed 22 finance lease transactions for new aircraft and 18 sale and leaseback deals involving aged aircraft in 2018. At the end of 2018, CSAL recorded an overall asset investment at approximately RMB18.5 billion. As of 31 December 2018, CSAL had 56 owned aircraft in its fleet, including 21 Boeing 737s, three 787s, six A320s and eight A330s on finance lease, 18 A320s on operating lease and two managed 737-800 aircraft.

Apart from commercial aircraft business, CSAL also has four aircraft engines on operating lease, four aircraft simulators (three more to be delivered) and two helicopters to be delivered. The two Bell helicopters were acquired from CMIG Leasing and leased to China Southern General Aviation, reflecting that CSAL has expanded its leasing business to the general aviation market.

CSAL now has eight domestic airline customers: China Southern Airlines, Sichuan Airlines, Xiamen Airlines, Hebei Airlines, Jiangxi Airlines, Chongqing Airlines, Shandong Airlines and Kunming Airlines.

"China's 'big three' airlines – Air China, China Eastern Airlines and China Southern Airlines – are always targets of lessors. For the time being, we have not collaborated with foreign carriers, primarily due to safety consideration and the demand of the company's steady development," says Xu.

As a second-tier subsidiary of a state-owned Chinese airline, CSAL needs approval from various regulatory organisations before it can enter the international aircraft leasing market. This usually takes some time. The lessor plans to open more overseas branches, subject to the process of approval.

Xu says: "We keep accumulating experience from each transaction. When we begin to establish our own reputation among the international market, it would be a good time for us to expand our overseas businesses." ▲

Airbus focuses on **safety** and **environment**

The European manufacturer is prospering, but challenges loom. **Geoff Hearn** reports on the company's efforts to future-proof its business.

Airbus looks to be in a strong position with perhaps its biggest challenge being the ability to satisfy the demand for its aircraft – particularly single-aisle models – in a timely manner.

However, there are threats to the airline business and therefore to commercial aircraft manufacturers. Convincing the outside world that commercial aviation is a safe way to travel has always required more than just a reference to excellent safety statistics. Air accidents make headline news and the recent Boeing 737 Max crashes have triggered forensic coverage. Boeing's predicament might be perceived as advantageous to Airbus, but the European manufacturer is adamant that this is not the case and that its strategy has not been changed by its competitor's troubles.

This may be true, as any perception that safety is being compromised is likely to hurt the industry as a whole. Airbus's reaction is to emphasise at every possible opportunity that safety is always its first priority. The potential liabilities facing Boeing point to the commercial case for such prioritisation.

Environmental challenges

The environmental impact of aviation is another aspect that attracts external criticism of the industry. Airbus is investing resources to mitigate this and ultimately is aiming for a zero-emissions aircraft.

Grazia Vittadini, Airbus's chief technology officer, appears to relish the challenge and says her ambition is one day to see the school-age environmental campaigner, Greta Thunberg, board a zero-emissions Airbus aircraft. However, by the manufacturer's own admission, that is a distant goal and more incremental measures are at the heart of the company's efforts to meet challenging environmental targets.

The problem for the industry is that even major improvements to new aircraft will struggle to counteract the rise in emissions that the forecast commercial aircraft fleet growth is set to produce.

According to the UN, aviation emissions have increased by 26% since 2013 and they are expected to continue to grow because passenger numbers are projected to double to 8.2 billion by 2037. Some analysts suggest aviation could consume

a quarter of the global carbon budget by 2050.

The International Air Transport Association recognises the need to address the issue and has adopted a set of targets to alleviate the situation. The organisation supports a cap on net CO2 emissions from 2020 and is targeting a reduction of 50% from 2005 levels by 2050.

However, expected improvements in aircraft fuel efficiency of about 1% to 2% a year will not be enough to offset the forecast traffic growth of about 5% a year. This means CO2 emissions could grow by between 2.4 and 3.6 times by 2050 without more radical solutions such as the electrically powered aircraft that Airbus is evaluating in its E-Fan X flying test-bed. Airbus says its environmental objectives for 2050 are a 75% reduction in CO2, a 90% reduction in NOx and a 65% reduction in noise.

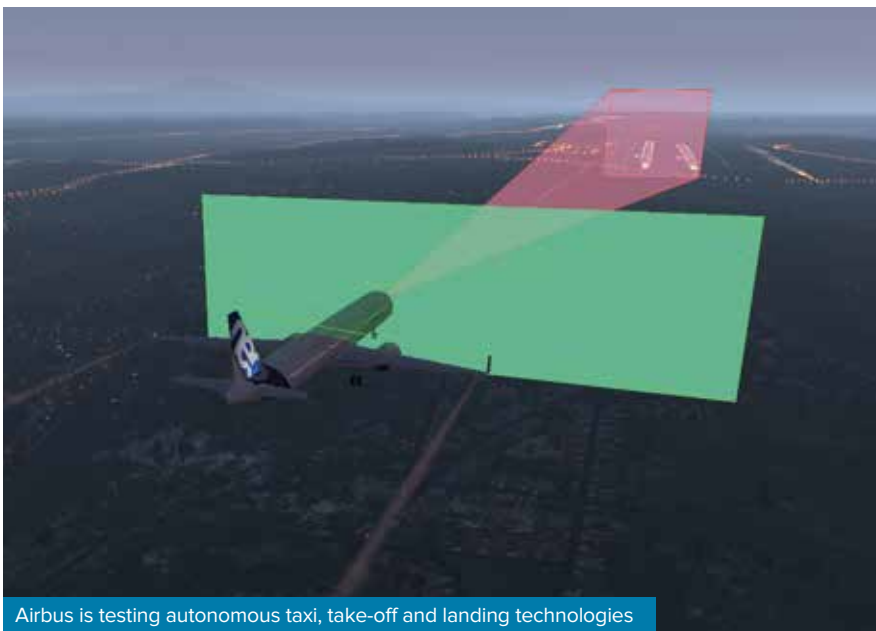
Production

The environment and safety are industry-wide issues, but managing production rates is probably the biggest challenge that Airbus faces internally.

Recently appointed chief operating officer, Michael Schoellhorn, points out that Airbus has moved from producing 480-plus aircraft in 2008 to a target of 880-plus in 2019. Schoellhorn, who has a mass-production background, says that aircraft production will continue to be based on human operators, albeit increasingly supported by digital technology and automation.

Chief commercial officer, Christian Scherer, says he would like to have more aircraft availability for his sales team, but that looks a tall order, given the difficulties the supply chain is already facing to meet the production ramp-up.

As in many areas, the company has ambitious targets for new aircraft models, suggesting that a key characteristics of new types will be ease of manufacture such that, for example, production rates of 60 a month should be attainable within two years of entry into service.



Airbus is testing autonomous taxi, take-off and landing technologies

Product range

Despite the demise of the Airbus A380, the manufacturer extols the virtues of its product range and cites the acquisition of the A220 as a major strategic move (see Part of the family)

However, the biggest addition to the company's offering is not a specific model but the services that will be offered across the range of aircraft types. The company envisages revenue from services of \$10 billion over the next decade and is focusing offerings to improve aircraft operational

availability, streamlining flight operations and enhancing passenger experience.

Futuristic plans

Along with tackling immediate challenges and focusing on new revenue possibilities, Airbus is investing significant resources in longer-term projects, which border on the futuristic. The company has serious plans to turn autonomous flight into a reality. Airbus admits it is a complex, wide-ranging field, but believes it has the skills to build and design aircraft that can fly themselves,

as well as the resources to establish new ground infrastructure and air traffic management systems. The ability to work with the authorities to regulate new modes of transport is seen as a key competence by the manufacturer.

Airbus is modifying an A320 test aircraft to explore autonomous taxi, take-off and landing technologies. This research may feed back into shorter-term projects – a process that Airbus appears keen to develop as it looks beyond the immediate challenges of production rates and supply chains. **A**

Part of the family

The Airbus A220 has been increasingly integrated into the manufacturer's product range, with a boost in sales as a result. But further success is not guaranteed.

Airbus is keen to show that the A220 is now a part of its family of aircraft. Emphasising its commitment to the new programme, the European manufacturer says it will offer increased range for the A220 family from the second half of 2020.

The maximum take-off weight (MTOW) for both A220 models will increase by 2.3 tonnes, taking the type's maximum range to 3,350 nautical miles (nm) for the A220-300 model and 3,400nm for the A220-100 version. In each case this represents an increase of about 450nm.

Commenting on the A220 programme, chief commercial officer, Christian Scherer, says Airbus has benefited from acquiring a clean-sheet design without incurring the risks normally associated with all-new programmes.

Senior Istat appraiser, Oliver Stuart-Menteth, managing director, Fintech Aviation Services, says the decision by Bombardier to dispose reluctantly of the CSeries product, which became the A220, is a reminder that even when a product has received type certification it remains dependent on the strength of

the sales and marketing organisation. He says: "Airbus not only has the resource and financial clout to sell and further invest in the programme, but also can offer the aircraft as a route opener, complementing the A320neo with its similar powerplants."

Stuart-Menteth adds: "Sales of both A220-100 and -300 variants and the earlier CSeries incarnations were slow and included some dubious customers that were unlikely to take delivery. Since the programme was transferred in September 2017, sales have increased from 360 to over 530 units."

Projected demand for new products in the 100-seat to 150-seat market is relatively small with the segment forecast to account for 15% to 20% of all jet deliveries over the next 20 years. There is no doubt that with Airbus's involvement financiers will be taking a more positive view of the A220.

Stuart-Menteth believes that sales, notably for the -100 variant, will remain lethargic compared with products serving the 150-seat market and above. An additional threat is that Boeing-backed

Embraer products are likely to provide significant competition to the A220 models.

He believes that selling new A220s may prove difficult to some airlines. "Most of the cost-conscious operators of feeder and regional routes are chasing ever-reducing yields and are more interested in securing a competitive lease rate on 10-year-old aircraft than acquiring new technology," he says.

Air Baltic has bucked the trend and has obtained sale and leaseback deals at advantageous rates and terms. Fintech says that lease rates for the A220-100 are in the region of \$240,000 to \$270,000 a month. The equivalent rates for the -300 are \$265,000 to \$295,000 monthly.

Fintech view of current market value (\$m)

Build year	2017	2019
A220-100	28.32	33.15
A220-300	31.18	36.49

Source: Fintech SAAV Guide



A crowded niche

The market for 70-seat aircraft is modest in size, but there is no shortage of competitors. **Geoff Hearn** looks at the prospects for the various models on offer.

The 70-seat category is the last sector of the commercial aircraft market where there is a substantial competition between turboprops and jets. ATR turboprops dominate the diminishing 50-seat market, while the development of a genuine 100-seat turboprop looks a distant prospect.

Embraer's decision not to replace directly the E170 in the second generation of its E-Jet family perhaps points to an acceptance that this market is increasingly the domain of turboprops. Although turboprops have displaced jets in orders for new aircraft in the sector, an in-service fleet of about 500 jets with reducing capital costs poses a potential threat to sales of new turboprops.

ATR72-600

The ATR72 is a twin-engined turboprop developed from the ATR42 to provide capacity for 70-plus passengers, by stretching the fuselage, increasing the wingspan and upgrading to more powerful engines. The original ATR72-100 variant entered service in October 1989. There have been several upgrades of the aircraft, culminating in the ATR72-600, which is the current-production standard.

The latest development is a high-density seating configuration, which can accommodate 78 passengers.

Bombardier Q400

The Q400 (original designation Dash 8-400) is the only member of Bombardier's Dash 8 family still in production. The Q400 is a stretched version, which has progressively been pushed to a 90-seat configuration.



Bombardier is certifying a 50-seat version of the 70-seat CRJ700

All aircraft delivered after 1997 are equipped with a cabin noise-suppression system. A defining characteristic of the Q400 is a cruise speed in excess of 350 knots, which distinguishes it from slower conventional turboprops such as the ATR72.

Bombardier CRJ700

The CRJ700 is a re-engineered 70-seat development of the original 50-seat CRJ100/200 series. The larger aircraft improved the cramped four-abreast cabin configuration and limited baggage capability of the original 50-seater. In addition to its stretched fuselage and bigger wing, the CRJ700 features more powerful CF34-8C engines.

The CRJ700 was introduced into service in 2001. There are a variety of sub-models (700/701/702 and 705) with standard-range, extended-range (ER) and long-range (LR) variants available. The CRJ700 was followed into production by two further stretched versions – the CRJ900 (up to 90 seats) and the CRJ1000 (up to 100 seats).

Embraer E170

The E170 is the first and smallest member of the E-Jet family, entering service in 2004.

The aircraft has been offered with varying maximum take-off weights offering standard, long-range and advanced-range models – designated as STD, LR and AR versions respectively.

Later deliveries are all AR models. The E170's success or otherwise is difficult to judge in isolation because the marginally larger E175 entered service barely a year after its smaller stablemate.

Although Embraer offers both aircraft, the inherently better seat-mile costs of the E175 have meant it has dominated sales of the two variants, helped by the larger model staying within the constraints of the various US pilot scope clauses.

The E-Jet family also includes the 90-plus seat E190 and E195 models. The E170 is the only variant not to be included in Embraer's upgraded second-generation E2 family.

Key data of current 70-seat models

Model	ATR72-600	Q400	CRJ700	E170	E175
Maximum seats	78	90	78	80	88
Typical seats	70	74	70	70	78
Typical range (nm)	825	1,010	1,220	2,100	2,000
(Target) entry into service	2011	1999	2001	2004	2005
Current fleet	965*	555	333	176	593
Orders backlog	195	50	0	0	179
List price (\$m) 2019 estimate	28	34	43	44	49

*All models.

Source: Airfinance Journal/Air Investor/Fleet Tracker

Orders

A cursory inspection of order backlogs would suggest that the 70-seat market is increasingly the domain of the turboprops, which have enjoyed a resurgence in recent years. The combined Bombardier/ATR backlog for 70-seat turboprops is close to 250 aircraft, whereas there are almost no orders for the competing E170 and CRJ700 jets. However, the balance is redressed if the backlog for the larger E175 is included.

Seating

The classification of the turboprops in this category as 70-seaters is to some extent understating their capacities, particularly for the Q400. In a typical configuration, it is widely accepted that the Q400 has a four- to five-seat advantage over the ATR72. However, both manufacturers have been trying to push the maximum capacity configurations, not least because the prospect of launching a genuine 100-seat turboprop has faded.

Bombardier now offers a 90-seat layout, while the ATR72 can offer 78 seats. The two configurations are not equivalent in terms of comfort and service levels, but the 12-seat variation in maximum capacity may help Bombardier in certain markets where airlines are concerned with obtaining the lowest possible cost per seat. The CRJ700 can offer the same maximum as the ATR72 and the E170 can accommodate up to 80 passengers, but neither of the jets in the category is able to match the Q400's maximum capacity. Embraer's second-generation E175-E2 is stretched by one seat row and matches the Bombardier turboprop's maximum capacity.

Operating costs

When comparing aircraft with significantly different speeds, generic comparisons of relative operating costs are highly influenced by assumptions relating to aircraft utilisation. Basing the comparison on a fixed number of hours tends to favour unduly the higher speed aircraft, while using a fixed number of flights gives no credit for the potential increased productivity of the faster aircraft. This dilemma is particularly acute when comparing jets with turboprops but the difference in the speeds of the Q400 and ATR72-600 is significant enough to make utilisation assumptions critical.

Airfinance Journal's cost model uses a technique first proposed by the Association of European Airlines, which has the effect of crediting the faster aircraft with greater productivity gains as the sector length increases. *Airfinance Journal* has looked at a relatively long 500 nautical mile sector, as well as at a more typical regional route of 200 nautical miles.

On the 200 nautical mile sector, *Airfinance Journal's* analysis indicates the

Indicative relative direct operating costs 200nm sector

	ATR72-600	Q400	CRJ700	E170
Relative trip cost	Base	+19%	+34%	+28%
Relative seat cost	Base	+9%	+30%	+25%

Indicative relative direct operating costs 500nm sector

	ATR72-600	Q400	CRJ700	E170
Relative trip cost	Base	+12%	+17%	+11%
Relative seat cost	Base	+3%	+13%	+7%

Assumptions: figures are based on *Airfinance Journal's* interpretation of manufacturer claims and published data.

Q400's direct operating cost (DOC) per trip cost is 19% higher than that of the ATR72-600. Even with the extra capacity of the Bombardier aircraft, its DOC per seat on the relatively short sector is still 10% higher than that of its rival.

On the 500 nautical mile sector, the Q400 is significantly more competitive with a direct operating cost per trip about 12% higher than the ATR72-600, with a seat-mile cost that is 3% higher.

ATR has previously confirmed that *Airfinance Journal's* figures are in line with the company's own analysis, but pointed out that very few ATR operations extend to 500 nautical mile sectors and the operational average is nearer 200/250 nautical miles.

Bombardier has a very different view of the relative operating costs, suggesting that, on a 300 nautical mile sector, the Q400 has about the same trip cost as an ATR72-600.

The advantage of turboprops over regional jets on shorter sectors is highlighted by the analysis, which shows the CRJ700 and E190 cost about 30% more per trip than the ATR72-600 on a 200 nautical mile sector. Some industry analysts and regional jet manufacturers suggest that operating costs of turboprops start to exceed those of regional jets about 350 nautical miles.

However, *Airfinance Journal's* analysis suggests that even on a 500 nautical mile sector there is still a significant cost advantage for the turboprop. Such analysis is sensitive to assumptions, but is in any case largely academic because turboprops are rarely deployed on sectors over 350 nautical miles, not least because of passenger resistance.

The direct operating costs in the analysis include an element of capital cost, and indicative list prices have been used to provide comparable figures. However, given that new aircraft sales have virtually dried up for jets in this category, the

argument may switch to whether used regional jets can compete with new turboprops in terms of operating cost. The turboprop manufacturers may face difficulties as the capital costs of 70-seat jets decrease in line with reducing current market values and lease rates.

Secondary markets

The competition that older regional jets pose to turboprops is very dependent on the availability of used aircraft, and there are a number of developments that suggest this may be limited.

The E170 and CRJ700 fleets are concentrated in the US, and developments in that market are key to aircraft values and availability. A very significant move is Bombardier's plan to certify a version of its CRJ700, dubbed the CRJ550, as a 50-seat aircraft that meets the limits laid out in the pilot scope clauses on maximum take-off weight and capacity.

United Airlines says it plans to operate 50 such aircraft, which will be converted from used CRJ700s and will be operated in a mixed-class configuration limited to 50 seats. There are reports that American Airlines and Delta Air Lines are considering a similar approach with E170s, but in this case the aircraft would still accommodate 60 to 65 passengers – requiring two cabin attendants.

There are more conventional markets where used 70-seater jets may prove attractive compared with their turboprop competitors. At the turn of the year, UK-based regional aircraft specialist Skyworld Aviation placed an E170 with ATR operator Air Botswana. Skyworld managing director, Chris Beer, says the airline was keen to acquire the E170 because of its increased speed and range, as well as the perceived superior comfort levels compared with turboprops.

Such judgments by airlines suggest that jets may yet have a role in the 70-seat market. ▲



Rating agency unsecured ratings

Airlines

	Fitch	Moody's	S&P
Aeroflot	BB-(stable)	-	-
Air Canada	BB(stable)	Ba2(stable)	BB+(stable)
Air New Zealand	-	Baa2(stable)	-
Alaska Air Group	BBB-(stable)	-	BB+(stable)
Allegiant Travel Company	-	Ba3(stable)	BB-(stable)
American Airlines Group	BB-(stable)	Ba3(stable)	BB-(stable)
Avianca Holdings - IFRS	B-(neg)	-	CCC+(neg)
British Airways	BBB-(stable)	Baa3(pos)	BBB(stable)
Delta Air Lines	BBB-(stable)	Baa3(stable)	BBB-(stable)
easyJet	-	Baa1(stable)	BBB+(stable)
Etihad Airways	A(stable)	-	-
GOL	B(stable)	B1(stable)	B-(stable)
Hawaiian Airlines	BB-(stable)	Ba3(stable)	BB-(stable)
jetBlue	BB(pos)	Ba1(stable)	BB(stable)
LATAM Airlines Group	B+(pos)	Ba3(stable)	BB-(stable)
Lufthansa Group	-	Baa3(stable)	BBB(stable)
Qantas Airways	-	Baa2(stable)	-
Ryanair	BBB+(stable)	-	BBB+(stable)
SAS	-	B1(stable)	B+(stable)
Southwest Airlines	A-(stable)	A3(stable)	BBB+(stable)
Spirit Airlines	BB(neg)	-	BB-(stable)
Turkish Airlines	-	Ba3(neg)	B+(stable)
United Continental Holdings	BB(stable)	Ba2(stable)	BB(pos)
US Airways Group	-	-	-
Virgin Australia	-	B2(stable)	B+(stable)
WestJet	-	Ba1(stable)	BBB-(neg)
Wizz Air	BBB(stable)	Baa3(stable)	-

Source: Ratings Agencies - 18th June 2019

Lessors

	Fitch	Moody's	S&P	Kroll Bond Ratings
AerCap	BBB-(stable)	-	BBB-(stable)	-
Air Lease Corp	BBB(stable)	-	BBB(stable)	A-(stable)
Aircastle	BBB-(stable)	Baa3(stable)	BBB-(stable)	-
Avation PLC	BB-(stable)	-	B+(pos)	-
Aviation Capital Group	BBB+(pos)	-	A-(stable)	A(stable)
Avolon Holdings Limited	BBB-(stable)	Baa3(stable)	BBB-(stable)	BBB+(stable)
AWAS Aviation Capital Limited	-	Ba2(stable)	BB+(stable)	-
BOC Aviation	A-(stable)	-	A-(stable)	-
Dubai Aerospace Enterprise	-	Ba1(stable)	BB+(stable)	BBB+(stable)
Fly Leasing	-	Ba3(stable)	BB-(stable)	BBB(stable)
ILFC (Part of AerCap)	BBB-(stable)	Baa3(stable)	-	-
Park Aerospace Holdings	BBB-(stable)	Baa3(stable)	-	-
SMBC Aviation Capital	A-(stable)	-	A-(stable)	-

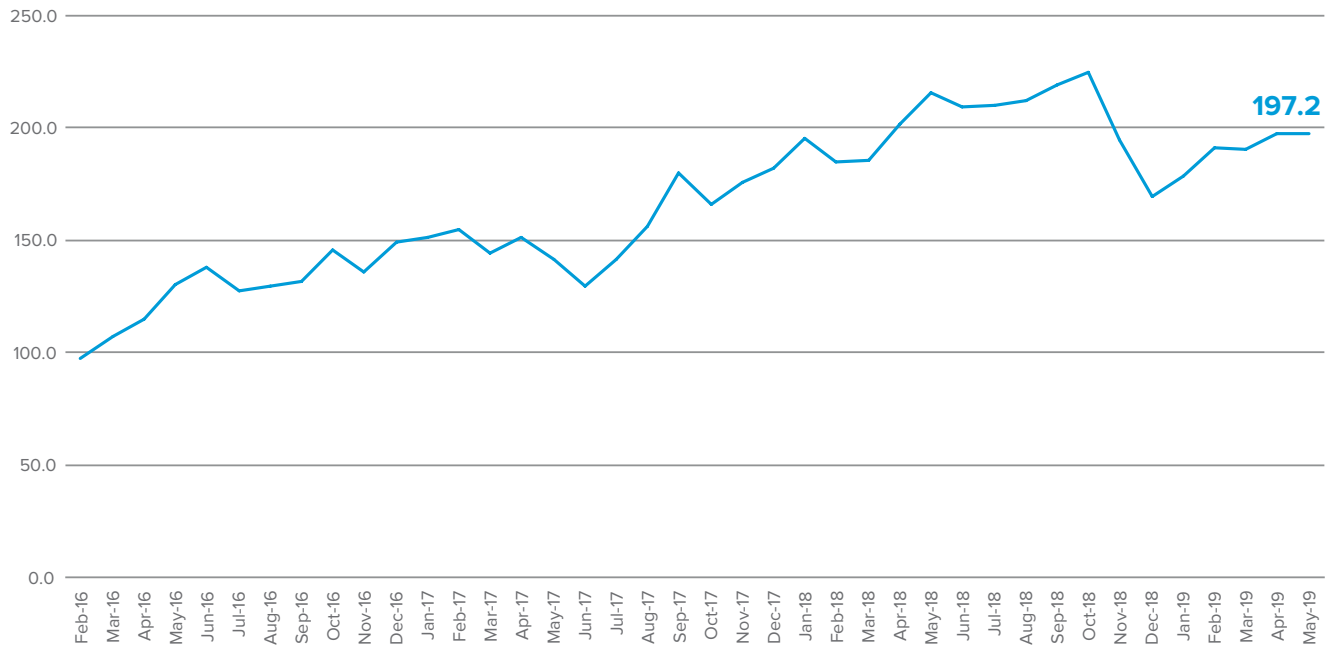
Source: Ratings Agencies - 18th June 2019

Manufacturers

	Fitch	Moody's	S&P
Airbus Group	A-(stable)	A2(stable)	A+(stable)
Boeing	A(stable)	A2(stable)	A(stable)
Bombardier	B-(stable)	B3(stable)	B-(stable)
Embraer	BBB-(stable)	Ba1(stable)	BBB(stable)
Rolls-Royce	A-(stable)	A3(neg)	BBB+(neg)
United Technologies	-	Baa1(stable)	BBB+(pos)

Source: Ratings Agencies - 18th June 2019

US Gulf Coast kerosene-type jet fuel (cents per US gallon)



Source: US Energy Information Administration

Recent commercial aircraft orders (April-June 2019)

Customer	Country	Quantity/Type
Middle East Airlines	Lebanon	4 A321XLR
Virgin Atlantic	UK	8 A330-900
United Airlines	USA	20 E175
IAG	UK	14 A321XLR
Saudia	Saudi Arabia	15 A320neo, 15 A321neo
Delta Air Lines	USA	5 A220-100
Fuji Dream Airlines	Japan	2 E175
Binter	Spain	2 E195-E2
American Airlines	USA	20 A321XLR
Qantas Airways	Australia	10 A321XLR
Air Tahiti	French Polynesia	2 ATR42-600S
JetBlue Airways	USA	13 A321XLR, 10 A220-300



Middle East Airlines ordered 4x A321XLR

Aircraft list prices - new models

Model	\$ million
Airbus (2018)	
A220-100	81
A220-300	91.5
A319neo	99.5
A320neo	108.4
A321neo	127
A330-800neo	254.8
A330-900neo	296.4
A350-900	317.4
A350-1000	359.3
Boeing (2018)	
737 Max 7	96
737 Max 8	117.1
737 Max 9	124.1
737 Max 10	129.9
777-8X	394.9
777-9X	425.8
787-10	325.8
Embraer (2018)	
E175-E2	51.6
E190-E2	59.1
E195-E2	66.6

As of 12/06/2019

Based on Airfinance Journal research up to 21/06/2019

Current production aircraft values (\$ millions)

Model	Current market value*
Airbus	
A220-100	33.2
A220-300	37.8
A319	34.3
A319neo	37.2
A320	43.7
A320neo	49.3
A321	51.8
A321neo	57.1
A330-200	85.9
A330-200 Freighter	94.4
A330-300	98.2
A330 900 (neo)	110.4
A350-900	149.4
A350-1000	169
A380	219.2
Boeing	
737-800	46.3
737-900ER	48.6
737 Max 8	51.3
737 Max 9	52.5
747-8I	155.6
747-8F	183
777-300ER	153.9
787-8	118.5
787-9	143.6
787-10	150.5
ATR	
ATR42-600	16.2
ATR72-600	20.2
Bombardier	
CRJ700	24.1
CRJ900	26.2
CRJ1000	28.2
Viking Q400	20.7
Embraer	
E175	28.5
E190	32.1
E190-E2	34.5
E195	33.9
Sukhoi	
SSJ100	23.3

*Based on Istat appraiser inputs for Air Investor 2019

Lease rates (\$'000 per month)

Model	Low	High	Average
Airbus			
A220-100	204	262	233
A220-300	276	303	289.5
A319	230	283	256.5
A319neo	266	293	279.5
A320	295	353	324
A320neo	340	383	361.5
A321	350	424	387
A321neo	380	444	412
A330-200	640	745	692.5
A330-200 Freighter	657	715	686
A330-300	690	833	761.5
A330 900 (neo)	801	872	836.5
A350-900	1,050	1,195	11,22.5
A350-1000	1,233	1,342	12,87.5
A380	1,503	1,950	17,26.5
Boeing			
737-800	310	364	337
737-900ER	330	394	362
737 Max 8	350	394	372
737 Max 9	368	404	386
747-8I	990	1,264	1,127
747-8F	1,178	1,570	1,374
777-300ER	1,050	1,300	1,175
787-8	815	931	873
787-9	950	1,200	1,075
787-10	1,053	1,146	1,099.5
ATR			
ATR42-600	117	153	135
ATR72-600	144	185	164.5
Bombardier			
CRJ700	153	220	186.5
CRJ900	170	235	202.5
CRJ1000	182	255	218.5
Viking Q400	140	200	170
Embraer			
E175	205	240	222.5
E190	230	275	252.5
E190-E2	239	263	251
E195	211	280	245.5
Sukhoi			
SSJ100	153	205	179

Commercial aircraft orders by manufacturer

	Gross orders 2019	Cancellations 2019	Net orders 2019	Net orders 2018
Airbus (31 May)	68	-125	-57	747
Boeing (31 May)	99	-224	-125	893
Bombardier	9	0	9	47
De Havilland of Canada	6	0	6	0
Embraer	34	0	34	47
ATR	40	0	40	52

Based on Airfinance Journal research and manufacturer announcements until 21/06/19

How demography will transform aviation: a very long-term view

Adam Pilarski, senior vice-president at Avitas, writes that China's ageing population is already having an impact on growth, and it will get worse.

Forecasting in our industry deals with very short-term predictions. The aviation business is extremely sensitive to short-term developments. Oil price movements, an outburst of an epidemic or an aircraft crash can have a substantial impact. Hence, most of the forecasting work deals with very short-term developments, such as what will the ticket bookings be next quarter.

A forecast of how many people will utilise an airport in 50 years' time deals with a totally different set of parameters, statistical techniques and objectives. If a forecaster misses long-term trends the newly built airport may be partially empty in a few decades, usually a long time after the forecast's author has retired. Short-term misses may lead to bankruptcy.

Long-term planning starts with the major determinant of growth in air traffic – the economy. A major factor here is demography: the size and composition of the population. These factors are quite stable. The proportion of women of childbearing age that determines population growth would have been determined a few decades previously. We have known for the past 20 to 30 years how many women aged 20 to 30 years old would be alive today. Using Japan as an example, let us look at its demographic developments for the past century.

In 1920, the population of Japan was about 55 million, growing steadily. The age distribution was quite stable: children (ages 0 to 14) comprised about 37% of the total, old people (aged 65 and over) about 5%, while the remainder ("workers") was about 58% of the total. That changed after the Second World War. The birth rates began to fall continuously, leading to a drop in the proportion of children, slumping to 12% today versus 37% a century ago. At the same time, life expectancy was increasing: the proportion of retired folks has risen from 5% to 29% today. The economic implications of such developments are tremendous. The share of working age population initially was rising because there were proportionally fewer children added to the total. The proportion went from 58% to 70%.

Short-term thinking leads some to believe that the best way to increase income per person is to have fewer



Our author at the *Airfinance Journal* Dublin 2019 conference.

If a forecaster misses long-term trends the newly built airport may be partially empty in a few decades.

children which is exactly the logic the Chinese government used to institute its one child policy in about 1980. The idea was that one less child being born (with the same income) must necessarily result in increased income per person. In the longer term, though, fewer children leads eventually to a smaller labour force. Coupled with longer life expectancy this must lead to lower economic growth. The working age population in Japan is 59% now, down from 70% three decades ago. And from now on the number of retirees will continue growing but the number of workers joining the labour force will not.

The outcome was quite predictable. The Japanese economy grew by more than 9% annually in the 1960s, reaping the benefits of a larger proportion of working age people with fewer children to support. But the lack of children led to an eventual lack of workers entering the market. So, in the past three decades the economy grew by

less than 1% a year. This led to Japanese air travellers growing by double digits in the 1970s and less than 1% annually since the year 2000. These profound changes took a long time to take effect and reversing them in the short term will not be possible unless Japan dramatically changes its immigration policies.

A number of countries faced similar circumstances as Japan (South Korea, Singapore, etc). They experienced lower birth rates leading initially to a higher proportion of working age population, increases in GDP per person and very robust traffic growth. That was inevitably followed by slowing growth in new workers leading eventually to lower economic and traffic growth.

For example, South Korea's demographic transformation saw old people outnumbering children in 2017, continuing long-term trends (there were almost 15 children per retiree in 1950). Economic growth responded to these demographic changes, dropping from 9.3% annual growth between 1970 and 2000 to half that level (4.5%) since then.

The relevance to our industry concerns the future impact of China because it is the second-largest economy and aviation market in the world. In 1985, Chinese carriers flew seven million passengers, which today has grown to well over 600 million. This long-term growth has been implicitly incorporated by the world's airlines, manufacturers and financiers in planning their own future. However, China's demographic transformation trails that of Japan. We project that the old will surpass the young only by 2030 (in Japan this happened in 1997). Nevertheless, the underlying demographic changes mentioned are already occurring and have reduced economic growth from solid double digits to maybe 6% currently. The Chinese government had realised these facts and abolished its one child policy but possibly too late because demographic changes are notoriously slow.

Recognising the inevitable, but much delayed, consequence of demographic changes, it is hard to believe that China will not follow Japan's history in the coming decades. It behoves us to pay attention to these long-term developments for planning our future in aviation. ▲

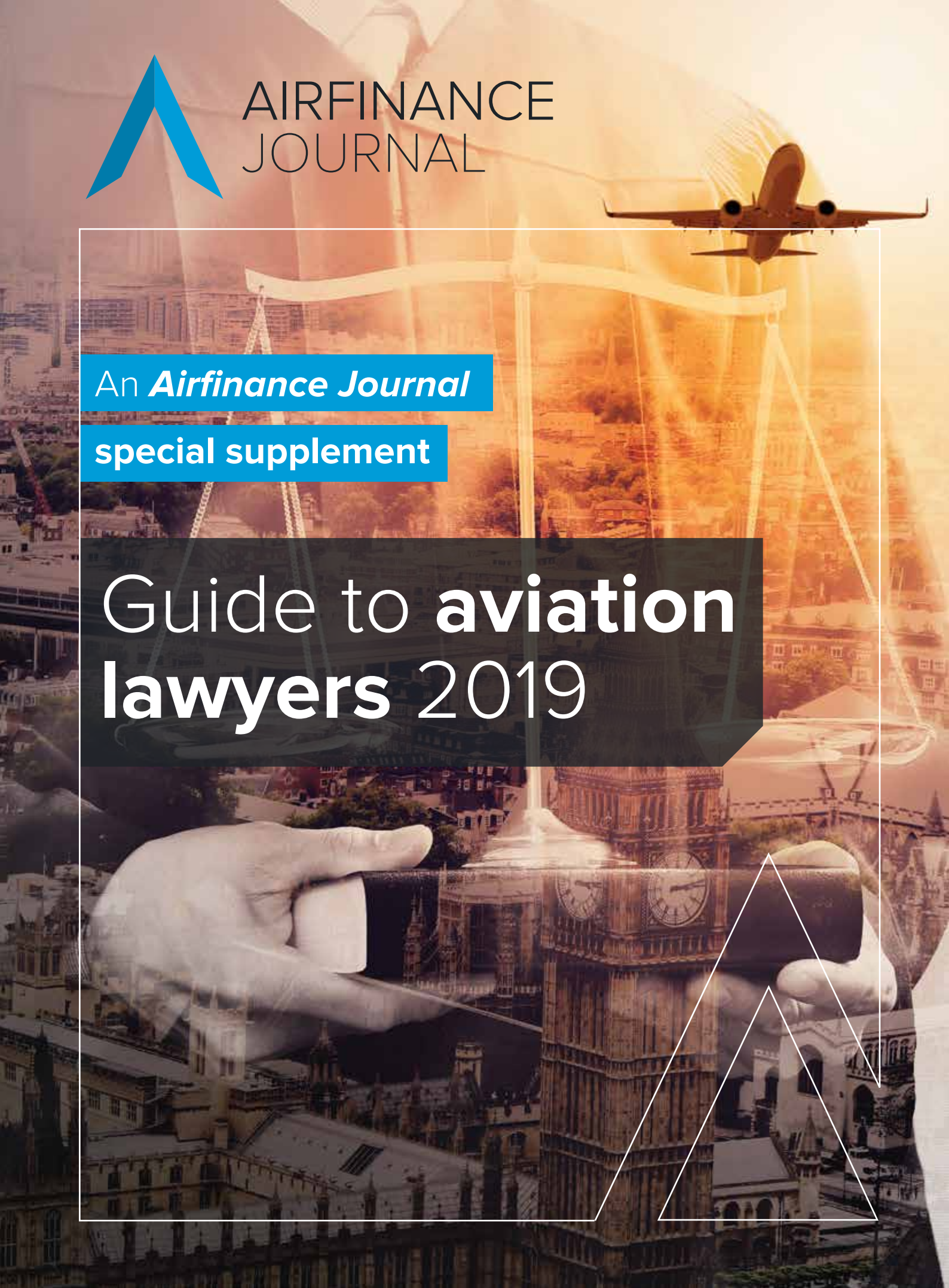


AIRFINANCE
JOURNAL

An *Airfinance Journal*

special supplement

Guide to **aviation** **lawyers** 2019



Legal moves 2018-19

Clifford Chance promotes Miller to partner



Madalyn Miller

Law firm Clifford Chance has confirmed the promotion of Asset Finance associate Madalyn Miller as partner.

Miller joined the Asset Finance team since 2012 and had been an associate in the Clifford Chance's Banking and Finance practice in New York.

Her asset finance experience involves representing underwriters, lenders, and lessors in a variety of asset finance transactions, including portfolio securitisations, acquisition financing, and secured lending.

In 2016, Miller was named by *Airfinance Journal* as one of just eight Rising Stars globally.

Norton Rose Fulbright appoints US head of aviation

Global law firm Norton Rose Fulbright has appointed partner Alyssa Vazquez as its US head of aviation. In this role, Vazquez will oversee the firm's US aviation lawyers, who work with airlines, banks and financiers, lessors, manufacturers, insurers and export credit agencies.

She will promote the firm's aviation practice in the US and work closely with firm leaders from other global transport practices.

Vazquez's practice focuses on transportation finance with a particular focus on aviation matters. Her clients include leasing companies, borrowers, equity participants, lenders, lessees and airlines in finance, lease and acquisition matters in both domestic and cross-border transactions.

Bird & Bird hires aviation partner

Law firm Bird & Bird has hired Richard Sharman as an aviation finance partner, based in its London office.

Sharman joins from the London office of Clifford Chance, where he was a senior associate.

Sharman handles aviation and other transportation transactions on behalf of financial institutions, aircraft leasing companies, airlines, arrangers and equity investors. His deals include commercial debt financings, operating leasing, structured tax-based financings, equity funds, export-credit, asset portfolio sales and purchases, joint ventures and Islamic financings. His experience also covers secondary debt trading, repossessions and restructurings.

Bird & Bird has been growing its aviation practice recently. The firm has hired Simon Gough, formerly a senior tax partner at Dentons & DLA, whose experience includes advising on aviation finance transactions and Pierpaolo Mastromarini, an aviation finance/export credit lawyer based in Italy. In addition, Bird & Bird will soon be adding to the team in Frankfurt led by Matthias Winter.

Arthur Cox makes senior appointments

Irish law firm Arthur Cox has announced two senior appointments to strengthen and expand its aviation team.

Rob Murphy joins the firm as co-chair of Arthur Cox's aviation team. Murphy was most recently chief operating officer and general counsel at CDB Aviation. Prior to that he was a partner at the law firm Freshfields, where he was head of global aviation and asset finance. Laura Cunningham joins the firm's aviation

practice as a partner. Cunningham has been working internationally in aviation with Milbank, Tweed, Hadley & McCloy, principally in their London office, having also spent time in Milbank's Singapore office. Prior to Milbank, she worked in Freshfields' aviation and asset finance team, having trained and worked with Arthur Cox.

The firm's existing aviation practice is led by Caroline Devlin, who will now co-chair the aviation team with Murphy.

Shebson to lead HFW new global management team



Jeremy Shebson

Law firm HFW has elected Jeremy Shebson as its new managing partner and re-elected Richard Crump as its senior partner.

Shebson is a partner in HFW's global aerospace group and a member of the firm's global strategy board. He also headed HFW's Brazil practice and drove the firm's recent cooperation arrangement with Brazilian law firm CAL. He will replace current managing partner Marcus Bowman, who is retiring from the firm after more than 30 years at HFW.

Crump has been HFW's senior partner for more than a decade and has now been re-elected four times.

Both started on 1 April 2019. Together, they will manage the strategy and operations of HFW's global business, which comprises more than 600 lawyers across six core industry groups: aerospace,

commodities, construction, energy and resources, insurance, and shipping.

The elections come amid a period of sustained global expansion at HFW. The firm added 24 new partners in 2018, including nine internal promotions and 15 lateral hires across Abu Dhabi, Brussels, Dubai, Hong Kong, Houston, London, Rio de Janeiro and Singapore. Also, HFW has re-elected London partner Giles Kavanagh as the head of its global aerospace practice and a member of the firm's management board.

HFW also promoted Singapore-based aviation claims and insurance specialist Terence Liew as one of nine new partners, spanning offices in Europe and Asia-Pacific and all six of the firm's global industry groups: aerospace, commodities, construction, energy, insurance and shipping.

K&L Gates Tokyo hires counsel

K&L Gates' Tokyo office hired Tomohiro Kitada as a counsel in its banking and asset finance practice in November 2018.

Kitada joined from US bank BNY Mellon, where he was a managing director and managing counsel.

At K&L Gates, he will work closely with partner Robert E. Melson, Jr., a leader of both the firm's aircraft finance practice and the global finance practice area. He will also work with partner Takahiro Kawaguchi, who focuses his practice on Japanese operating lease (Jol) and Japanese operating lease with call option (Jolco) transactions.

Kitada's arrival follows the Singapore office's addition of James Bradley as a partner in the aircraft finance practice in December 2017 and of Kamil Ahmed as a counsel in February 2018.

Ahmed became a new partner at K&L Gates Straits Law in Singapore in early 2019. Prior to joining the firm, Ahmed worked for law firms in Asia, New York and Canada. K&L Gates' Singapore office merged with Straits Law at the start of this year.

Clyde & Co hires Middle East partner

Law firm Clyde & Co hired Taimur Malik as a new corporate finance partner for its Dubai office in September 2018.

Malik joined from US law firm Curtis, Mallet-Prevost, Colt & Mosle, where he was a partner in the Dubai and Muscat offices. Before that he was regional head of the legal department for Vale, one of



Taimur Malik

the world's largest metals and mining companies, overseeing legal matters for projects in Oman and in the wider Middle East region.

Malik has advised governments, sovereign wealth funds, financial institutions, listed companies and Fortune 500 companies on matters in countries across Asia, the Middle East and Africa.

KWM Hong Kong grows aviation team

Katherine Ke has joined King & Wood Mallesons (KWM) Hong Kong as a partner. She has a particular focus in asset finance and the aviation sector.

Ke joins from Clifford Chance and has more than 15 years of experience advising Chinese and multinational clients on cross-border financing transactions. Native in Mandarin and fluent in English, she represents lead arrangers, lenders, sponsors and corporates in a range of PRC inbound and outbound transactions including general syndicated loans, project finance, structured finance, trade finance and receivables finance.

Her appointment follows the recruitment of Ashley Wong in January as a partner, responsible for leading the Hong Kong aviation practice.

Wong joined KWM from Mayer Brown. She also has more than 15 years of experience in aviation matters, including aircraft portfolio acquisitions and disposals, pre-delivery payments financing, sale and lease-back arrangements, acquisitions and disposals of new and used aircraft and engines, as well as dry and wet leasing of aircraft.

Holland & Knight adds Hoover as partner

Florida-based law firm Holland & Knight hired John Hoover as a partner in its structured finance practice focusing on commercial aircraft transactions in the summer of 2018.

Previously, he was a special counsel at Palo Alto, California-based law firm Cooley.

Hoover will be based in Holland & Knight's Washington, DC office.

He has experience in federal and state tax planning and compliance matters involving business aircraft, tax-exempt organisations, individuals, corporations, partnerships, estates, trusts and other entities. He has also represented clients in federal and state tax audits, particularly with respect to business aircraft.

Chamberlain joins the Air Law Firm

David Chamberlain joined the Air Law Firm aircraft transactions team as a senior associate in November 2018.

Chamberlain had been working as a senior associate at Watson Farley & Williams since March 2015.

Previously, he was a solicitor at law firms Kennedys and Gates and Partners.

Han Kun hires Baker McKenzie lawyer as counsel

Chinese law firm Han Kun Law Offices has hired ex-Baker McKenzie lawyer Ding Yi as a counsel in its Beijing office.

Ding, who joined Han Kun on 1 August 2018, worked at Baker McKenzie for eight years. Before that he was with King & Wood Mallesons in Shanghai.

Han Kun's aviation team now consists of two partners, one counsel (Ding) and 11 associates.

Baker McKenzie Hong Kong partner Andrew Lockhart says that while the firm has not hired a direct replacement for Ding, it has "got some younger talent coming up the ranks".

Lockhart adds that partner Allen Ng and special counsel Grace Li will continue to manage Ding's clients.

Clifford Chance maintains top spot but rivals gain ground

Airfinance Journal's legal survey remains the most comprehensive of its type.

A*irfinance Journal* would like to thank all the law firms which participated in the survey this year. For those unfamiliar with the survey, aviation finance deals are counted based on submissions from law firms and *Airfinance Journal's* Deal Tracker, and are subsequently aggregated to create the winners.

Airfinance Journal received submissions from 14 firms, compiling 1,550 deals overall, including transactions gathered from Deal Tracker.

This is the third year *Airfinance Journal* has used data from Deal Tracker for our legal survey and it provides us with a more accurate picture of the 2018 activity because it includes law firms which were not able to submit or chose not to submit. The firms that did submit have the most accurate representation of their deals in 2018.

The survey continues to highlight less activity in the export credit agencies sector.

Export credit agency-backed structures are becoming scarce as a consequence of continued liquidity in the space.

The growth of emerging markets, particularly in Asia, has increased demand for new aircraft, in a leasing environment that is more competitive than ever. Transactions closed in Asia accounted for 27% of the year's total in 2016. They count for 30% today.

The activity in Europe has lowered over the past two years. Today, 35% of the submitted deals originate with European customers versus 40% in the 2016 Legal Survey. Europe still represents 540 transaction points. North America remains third by region with about the same percentage of transaction (21.5%).

Activity in Latin America has slightly decreased over the past two years. Some 4.3% of this year's total involves clients from that region, against 6% two years ago.

The activity in Africa remains at the previous year's level, while transactions in the Middle East are slightly lower than the previous year.

Methodology

Aviation law firms are invited to submit deals to be included in Deal Tracker. The *Airfinance Journal* data team then reviews the different deals and selects those eligible for Deal Tracker.

This list is then used to select the most active law firms, which are then selected

by region and product type. The legal survey reviews transactions from 2018 only.

This is significant because we recognise that markets change, as do law firms; however, we felt this was the only way to offer an accurate snapshot of total global legal activity.

Our aim is to be transparent and impartial. All of the deals used to judge the winners are eventually loaded into Deal Tracker and can be reviewed by our readers. In this sense, our survey is unique.

Our researchers assess each deal to verify them and to avoid double counting. The benefit of using Deal Tracker is that we can offer a granular presentation of law firm activity by both product type and region.

There are limitations to the survey. Client confidentiality may be an issue for law firms when submitting deals and some firms opted not to participate.

As a consequence, the survey does not necessarily represent all of the deals in the market. But it remains the most comprehensive survey of its type and crucially offers real insight into the aviation market.

The survey gives a strong indication of which law firms are most favoured for certain deal types and for certain regions.

Overall rankings

Like previous years, the survey records the overall number of deals for each law firm. A deal, as defined by the survey, represents one mandate and can include multiple aircraft and lawyers.

In addition to presenting the most active law firms by product and region, the survey also aggregates how law firms have performed to produce an overall ranking. Law firms secure points based on where they are placed for each region, product and category.

For instance, a law firm that tops Africa or capital market rankings, receives five points and the second receives four points, and so on.

Overall winners

The legal survey is split by product type, category and region. In addition to summarising the most active law firm by the number of deals, we have also aggregated the results, awarding points to firms based on how they place in each

respective region and product type. We have produced overall rankings based on these results.

Clifford Chance came top in the Asia-Pacific, Europe, Middle East and Latin America, commercial loan, operating lease, and sale and purchase of aircraft. The firm's global asset finance group has topped the overall rankings in the Legal Survey for the seventh consecutive year.

"This achievement is a result of the continued trust our industry-leading clients have placed in our legal services offering and the dedication and expertise of our international network of lawyers in meeting their expectations," says William Glaister, Clifford Chance's global head of asset finance.

"The aviation finance sector continues to grow, with the establishment and expansion of leasing and funding platforms, and the level of aviation capital markets issuances are both clear indicators of investors' sustained interest in the asset class and in the corporate credit of operating lessors and strong airlines," he adds.

Banks and arrangers remain supportive of the sector, notwithstanding global trade tensions and incidents of insolvencies and restructurings. Macro trends, such as implementation of the OECD's BEPS [base erosion and profit shifting] project, ever-increasing regulatory restrictions on banks, accounting changes and global benchmark reform, continue to influence the types of structures industry participants are utilising and the commercial terms being negotiated by borrowers and financiers," says Glaister.

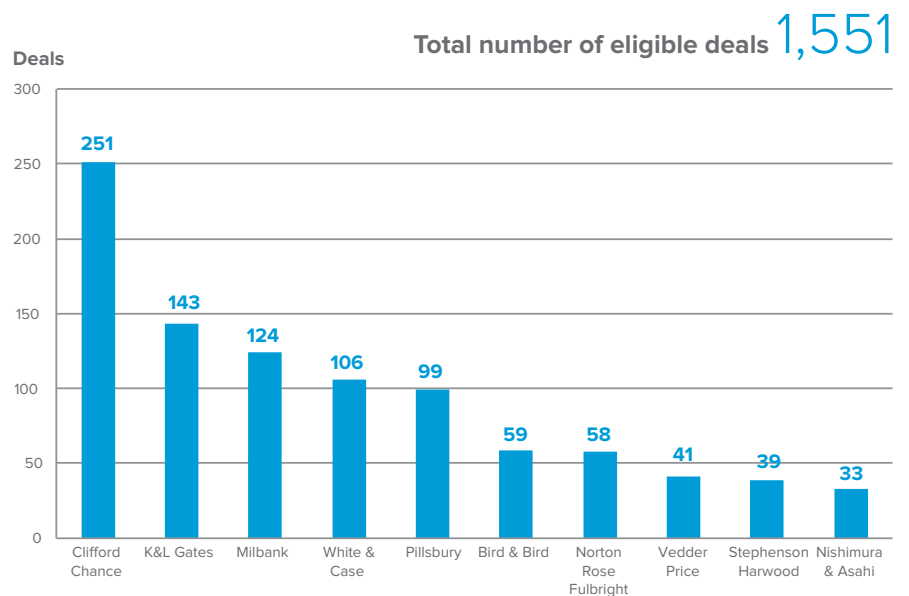
Clifford Chance anticipates a fundamental shift to capital markets-led products and techniques, as sophisticated investors continue to purchase and to trade asset-backed paper; and an expectation by aviation leasing and financing clients that their legal teams can provide finance, regulatory, tax and dispute resolution advice through a sector-focused lens and on a cross-border basis.

The contest between the other four lead firms is closed. Milbank remains second this year with a score of 31 while White & Case and Pillsbury are ranked equal fourth with a score of 25 each. K&L Gates, in third, is the firm which improved the most year-on-year with a score of 30 in 2018, up from 19 the previous year. ▲

Top 10 law firms by score

Rank	Firm	Score
1	Clifford Chance	52
2	Milbank	31
3	K&L Gates	30
4	White & Case	25
4=	Pillsbury	25
6	Norton Rose Fulbright	12
7	Walkers	7
8	Stephenson Harwood	6
9	Delnessahou Tadesse	5
9=	Smith Gambrell & Russell	5
9=	Nishimura & Asahi	5

Top 10 law firms by number of deals



Africa

The African market recorded the same level of activity in 2018 as in 2017 with about 55 deals. Milbank came first in this market with 11 transactions closed.

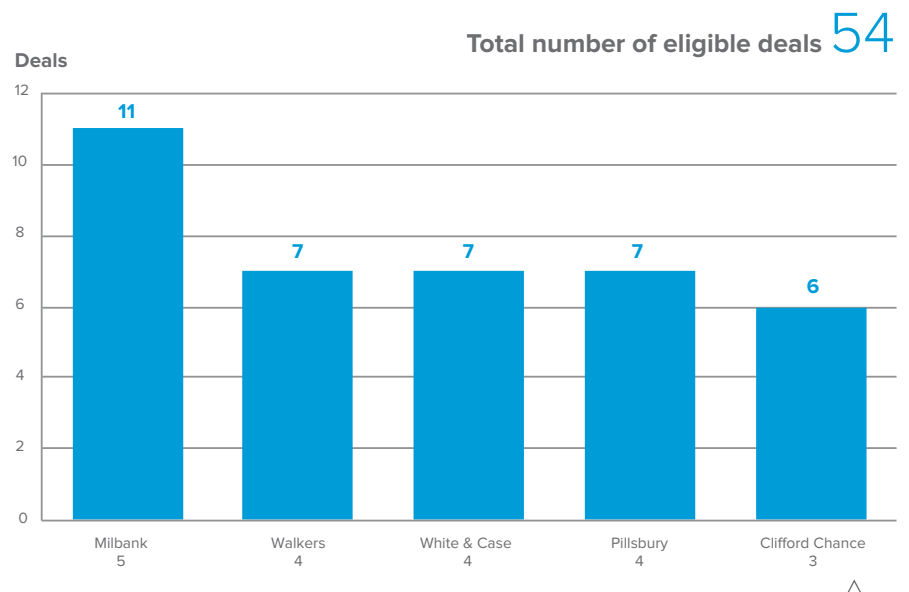
Commercial loans and operating leases were the bulk of the activity in that region in 2018. Ethiopian Airlines was a big issuer of debt in 2018 in Africa and financed several Boeing deliveries in using the Aircraft Finance Insurance consortium (AFIC)-supported financing structure. The financing marked the first time the African carrier used this product and it was also the first deal with a commercial junior debt.

It also represented the first-ever AFIC financing that involved both a 12-year senior and a seven-year junior loan facility for the financing of five Boeing 737-Max 8 aircraft. Three separate AFIC-backed facilities were negotiated and closed for three 777 freighters.

The transaction demonstrated the strength, capacity, efficiency and speed of AFIC-supported financing in the absence of US Exim, with the strong support of the AFIC insurers and the three leading AFIC lenders – SMBC, ING, Société Générale – bringing AFIC financing to the next stage.

“We were pleased to represent the AFIC insurers in connection with the financing of eight aircraft for Ethiopian Airlines. The financings demonstrated the strength of the AFIC product and the confidence that the market has in Ethiopian Airlines,” says Drew Fine, partner at Milbank.

Another AFIC-supported financing closed on Royal Air Maroc last year. The transaction represented many firsts: the first



787 acquisition for the Moroccan carrier; its first AFIC transaction; and its first French lease structure, which diversified its funding sources. Other commercial loans closed for used aircraft last year in the African market, notably with Comair, Fastjet and SA Airlin.

“Potential remains the best descriptor for aviation in Africa,” observes Paul Jebely, Pillsbury’s Hong Kong office managing partner. “On the positive side, Ethiopian Airlines continues to be the resilient star of the show despite a tragic setback [the 737 Max crash in March], and we are seeing new entrants into the African market offering new seats and funding. On the negative side, the implementation of the 2018 Single African Air Transport Market [SAATM] has yet to materialise,

the saga that is the restructure of South African Airways has seriously undermined confidence in the carrier, and the apparent nationalisation of Arik Air and other developments in Nigeria spooked many in the leasing and financing community. It remains foremost for the Nigerian authorities to re-establish confidence in their legal, regulatory and political framework,” says Jebely.

He adds: “We are in the privileged position of representing long-established players like Ethiopian Airlines, Investec, Rand Merchant Bank and Nedbank, and we are now beginning to see the emergence of new sources of capital, both from Africa and elsewhere, to meet some growing demand (including from emerging carriers).”

Asia-Pacific

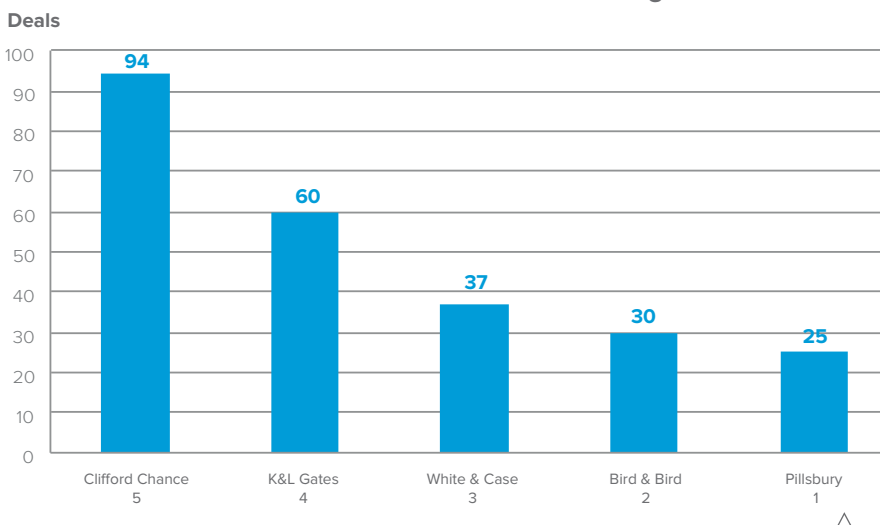
Clifford Chance maintained its lead in Asia-Pacific as the law firm closing the most transactions during the year.

The firm was particularly involved in Chinese lessor Ping An's first PDP financing for nine 737 Max deliveries. The \$330 million loan adopted a structure that balances between a conventional PDP financing and a working capital loan. This financing was on top of a lessor PDP financing to the lessee, Aeromexico.

Clifford Chance's Simon Briscoe says Asia continues to be a source of new equity for the aviation market with continued investor appetite from the People's Republic of China, South Korea and Japan seen on single aircraft deals, joint ventures, funds, portfolio acquisitions and the Japanese operating lease (Jol)/Jolco market.

"With highly liquid capital markets and a very competitive commercial debt market there is still sustained downward pressure on bank pricing," he adds.

Total number of eligible deals **469**



The firm's standout deals in the Asian market included advising on the Avolon joint venture with Cinda Leasing (HK) Limited to form Jade Aviation. Clifford Chance also acted as an adviser for Avolon's nine-aircraft

portfolio financing. It also advised Skyco International Financial Leasing on the sale and lease novation of eight A320s from an affiliate of AviaAM Leasing on lease to Aeroflot Russian Airlines. ▲

Europe

Europe remains the number one market with 539 eligible deals submitted in 2018. Clifford Chance topped the rankings followed by K&L Gates and Milbank.

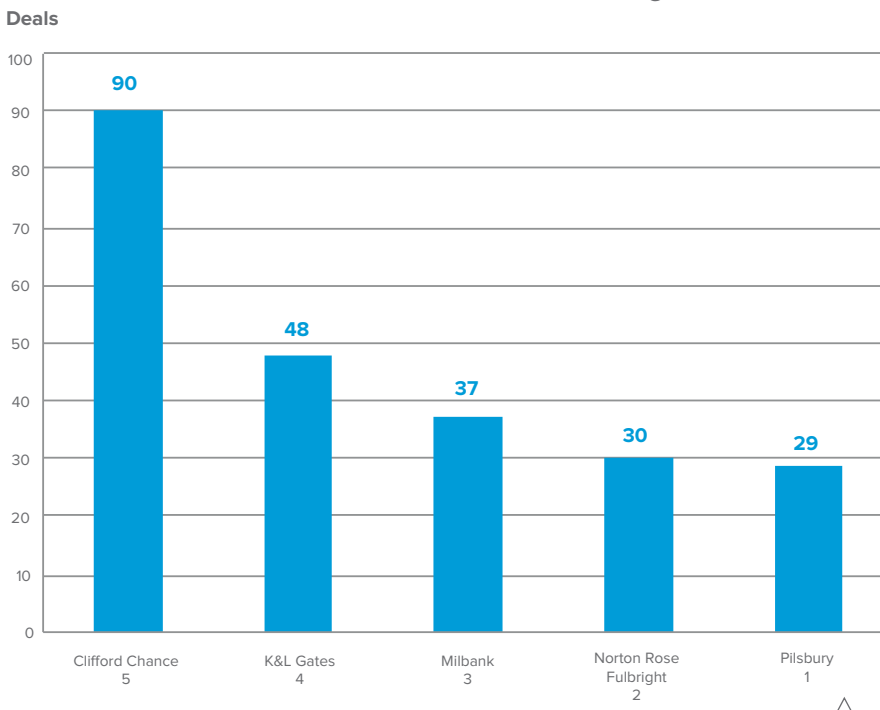
The European market continues to see airlines issuing on an unsecured basis in the European and US capital markets. In 2018, some companies, such as Nordic Aviation Capital, tapped the Jolco market for the first time (while Iberia returned to the market for the first time since 2004), reflecting the Japanese appetite for new issuers.

Another European landmark transaction featured British Airways' (BA) \$607 million EETC. Consistent with the 2013-1 precedent transaction, BA's 2018-1 EETC incorporates a Jolco tax equity. The Jolco structure allows BA (as a lessee) to raise additional proceeds while reducing overall transaction financing cost.

Clifford Chance said this transaction represented BA's first major secured financing post-Cape Town implementation in England and required negotiated revisions to BA's standard form lease. The purchase option for each aircraft is exercisable before the term of the EETC debt, and the transaction was novel in that it allows the airline to keep the EETC debt in place and convert the Jolco to a finance lease until the debt is repaid.

The law represented Nordic Aviation Capital on the \$227 million 12 Embraer 190 Jolco financing. In addition to the jurisdictions in which the aircraft were

Total number of eligible deals **539**



registered, English, Irish, Japanese and California law were all relevant to the transaction. The size and complexity of the transaction was significant given the number of aircraft, multiple jurisdictions and short timeframe in which to complete the transaction. The timing was such that all 12 closings took place within about a two-week

period in September 2018, which presented multiple challenges given the number of aircraft, jurisdictions and documents required.

K&L Gates partner Sidanth Rajagopal says the firm "worked extensively with lessor clients, including setting up lessors in Ireland and England". ▲

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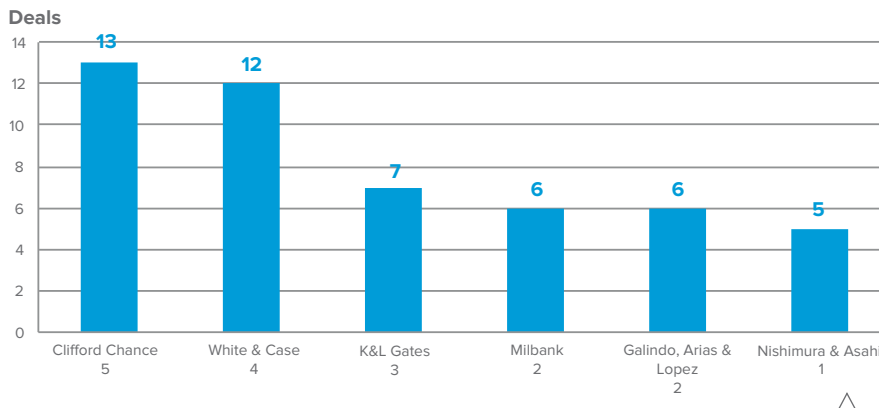
Latin America

Total number of eligible deals **67**

Clifford Chance and White & Case were neck and neck in the Latin American region. It was a big change from the previous year when Clifford Chance had closed almost twice as many transactions than White & Case.

Avianca's UK Export Finance (UKEF)-guaranteed Japanese operating lease with call option (Jolco) financing for one 787 aircraft was a regional highlight in 2018. The transaction was Avianca's first UKEF-backed Jolco financing. It was also the first UKEF-guaranteed financing structured as part of a Jolco for a Latin American carrier.

Operating leases in the region accounted for one-third of the activity by structures. One landmark deal was a sale and leaseback transaction by Viva Air/Irelandia Aviation with GECAS for 10 A320s delivering over a two-year period. As part of the structure, GECAS financed the PDPs for each delivery. Last year also featured one of the largest aircraft



financing transactions in the Americas: the \$302 million financing of a 32-aircraft portfolio for LATAM Airlines Group, on behalf of a bank syndicate composed of five institutions. The mid-life aircraft portfolio had a 14.7 years weighted average age and featured 767 freighters. The company was raising cash to finance

its capital expenditures for the year. It opted for secured financing against its large unencumbered fleet.

The transaction is full recourse to LATAM, a global airline with \$1.5 billion in cash and a large footprint in Latin America. All the aircraft are cross-collateralised/cross-defaulted with each other. ▲

North America

Total number of eligible deals **332**

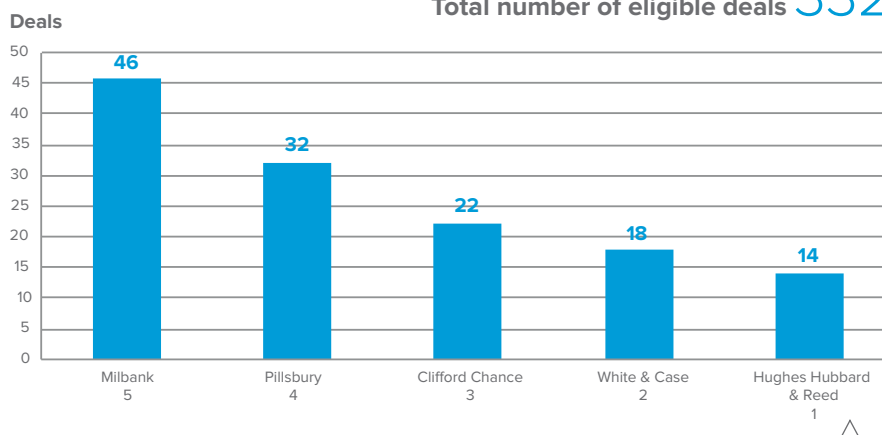
North America is often associated with capital markets. The region increased its dependence on this structure with 37% of the overall capital markets deals in 2018.

"US debt and equity sources have remained plentiful throughout 2018-19, with a very active structured portfolio debt market supporting an equally active asset trading market from the seed/warehouse phase through the term/take-out phase," says Mark Lessard, Pillsbury partner and finance section leader.

"This has resulted in multiple new leasing platforms, some of which have been launched on the back of a few large portfolio trades, and significantly reduced the time between ramp up and take-out. This fragmentation of the market comes as the largest lessors continue to sell metal to new entrants and equity shares to financial investors in the form of joint ventures, sidecars and E-notes (tradable by book-entry in many cases). On the airline side, the general credit picture continues to glow while a multiyear refueling exercise continues for large carriers, if at a slightly slower pace," he adds.

Lessard says the sale and leaseback market continues to be very attractive to airlines, but intense interest from investors has also led to innovative private placements and cross-border leasing structures.

Milbank, Pillsbury and Clifford Chance were the lead trio in the region last year.



Milbank was a clear winner with 46 transactions. The law firm was especially involved in two high-profile ABS deals in 2018: GECAS Starr 2018-1 and ALC Thunderbolt II.

The GECAS 2018-1 transaction brought a new development into the sector: it was the first aircraft ABS transaction to utilise a 144A tradable E-note.

The Thunderbolt II transaction, which also used tradable E-notes, was the first deal to use a Passive Foreign Investment Company (PFIC) tax structure that facilitates offshore ownership and removes tax-related transfer restrictions, with the goal of further broadening distribution and secondary market liquidity. The transaction used the DealVector platform to share more detailed models with investors in an effort to increase

transparency and facilitate investor analysis.

But the law firm was also involved in other interesting transactions: Willis Lease WEST IV \$373.4 million ABS, the only engine ABS deal last year; VX Cargo 2018-1, the 100% narrowbody freighter ABS transaction; and Horizon 2018-1.

"The North American aircraft finance market was very robust across the board in 2018," says Milbank's Fine. "The capital markets were particularly hot, with aircraft ABS having another record year and plenty of unsecured offerings and EETCs [enhanced equipment trust certificates]. When the ABS market is hot, that typically means the warehouse and other acquisition finance facilities are also plentiful. Overall, a banner year in the US aircraft finance market." ▲



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Aviation Finance Deals of the Year
Finance Dublin 2016, 2017, 2018
and 2019

Export Credit Deal of the Year
Airfinance Awards 2018

Capital Markets Deal of the Year
Aviation 100 Global Leaders
Awards 2019

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in Europe**
Financial Times Innovative Lawyers
Report 2018

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International Tax Review 2018

Middle East

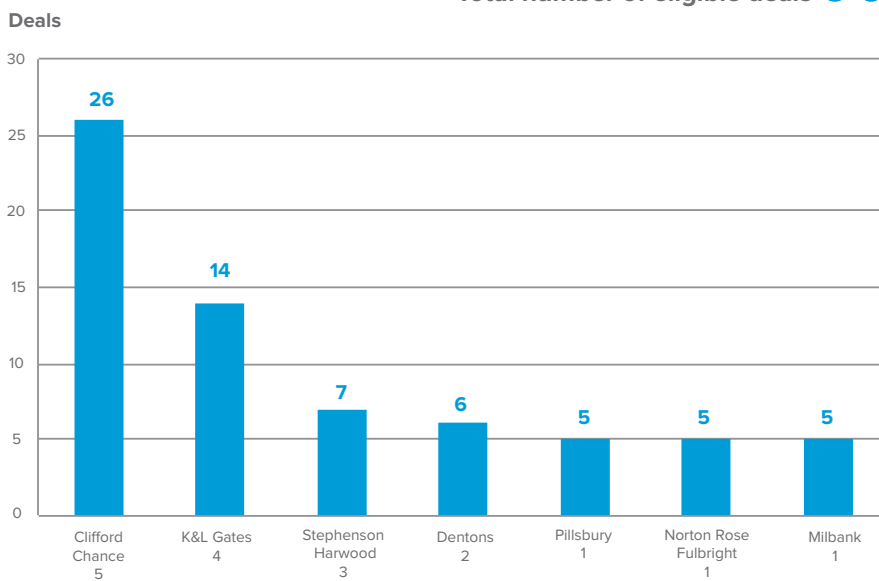
Total number of eligible deals **90**

Clifford Chance was a distant first in the Middle East last year. K&L Gates and Stephenson Harwood completed the trio of leading law firms in this region.

The big three Middle Eastern carriers, Etihad Airways, Emirates Airline and Qatar Airways, continue to see challenges.

Etihad financed a new 787-10 delivery through a senior loan from BNP Paribas and a mezzanine Murabaha facility from Warba Bank. The transaction was important because it was one of the first 787-10 aircraft delivered into the Etihad fleet and was financed using a combination of senior debt and Islamic mezzanine financing. It is notable that the borrower was a UAE entity incorporated in the Abu Dhabi Global Market region.

The region's only export credit agency (ECA)-supported transaction was a notable one: two Airbus A380 deliveries for Emirates. It marked the first ECA-supported Airbus aircraft financing for the Dubai-based carrier after the temporarily closure of ECA activities. The transaction was also the first ECA financing in combination with Korean euro-denominated junior loan notes.



Another landmark deal in the region in 2018 was the asset-backed securities (ABS) portfolio sale (Kestrel) with debt placed in the US capital markets and equity placed in South Korea.

The transaction represented lessor Dubai Aerospace's inaugural ABS deal, which featured turboprops. It was also the first mid-life aircraft portfolio with E-notes sale into Asia. ▲

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Capital Markets

Airfinance Journal received fewer submissions in 2018 featuring airline and lessor capital market transactions than the previous year. But it was on par with activity in 2016. In 2018, much of the action was in the Asian-Pacific region and North America.

The unsecured bond market had a busy 2018, with 46 deals closing for airlines and lessors during the year, according to data from *Airfinance Journal's* Deal Tracker.

The EETC market had a quiet year with \$2.5 billion-worth of transactions. Only American Airlines, United Airlines, Spirit Airlines and Air Canada issued notes to refinance new deliveries. Milbank's Fine agrees that the dearth in EETC issuance last year was because of the major US airlines, the prime EETC issuers, being successful from a liquidity perspective.

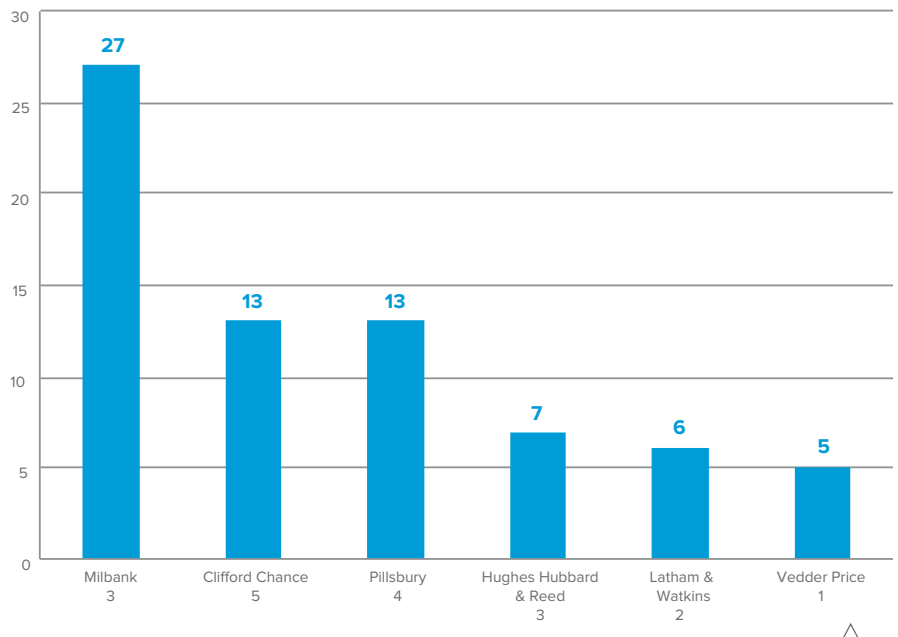
"The EETC market has been slower the last couple of years in large part due to the wide range of financing options available to US carriers, not least in the sale and leaseback market. However, we have seen more interest recently, including with non-US carriers, with transactions sometimes taking the form of private placements," says Pillsbury's Lessard.

The lessor unsecured bond market was healthy in 2018 with an estimated \$14 billion-worth of deals but this fell way short of the \$20 billion recorded the previous year.

The aircraft ABS industry saw heavy issuance growth between 2016 and 2017, from \$4.2 billion to \$6.6 billion. Last year the sector reached an all-time high of \$7.3 billion in new issue volume.

The ABS product continued to improve and the biggest development last year was the introduction of equity offerings pursuant to 144A. That new element was

Deals



Total number of eligible deals

introduced first with the GECAS deal: the tradable E-notes.

Fine says the 144A tradable equity market has given ABS issuers more options from an investor standpoint.

"The 144A equity product permits investors to purchase smaller pieces of equity and ultimately results in more liquidity," he says. "The ABS market has continued red-hot during the first half of 2019."

Clifford Chance was also instrumental in the creation of tradable E-notes in structured aircraft portfolio financings and in the incorporation of Japanese equity investment in these structures.

"The introduction and proliferation of tradable E-notes has resulted in a number

of large fund investors previously familiar with structured aircraft portfolio financings taking "anchor" positions in E-notes," says New York partner Zarrar Sehgal.

It has also created opportunities for a broader group of new equity investors to take smaller positions in these structured transactions.

"The creation of the first structured aircraft portfolio financing with Japanese equity further expanded the market for equity investors outside of the core base of US fund and insurance investors," adds Sehgal. "The increasing number of new investors in the structured aircraft capital markets space could help to keep the cost of capital relatively low and serve to keep that market frothy." ▲

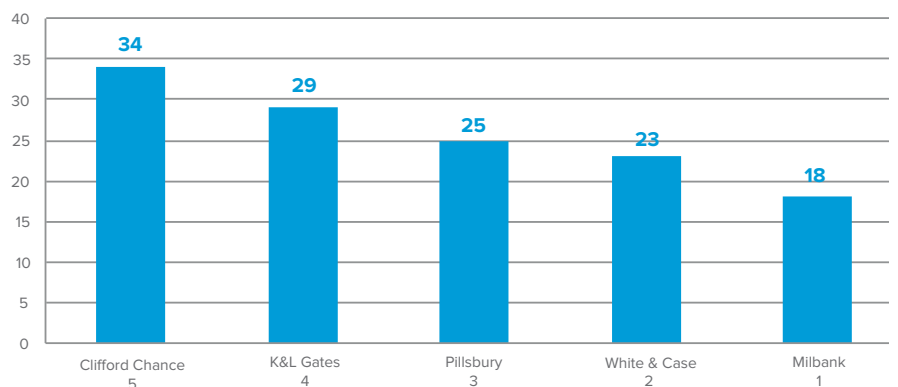
Sales & Purchases

Clifford Chance was the most active law firm in the sale and purchase market in 2018, ahead of K&L Gates and Pillsbury.

"We saw a range of sale and purchase transactions not only between lessors and investors, but also on the airline front," says K&L Gates Charleston & New York partner Amanda Darling.

"There was a significant uptick of direct sales and purchases at the airline level, in particular in relation to vintage aircraft where the airline was operating the aircraft pursuant to a lease," she adds.

Deals



Total number of eligible deals

Export Credit

“Now that US Exim has been restored to its full capacity, market participants are reasonably optimistic about a resurgence of support for Boeing deliveries,” says Milbank New York partner Helfried Schwarz.

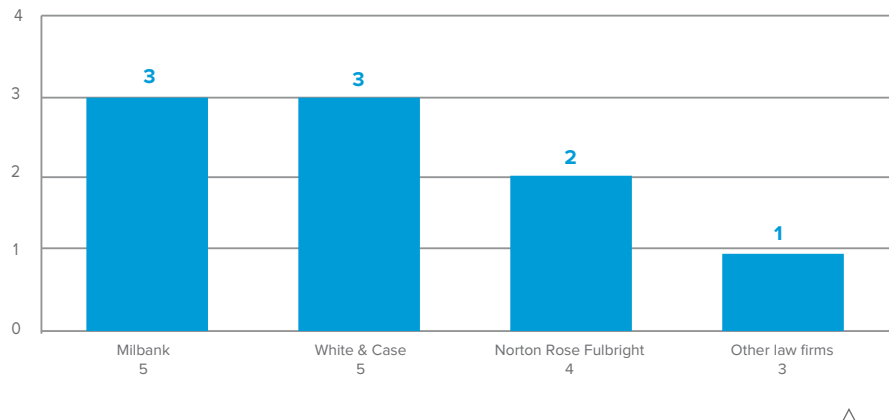
“It remains to be seen what direction the new board will take and the level of support it is willing to provide. This will likely be part of the political discussion in connection with the upcoming reauthorisation of US Exim,” he adds.

Milbank and White & Case were joint winners in the export credit category, which included deals ranging from the A380 model (Emirates) to the ATR42-600 model (Aeromar).

The export credit market was also fairly represented in Africa last year with Rwandair, which refinanced two A330-200 deliveries with KfW IPEX-Bank and Deutsche Pfandbriefbank. The transaction marked the return of Airbus ECA-support.

Solenta also financed two ATR72-600 deliveries in the ECA market with Export Development Canada on the debt side.

Deals



Total number of eligible deals 10

Earlier this year Air Senegal was in the market for two A320neo deliveries.

The Aeromar transaction was innovative because it represented a take-out of manufacturer financing with ECA support for turboprops into Mexico. The transaction is an export credit agency-guaranteed debt that refinanced manufacturer-supported sales of a

batch of relatively new ATR42/72 aircraft.

This deal was particularly complex because it involved the refinancing of sales finance, with ECA-guaranteed financing (Bpifrance/SACE and Export Development Canada) separately supporting different aircraft. It also included commercial debt for aircraft that were all in operation. ▲

Structured Lease

K&L Gates was the clear winner in the structured lease category in 2018 with half of the total's eligible transactions recorded by *Airfinance Journal*.

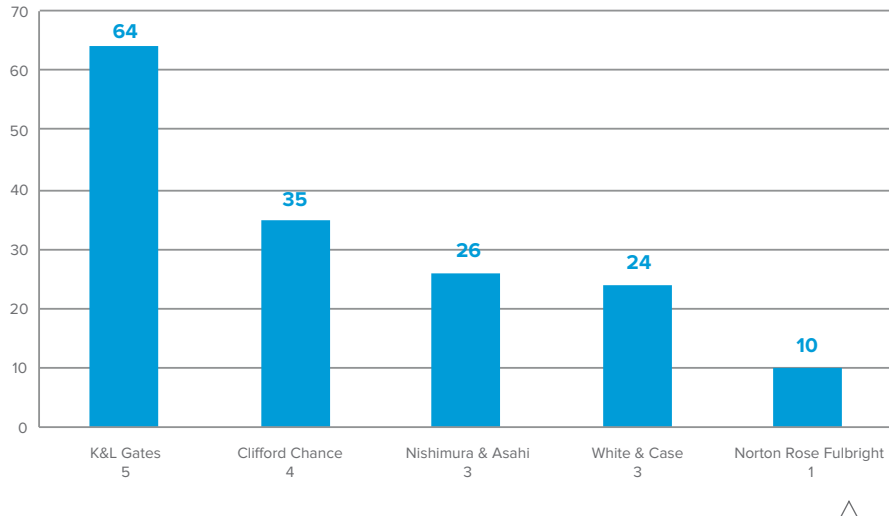
The firm says it has seen consistent interest in the aviation finance sector utilising Jol/Jolco transactions, with some novel transaction structures being used. K&L Gates advised Virgin Australia on its first-ever Jolco financing, for six used 737-800 aircraft.

“This transaction involved two separate sets of lenders with different hot button issues. We were responsible for negotiating the financing and leasing documentation with such lenders simultaneously, which was a logistically challenging undertaking, particularly in light of this being the airline's first-ever Jolco financing,” says Singapore-based partner James Bradley.

The transaction was unique because of a combination of financing complex assets in local Australian dollars (vintage aircraft), using a complex structure to ameliorate any tax burden (ie, the structure was in strict application of the Australian/Japanese tax scheme to mitigate any withholding tax under the Jolco leases) and introducing a new name to the Jolco market.

Bradley says the firm sees more interest and activity across the board in Jolco space in Vietnam. “We recently acted on behalf of VietJet on Jolco transactions financed

Deals



Total number of eligible deals 124

by BNP Paribas and Natixis. These VietJet Jolco financings are a landmark Jolco transaction completed for any Vietnamese company. Moreover, they are indicative that there is an expansion of the Jolco market, and equity arrangers and equity investors are becoming more flexible as to the airline credit,” he says.

K&L Gates also recently advised a major Japanese leasing company and Asset Brok'Air International in a Jolco transaction with ICBC Aviation Leasing for two new A321neo aircraft leased to Vietnam Airlines.

This was ICBC Aviation Leasing's first Jolco financing involving a Vietnamese lessee.

“In 2018, we observed an increased enthusiasm for structured lease transactions and, in particular, we saw new airlines (some in brand-new jurisdictions) availing themselves of the popular Jolco product; initial indications are the proposed change to the Japanese taxation laws are having little-to-no impact on the appetite for Japanese investors to continue their Jolco involvement,” says K&L Gates Tokyo-based partner Bob Melson. ▲



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Commercial Loan

Clifford Chance was the most active law firm in the commercial debt market in 2018, ahead of Milbank and Pillsbury. The firm recorded more than 100 transactions during the year, or more than 25% of the total submissions.

“Whether it be term loan facilities, revolving credit facilities or warehouses, the commercial loan market was very strong in 2018”, says Milbank’s Fine.

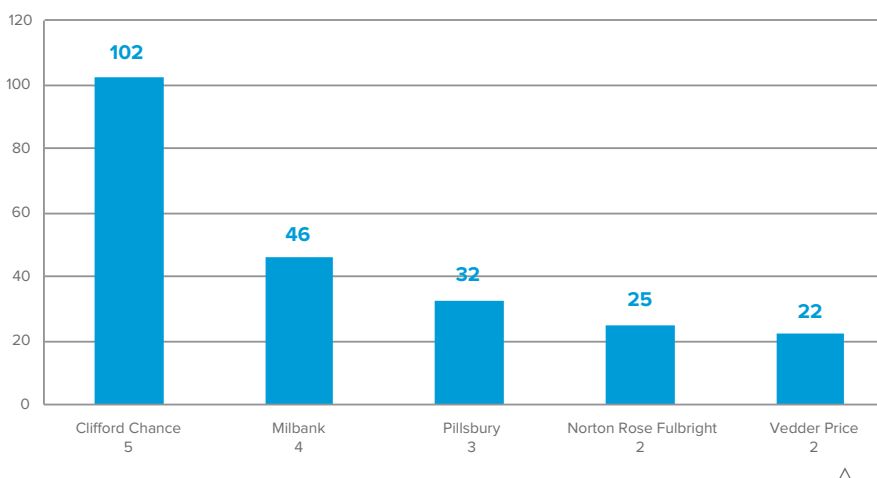
“This includes loans made to aircraft leasing companies and airlines globally. Large term loan facilities and warehouses were made available with the goal of eventually being taken out by ABS. Also, AFIC-supported financings continued at a steady pace with the 50th AFIC insured aircraft being financed,” he adds.

The traditional aviation banks have faced intense competition on airline mortgage debt from the sale and leaseback, Jolco and bond/private placement markets, among others, according to Pillsbury’s Jebely.

“As a result,” he says, “many of them

Deals

Total number of eligible deals **373**



have honed in on lessor portfolio/warehouse financings, which require significantly more expertise to underwrite and syndicate. Notwithstanding, competition among banks and an overall shortage of product to finance (made worse by the 737 Max delays) has kept

margins tight. Continued regulatory tightening hasn’t helped either. Many banks appear to be eagerly awaiting the day when their ability to move quickly and their emphasis of long-term relationships will become more valued again by the market.”

Operating Leases

Operating leases are one of the most popular financing solutions in the market, providing more than 40% of all aircraft deliveries. Last year saw many transactions among leasing companies in the M&A market.

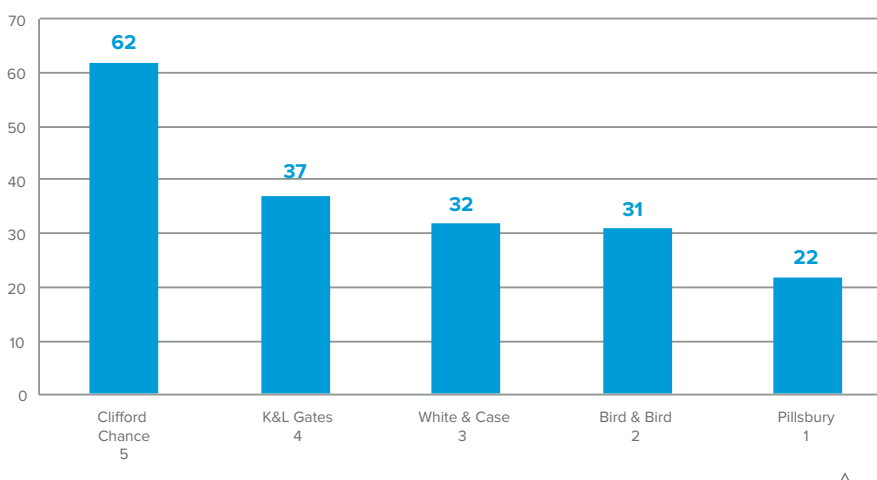
Goshawk Aviation acquired Irish lessor Sky Aviation Leasing International from the Public Sector Pension Investment Board, one of Canada’s largest pension investment managers, and private equity firm ATL Partners in September 2018.

Airfinance Journal reported on 31 May 2018 that Goshawk had been involved in the bidding process, along with Avic International Leasing and Aviation Capital Group. Chinese lessor Avic was originally the frontrunner, but was pipped to the post by Goshawk. The acquisition accelerates Goshawk’s already fast growth trajectory with the addition of 51 young aircraft with long leases.

One of the largest transactions in 2018 involved AirAsia Group. It entered into agreements to dispose of its aircraft leasing operations (Asia Aviation Capital) to entities managed by BBAM for \$1.18 billion. Under the terms of the agreement, Fly Leasing purchased 33 aircraft and seven engines, Incline B Aviation acquired 38 aircraft and seven engines and Nomura Babcock & Brown acquired 13 aircraft. Of the 84-aircraft portfolio, 79 are leased back to

Deals

Total number of eligible deals **584**



AirAsia and its affiliates. Fly and Incline also entered agreements to acquire 48 aircraft ordered by AirAsia, and took an option on a further 50 deliveries.

AirAsia Group also sold a 25-aircraft portfolio from Asia Aviation Capital to entities controlled by Castllake for a reported \$768 million. The most innovative product-related transaction involved the A220-300 type. European carrier AirBaltic mandated a series of sale and leasebacks to the leasing community: Avation and CMB Leasing. The transaction represented the first open

market sale and leasebacks for the type: up to that point the asset was derided by competitors and shunned by investors with just 249 sales accumulated over eight years.

The carrier has since added FPG Amentum as a lessor customer.

Darling of K&L Gates Charleston and New York says: “Within the JOL market we have seen an exponential upsurge of new investors, and a steady increase by well-established and existing investors – the investors are leasing to a significant cross-section of airlines all around the world”

Rising stars

Airfinance Journal recognises seven of the most promising legal associates for 2018.

Angela Atherden Senior associate, Conyers Bermuda



Angela is respected by her peers, is a mentor to junior attorneys and a reliable, hard-working resource to the partners of Conyers.

Julie McLean, director, global head of aviation finance practice, Conyers

Angela Atherden has extensive experience advising banks, airlines and leasing companies on the financing of commercial and private aircraft, aircraft portfolio securitisations, sale and leasebacks, pre-delivery payment (PDP) and warehouse facilities, and has worked on several of the most significant aircraft securitisations and financings in the market.

Her practice covers all aspects of corporate and commercial law, including international asset finance with a focus on aviation finance and debt and equity offerings.

Last year she worked on two large lessor transactions: Avolon's \$4.75 billion term loan repricing at Libor plus 2% with a Libor floor of 0.75% as well as three-year extension to January 2025; and Avolon's \$1 billion 5.125% senior unsecured notes offerings due 2023. Conyers worked

alongside Weil, Gotshal & Manges to provide Bermuda law advice to Avolon Holdings Limited.

Atherden has worked on some of the most significant Bermuda-domiciled aviation asset-backed securitisations (ABS) transactions over the past year, including extensive work on the groundbreaking START Ltd, MAPS 2019-1 Limited and START II Ltd.

She helped the firm provide Cayman Islands legal advice for the listing of the notes issued by START Ltd and the equity certificates issued by START Holding Ltd. This transaction brought a new development into the ABS market last year: the first aircraft ABS transaction to utilise a 144A tradable E-Note.

Atherden was also involved in advising two new issuers in 2018: Merx Aviation and Zephyrus Aviation Capital.

Conyers acted for the issuer, MAPS 2018-1 Limited, for Merx Aviation's inaugural ABS composed of \$506.5 million in three tranches of notes secured on a portfolio of 25 aircraft.

The firm also advised Zephyrus Aviation Capital, alongside Vedder Price and A&L Goodbody, on the new lessor's debut ABS, which financed a portfolio of 21 aircraft acquired from Avolon.

Atherden advised Castlflake in June 2018 on a \$911.3 million ABS transaction, and acted for Air Lease's Thunderbolt II ABS, which launched in July 2018. The \$450 million mid-life aircraft ABS is secured against 18 aircraft. This transaction incorporated a groundbreaking 144A tradable E-note. Thunderbolt II was the first aircraft ABS deal to use a passive foreign investment company tax structure that facilitates offshore ownership and removes tax-related transfer restrictions.

"Angela is respected by her peers, is a mentor to junior attorneys and a reliable, hard-working resource to the partners of Conyers.

She is a highly valued member of our aviation team and we are proud of the high-quality service she provides to clients.

Her work on the ABS matters is evidence that she is able to provide effective advice on large-scale transactions on deals which require a high degree of project management, technical advice and responsiveness," says Julie McLean, director, global head of aviation finance practice, Conyers.

Atherden was promoted from associate to counsel on 1 April, in the Bermuda office

of Conyers, in the aviation team of the corporate department.

Atherden is the co-author of the Bermuda chapter of Aircraft Finance (Sweet & Maxwell) 2018 and 2019 and Chambers Aviation Finance 2019 Guide.

Stephen Gardiner Senior associate, Matheson Dublin



As a qualified pilot with a huge technical knowledge of aircraft, Stephen immediately shows competence to clients.

Chris Quinn, Matheson's aviation finance group

Stephen Gardiner is a senior associate lawyer at Matheson aviation finance and transportation group but his interest and experience in aviation also extends beyond the office.

Gardiner is a qualified private pilot and holds a private pilot licence issued by the Irish Aviation Authority.

He is also a tutor and lecturer on the Law Society of Ireland's Diploma in Aviation Leasing and Finance, and Certificate in Aviation Leasing and Finance courses.

Gardiner has gained considerable experience in advising aircraft owners, airlines, aircraft leasing companies and international financial institutions on all aspects of the financing and leasing of aircraft, aircraft engines, machinery and helicopters.

He has developed a wide-ranging practice and regularly advises on the structuring of aircraft financing and leasing transactions, as well as on aircraft sales, acquisitions and repossessions.

Gardiner acts for a number of international aircraft financiers, lessors and airlines, and has recently advised on aircraft portfolio trading, sale and leaseback transactions, export credit agency financings, enhanced equipment trust certificate (EETC) transactions, Japanese operating lease with call options (Jolco) and AFIC financings, among others.

He has significant experience in advising clients on the applicability of the Cape Town Convention and Aircraft Protocol, including the more practical aspects, such as setting up transacting user entities on the International Registry and carrying out registrations and discharges.

He regularly advises on the establishment of orphan and special purpose vehicle aircraft financing and leasing structures, as well as the establishment of aircraft leasing and trading platforms. He also advises international airlines and Irish aircraft-leasing platform on operating leasing and aircraft financing arrangements.

Recent highlights includes acting for an international bank on the provision of a secured bridge credit facility of up to \$600 million to an affiliate of a major international aircraft lessor, which was secured over a fleet of 11 commercial aircraft. Gardiner also advised an international airline on a PDP financing facility and long-term sale and leaseback of 25 new aircraft with three different lessors.

He has also acted for a large international lessor and its Irish leasing platform on all matters of Irish law relating to the sale of 16 commercial aircraft with a total value of about \$900 million.

Chris Quinn of Matheson's aviation finance group says: "Stephen is an extremely capable and very experienced lawyer. As a qualified pilot with a huge technical knowledge of aircraft, Stephen immediately demonstrates competence to clients, which instils both confidence and trust in clients and which has generated multiple and repeat instructions from those clients."

Chris Knight Senior associate, Pillsbury London

Chris Knight is a talented and ambitious lawyer who plays an essential role in some of the most complex transactions undertaken by Pillsbury's aircraft finance and leasing practice in London. He is consistently praised by clients and counterparties for his technical skills,



In 2016 he undertook a six-month secondment at Emirates Airline during what was an exceptionally busy period for Emirates Legal.

strong aviation industry knowledge and commitment to client service.

Knight's practice focuses on acting for funds, banks, lessors, airlines and export credit agencies on a wide range of high-value, cross-border aircraft and engine finance transactions.

His extensive transactional experience spans loan/mortgage transactions, PDP financings, export credit agency-supported deals, sale and leasebacks, finance and operating leases, novations, Jolcos, original equipment manufacturer purchase agreements and engine maintenance and support agreements.

In 2016 he undertook a six-month secondment at Emirates Airline in Dubai during what was an exceptionally busy period for Emirates Legal. While at

Emirates, Knight worked alongside the finance, engineering and insurance teams in advising on multiple Airbus A380 and Boeing 777-300ER deliveries, as well as a range of redeliveries and other ad hoc matters.

He is a frequent participant at industry events, and has recently had an article published on the potentially revolutionary nature of predictive maintenance and blockchain in the aircraft finance sphere.

Knight's increasing level of seniority frequently has him leading transactions. His deal portfolio includes:

- acting for major financial institutions in Japan and Bahrain on the secured financing for the purchase by a large Middle Eastern operator of several 737-900 aircraft;
- representing a large international bank on the PDP financing of multiple 737-800 and 787-9 aircraft to household name operators based in the UK and Norway;
- assisting a significant African lender on its financing of a lessor purchase of a number of 777-200ER aircraft;
- advising an export credit agency on the financing of seven Bombardier Q400s and, separately, on the assumption by an incoming lessor of various aircraft loans;
- leading a refinancing of three 777-300ERs involving multiple jurisdictions and an Islamic financing element;
- advising Oaktree and Worldstar Aviation on a 21-portfolio ABS-backed aircraft purchase from Investec, as well as, separately, on ongoing warehouse facility-related matters;
- working on various A350-900 Jolco transactions for a national flag carrier, structured with senior and junior debt from major international financial institutions and utilising differing sources of Japanese equity;
- representing numerous major lessors, including Macquarie, Jackson Square Aviation, Accipiter and Vermillion on a vast array of aircraft trades, involving the purchase, sale and novation of various Airbus and Boeing aircraft; and
- acting for Emirates on all aspects of a range of new A380 and 777 aircraft deliveries over many years.

Jaesuk (Jay) Yoo Senior associate, Debevoise & Plimpton New York

New York-based Jay Yoo has been a longstanding member of the Debevoise & Plimpton aviation finance practice and has developed into a valued member of the team. He joined the firm from Columbia Law School.



Yoo has a knowledge base about aircraft “metal” issues and aircraft-related equipment (from an operator perspective) that is “second to none”. His deep understanding of how aircraft operations, maintenance and refurbishment work in the real world, together with his legal expertise and mastery of structures and documentation, make him a “peerless practitioner” among other aviation finance attorneys of his class year. “It’s clear to our airline clients that Jay is on another level in terms of legal and aviation knowledge when compared to his deal counterparts”, says Debevoise & Plimpton.

“It’s clear to our airline clients that Jay is on another level in terms of legal and aviation knowledge when compared to his deal counterparts.”

Debevoise & Plimpton

Yoo has extensive experience working with the firm’s airline clients and has mastered the transaction structures they use (and depend on) for their financing needs.

His work on American Airlines, Spirit Airlines and JetBlue Airways matters over the past year alone has included leading roles in:

- public offerings by Spirit and Delta of EETCs, including follow-on offerings of junior classes of certificates;
- work on the commitment and backstop financing aspects of American’s landmark order of 787 aircraft in 2018;
- very large and complex cross-border sale and leasebacks and Japanese operating leases for American opposite Japanese-based equity investors such as ORIX Aviation and BBAM; and
- mortgage financing programmes for Spirit and JetBlue.

Yoo’s expertise includes other types of financing structures that are extremely important to airlines, such as:

- export credit agency-backed facilities (BNDES and EDC);
- manufacturer PDP financings;
- Jolcos; and
- secured corporate revolvers and term loans.

Hetty Lam
Senior associate, Clifford Chance
Hong Kong



“Her deep involvement in Chinese aviation deals provides both international and mainland clients a unique and comprehensive perspective in this very significant market.”

Lam has experience in asset finance and general financing and specialises in cross-border leasing and financing transactions within the aviation sector. She has advised clients on a wide range of transaction types, including operating and finance leases, commercial debt financing on limited or full recourse basis, portfolio asset sales and novations, tax leasing and aviation joint ventures and share sales.

Her deal portfolio includes many joint-venture transactions for lessors in China.

She has acted as a lead associate for MCAP on its joint venture with Cheung Kong Holdings and the related sale and novation of a portfolio of aircraft.

Lam also advised Sichuan Development International on its joint venture with Standard Chartered Bank/Pembroke and the related sale, novation and financing of a portfolio of aircraft, as well as Avolon on its joint venture with Cinda Leasing (HK) and the related sale and novation of a portfolio of aircraft.

Lam also assisted CDB Aviation on its portfolio sales to various People’s Republic of China (PRC) leasing companies (including AVIC, Cinda, Zhongyuan and Tibet Financial Leasing).

She also provided assistance to various international lessors on their first operating lease structures to PRC airlines through PRC free-trade zone intermediate lessors.

Her other Chinese lessor clients include: BoComm Leasing in relation to defaults, insolvencies and repossessions of certain Air Berlin aircraft; Ping An Leasing for the sale and leaseback of two A321s to VietJet; and CMB Leasing for its finance lease of two 777 aircraft to Turkish Airlines.

She has also assisted GECAS with its portfolio sale of 22 aircraft to Cheung Kong Holdings, which was *Airfinance Journal’s* APAC Deal of the Year 2015, as well as other GECAS portfolio sales to various other lessors (including Aviation Capital Group, ALAFCO, Avolon, BoComm Leasing, CCB Leasing, CDB Leasing, Fuyo, Merx, ORIX Aviation and Pembroke).

William Glaister, Clifford Chance’s global head of asset finance, says: “Hetty has been the lead associate on many of the most significant recent deals in Greater China as well as covering a very broad range of transactions in this market, including leasing and trading, financing, M&A and joint ventures and distress and default-related work.

Her deep involvement in Chinese aviation deals provides both international and mainland clients a unique and comprehensive perspective in this very significant market.”

Fabio Miceli
Senior associate, Holland & Knight
London

Fabio Miceli is described as a true “up and comer” in the aviation finance industry. He is a senior level associate in the London office of Holland & Knight and plays a crucial role in the firm’s globally renowned aviation finance practice.



Fabio is the consummate deal leader, with a great knack for bringing order to multi-party transactions and finding workable solutions for complex issues.

William Piels, transportation finance practice group leader, Holland & Knight

Immediately after graduating from the University of Pretoria, he joined the firm which would become Norton Rose Fulbright (South Africa). Soon after, Miceli joined the banking and finance team and aviation finance sub-team, and advised various aviation clients, including airlines, such as South African Express Airways, on their aircraft acquisitions, aircraft trade deals and lease extensions. The latter included *The Banker's* 2012 Structured Finance Deal of the Year – Africa.

Miceli was also part of the Norton Rose Fulbright team that launched and hosted the African Aviation School, attended by various key industry players such as banks, lessors, manufacturers and insurers.

After more than six years at Norton Rose Fulbright, he joined Freshfields Bruckhaus Deringer, where he was a key associate on their transportation finance team. After about nine months at Freshfields,

Miceli joined Holland & Knight in February 2017. He advises on a wide variety of general finance, asset and structured transactions, particularly aircraft acquisition, trading and leasing.

Robert Ricketts, London chair of Holland & Knight's transportation finance practice, says "Fabio is an invaluable member of the team and has tremendous interpersonal skills and an excellent commercial understanding to get the deal done."

Typical transactions include operating leases, purchase and sale transactions, pre-delivery payment financing, secured aircraft and engine lending transactions, cross-border financings, corporate jet financings, warehouse loan facility financings, new aircraft deliveries and restructurings.

Miceli undertook a nine-month secondment with the London and Shannon, Ireland, offices of GECAS between May 2018 and January 2019. He advised on a range of aviation matters, including, primarily, sale and novation transactions, as well as leasing transactions, acquisitions, general terms agreements with maintenance, repair and overhaul providers, compliance matters, tax queries and due diligence exercises.

William Piels, Holland & Knight's transportation finance practice group leader, says: "Fabio possesses a tremendous depth of industry and jurisdictional knowledge that is broadly appreciated by our clients. He is the consummate deal leader, with a great knack for bringing order to multiparty transactions and finding workable solutions for complex issues."

Donal Keane Senior associate, Allen & Overy London

Donal Keane is a senior associate in the structured and asset finance group of Allen & Overy. He has experience advising across the entire spectrum of aviation transactions on both borrower and lender side, having advised lessors, banks, funds and airlines.

Keane has advised on debt and bond issue transactions and has particular experience in acting for purchasers of large asset portfolios. He is currently advising a European lessor on its acquisition and financing of a major portfolio of regional aircraft. Keane regularly advises a number of fund clients on aircraft financings and has experience acting for clients on both restructurings and aircraft repossessions. He works closely with Fuse, Allen & Overy's in-house innovation space, to deploy successfully legal technology on transactions in order to enhance efficiency and effectiveness.

Keane has completed two secondments with lessor and asset management clients in Dublin, allowing him to gain valuable insight into clients' businesses and their needs.

Harry Upcott, aviation partner, says:



Donal is recognised for his solutions-orientated approach and his wide-ranging aviation sector experience, particularly with regard to matters involving operating lessors, including portfolio sales, warehouse financings and leasing transactions.

Harry Upcott, aviation partner

"Donal is recognised for his solutions-orientated approach and his wide-ranging aviation sector experience, particularly with regard to matters involving operating lessors, including portfolio sales, warehouse financings and leasing transactions."

Keane's experience list includes many lessor entities: Minsheng on the purchasing of two 737 aircraft from the manufacturer to be leased to Easter Jet; PK AirFinance on operating lessor financing to AWAS and FPG Amentum, which incorporated US trust structures.

He also advised GECAS on the operating leasing of aircraft to various airlines; Dubai Aerospace on the acquisition and financing of a portfolio of ATR aircraft using an ijara lease structure; and a major operating lessor on the acquisition and financing aspects of the purchasing of an entire regional aircraft fleet, totalling 49 aircraft. ▲

An introduction to the **Global Aircraft Trading System (GATS)**

David Berkery, Partner, A&L Goodbody

The Aviation Working Group (AWG) is a not-for-profit legal entity comprising aviation industry players who collaborate to advance the international aviation financing and leasing. In spring 2019, AWG announced that it had contracted with technology solutions company Fexco to build, support and operate the the Global Aircraft Trading System (GATS) platform. AWG also published drafts of the standard form documents underpinning the system to allow industry participants to familiarise themselves with their terms before GATS officially goes live in the spring of 2020.

Modernising aircraft equipment trading and financing

The trading and financing of aircraft equipment subject to leases is an increasingly important part of the aviation industry. In recent years, as the number of such trades has significantly increased, inefficiencies have developed. That has resulted in wasted time and resources for airlines, lessors and financiers alike.

The main purposes of GATS are to facilitate the trading and financing of aircraft equipment by reducing the burdens on all players. It also promotes aircraft equipment trading and financing in an efficient, secure and predictable manner which protects the rights of all parties involved including and especially the relevant lessee's rights under the applicable aircraft lease agreement.

Through GATS users are permitted to create, transfer and secure interests in aircraft equipment without disturbing the existing leasing arrangements or having an impact on the contractual rights or protections of the parties to the lease agreement relating to such aircraft equipment.

There are multiple parties involved when aircraft equipment subject to a lease is traded. For example, the seller, the buyer, the lessee leasing the aircraft equipment, any lender providing financing to the seller prior to the trade and any lender proposing to provide financing to the buyer to make the trade.

Each of these interested parties can use GATS for different purposes. The participants with the most direct

involvement in the system are the owners and secured financiers of aircraft equipment. These participants are permitted to use GATS to create, transfer and secure interests in aircraft equipment. Participation in and use of GATS to effect and record transfers is entirely voluntary.

How GATS will work

GATS builds on the practice of holding aircraft equipment in trusts, with bare legal title to the aircraft equipment being held by a professional trustee on behalf of a beneficiary bearing the economic risks and benefits of ownership of the aircraft equipment.

A common law trust is an equitable obligation that creates a fiduciary relationship in which one party, the owner trustee, agrees to hold title to assets for the benefit of another party, the beneficiary. The owner trustee is the bare legal owner of the assets on trust for the beneficiary.

This practice is well established and widely adopted for aircraft equipment ownership in the United States. It has been used in Ireland and elsewhere. GATS will expand this practice globally.

One of the principal benefits of holding aircraft equipment in a trust is that the economic and beneficial ownership of that aircraft equipment can be transferred from one party to another without having an impact on the contractual rights, remedies and protections agreed in the relevant lease agreement. The professional trustee is the lessor of record both before and after the transfer so there should be no need to novate or assign the lease agreement as a result of a beneficial interest transfer.

To further and substantially increase efficiency, GATS features standard forms of transfer documents executed electronically through the GATS platform. A GATS user will be prompted to provide factual information for example, details of a transferor and transferee. These will be automatically populated into the final form GATS documents to be executed and delivered electronically through the GATS portal so that the transfer is completed 100% electronically.

Details of ownership and security interests created through GATS and the



The main purposes of GATS are to facilitate the trading and financing of aircraft equipment by reducing the burdens on all players.

David Berkery, Partner, A&L Goodbody

aircraft equipment held in a GATS trust will be recorded in an electronic ledger, using secure technology, searchable by any user of the system. The GATS electronic ledger is immediately updated following each transfer to ensure that an accurate, live record of ownership of each piece of aircraft equipment in the system is maintained.

Reduces the burdens on and time required by lessees, lessors and financiers

After a GATS trust has been created, the beneficiary shall be permitted to transfer the beneficial interest to another party, subject to any conditions to a transfer of interests in the aircraft equipment set out in the relevant aircraft lease agreement. The trust remains intact and the contractual terms of the agreements (including lease documents) entered into by the owner trustee of that trust are unaffected by the beneficial interest transfer.

Lessees that wish to have advance conditions to transfer (advance

requirements) populated in the GATS system would require such in their lease terms and would utilise the electronic system to confirm the satisfaction (or waiver) of those requirements.

Protection of rights of lessees

The rights of a lessee of aircraft equipment held in a GATS trust are protected in two ways:

1. GATS enables both a transfer of the beneficial interest in a GATS trust and the creation of a security interest in a GATS trust to take effect without changing the contractual provisions of the lease agreement, fully respecting and reinforcing the ‘no increased obligations’ protections of the lessee.
2. Any agreed requirements in the lease to be met prior to a transfer of an interest in the aircraft equipment held in a GATS trust can be added to the GATS platform (in an encrypted format) as ‘advance requirements’. The GATS platform will not permit the beneficial interest in such GATS trust to be transferred (or subjected to a security interest) unless each of the agreed advance requirements has been marked as satisfied on the system by the lessee. This strengthens the position of lessees compared to current practice, where a lessee would only have an after-the-fact contractual claim in connection with a disputed transfer.

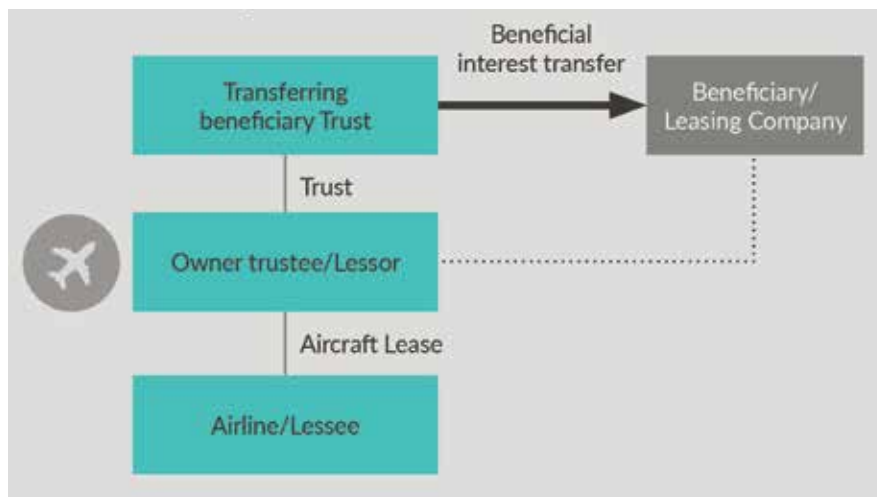
Granting security interest through GATS

In addition to a standard mortgage over the relevant aircraft equipment and a security assignment of the relevant lease agreement, a secured lender advancing funds against aircraft equipment owned by a GATS trust will also be permitted to take security over the beneficial interest in the GATS trust.

From the perspective of a lessee, any agreed conditions (advance requirements) which must be met in order to grant security over the beneficial interest in the GATS trust can be enshrined on the GATS platform as pre-conditions to the system allowing the grant of the security interest to be completed through GATS.

If the beneficiary defaults on its secured financing, and the secured party is entitled to enforce its security, the secured party will be permitted to transfer the beneficial interest in the GATS trust to itself or to a third party. Any such transfer would be subject to the same terms, conditions and restrictions as are agreed with the lessee in respect of a regular beneficial interest transfer.

Transfers through GATS



Interaction of GATS with the Cape Town Convention

While there is no legal relationship between GATS and the Cape Town Convention (CTC), the two are complementary. CTC, an international treaty, deals with the creation and effects, including in insolvency, of ‘international interests’ in and sales of aircraft and engines. CTC contemplates registration with the International Registry relating to transactions within its scope.

GATS does not deal with direct interests in aircraft and engines as it is based on beneficial interests in trusts over aircraft and engines. No registrations in the CTC International Registry are to be made in connection with transfers of or security over GATS beneficial interests. However, the lease from a GATS trust to an airline, an absolute or security assignment of that lease, and any mortgage over the aircraft or engines held in the GATS trust remain subject to CTC, and, without limitation, should be the subject of CTC registrations.

GATS jurisdictions

GATS is a global system with the GATS platform accessible worldwide. Initially, each GATS trust will be formed in one of Ireland, Singapore or the United States. The laws of each applicable jurisdiction will govern the instruments used to create, transfer and grant security interests in such GATS trusts. AWG may expand the list of available jurisdictions over time. This initial trust-jurisdiction limitation does not limit the use of GATS in transactions to airlines worldwide, provided that trusts are recognised in an airline’s jurisdiction. Building on the requirement in the CTC to recognise trusts, AWG is working to

advance global recognition of trusts in the GATS context.

Tax implications

A GATS objective is to have the GATS trust treated as a transparent entity (a pass-through) for tax purposes, i.e. for the tax authority to look through the trust to the beneficiary. The standard forms of trust instrument contain features designed to support the treatment of the trust as transparent for tax purposes in Ireland, Singapore or the United States (as appropriate).

A beneficiary tax resident in the US, Ireland or Singapore should be entitled to claim tax depreciation on the consideration incurred for the acquisition of the beneficial interest in the aircraft held in a GATS trust considered transparent for tax purposes.

In general, the transfer of a beneficial interest in a GATS trust should be within the scope of transfer taxes.

Tax treatment of a GATS trust and each GATS transaction will depend on the pertinent facts and circumstances and the tax legislation in each jurisdiction. Specific tax advice should be sought in each case.

Outlook

The legal theory behind GATS is sound. The need to modernise current novation practices is clear and the move toward electronic transaction management is inevitable. Changes to long-accepted practices will not happen overnight but the aircraft leasing companies and financiers who are embracing GATS and taking steps already to get themselves ‘GATS-ready’ are likely to benefit the most from the efficiencies created by the system. ▲

For further information, please contact David Berkery, Partner, AI&L Goodbody, Tel +353 1 649 2885 E: dberkery@algoodbody.com

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EXPECT EXCELLENCE

With Arthur Cox, you can expect a leading Irish law firm with a global outlook. Arthur Cox has market-leading knowledge and experience in aviation leasing and finance with extensive experience in offering advice to a multitude of international aircraft lessors, lenders, airlines, investors and insurers. You can expect a total commitment to your business from Arthur Cox – a genuine partnership that gives you the confidence to move forward and embrace new opportunities. With Arthur Cox, you can always expect excellence.

L-R: Laura Cunningham, Caroline Devlin and Rob Murphy.

To learn more, contact:

**Caroline Devlin,
Co-Chair Aviation Group**

+353 1 920 1224
caroline.devlin@arthurcox.com

**Rob Murphy,
Co-Chair Aviation Group**

+353 1 920 2044
rob.murphy@arthurcox.com

**Laura Cunningham,
Partner**

+353 1 920 2045
laura.cunningham@arthurcox.com

www.arthurcox.com

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