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Technology comes to the fore

No air show, no problem as the new aircraft announcements just keep coming, writes Olivier Bonnassies.

June is traditionally marked by technology and commercial announcements at the annual air show with aircraft and engine manufacturers briefing the aviation community about their latest developments and future vision.

And although this year's Paris air show was cancelled, this has not prevented a surge of technology announcements.

First, on 3 June, United Airlines announced plans to buy 15 new supersonic aircraft and "return supersonic speeds to aviation" in 2029.

Supersonic passenger flights ended in 2003 when Air France and British Airways retired Concorde, their flagship aircraft which entered passenger service in 1976. The new Overture aircraft will be produced by a Denver-based company, Boom, which has yet to flight-test a supersonic jet.

The deal with United comes less than a month since the failure of Aerion Corporation, which had built up $11 billion in orders for a planned supersonic business aircraft but announced in late May that it could not secure adequate funding to continue the programme.

Boom's Overture orderbook, including purchases and options, stands at 70 aircraft, with Japan Airlines and Virgin Group placing preorders for the aircraft.

Overture is expected to be the first large commercial aircraft to use net-zero carbon emissions from launch, optimised to run fully using sustainable aviation fuel (SAF).

Capable of operating at Mach 1.7, the 65- to 88-seat aircraft is expected to cut travel time between more than 500 destinations nearly in half compared with current-generation models.

The programme is slated to start rolling out in 2025, with test flights in 2026.

"United continues on its trajectory to build a more innovative, sustainable airline, and today's advancements in technology are making it more viable for that to include supersonic planes," says United's chief executive officer, Scott Kirby.

eVTOL

Then a week later, Vertical Aerospace came to light (the company had been in existence since 2016) with a massive announcement for electric vertical take-off and landing (eVTOL) aircraft, VA-X4, the five-passenger urban air mobility aircraft.

Avolon will join Microsoft, Rolls-Royce, Honeywell, and American Airlines as equity investors in Vertical, working with Virgin Atlantic, a VA-X4 launch airline customer in Europe.

United had already announced that it was investing in urban air mobility start-up Archer with a $1 billion order for up to 200 aircraft as part of an effort to change how people commute within major metropolitan cities.

In an exclusive interview with *Airfinance Journal*, Avolon's chief executive officer, Domhnal Slattery, said this project was a "continuation of a strategic journey" toward net-zero emissions for the aviation industry.

"This is just the beginning of a multidecade evolution in green travel, and I am taking a 50-year vision, and this is step one," he says.

Slattery believes these aircraft types will begin to reshape regional and short-haul air travel, particularly in regions such as Europe, where the average stage length is less than 300 miles.

There are challenges to incorporating this new technology in cities around the world. Infrastructure investment will be needed to support eVTOL operations, particularly around busy airport control zones.

Supersonic passenger travel may have different challenges such as noise, pollution and fuel consumption.

New (conventional) aircraft in 2035?

Airbus and Boeing are not in a hurry to launch new programmes after amassing orders for their A320neo and 737 Max families over the past decade. Recall that these programmes were announced as improvements to their existing successful families.

The ball has passed to the engine original equipment manufacturers.

GE Aviation and Safran, which have renewed their CFM International partnership until 2050, have launched a technology development programme called CFM RISE (Revolutionary Innovation for Sustainable Engines).

RISE will combine both manufacturers' single open rotor concepts. The RISE engines will be developed in hydrogen burning, jet fuel and sustainable aviation fuel versions.

The new programme, which targets more than 20% lower fuel consumption and CO2 emissions compared with today's engines, will be ready for prime time by the mid-2030s.

It will be interesting to see how Airbus and Boeing respond to this timeline. No doubt the 200- to 300-seat market will be revisited soon.

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Airbus names new head of leasing

Airbus has appointed Sinead Cormican as its new head of leasing customers, replacing Isabelle Floret.

Cormican has been the head of pricing and customisation Airbus since May 2017.

She joined the European manufacturer in 2012 after more than 10 years in the leasing industry.

Cormican was the vice-president trading at AWAS for a short spell. Before that, she spent almost nine years at Aercap as vice-president portfolio management and trading.

She also spent three years at PricewaterhouseCoopers as an audit supervisor.

Floret had been Airbus's head of leasing since 2015. *Airfinance Journal* understands she left the company after almost 25 years' service.

Ex-Flybe chief to head up TAP Air Portugal

The Portuguese government has selected former Flybe chief executive officer (CEO) Christine Ourmieres-Widener as the new CEO of TAP Air Portugal for a three-year term.

The appointment was officially confirmed during the airline's annual general meeting on 24 June.

She will succeed Ramiro Sequeira, who was chosen to head up the airline in an interim capacity last September. Before leaving Flybe in summer 2019, Ourmières-Widener served as CEO of Irish-charter airline Cityjet after its takeover by Air France in early 2017.


Christine Ourmières-Widener

While at Flybe she pushed a fleet restructuring and oversaw the sale of the airline to the Connect Airways consortium, backed by Virgin Atlantic and Stobart Group along with Cyrus Capital.

João Weber Gameiro was selected as chief financial officer during the AGM.

Gameiro previously worked as the head of investment banking at BBVA Portugal and has held various management roles in M&A and corporate relations at Credit Agricole-CIB and Santander.

Ourmières-Widener's nomination comes as TAP's financial struggles continued in the first quarter of 2021 because of the Covid-19 pandemic.

Its operating loss widened to €228 million ($272 million) from a €155 million loss in the same quarter last year.

The airline posted a 74% year-on-year decrease in operating revenue to €150 million, as the country experienced an increase in Covid-19 cases and new travel restrictions during the period.

TAP's cash position stood at €237.6 million as of 31 March 2021, including the loan received from the Portuguese state in 2020. The government has increased its stake in the airline to 72.5% to support the carrier during the pandemic.

Net financial debt grew to €2.4 billion, compared with €2 billion at the end of December.

Citi banker joins Vmo Aircraft Leasing

Vmo Aircraft Leasing appointed Meghan O'Connor on 15 June to the newly created role of senior vice-president and head of capital markets. O'Connor will oversee corporate finance transactions and capital markets activities for the San Francisco-based aircraft leasing company.

O'Connor, who joins Vmo from Citi where she was managing director in the industrials corporate and investment banking group, brings an impressive track record of conducting transactions for transportation clients across the airline, aircraft leasing and shipping sectors.

"Meghan's tremendous talent and capital markets expertise will pave the way for the continued deepening of our relationships with existing corporate and investing partners while spearheading initiatives to expand Vmo's capital markets presence, progress portfolio diversification, and advance environmental, social and governance-related efforts," says Sean Sullivan, Vmo Aircraft Leasing chief commercial officer.

During nearly a decade and a half at Citi, working from both the New York and London offices, O'Connor coordinated the execution of structured debt financing transactions for aviation clients, including public bond and loan issuances for US airlines and aircraft lessors.

Jetblue appoints Kopylov as VP strategic sourcing and fleet


Dmitry Kopylov

Jetblue Airways has named Dmitry Kopylov as vice-president, strategic sourcing and fleet.

Kopylov has been with Jetblue since 2017 as the airline's director, strategic sourcing. He will lead all sourcing and fleet management, including initiatives to source and optimise aircraft engines and any additions of next-generation technologies. In addition, Kopylov will lead the sourcing of all products and services for Jetblue.

"Since joining Jetblue in 2017, Dmitry has proven to be a true ambassador of our culture and values, and we are happy Dmitry is taking on this role," says Ursula Hurley, Jetblue's acting chief financial officer.

She adds: "Dmitry has made great strides in his role as our director, strategic sourcing, as he and the team have played an integral role collaborating with teams across Jetblue to achieve our structural cost savings. We are looking forward to him bringing that same expertise at an important time in our fleet's evolution."

Kopylov will use his experience and skill to identify and allocate resources across technical, commercial and operating groups both within Jetblue and with aircraft manufacturers and other business partners while achieving optimal value and efficiency.

ABS pricings reach new levels

The capital markets are booming again as aviation starts its rebound from Covid.

Asset-backed securitisation (ABS) issuers are benefiting from capital markets again as they fund growth plans at a low cost of borrowing.

June saw the closing off three ABS issuances that reached record coupons and yields.

SLAM 2021-1, the ABS transaction by sponsor Sky Leasing and its affiliates, priced on 26 May at a 2.43% coupon on the senior tranche. The tranche achieved a 2.447% yield.

Guidance was MS+160-170 basis points (bps). The tranche was sold at a 99.99674 issue price. The transaction represented the lowest-ever coupon across all aircraft ABS.

The $592.43 million senior tranche has a 67% loan-to-value (LTV).

The $70.34 million B tranche, which has a 75% LTV, priced at a 3.42% coupon and a yield of 3.447%. Guidance was MS+285-300bps. The tranche was sold at a 99.99729 issue price.

Airfinance Journal understands that the final subscription on the A class was 1.9x but reached over 4x in orders at one stage. Orders for the B class reached 9.05x in subscriptions.

Keith Allman, managing director, MUFG Securities Americas Securitised Products, tells *Airfinance Journal* that SLAM 2021-1 was one of the tightest spreads of any modern commercial aircraft ABS transaction on both tranches.

"The deal is a unique combination of very strong assets, well-written leases and a top-tier servicer," he says.

In SLAM 2021-1, the pool of aircraft has a weighted average age of 1.6 years. This represents the youngest weighted average age for an aviation ABS transaction.

The weighted average remaining term of the initial leases was about 11.1 years, extending well beyond the seven-year anticipated repayment date (ARD) and representing the longest weighted average lease term among previous transactions.

Allman adds that Sky Leasing is an "excellent servicer" with experience in the ABS market.

The lessor originated and serviced SJET-2017, which was later sold to Goshawk.

"The portfolio is the youngest ever done, and there has never been a pool of aircraft of that quality in an ABS," he adds.

MAPS 2021-1

A few days later, funds managed by affiliates of Apollo Global Management and Merx Aviation closed the issuance of $540.12 million of secured notes by MAPS 2021-1 Trust.

The offering consisted of three series of notes: $417.65 million class-A with an interest rate of 2.521%; $72.23 million class-B with an interest rate of 3.425%; and $50.24 million class-C with an interest rate of 5.437%.

MAPS, which is the third aircraft securitisation serviced by Merx Aviation after MAPS 2018-1 and MAPS 2019-1, priced at the tightest-ever all-in yield for a three-tranche syndicated aircraft portfolio ABS.

The high-quality and diverse portfolio backing MAPS consists of 18 narrowbody aircraft and two freighters, with a weighted average age of 5.8 years overall and 4.3 years excluding freighters, and weighted average lease term of 8.4 years.

"Blackbird Capital II achieved a 2.44% coupon on its $745 million ABS senior tranche that features a 63.7% initial loan-to-value (LTV) ratio on 22 June.

Early data indicates that guidance was 160-170 basis points (bps) on the A tranche with a spread at 150 bps over Treasury. The $115 million B tranche, which has a 75.3% LTV, priced at 3.45%. The yield is 3.47%. The spread was 250 bps over Treasury.

As of 31 May, the initial portfolio had an initial weighted average age of approximately 2.9 years, the second youngest weighted average age for an aviation ABS transaction ever rated by KBRA. The portfolio had a weighted average remaining lease term of 8.3 years, extending beyond the seven-year ARD and the secondlongest weighted average lease term among any previous KBRA-rated aircraft transactions."

Lessors are diving into capital markets again after the January frenzy.

SMBC Aviation Capital, via SMBC Aviation Capital Finance DAC, closed a seven-year $500 million issuance at a 2.3% coupon. The bond placement – priced at 110bps over US Treasury – represented the lowest credit spread achieved in a bond issuance by SMBC Aviation Capital. Investor orders reached $3.9 billion, according to early data, indicating that the transaction was oversubscribed 5.8 times.

Dubai Aerospace Enterprise closed a $1 billion unsecured notes issuance via its affiliate DAE Funding in June. The 144A Regulation S, three-year fixed-rate senior unsecured issuance carries a 1.55% coupon. Investor orders reached $3.7 billion, according to early data.

Airfinance Journal's Deal Tracker recorded 22 lessor issuances in the bond market between 1 January and 23 June.

About $13.7 billion was raised and the average issuance is $622 million.

The average tenor is about 4.75 years, while the blended rate is 2.15%.

The macro environment has improved since the beginning of this year with vaccine deployment key to a return to a more normal environment.

One source points to the normalisation of the short-haul segment of the market, particularly for the US domestic and certain other domestic markets.

There are still some dark zones, notably South-East Asia, but overall there is improvement and a demonstration of a strong rebound.

The weeks and months ahead will also see more reopenings of some internal routes in some parts of the world.

The source also says that rating agencies have recently revised their outlook to positive for airlines and stable for lessors.

"Capital market investors have integrated all this and consider the risk reward as attractive," says the source. "The only caveat is the quality of the issuer accessing this market and for ABS the quality of portfolio and servicer/sponsor."

Lessors bond issuances (April-June 2021, *Airfinance Journal*'s Deal Tracker)

Deal Name	Product Type	Amount ($m)	Coupon	Tenor	Financial Close Date
DAE Capital I Bond issuance I 06-21 I $1bn	Unsecured	1,000.00	1.55	3	22-Jun-21
SMBC Aviation Capital I Bond issuance I 06-21 I $500m	Unsecured	500.00	2.3	7	15-Jun-21
CIB Leasing I Green bond issuance I 05-21 I CNY3.5bn	Unsecured	547.46		3	26-May-21
Air Lease Corporation I Bond issuance I 05-21 I $1.2bn	Unsecured	1,200.00	1.875	5.25	17-May-21
Taiping and Sinopec Financial Leasing I Bond issuance I 05-21 I RMB2bn	Unsecured	310.64	3.45	3.00273	17-May-21
BOC Aviation I Bond issuance I 04-21 I $1bn	Unsecured	1,000.00	1.625	3.02	22-Apr-21
Fortress Transportation I Bond issuance I 04-21 I $500m	Unsecured	500.00	6.75	7.00547	12-Apr-21

Banks remain conservative in lending

Bank appetite for the aircraft leasing business has decreased in the post-Covid-19 pandemic era, reports **Elsie Guan**.

The capital markets have gradually become a better route to funding than bank lending since the outbreak of the Covid-19 pandemic, according to lessor panellists at the *Airfinance Journal* China 2021 virtual event last month.

"Capital market is the most efficient and easy way for us. If we talk to commercial banks, I think most banks which were involved in the aviation sector last year are a little bit more cautious," says Ma Jie, executive director of CMB Leasing.

"For new aircraft deliveries, CMB Leasing just uses bridge loans to make sure the aircraft can be delivered as soon as possible. That is basically what we target in the short term and in the long term," adds Ma.

Zhu Limi, assistant general manager of the financial markets department of Minsheng Financial Leasing, says the company relies increasingly on its own funding.

"One issue is that less and less commercial banks will accept aviation assets as mortgages to provide long-term loans. Another thing is that efficient liquidity in the US dollar market is kind of easy for financial leasing companies to raise money at low costs," says Zhu.

"The fact is that we need to find more funding from capital markets or from short-term loan markets," adds Zhu.

"Now, in the downturn market, banks are not always positive players, so in that case they will reduce their exposure. That is why we saw lots of banks are not willing to provide liquidity financing for narrowbody aircraft," comments Martin Lu, director of aviation business services at PwC.

"For some ongoing deals which are still under mortgage loan, aircraft owners want to have more refinancing on their current fleets. They are looking for mezzanine debt. But most banks are not willing to cooperate on that," adds Lu.

Lune Wang, director and deputy general manager of Comsys (Tianjin) Leasing notes that the most important thing is to match assets with money.

"It raises very big challenges to Chinese lessors on how to deploy your money smartly. That is why we always have an overseas platform," says Wang.

Summer Li, general manager of aviation at Haitong UT Leasing HK, saw an inclination to Chinese banks compared with western banks for her company in the post-pandemic era.

"On the financing side, we usually mix both Chinese banks with western banks, but we saw western banks are very conservative in the aviation sector. We use more Chinese bank financing nowadays compared with western banks. That is the change," says Li.

"We used both capital market and bank financings. Since the pandemic, we have tapped into bank financing," adds Li.

"Chinese banks were very supportive to help airlines which have liquidity requests. We do not see many deferral requests from Chinese airlines," says Jasper Tan, head of aviation finance of Asia-Pacific at NORD/LB.

"We are seeing more acceptance from bank sides as well. Bankers are trying to do business despite all the challenges, picking the right assets and getting the right structures," says Li Gang, chief executive officer of Aerdragon Aviation Leasing.

Li Gang thinks that the fundamentals of aircraft leasing did not change because of the pandemic. "It is still very fundamental to the world economy. And the fundamentals of the financing market did not change as well," says Li Gang.

Li Gang says that Aerdragon was able to close deals with both Chinese banks and European banks during the pandemic.

"In addition, we also cooperate with Chinese sovereign funds on some other financing deals. So, the sources are still there and the capital market remains very strong," adds Li Gang.

"Traditional banks are still conservative, but there are some new players having additional liquidity as a pool to invest into the sector. They may be able to chase some high-yield deals," says Summer Li.

Lessors in and around China appear more bullish than other aviation financiers, although their appetite for foreign deals has diminished, some panellists have observed.

"Some Chinese banks are affected by some default situations worldwide and the HNA situation. So, the appetites of Chinese banks basically shrank last year," observes Johnny Lau, chief consultant of aviation business services at PwC.

"But we see that lessors are not too worried about that because overall business volume has not gone up too quickly," says Lau, who notes that there has been a shift of Chinese lessors from being very aggressive internationally to becoming more conservative.

"As Johnny said, they have pulled back for a little bit but we still see commitment to doing good credit deals with larger airlines worldwide," says Bradley Dailey, director of Alton Aviation Consultancy.

"Fundamentally, if you think about a broader landscape, you will want to put money into aviation because of the huge domestic market that Chinese airlines provide for lessors or lenders. We have seen obviously that Chinese lessors who can get access to the market continue to be committed to that market space," says Dailey.

Lau also notes that Chinese lessors remain very active.

"They have money in hands to spend; they want to invest further. We have also seen many transactions which were also brought into China from originally in Ireland or somewhere else," adds Lau.

Peter Huijbers, director of PH Aviation Asia, thinks that it will not be difficult for Chinese carriers to access debt.

"The airlines themselves and banks in China have always loved each other so it is not a significant difficulty to obtain financing for the aircraft that Chinese carriers would need," says Huijbers.

"The question I would have is, why not tap overseas lending markets, including private equity, institutional money and hedge funds to see what they will get back," adds Huijbers.

"The landscape has changed since Covid-19. I will say the conservative approach will still be maintained, and maybe some of the smarter lessors will try to undergo some strategic changes, including that they may spend some time doing restructures or future expansion," says PwC's Lau.

Lau also notes that most COMAC C919 financings will be done through Chinese lessors and Chinese banks.

"I guess for a long period of time, C919 will become probably the most important new investment by Chinese financiers," he says. "Everybody will take a fair share of what the three major carriers will deliver."

Truenoord eyes new-gen regional narrowbodies

Anne-Bart Tieleman, Truenoord chief executive officer, tells **Hugh Davies** that smaller aircraft were on the Dutch lessor's radar long before the pandemic struck.

The Covid-19 crisis has prompted a shift in focus to smaller narrowbody aircraft, or larger regional aircraft, as operators attempt to rationalise how the pandemic has altered the economics of flying.

In particular, the Airbus A220 and Embraer E2 have garnered attention recently due to their competitive operating costs and ideal capacity to cater for a recovering regional and short-haul segment of travel.

Dutch regional leasing specialist Truenoord says many operators were already headed in that direction prior to the pandemic as a way of bolstering the flexibility of their short- and medium-haul fleets.

"It wasn't because of Covid that people all of a sudden started to realise that smaller aircraft might actually make sense," Truenoord's chief executive officer, Anne-Bart Tieleman, tells *Airfinance Journal*.

During the pandemic last year, Tieleman recalls that an advantage for the lessor was that larger airlines with the ability to right-size their fleets continued to operate thinned-out routes with smaller aircraft, including both regional jets and turboprops.

"That has helped us in that airlines have kept flying with smaller regional jets, I think especially in Europe but also in the US," he says.

The lessor remains focused on the 50- to 150-seat market and is eyeing new technology as part of its growth plans.

However, the company does not rule out E1-generation aircraft, with Tieleman predicting a "renaissance of interest" in E190- and E170-class equipment, particularly in Europe as larger carriers look to build greater flexibility in their fleet structure.

He reveals that the lessor is already in talks with airlines which are looking to retain their E1 fleets for another five years, and some even until the end of the decade.

Tieleman explains that while savings can be achieved longer term by investing in new-generation, more fuel-efficient aircraft, current market uncertainty over capital costs and maintenance and overhaul programmes for new-generation aircraft means that for some operators, it makes sense to "stick with what you know at a decent price."

It wasn't because of Covid that people all of a sudden started to realise that smaller aircraft might actually make sense.

Anne-Bart Tieleman, chief executive officer, Truenoord's

"Even the E1 series is still state-of-the-art, it's fly-by-wire, and I think that is proven by Embraer still delivering E1s," says Tieleman.

"It's an asset that is not extremely expensive when you compare it with the new assets… if you buy an E2 or an A220 new, capital costs will be way higher," he adds.

While both are relatively new to the market, the former CSeries aircraft currently dominates the E2 in terms of market traction, with 168 aircraft in operation and almost triple the backlog of the E2 with 494 on order, compared with 47 for the E2 and 163 units on order, according to *Airfinance Journal*'s Fleet Tracker.

Tieleman notes the A220-300, in particular, provides greater fuel efficiency and range while offering smaller capacity to cost-effectively link a larger range of city pairs in regions with thinner demand.

Africa has seen significant interest for the A220, with several carriers pursuing various financing options for the aircraft type, including Air Senegal, Air Tanzania and Ibom Air, the latter under a wetlease agreement with Egypt Air.

Kyrgyzstani carrier Air Manas also became a new A220 operator in April, with plans to build up its fleet to five A220-300s by 2023.

Delta Air Lines operates the largest A220 fleet with 50 units and another 45 on order, Fleet Tracker shows.

Breeze Airways also has orders for 60 aircraft while Jetblue Airways, which began receiving its A220s last December, has 67 on order and three in the fleet.

Outside of North America, Swiss and Air Baltic operate the largest A220 fleets. Air Baltic, which still has another 23 units on order, operates a uniform A220-300 fleet with 25 units.

Swiss, which has concluded its A220 acquisition programme as of May, operates a mix of 30 smaller and larger models.

Air France has orders for 60 A220-300s, with deliveries scheduled to begin in autumn this year.

Lessors with significant A220 orderbooks include Air Lease, Macquarie Airfinance and Nordic Aviation Capital.

Truenoord, for its part, aims to at least double its fleet size in the next three years from 50 aircraft currently, targeting a balance sheet of about €2.5 billion ($3 billion). While the lessor has not yet acquired either A220 or E2 models, Tieleman says that both form a substantial portion of the lessor's target market.

He adds: "We have been looking at several transactions… over time we'll definitely get those aircraft in our fleet."

Africa has seen significant interest for the A220

Griffin targets sale and leaseback growth

The new asset management firm sees more potential for newer asset classes when building relationships with airlines in the context of Covid-19, Griffin's chief financial officer tells **Hugh Davies**.

While the opportunity sets for aviation leasing and asset management platform Griffin Global Asset Management may have changed during the Covid-19 pandemic, its goal of building a long-term sustainable business has not.

In an interview with *Airfinance Journal*, Griffin's chief financial officer, John Beekman, says the company's recent $1 billion warehouse facility under its joint venture with Bain Capital Credit opens a range of options to build its portfolio.

He explains that Griffin's main goal is to build up strong relations with airlines and be a provider of solutions for its customers.

With that in mind, Beekman says the warehouse facility in place is designed to target new-generation aircraft, as well as potentially adding in mid-life and freighter asset opportunities.

"We have the flexibility to do finance leases, operating leases and loans all within this facility... we even have the ability to look at asset classes like freighters, so there's a pretty wide range of flexibility," says Beekman.

He acknowledges there is "more traction" on newer asset classes in terms of building up relationships with airlines in the context of Covid-19, noting that the more sound business opportunities for mid- to end-of-life assets are "not as plentiful out there as you might think".

Beekman adds: "We're not shy about entering the space, but it just takes a little more effort in terms of whether you're comfortable with an asset that could be under pressure or could have significant upside."

Longer term, Beekman does not rule out an eventual Griffin orderbook and says it is also considering a lessor enhanced equipment trust certificates (EETC) structure at some point in the future.

"We had a thought towards that when we were negotiating the warehouse," he says, highlighting its interest in the ability to be involved in more concentrated positions on certain credit types than a warehouse facility would allow.

"There are multiple pathways that we could use to grow the business, but I would say the predominate path is a relationship-built business looking to do sale and leasebacks," he continues.

To date, the company has participated in four financing deals with airlines: a bridging loan for an Airbus A350 and two Boeing 787 sale and leasebacks with Virgin Atlantic, as well as delivery financing with Greek carrier Sky Express for one A320neo signed in May.

Financing

Former Air Lease (ALC) executive Ryan McKenna teamed up with alternative asset investment firm Bain Capital Credit to launch Griffin in January 2020, two months before coronavirus was declared a global pandemic.

Beekman admits discussions were not "overly constructive" regarding initial financing talks during the first stages of the pandemic because of lack of visibility for the industry.

"When we first started the warehouse, we weren't exactly sure where it might go and what kinds of terms and flexibility we might achieve.

"As we continued to advance, and particularly as we started to have vaccines, then you saw the capital markets providing support to the businesses, I think then the banks realised that there is an ability to see through to some kind of recovery, or at least a better time where airlines can support their businesses and their debt," he adds.

He also believes government and shareholder support for airlines, as well as continued support from the capital markets, led the debt markets to feel "much more comfortable lending into this space".

Beekman adds: "We have great banking partners that were very supportive and were able to work with us to craft a warehouse that was able to do a lot of what we wanted on attractive terms to help us meet our goals."

The company aims to build its business as one of the leading lessors worldwide over the next five years, focusing on how it interacts with customers and meets their needs, says Beekman.

"Top lessor doesn't necessarily mean biggest balance sheet," he adds. "For us, we want to be considered as the preferred partner for airlines."

Griffin delivered financing to Greek carrier Sky Express for one A320neo signed in May

Speedy lease deal key to **MAG restructuring**

A sense of urgency, trust and transparency were the only elements that really mattered in Malaysia Aviation Group's negotiations with creditors. Lessors now have more options to redeploy aircraft, chief executive officer, Izham Ismail, tells **Dominic Lalk**.

With Malaysia Airlines (MAS) the first Asian carrier to restructure successfully during the ongoing Covid crisis, the chief executive of Malaysia Aviation Group (MAG), the flag carrier's parent, tells *Airfinance Journal* how he convinced lessors and other creditors to give the legacy airline another chance.

Izham Ismail, stresses that transparency and trust were the only elements that really mattered in the group's negotiations with creditors. Without them, the national carrier could already be in liquidation, he says.

"We went to the English courts because we were not sure the Malaysian courts were familiar with our situation. After all, our contracts are written in English law, so why do we have to have conversations with courts in two venues?" recalls Izham.

"What made our mission successful was that we entered the conversation with complete transparency. What this means is that if I were to offer you something and you have a counteroffer, I put it in a shared drive that the other creditors will be able to view. That way creditor B can say, 'Hey, I like what you're giving to creditor A', and I can respond, 'OK, let's have a conversation on this'," says Izham.

This is in stark contrast to the talks at Lion Group in neighbouring Indonesia where communication and cooperation by the airline group with lessors has been significantly poorer.

"The other airlines are having issues. The key principal is trust and transparency. You've got to be completely open with the lessors, don't try to hide anything. Of course, what also helped us very much was that we had a shareholder who said, 'OK, if you manage to talk to your creditors, we will give you new money, including interim funding until the restructuring is agreed'," says Izham.

He also observes that it was important to secure agreement for the restructuring quickly.

"Look at North America, look at Europe, look at Russia. People need airplanes now. They didn't need them last year when we didn't even know we would have vaccines ready. Creditors now have more choices. Lessors can just place the aircraft somewhere else," he adds.

Do not burn bridges

"What was also very important, what I kept reminding people, was that we will need new aircraft again from 2023-24. So, I asked, do we really want to burn all our bridges? Of course, the answer is no. So, from the very beginning, I made it clear that we are not ganging up against the lessors because we want the industry to survive. That's why we acted as openly as we could," says Izham.

MAS has 25 Boeing 737 Max aircraft on order. The flag carrier has agreed a deal with Boeing that allows it to transfer its Max delivery slots to aircraft lessors directly, or it could sell and lease back its Max orders on delivery, subject to its own requirements, adds Izham.

The Max deliveries will commence in 2023 or 2024, subject to travel recovery. They will be delivered over three to four years.

Lessors take note

Izham reveals to *Airfinance Journal* that in the coming weeks MAS will issue a request for proposals regarding the modernisation of its widebody fleet. Izham says he is cognisant that the Airbus A330 fleet needs to start the replacement cycle.

While he would not disclose if this meant more A350 aircraft were on their way, he did note that fleet harmonisation and efficiency were obvious considerations in the group's widebody selection process.

Izham says that MAG has "learnt its lesson" with regards to fleet financing composition. The group plans to lighten its balance sheet and opt for more leasing.

Izham reveals that as much as 80% of the future group fleet could be leased.

MAG hopes to end 2021 with a fleet of 27 widebodies comprising 21 A330s and six A350s (22 operational), as well as 47 narrowbodies. The group's six A380s will be decommissioned.

"The other airlines are having issues. The key principal is trust and transparency. You've got to be completely open with the lessors."

Izham Ismail, chief executive officer, Malaysia Aviation Group

How did the restructuring work?
Izham recalls that there were five major categories of creditors that needed to agree to restructured deals: aircraft operating and finance lessors; maintenance providers; engine lessors; and financial institutions.

"We were able to secure about MYR15 billion [$3.6 billion] in savings from these negotiations and remove about MYR10 billion in debt," says Izham, adding that this also included the restructuring of sukuk bonds once used to finance the airline's A380 acquisitions.

In 2012, MAS brought the world's first Shariah-compliant offering of MYR2.5 billion perpetual sukuk to market for working capital and its A380 purchases; in September 2020, the Ministry of Finance agreed to restructure the payment terms on the bond as part of the flag carrier's rehabilitation.

The speed at which MAG marched through its restructuring was fundamental to its success.

"We started as early as March last year. We are very fortunate that we achieved the outcome we achieved. I don't think this would have been possible without such a young and motivated team. We all had full conviction, were completely aligned, including with our shareholder. I said that we needed to achieve this as fast as possible because our cash burn was crazy and they said, 'OK, we will support you if you get all your creditors to come together'."

Industry leaders have bemoaned a lack of shareholder support to airlines in the Asia-Pacific amid the Covid crisis, particularly amid carriers in ASEAN. The notable exceptions are Singapore Airlines, which has secured more funds more rapidly than any other airline during the pandemic, and the now-restructured MAS, where shareholder Khazanah agreed to recapitalise the airline if the carrier renegotiated with its creditors.

"The advisers only came in late September. [Houlihan] Lokey only came in late October, early November. Until then, it was all just us," says Izham.

"[Management consultants] Oliver Wyman was helping us on day-to-day cash management as advisers, but the team running the show and burning the midnight oil was the MAG team itself. Time zones presented a big challenge. In the morning, we were dealing with creditors in Korea and China. At night, we were dealing with Europe and the UK. It was almost 20 hours every day. It paid off to have a very young team," says Izham.

Houlihan Lokey provided restructuring consultation services to MAG that proved essential in the national carrier's negotiations with aircraft lessors. "They have accepted the new terms: reduced lease rates, deferrals and PBH [power-by-the-hour]. We have achieved a very interesting outcome that is beneficial to both sides, especially the aircraft lessors," says Izham.

"We're not out of the woods – 2021 is worse than 2020. At least last year we had a good quarter one. This year, however, will be a complete wipeout here in our region."

Izham Ismail, chief executive officer, Malaysia Aviation Group

"To be honest with you, and as you know, this restructuring was long overdue. When I started in 2017, during my first month, this is when I already knew we needed to do something. When I saw the balance sheet, the cost structure was still very high, way too high, so I knew we needed to do something to become competitive in the marketplace," he says.

"Before Covid, we had gained some good traction with potential investors as you know, but then Covid-19 happened. I believe this must be divine intervention," he laughs.

More deferrals on the horizon
MAG's usage-based rent agreements with aircraft lessors will expire at the end of 2021.

These could be extended by another 12 months as part of terms agreed, although the airline has "not pulled the trigger" on that yet. "We have a contingent deferral option in 2022, which we will be evaluating based on market conditions," explains the group chief.

"We're not out of the woods – 2021 is worse than 2020. At least last year we had a good quarter one. This year, however, will be a complete wipeout here in our region," says Izham.

"We agreed on contingent deferrals. We've established a baseline scenario and a worst-case scenario. What it means is that if the capacity in the market is 40% below baseline, then MAG could trigger the contingency deferrals for all of 2022. We push everything back to 2024, with a 2% interest rate at the end of 2024," he reveals exclusively to *Airfinance Journal*.

"What we're currently seeing in the marketplace here in our region is that we're in the worst-case scenario situation because of new lockdowns here in Malaysia and low vaccination rates through the region.

"I have conversations with my peers in Oneworld and I'm sometimes a bit frustrated because when I talk to Doug Parker [American Airlines CEO] and he tells me that American is cash positive already. The same story with Alaska," says Izham.

MAG is hoping a reversal of fortunes could occur by the fourth quarter of 2021, or first quarter of 2022.

"I believe optimistically it may be quarter four, but more likely quarter one next year will be when we see a meaningful recovery for us. Initially, we were hoping to be at approximately -40% pre-Covid levels by quarter four this year but I don't think that's feasible any more. Now I'm crossing my fingers it will be -70% or -75% but more likely it will be -90% pre-Covid through the end of the year," he forecasts.

Not all is bad news, however. As observed by airline CEOs across the world, the cargo segment continues performing very well throughout the pandemic. MAS Kargo is benefiting from this strong demand, too.

"Cargo is my cash cow this year. We're also pushing very hard for MRO [maintenance, repair and overhaul]. There's been good progress. Sometimes I lose track which new clients are coming in. Just last week my team sent me a picture of a Nepal Airlines A330 in our maintenance facilities here," says Izham.

As part of its new long-term business plan unveiled in May, MAG is hoping to reposition itself as a global travel group to expand beyond the airline business, becoming a "one-stop centre for all travel needs". For this, says Izham, the group is redoubling its digital transformation efforts.

Airfinance Journal's 2020 deals of the year awards

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

Africa Deal of the Year: TAAG Angola Airlines **$145m commercial loan for six Dash8-400s**

Borrower/issuer: TAAG Angola Airlines
Structure: Commercial loan
Assets financed: Six Dash8-400s
Lawyers: Pillsbury, Walkers Global, Miranda and Associates and Cliffe Dekker Hofmeyr acted for the lenders. Norton Rose Fulbright represented TAAG Angola Airlines and the government of Angola
Banks: Absa Bank and African Export-Import Bank acted as mandated lead arrangers and lenders. Absa Bank was security trustee and facility agent
Amount: $145 million
Date mandated: 14 November 2019
Date closed: 13 May 2020

The financing in the commercial debt market of six de Havilland of Canada Dash8-400 turboprop aircraft won the Africa deal of the year category.

This is a uniquely African deal, with an African airline financed by an all-African banking consortium. However, the deal team was truly international and reached from Luanda to Cape Town to Johannesburg to Cairo to Dublin to London, to the Caribbean, to Montreal to Vancouver and Hong Kong.

Walkers acted as Cayman Islands counsel in connection with the financing by Absa Bank and African Export-Import Bank of six aircraft to TAAG Linhas Aereas de Angola Airlines. The deal is supported by a sovereign guarantee issued by the government of Angola.

The borrower, Cunene Ltd, a special purpose vehicle incorporated with limited liability and existing under the laws of the Cayman Islands, entered into a finance lease with TAAG, incorporated in Angola and the operator and guarantor of the aircraft.

The lenders, Absa Bank and African Export-Import Bank, advanced the funds to the borrower and received a sovereign guarantee from the Ministry of Finance of the Republic of Angola for the total debt amount.

Absa provided the pre-delivery payments (PDP) in the transaction. This was also the first PDP financing transaction by the South African bank, and one of its first aviation transactions. The deal also marked the first PDP financing transaction for de Havilland Aircraft of Canada.

Critically, it is understood to have been the first new aircraft type delivered by any commercial aircraft manufacturer to a new customer during the Covid-19 pandemic.

There were numerous complexities in closing this transaction during the Covid-19 pandemic, including: the manufacturing facility came to a standstill, which resulted in a postponement in the delivery date; there were difficulties with the aircraft deliveries as the manufacturing country (Canada) and receiving country (Angola) were in lockdown – TAAG appointed a third-party Canadian inspection delegate to inspect the aircraft in Canada and ferry the aircraft to Angola; and the transaction was then closed during the Covid-19 lockdown period and TAAG took delivery of its first aircraft remotely from the de Havilland manufacturing plant in Canada.

Asia-Pacific Deal of the Year: Cathay Airways **HK$39bn recapitalisation plan**

Borrower/issuer: Cathay Pacific Airways
Structure: Bridge loan facility, shares subscription
Financial adviser: Goldman Sachs
Lawyer: Clifford Chance
Amount: HK$39 billion ($5 billion)
Date closed: August 2020

On 9 June 2020, Cathay Pacific Airways announced a triple-tranche HK$39 billion ($5 billion) recapitalisation proposal involving: an issuance of HK$19.5 billion of preference shares and HK$1.95 billion of detachable warrants to Aviation 2020 Limited with an exercise price of HK$4.68; a rights issue of HK$11.7 billion on the basis of seven rights shares for every 11 existing shares held with a subscription price of HK$4.68, which represented a 35% discount to the theoretical ex-rights price (TERP) or 46.9% discount to the closing share price as at 8 June 2020; and a committed bridge loan facility of HK$7.8 billion to be extended by Aviation 2020 Limited, with a 12-month availability period and 18-month repayment period from draw down.

The transaction was the second-largest government-led airline recapitalisation package in the Asia-Pacific region.

Swire Pacific (owning 45% of Cathay Pacific's shares), Air China (29.99%) and Qatar Airways (9.99%) signed irrevocable undertakings to take up their pro-rata portion of the rights issue (HK$10 billion). The Hong Kong SAR government committed a total of HK$27.3 billion to Cathay Pacific. The rights issue was oversubscribed by 137%.

The bridge loan has security over certain aircraft and related insurances of the Cathay Pacific Group. The loan was made immediately available for draw down, while the preference shares with warrants and the rights issue were subject to conditions precedent, including shareholder's approval at an extraordinary general meeting in July 2020.

The multibillion recapitalisation was proposed in response to a series of unexpected events outside the Cathay Pacific's control, including the outbreak of the global Covid-19 pandemic which has created significant challenges for the airline industry.

The recapitalisation plan was essential to the airline's survival, Cathay Pacific's chairman, Patrick Healy, said at the time.

Cathay Pacific reported an attributable loss of HK$9.9 billion for the six months ended 30 June 2020, compared with an attributable profit of HK$1.3 billion during the same period in 2019.

Cathay Pacific started 2020 with about HK$20 billion in unrestricted liquidity, and the current cash burn is in the region of about HK$2.5 billion to HK$3 billion a month.

Healy notes that the government will not have voting rights in Cathay Pacific. "It is an investment by the government," he says. "The government is expecting and planning to make a reasonable return on the investment funds through preference shares, warrants and loan facility. The government does not have the intention to remain a long-term shareholder and also does not have the intention to engage in operations."

Europe Deal of the Year: Virgin Atlantic £1.2bn recapitalisation plan

Borrower/issuer: Virgin Atlantic Airways/Barbados Enterprises
Assets financed: Take-off and landing slots at London-Heathrow airport and an Airbus A330 aircraft leased to Virgin Atlantic Airways
Lawyers: Watson Farley & Williams, counsel to the bondholders and various finance and operating lease creditors. Allen & Overy, counsel to Virgin. Herbert Smith Freehills, co-counsel to Virgin. Linklaters, counsel to bond trustee and security trustee. Ashurst, counsel to Davidson Kempner; Raines & Co, counsel to Barbados Enterprises. Clifford Chance, counsel to Virgin's lessors. Freshfields, counsel to revolving credit facility lenders.
Amount: £1.2 billion ($1.57 billion)
Date mandated: 1 April 2020
Date closed: 2 September 2020

The £1.2 billion ($1.57 billion) recapitalisation of Virgin Atlantic Airways wins the European Deal of the Year.

Not only does Virgin's London-Heathrow slot portfolio represent its single most valuable asset, the preservation of the slot entitlement is paramount in any financial and operational reconstruction.

The London-Heathrow airport slot portfolio secured in favour of the bondholders comprised the greater part of the carrier's operations and without which it would not be able to operate.

As part of the restructuring plan, the existing bonds were upsized and amended, with additional bonds being subscribed by funds managed by Davidson Kempner.

The specialist nature of slot financings and the complexities of the underlying legal and regulatory basis on which take-off and landing slots are allocated, owned and retained by airlines, particularly in an insolvency situation, required the combined experience of Watson Farley & Williams' cross-discipline team, including its structured finance, aviation finance, regulatory, restructuring and insolvency specialists, all of which have market-leading knowledge of the European slots financing market.

The restructuring plan involved multiple classes of disparate creditors who voted on the plan, including traditional lenders, lessors and trade creditors. A number of other creditors provided their support outside of the statutory mechanism by way of bilateral consensual arrangements with Virgin Atlantic Airways.

Under the terms of plan, the Virgin Group provided £200 million, while Delta Air Lines was deferring or waive debts and charges owed by the airline worth £400 million.

Hedge fund Davidson Kempner Capital Management provided £170 million of secured financing while the largest creditors supported the airline with more than £450 million of deferrals and Virgin said it continued to "have the support" of credit card acquirers Lloyd's Cardnet and First Data.

The recapitalisation takes effect over an 18-month period and is tied to a restructuring plan which includes cost savings of about £280 million a year and about £880 million of "rephasing and financing of aircraft deliveries" over the next five years.

Virgin Atlantic Airways was the first to use the new UK restructuring plan to implement its recapitalisation, making use of Part 26A of the Companies Act 2006, which was introduced by the Corporate Insolvency and Governance Act 2020.

Latin America Deal of the Year: Azul R$1.74bn convertible bonds

Borrower/issuer: Azul
Structure: Convertible bonds
Lawyers: Hogan Lovells and Machado Meyer Advogados advised the anchor investors. Shearman & Sterling and Pinheiro Neto Advogados advised Azul. Pinheiro Guimarães advised the underwriter, Banco Itau BBA
Banks: Banco Itau BBA as underwriter of the offering
Adviser: Seabury Securities as financial adviser to Azul
Amount: R$1.74 billion ($325 million)
Tenor: five years
Date mandated: 1 September 2020
Date closed: 12 November 2020

Many of Latin America's biggest airlines have struggled during the Covid-19 pandemic, with Avianca, LATAM Airlines and Aeroméxico all filing for Chapter 11 protection in the US courts during 2020. Azul's convertible debenture offering, however, should provide the airline with sufficient liquidity to survive the pandemic-driven industry downturn.

Azul publicly stated in its third-quarter 2020 earnings release, immediately following settlement of the offering, that adding the proceeds of the offering to its existing cash balance would allow the airline to operate for more than five years at its then-current cash burn levels.

Anchor investors, Knighthead Capital Management and Certares Management, structured, negotiated and documented the terms of an issuance of R$1.74 billion ($325 million) principal amount of convertible debentures in September 2020 by Azul.

The debentures are convertible into preferred shares of Azul, mature five years after issuance, are indexed to the US dollar and pay interest of 7.5% in the first year in kind through an increase in the par value of the debentures, and thereafter at an interest rate of 6% per year payable semi-annually in cash.

The debentures are redeemable for cash at Azul's option at any time, after 36 months, but only if the last reported share price exceeds 130% of the conversion price for a specified period of time.

The debentures have a conversion price of R$32.2649 per preferred share, resulting in an initial conversion premium of 27.5% based on the 30-trading day volume weighted average price.

Azul elected to accept the financing proposal from Knighthead and Certares in lieu of alternative funding made available by Brazil's development bank, BNDES. Azul and BNDES had agreed in September 2020 that the bank was going to provide a R$2 billion financing from its emergency programme created to support sectors affected by the Covid-19 pandemic.

Knighthead and Certares also committed to ordering an additional R$560 million in convertible debentures if Azul decides to carry out a new public offer on similar terms within the next 12 months.

Convertible note offerings to US investors by Brazilian issuers are exceedingly rare because of structuring complexities related to a variety of issues, including withholding tax and statutory pre-emptive rights.

Hogan Lovells, which advised the anchor investors, says the specific structure developed for the Azul convertible debenture offering has never been used before.

The structure also includes a number of innovative features designed to protect the anchor investors' downside, including a pledge of Azul's loyalty programme, TudoAzul, and other assets to secure the debentures, and a New York law payment guarantee in order to provide Knighthead and Certares with recourse to the New York courts in the event of a payment default.

Middle East Deal of the Year: Qatar Airways $800m finance lease for seven 787-9s

Borrower/issuer: Qatar Airways

Structure: Finance lease

Assets financed: Seven Boeing 787-9s

Lawyers: Dentons acted counsel to Qatar Airways. Vedder Price acted as counsel to Standard Chartered Bank

Banks: Standard Chartered Bank

Amount: $800 million

Date mandated: 29 March 2020

Date closed: 16 April 2020

Standard Chartered Bank closed a circa $800 million senior secured financing covering seven Boeing 787-9 aircraft for Qatar Airways. The deal was structured, financed and arranged exclusively by Standard Chartered Bank. The bank also acted as facility and security agent.

The large transaction was one of – if not the – largest solely underwritten loans advanced by a bank post the onset of Covid-19 at the time, which stands as testimony to the longstanding and deep relationship between the airline and bank.

Qatar Airways is a long-standing client of Standard Chartered Bank.

In 2016, Qatar Airways mandated the sale and leaseback of eight new Airbus A320s to Standard Chartered subsidiary Pembroke Capital. The CFM International CFM56-5B4/3-powered A320s were acquired from the Doha-based carrier's leasing arm, Qatar Aviation Leasing (QALC).

In 2014, Qatar Airways closed sale and leasebacks for three 777-300ERs and five 787-8s with the bank in a deal that represented its first sale and leaseback transaction.

Standard Chartered was one of the joint arrangers and lenders of a 12-year $500 million finance lease for two 777-300ERs and one 777-200LR deliveries for the carrier in 2008.

In 2003, the Doha-based carrier signed a $736 million interest rate swap transaction with Standard Chartered Bank. The financing provided an interest rate hedging facility to Qatar Airways to fix its long-term borrowing costs for a total of 12 aircraft. The transaction followed a long-term financing covering two A320 aircraft in which Standard Chartered Bank participated as one of the lenders.

North America Deal of the Year: Jetblue Airways $550m revolving credit facility

Borrower/issuer: Jetblue Airways

Structure: Senior secured revolving credit facility

Lawyers: Debevoise advised Jetblue Airways. Milbank represented the lenders

Banks: BNP Paribas sole sustainability structuring agent. Citibank was administrative agent. Other participating banks included Morgan Stanley, Bank of America, Goldman Sachs, Barclays, Credit Agricole, Apple Bank and Columbia State Bank

Adviser: Vigeo-Eris, ESG rating agency

Amount: $550 million

Tenor: Four years

Date mandated: 10 January 2020

Date closed: 20 February 2020

In February 2020, Jetblue Airways became the first airline to deploy a sustainability-linked loan (SLL) by amending its existing $550 million senior secured revolving credit facility (RCF) due July 2023.

The general mechanisms of an SLL – where the interest rate or commitment fee paid on the RCF increases or decreases based on whether a company achieves agreed-on sustainability metrics – give borrowers a financial incentive to attain their targets as part of their corporate sustainability strategy.

In Jetblue's financing, the US airline's borrowing costs depend on whether it achieves a predetermined environmental, social and governance (ESG) score. This score will be provided on an annual basis by independent third-party data specialist Vigeo Eiris, a provider of ESG research and services for investors and other organisations.

"Our owners, many of whom are also crew members, want to see how ESG initiatives are connected to our financials. As the first airline to accomplish this type of transaction, we are directly linking our commitment to addressing environmental and social issues with our bottom line. We are proud of what we have accomplished, but also understand we have more to do in reducing our carbon footprint and meeting the needs of our stakeholders," says Sophia Mendelsohn, chief sustainability officer for Jetblue.

The transaction complements the company's previous sustainability commitments.

In 2020, Jetblue was the first US airline to announce it would operate carbon neutral on all domestic flights by offsetting emissions from jet fuel, ramping up to eliminate more than 17 billion pounds of CO_2 emissions a year;

Jetblue will also start flying with sustainable aviation fuel (SAF) on flights from San Francisco. SAF has up to an 80% smaller carbon footprint versus regular jet fuel.

Jetblue has previously placed orders for 70 Airbus A220s powered by Pratt & Whitney geared turbofan PW1500G fuel-efficient engines reducing emissions per seat by 40%.

The SLL transaction built on Jetblue's sustainable finance strategy.

In 2018, the US carrier started formally to review its financial partners' sustainability strategy and commitments, shifting business to financial partners with stronger ESG policies.

The following year, BNP Paribas helped the company move to sustainable cash management by creating tailor-made solutions that meet the airline's ESG and treasury guidelines.

The SLL financing was well received by Jetblue's bank group: the company's nine existing lenders committed to the SLL feature as part of this amendment. As sustainability structuring agent, BNP Paribas advised Jetblue on various SLL options and provided structuring advice.

BNP Paribas' co-head of global banking Americas, Florence Pourchet, says the Jetblue transaction is just one element of the airline's comprehensive ESG and sustainable finance strategy.

"As a leader in sustainable finance," she says, "BNP Paribas is dedicated to working with our corporate clients to identify tailored solutions that align with their specific efforts and commitments toward achieving their ESG goals."

Bank Loan Deal of the Year: Bleriot Aviation Funding $300m warehouse facility

Borrower/issuer: Bleriot Aviation Funding DAC
Structure: Non-recourse secured, revolving warehouse facility
Lessor: JLPS Holding Ireland Limited as servicer
Equity sponsors: Airbus Financial Services and JP Lease Products and Services
Banks: BNP Paribas as sole structuring agent, sole global coordinator, agent, account bank and security trustee. BNP Paribas and Credit Agricole CIB acted as joint bookrunners, joint mandated lead arrangers, lenders and hedge counterparties
Lawyers: A&L Goodbody acted as Irish transaction counsel to Bleriot Aviation Funding. Milbank as English counsel to the lenders. K&L Gates as English counsel to Bleriot Aviation Funding as borrower
Amount: $300 million
Tenor: Three years
Date mandated: 1 October 2020
Date closed: 10 November 2020

Airfinance Journal's bank loan-winning transaction is a leading example of increased joint-venture activity in the aviation finance and leasing market in light of Covid-19 with Airbus capitalising on an opportunity to further diversify its business with an aim to develop a foothold in the aircraft leasing market.

Bleriot Aviation Funding, a joint-venture leasing vehicle of JP Lease Products & Services and Airbus Financial Services (a 100% subsidiary of Airbus), entered into a $300 million limited recourse secured warehouse loan facility arranged by BNP Paribas and Credit Agricole Corporate and Investment Bank (Credit Agricole CIB).

JP Lease was appointed as the sole servicer of the joint venture.

The facility has a two-year availability period to 20 December 2022. The final maturity date is 20 December 2023.

This was a significant transaction initially sized at $300 million but with an accordion option feature which if fully committed to would increase the size to $750 million.

It is structured to address the strategic needs of each stakeholder under Covid-affected market conditions. For Airbus, it represents a strategic financing solution for its clients to support the optimisation of its product line delivery schedules during the health crisis.

For JP Lease, one of the major underwriters in the Japanese equity market, it is a conduit to secure aircraft lease transactions with major airlines for future distribution to Japanese investors.

The facility is designed for new-generation Airbus aircraft such as A320neo family, A350 family and A330-900. Its first utilisation was one A320neo delivery to Spirit Airlines.

The transaction had a number of innovative features including on the financing of deferred lease commencement aircraft. It provided the borrower with further flexibility in running its business while also including additional protections for the finance parties.

The timing of the transaction was challenging at a time when a number of warehouse facilities were being restructured. Financiers were more demanding with respect to provisions that they need in the facility documents to better protect their interests.

Guaranteed Financing Deal of the Year: Skywest Airlines $80m AFIC-supported financing for four E175s

Borrower/issuer: Skywest Airlines
Structure: AFIC-supported financing
Advisers: AFIC Credit Specialties (of Marsh UK) acted as non-payment insurance adviser to BNDES. AFIC Advisory & Operations (of Marsh USA), as aircraft finance adviser to the AFIC insurers
Insurers: AXIS Capital, as AFIC insurer (risk mitigator) and as insurer representative. Sompo International acted as AFIC insurer (risk mitigator). Endurance Worldwide Insurance Ltd
Banks: Banco Nacional de Desenvolvimento e Social (BNDES) acting through its affiliate, Agencia Especial de Financiamento Industrial. US Bank National Association as security trustee
Lawyers: Clifford Chance, as counsel to the AFIC insurers, Parr Brown Gee & Loveless, as counsel to Skywest Airlines. White & Case acted as counsel to BNDES. Shipman & Goodwin was counsel to US Bank National Association, in its capacity as security trustee
Amount: $80 million
Tenor: 12 years
Date mandated: 21 September 2020
Date closed: 23 December 2020

Aircraft Finance Insurance Consortium (AFIC) closed its first non-Boeing transactions in late December with four Embraer E175 aircraft.

The transaction, covering four deliveries for Skywest, was underwritten by AXIS Insurance and Sompo International. Brazilian Development Bank (BNDES) was the lender.

In the January-February issue of *Airfinance Journal*, AFIC managing director, Robert Morin, said the firm extended its offering to Embraer aircraft last year and recently closed the first AFIC-supported Embraer transaction. "We are willing to support the financing of new or almost-new Embraer E1 and E2 aircraft," he said.

The transaction closed on 23 December 2020 when Skywest took delivery of the four new aircraft in one day. Agencia Especial de Financiamento Industrial (FINAME), an affiliate of BNDES, acted as the lender and provided a 12-year secured loan facility, covered by AFIC's aircraft non-payment insurance (ANPI) policy issued by AXIS Specialty Europe, London Branch, and Endurance Worldwide Insurance Limited.

The transaction marked many firsts. It represents the first expansion of AFIC's product offering to include an additional commercial aircraft original equipment manufacturer. When AFIC was first established in 2017, it exclusively focused on supporting the financing of new and almost new Boeing aircraft. However, for AFIC to be as successful as possible, the intent was always to expand AFIC's product offering to include other types of aircraft. This is because the AFIC insurers highly value diversity, in terms of aircraft types, the number and types of airlines, airline business models, regions of the world and sources of funding.

The transaction was also the first AFIC-supported financing for an airline based in the USA, as well as the first transaction for a regional airline. It was the first time Skywest Airlines used an AFIC-supported financing.

The deal also marked the first AFIC-supported financing for commercial aircraft funded by an export credit agency (ECA) and the first time BNDES used an entirely private sector risk mitigator (instead of a Brazilian government-supported risk mitigator such as ABGF or SBCE).

Although not a large size, the transaction has the potential to lead to a significant number of follow-on transactions for various regional airlines in the USA. The supported financing also represented a "new aircraft financing tool in the Embraer customer finance team's aircraft financing toolbox".

Sale and Leaseback Deal of the Year: United Airlines
22 aircraft sale and leaseback

Borrower/issuer: United Airlines

Structure: Sale and leaseback financing

Assets: Six Boeing 787-9 and 16 Max 9 aircraft

Lessor: BOC Aviation

Date mandated: April 2020

Date closed: April 2020

Aviation has been one of the hardest hit sectors by the Covid-19 crisis, which had seen (by April 2020) more than 30 airlines declare bankruptcy protection since the start of the year.

During the onset of the Covid-19 crisis, BOC Aviation proactively contacted its airline customers to provide assistance through the difficult environment. This included various levels of support to help airlines with their liquidity via purchase and leaseback transactions.

United Airlines was the first US airline to make aggressive capacity reductions.

By this time, United Airlines had cut about 80% of its capacity for April 2020 and was taking decisive steps to mitigate the operational and financial impacts of Covid-19 by making deep schedule reductions, drastically reducing spending and aggressively raising liquidity.

This resulted in a sale and leaseback agreement with BOC Aviation for 22 Boeing aircraft in April 2020 that contributed to part of the many steps United Airlines took in mitigating the impacts of Covid-19 on its business.

The transaction comprised six Boeing 787-9 and 16 737 Max 9 aircraft.

The size of this transaction is testament to BOC Aviation's ability to carry out large transactions across multiple aircraft types. It also reflects the speed and agility at which the BOC Aviation team was able to move, and its access to liquidity and high level of management autonomy meant it was able to move quickly to secure some of the most attractive investment opportunities available, focusing on customer selection and improving the credit quality of its portfolio.

Structured Lease Deal of the Year: BOCOM Leasing-China Postal Airlines operating lease for two 737-800s

Borrower/issuer: Two special purpose vehicles incorporated in Tianjin, China, each a wholly owned subsidiary of Bocom Leasing

Structure: Sell-out, buy-in

Law firms: King & Wood Mallesons as People's Republic of China (PRC) counsel for Bocom Leasing. Han Kun Law Offices as PRC counsel for China Postal Airlines

Assets: Two Boeing 737-800s

Amount: Exceeding $70 million

Lessor: Bocom Leasing as parent of the lessor, namely each Tianjin special purpose vehicle

Date mandated: 8 September 2020

Date closed: 21 November 2020

The 2020 Structured Lease Deal of the Year was innovative for combining with asset trade in order to conduct the conversion in a tax-bonded zone by the relevant maintenance, repair and overhaul company in the People's Republic of China (PRC) and matching the payment requirements to Boeing from customs and the Civil Aviation Administration of China (CAAC) requirements for the conversion.

The two Boeing 737-800 aircraft, previously leased to a Chinese carrier through the Irish special purpose vehicle (SPV) and PRC SPV of Bank of Communications Financial Leasing (BCOML) were returned in 2020.

BCOML leased the two aircraft to China Post Airlines on a back-to-back base together with a simultaneous arrangement of passenger-to-freighter conversion with Boeing.

The transaction marked the first lease deal that achieved the combination of the return of used aircraft in the previous lease and the passenger-to-freighter (P2F) conversion and operating lease in the next lease simultaneously in China.

It was also the first operating lease using the lessee's P2F slot with Boeing by way of assignment (but not novation) of such slot to BCOML's China free-trade zone SPV. The aircraft is the first 737-800 aircraft, with the youngest age, in the passenger-to-freighter conversion programme worldwide.

It was a milestone for BCOML because it expanded into new territories on asset management and disposition of used aircraft in the fleet at the end of its first lease term.

BCOML's induction of such aircraft in to P2F at the beginning of the second lease term, reflects the lessor's excellent performance in risk control in respect of assets management, and ability and capacity in coordinating with other parties and multi-government authorities. It also represents the ability of a Chinese leasing company to access multiple channels to accomplish lease and conversion programme.

The extremely creative sell-out, buy-in structure between the BCOML PRC SPV and Irish SPV was tailored by the BCOML team for the purpose of this deal to overcome the obstacles within, CAAC and customs compliance requirements.

This deal opens up a new era of the passenger-to-freighter conversion and operating lease in China.


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Tax Lease Deal of the Year: Pegasus Airlines €55m Jolco financing for one A321neo

Borrower/issuer: Pegasus Airlines

Structure: Japanese operating lease with call option

Adviser: ABL Aviation acted as global equity arranger for SBI Leasing Services

Bank: Bank of China

Guarantor: ACG acted as guarantor for the loan amount

Lessor: SBI Leasing Services

Lawyers: Nishimura & Asahi acted as legal counsel to the lessor and equity underwriter. Norton Rose Fulbright as legal adviser to the lender and the facility agent. Smith, Gambrell & Russell as legal adviser to the guarantor. Holland & Knight as legal adviser to the lessee

Amount: €55 million ($67 million)

Term: 12 years

Date mandated: 1 November 2019

Date closed: 9 April 2020

The Pegasus Airlines Japanese operating lease with call option (Jolco) financing of an Airbus A321neo delivery was innovative in many respects.

It was also the first Jolco-financed aircraft with debt guaranteed by Aviation Capital Group (ACG).

In March 2018, ACG launched its Aircraft Financing Solutions (AFS) programme offering an alternative and cost-effective aircraft financing option for airlines. The AFS programme fills a market gap left by export credit agencies, which traditionally offered airlines non-payment guarantees to help support aircraft exports and domestic manufacturers. On the equity side, ABL Aviation's Japanese partner, SBI Leasing Services, provided a competitive source of equity.

The transaction also marked the first aircraft delivered fully remotely from a manufacturer's production line. The innovative process was a result of the challenges raised by the ongoing Covid-19 pandemic. The closing of this transaction took place at a time when the uncertainty surrounding the global pandemic was at its highest and as the majority of Europe, Asia and the USA were in a strict lockdown. The aircraft was due for delivery in April 2020 when most of the participants required to attend were unable to travel. Government restrictions and quarantine requirements posed a major threat to the delivery taking place. ABL Aviation and Pegasus Airlines worked closely with Airbus to ensure that the delivery could proceed and alternative processes were put in place to overcome all challenges presented by the pandemic.

There are two main stages in the new remote delivery approach. First, the technical acceptance completion (TAC) task was delegated to Airbus to perform, on the airline's behalf, all the necessary actions. TAC, which is a prerequisite for the transfer of title (ToT), includes the ground-check, the acceptance test flight, acceptance manuals and procedures.

Second, the ToT was completed electronically with a remote ToT digital signature. This process obviates the need for any of the airline's staff to be physically present at the Airbus delivery centre.

Operating Lease Deal of the Year: ST Engineering Aerospace Resources A321 aviation fund

Borrower/issuer: Keystone 1 Limited (Guarantor – Keystone Holdings Global Pte)

Structure: Operating lease financing

Bank: MUFG Bank as arranger, lender, facility agent, security agent and fixed-rate provider

Asset: One Airbus A321 and freighter conversion costs

Lessor: Keystone 1 Limited

Lawyers: Vedder Price as counsel to MUFG Bank. Bird & Bird acted as counsel to Keystone Holdings

Date mandated: 15 November 2020

Date closed: 30 December 2020

In early 2020, Keystone Holdings, a joint venture between ST Engineering Aerospace Resources and SJ Aviation Capital, signed a letter of intent with Qantas Airways to undergo a freighter conversion for an Airbus A321 into an A321P2F aircraft.

The parties agreed to continue the lease as a freighter.

The passenger aircraft, which is on lease to the Qantas Group, will be converted by ST Engineering and delivered at the end of 2021.

Lender MUFG had initially financed a portfolio of aircraft, which included a mid-life A321 leased to an Australian operator.

MUFG was in close dialogue with Keystone and provided a creative solution to meet financing requirements. The short timing, at two months, demonstrates MUFG's ability not only to finance older aircraft, but also a new asset type in the converted freighter space.

The secured conversion and operating lease financing with multiple drawdowns was in line with the conversion payments.

The secured asset-based deal for the conversion of an A321 aircraft to freighter marked the first A321P2F conversion financing.

Keystone Holdings is focused on mid-life narrowbody aircraft.

Used Aircraft Deal of the Year: Altavair/KKR **$600m warehouse facility for 38 aircraft**

Borrower/issuer: Altavair and KKR

Structure: Warehouse facility

Asset: Predefined list of narrowbodies and widebodies

Amount: $600 million

Banks: BNP Paribas and Citi as joint mandated lead arrangers. MUFG acted as lead arranger. BNP Paribas, Citibank, MUFG and Societe Generale acted as lenders

Lessor: Altavair as servicer

Law firms: Pillsbury representing the lenders. Milbank representing Altavair

Date mandated: 15 December 2019

Date closed: 21 February 2020

KKR and Altavair Airfinance agreed to purchase 38 Airbus A330 and Boeing 777 widebody aircraft from Etihad Airways in 2020.

The $1 billion acquisition was made through aircraft leasing investment platform Altitude Aircraft Leasing, which was established by KKR's credit and infrastructure funds in 2018 to acquire aircraft serviced by Altavair.

The aircraft portfolio included Etihad Airways' owned fleet of 777-300ERs and Rolls-Royce Trent-powered A330-300s and A330-200s.

The transaction provides for the 777-300ERs to be leased back to Etihad on purchase, while the Airbus A330s will be delivered over the next 22 months and placed on lease with other international operators for either passenger operations or as converted freighters.

At the time, Altavair's chief executive officer, Steve Rimmer, told *Airfinance Journal* that there was a chance that Altavair will look to convert the A330s (16 -200s and six -300s) in the "near term", but foresees a "reasonable amount of passenger demand" too. "Airlines are getting scared of technological risk with new aircraft and reasonably priced proven aircraft are becoming attractive. Where else can you get 22 sistership aircraft without going to the OEM [original equipment manufacturer]? Airlines like to look at a baseline consistent standard even if they intend to reconfigure," he says.

The lessor will also consider at 777-300ER conversions.

Altavair obtained a $600 million aircraft secured warehouse facility to fund partly the $1 billion acquisitions.

The transaction was characterised by a prompt closing and signing at the beginning of the Covid-19 pandemic, with funding during the pandemic's spread with strong credit-standing lessees and young narrowbody aircraft for a good share of the portfolio (in addition to the widebody aircraft from Etihad Airways).

In the wake of the unfolding pandemic, Altavair has successfully managed to ramp-up the warehouse with strong lessees and for new-generation aircraft for a good portion of the portfolio.

Cargo Deal of the Year: Fedex **$970m EETC for 19 freighter aircraft**

Borrower/issuer: Federal Express

Structure: Enhanced equipment trust certificate class 2020-1AA certificates

Assets: 13 Boeing 767-300 freighters and six 777 freighters

Amount: $970 million

Banks: Citi, Deutsche Bank and Morgan Stanley acted as joint structuring agents and lease bookrunners. BNP Paribas acted as joint bookrunner

Law firms: Davis Polk acted as counsel to the issuer. Milbank represented the underwriters

Date mandated: 1 May 2020

Date closed: 13 August 2020

As a part of the airline's efforts to diversify its investor base and take advantage of the attractive rates in the enhanced equipment trust certificate (EETC) market, Federal Express (Fedex) successfully issued a $970 million class-AA tranche in the second quarter of 2020.

This transaction achieved several firsts for Fedex and the broader market. The class-AA notes were issued with a 13.5 years final maturity and an 8.8-year average life at 55.1% loan-to-value (LTV). Not only did Fedex issue the only AA tranche during the Covid-19 pandemic (at the time), but also achieved the highest LTV for that rating category.

Despite the challenging marketing environment, Fedex 2020-1 class AA generated significant investor demand and upsized from $670 million to $970 million. The final orderbook was about 2.4x oversubscribed, with a significant portion of orders from investment-grade, high-quality investors. The transaction was ultimately allocated to 84 investors, a significant portion diversifying Fedex's investor base and can be leveraged for future EETC issuances.

Investor demand helped to achieve a 1.875% coupon, the tightest EETC coupon since 1994. This execution level demonstrated the resiliency of demand in the EETC market.

Fedex 2020-1 marked the re-establishment of the company's EETC programme, allowing it to diversify its investor base and financing sources.

The transaction refinanced 13 Boeing 767-300 freighters and six 777-200Fs, with a combined weighted average age of 2.3 years, marking the first time these two aircraft types featured in this type of financing.

Fedex 2020-1 is the first freighter-only EETC in nearly two decades and the first Fedex new issuance since 1999.

New Fund/Alternative Financing Platform of the Year: **Castlelake up to $5bn Boeing aircraft fund**

Borrower/issuer: Castlelake

Structure: Secured loan

Amount: Up to $5 billion

Tenor: Initial two years partnership with two-year extension

Date mandated: 9 July 2020

Date closed: 9 November 2020

Castlelake worked closely with Boeing to develop, structure and execute a customer financing programme whereby the firm would commit up to $5 billion in capital for new Boeing commercial aircraft deliveries through senior secured financing, mezzanine financing and high loan-to-value finance leases.

As part of the agreement, Castlelake holds full discretion over which deals the firm pursues and the terms of those transactions. This allows Castlelake to analyse deals on a case-by-case basis and provide the best possible bespoke financing solutions.

Castlelake's deep sector expertise and experience thoughtfully designing specialised financing structures enabled the investment team to finalise this collaboration with Boeing in four months, and sign the definitive documentation on 9 November 2020.

Castlelake designed the aircraft financing collaboration with Boeing to fill the new delivery financing gap via committed capital dedicated to particularly high loan-to-value (LTV) lending which helps solve the risk pullback at commercial banks and liquidity crisis at airlines. This also helps the global fleet transition from older technology to newer, more fuel-efficient and environmentally friendly aircraft.

The offerings under this financing include first lien senior secured at 65%-75% LTV, high LTV first lien secured unitranche financing at 90%-95% and LTV, mezzanine secured financing through 90%-95% LTV.

The initial two-year partnership includes an option to extend for an additional two years. The airline financing shall be provided for five to 12 years.

The unprecedented pandemic and subsequent economic fallout of 2020 have caused what many would consider to be the airline industry's most severe dislocation in history. For Castlelake, finding a meaningful investment opportunity that has the capacity to withstand continued uncertainty proved difficult, but not impossible, as the firm remained steadfast in its commitment to source attractive investments.

The largest ongoing obstacle is raising the capital to fund this venture, which Castlelake is confident it will be able to achieve through many conversations with its investor base and other deep relationships. Castlelake's aviation presence in investing and servicing track record spans 15 years across more than 650 aircraft and $15 billion of capital.

Equity Deal of the Year: Norwegian Air Shuttle **$1.6bn recapitalisation**

Borrower/issuer: Norwegian Air Shuttle

Structure: Debt-for-equity swap

Amount: $1.6 billion

Lessors: More than 20 leasing companies involved

Banks: DNB Bank acted as arranger of the Norwegian state-supported loan. DNB Bank ASA, Sundal Collier and Danske Bank (Norwegian Branch) acted as managers for the equity issuance

Lawyers: Hogan Lovells advised Norwegian Air Shuttle. BAHR acted as Norwegian counsel, Matheson as Irish counsel to Norwegian Air Shuttle. Thommessen acted as counsel to the managers. A number of other firms were involved advising the various lessors, including Clifford Chance, Norton Rose Fulbright, Vedder Price, Bird & Bird and McCann Fitzgerald

Restructuring and financial adviser: Seabury Securities

Date mandated: 1 March 2020

Date closed: 20 May 2020

Already overindebted and undercapitalised at the start of 2020, and with revenues plummeting as a result of the Covid-19 crisis, Norwegian Air Shuttle's cash reserves were rapidly running out.

With no alternative sources of funding readily available, support from the Norwegian state was crucial to the airline's ability to survive. But the Norwegian government made it clear that its support was conditional on the airline raising new equity and more than doubling its equity ratio to 8%. This required Norwegian and its advisers to produce an innovative solution that would meet the government's requirements while also restructuring the airline's balance sheet, all to be achieved in the few weeks before the carrier's cash ran out.

It was against this background the innovative lessor debt-for-equity scheme was devised. In normal circumstances, it is extremely uncommon for lessors to take equity in their airline customers, but Norwegian was able to take advantage of the unique market situation resulting from Covid-19 to persuade its lessors that this innovative proposal was the best option available to them.

More than $1.25 billion of liabilities from Norwegian's balance sheet were converted to equity, including over $900 million of lease liabilities involving more than 20 separate leasing companies.

As a result, Norwegian's equity ratio increased to 17% following completion of the recapitalisation from about 4.8% at the turn of the year. This significantly exceeded the 8% requirement imposed by the Norwegian government.

The initial ask to Norwegian's lessors, while bold and innovative, was fundamentally simple – rent reductions and power-by-the-hour rental in return for equity in the airline.

The complexity arose from tailoring this generic ask to the specific requirements and concerns of each of the 20 or more lessors involved, while remaining within the constraints imposed by Norwegian securities law, by the deals agreed with the bondholders and by the requirements associated with Norwegian government support, and negotiating all of this to completion within the required timeline.

Norwegian's recapitalisation and lease restructuring was the first by any significant sized airline after the start of the Covid-19 crisis.

M&A Deal of the Year: Bain Capital A$3.5bn recapitalisation and restructuring of Virgin Australia

Structure: Asset sale

Amount: A$3.5 billion ($2.7 billion)

Assets: Aircraft, spare engines, flight simulators, rotable components

Lawyers: Herbert Smith Freehills acted as advisers to Bain Capital. Clayton Utz acted as advisers to Deloitte, as administrators

Advisers: Alton Aviation Consultancy advised Bain Capital. Additional advisers included Korda Mentha, 333 Capital, Norton White, Paul Weiss, Bain & Co, Goldman Sachs

Date mandated: 15 April 2020

Date closed: 17 November 2020

Bain Capital completed its landmark acquisition of Virgin Australia Group after the iconic business fell victim to the global pandemic and entered voluntary administration on 21 April 2020 with about A$6.8 billion ($5.3 billion) in debt owing to a broad and diverse group of stakeholders.

The corporate rescue of Australia's second-largest airline represented the largest of its kind in the past two decades. With the future of the airline and its 9,000 employees and 12,000 creditors at risk, it was one of the highest-profile and most complex deals of 2020 and of the past decade.

Initially, there were 20 interested parties, but the administrator shortlisted this to four bidders.

On 26 June, Bain Capital was named the successful bidder in a highly publicised process run by the voluntary administrators and their advisers, which culminated in the signing of a binding agreement for the sale of the Virgin Australia business.

The 10 deeds of company arrangement proposed by Bain Capital at the second meeting of creditors of the Virgin Australia companies were overwhelmingly approved by the creditors and, on 17 November 2020, were fully implemented, with Virgin Australia emerging from external administration as a recapitalised business under Bain Capital's ownership.

The transaction was structured as an asset sale with an undertaking from Bain Capital to put forward a deed of company arrangement (DOCA) proposal at a premium price for creditors to vote on at the second creditors' meeting. This was an innovative structure which ensured that Bain Capital was assured of securing ownership of the business at the time of ongoing economic risk ahead of the creditor vote, and that Bain Capital could therefore provide execution certainty for all stakeholders.

The multiple DOCA structure also ensured that the business could still be successfully acquired by Bain Capital if the creditor vote succeeded for some entities and not others, by enabling completion of the sale through a combination of DOCAs and asset sales (although that was not ultimately required).

Virgin Australia's emergence from administration after about seven months is viewed as one of the fastest turn-arounds in the context of airlines and Australian companies.

Lessor Unsecured Bond Deal of the Year: Aercap $1.25bn bond issuance

Borrower: Aercap Ireland Capital DAC, Aercap Global Aviation Trust

Structure: Unsecured bond

Amount: $1.25 billion

Tenor: Five years

Banks: Citigroup Global Markets, Deutsche Bank Securities, HSBC Securities (USA), Mizuho Securities USA and Morgan Stanley are served as joint bookrunning managers for the underwritten public offering. Credit Agricole, Goldman Sachs, MUFG, Societe Generale and TD Securities were passive bookrunners. Citizens Capital Markets, Fifth Third Bank and Scotiabank were co-managers

Lawyers: Cravath, Swaine & Moore acted as counsel for the issuers. Simpson Thacher & Bartlett acted as advisers to the underwriters

Auditor: PricewaterhouseCoopers

Date mandated: 3 June 2020

Date closed: 8 June 2020

On 3 June 2020, Aercap, via issuers Aercap Ireland Capital DAC and Aercap Global Aviation Trust, priced $1.25 billion of five-year fixed-rate senior unsecured notes at a yield of 6.75%.

After the Covid-19 pandemic dislocation, while secondary trading levels in many sectors recovered following Fed action in April, the lessor complex remained illiquid, inverted and elevated despite many leasing companies demonstrating sufficient liquidity to weather the storm.

Following the announcement and initial price talk at 8.25% yield, the orderbook began to grow quickly and peaked at $11.1 billion (9x oversubscribed). With only marginal drops, the transaction was upsized to $1.25 billion from an intended $750 million size. It launched at 6.75% yield, 0.125% through the lower end of guidance. The 150 basis points (bps) movement over the course of the day resulted in an outcome that was 50bps inside of the company's secondary trading.

The transaction represented the lessor's first bond issuance post-Covid-19.

In a relatively short period of time, Aercap was able to generate a high-quality orderbook with more than 250 final investor orders ahead of pricing. It first mandated Deutsche Bank on 4 March, days before Black Monday (9 March) and the height of the Covid-19 market dislocation.

The orderbook began to grow quickly and peaked at $11.1 billion.

Aercap proceeded to put the transaction on hold twice over three months before the issuer and lead bookrunners deemed the market firm enough to launch a transaction.

Aercap and the bookrunners needed to thread the needle between initial price thoughts based on illiquid secondaries and the ability to price through the curve in the event of proven investor demand.

The offering represented Aercap's largest-ever senior debt tranche and set a new benchmark at about 50bps inside of where their curve was trading in the secondary market for a five-year issuance.

Airline Unsecured Bond Deal of the Year: Etihad Airways $600m sukuk

Borrower/issuer: Unity 1 Sukuk Limited (Etihad Airways)

Structure: Unsecured bond

Amount: $600 million

Tenor: Five years

Banks: HSBC and Standard Chartered Bank acted as joint global coordinators and joint sustainability structuring agents. Abu Dhabi Islamic Bank, Dubai Islamic Bank, Emirates NBD Capital, First Abu Dhabi Bank, HSBC and Standard Chartered Bank acted as joint lead managers and bookrunners. Abu Dhabi Commercial Bank acted as joint lead manager

Lawyers: Clifford Chance acted as counsel for the issuer. Allen & Overy acted as legal adviser to the banks

Adviser: Mashreq Bank

Date mandated: 1 September 2020

Date closed: 3 November 2020

In November 2020, Etihad Airways issued its inaugural $600 million sustainability-linked transition sukuk transaction coupled with a tender for liability management (early redemption) of $300 million of 2021 sukuk maturity.

The transaction marked the first sustainability-linked issuance for the aviation sector, first transition issuance for the aviation sector, first combination of transition and sustainability linked issuance globally including conventional bonds and sukuk markets, new ratchet structure for issuer pay-outs (in this case, purchase of carbon offsets) and the first sustainability-linked bond structure to adopt purchase of carbon offsets instead of coupon step-ups.

The use of carbon offsets purchased under the Carbon Offsetting and Reduction Scheme for International Aviation (Corsia) above and beyond Etihad's existing commitments was an innovative structure that is well-received by investors. This format, which responds to general concerns around sale and leaseback structures, seems to reward investors for issuers' failure to meet sustainability performance targets (SPT).

The viability of this structure is demonstrated by how this model is later adopted by new world development's sustainability-linked bond framework, released in 2021. The SPT seeks to achieve 20% reduction in emissions intensity (CO2/RTK) in its passenger fleet by 2025 from a 2017 baseline, contributing to Etihad's overall decarbonisation trajectory toward net zero. Etihad Airways' SPT trajectory up until 2024 exceeds the Corsia target to reduce emissions intensity by 2% a year to 2050 using a 2010 baseline and below transition pathway initiative's International Pledges Scenario.

In an interview with *Airfinance Journal*, Etihad Airways' group treasurer, Daniel Tromans, said: "What we have seen has been well received by investors and the market by having elements like the key parameter indicators link when you have some real skin in the game that make that real commitment."

In terms of use of proceed, Etihad Airways is financing the next generation of aircraft, specifically its fleet of Boeing 787-9/10 aircraft.

Tromans says that Etihad is looking towards other products with partners to develop green sustainable trade finance looking at a green letter of credit and sustainable supply chain finance options.

EETC Deal of the Year: United Airlines 352-aircraft $3bn Series 2020-1 Class A notes

Borrower/issuer: United Airlines

Structure: Enhanced equipment trust structure with single equipment note

Amount: $3 billion

Banks: Goldman Sachs acted as structuring agent and lead left bookrunner. Citigroup, Barclays, JP Morgan, Morgan Stanley and BofA Securities acted as bookrunners

Lawyers: Hughes Hubbard & Reed as the issuer's counsel. Milbank acted as the underwriters' counsel

Date mandated: 20 October 2020

Date closed: 28 October 2020

United Airlines' $3 billion enhanced equipment trust certificates (EETC) transaction was the largest issuance.

The structure consisted of a single equipment tranche secured by a collateral pool comprised of more than 350 aircraft, 99 engines and substantially all of United's spare parts.

The transaction provided significant liquidity to United during the Covid-19 crisis, used in part to refinance short-term debt.

The transaction marked the first time an EETC was secured by a single pool of collateral comprised of aircraft, spare engines and spare parts.

It was the first EETC in about 15 years with multiple liquidity facility providers in a single class, with all the collateral Section 1110 eligible.

The single collateral pool comprised of substantially all of United's unencumbered aircraft and spare engines, and substantially all of its spare parts required enhanced diligence and rating agency process.

The transaction required bespoke structuring and non-traditional EETC features such as single equipment note and unique set of covenants to accommodate an off-the-run collateral pool, with weighted average age of 19 years.

The transaction was well received, with early momentum and significant oversubscription, allowing Goldman Sachs to optimise the transaction terms. It resulted in a tightened pricing to 5.875% versus talk of mid-to-low 6%s.

The successful syndication resulted in a high-quality and diverse orderbook, with strong demand from investment-grade, high-yield and structured products investors.

The transaction was distributed to 123 investors, with the top 10 comprising about 72% of the orderbook.

It included a loan-to-value test for each collateral group, which is a rare feature in EETC issuances.

Based on initial maintenance adjusted half-life base values, the initial loan to values for the class-A certificate is 51.6%, with an expected final maturity of seven years. Weighted average life is 4.1 years.

ABS Deal of the Year: WEST V $366.7m ABS for 57 engines

Borrower/issuer: Willis Engine Structured Trust V

Structure: Three tranche asset-backed securities

Amount: $366.69 million

Tenor: Eight years

Banks: BofA Securities acted as sole structuring agent and joint lead bookrunner. MUFG and Wells Fargo acted as joint lead bookrunners

Lawyers: Milbank and Norton Rose Fulbright acted as co-counsel for the issuers. Pillsbury Winthrop Shaw Pittman acted as counsel for the underwriters

Date mandated: 9 December 2019

Date closed: 3 March 2020

Willis Lease Finance Corporation (WLFC), through Willis Engine Structured Trust V, raised $366.2 million debt through the issuance of a three-tranche structure.

The notes issued are secured by lease payments and disposition proceeds on a pool of 54 aircraft engines and three airframe, with 24 unique lessees in 17 unique countries, acquired by WEST V from Willis Lease Finance Corporation (WLFC) and certain affiliates.

Of the 57 initial assets, 29 were already owned by Willis Engine Securitization Trust II (WEST II) and being refinanced with this transaction.

The $303 million A tranche featured a 72% loan to value (LTV). The $42.1 million B tranche and the $21.1 million C tranche had 82% and 87% LTVs, respectively.

Weighted average life is 6.5 years, 6.5 years and four years, respectively, for an eight-year anticipated repayment date.

WEST V represented the first time the issuer closed a three-tranche structure with a total size of $366.7 million.

The transaction featured a series-C reserve account to cover shortfalls on payments of series-C note interest and principal up to and including the expected maturity date of the senior notes.

The account will be initially unfunded and build to a target of $1 million from available collections. The account will be replenished back to its target amount following any drawings.

WLFC acted as sponsor, servicer and administrative agent in the transaction. WEST V was the fifth aircraft engine operating lease asset-backed security (ABS) trust sponsored by WLFC.

Consistent with the previous WEST transactions, during the rapid amortisation event, senior scheduled principal payments are by-passed to prioritise, first, series-A notes and than the B notes, which differs from many peer aircraft ABS transactions.

Similar to WEST IV, airframes are included in the portfolio, while the maintenance ratio trigger event remains, which differs from other aircraft ABS transactions.

The marketing of the transaction was challenging, being just before the outbreak of the Covid-19 pandemic.

With a strong execution and pricing in under three days, WEST V represented the lowest all-in debt cost for an aircraft ABS transaction as of February 2020, right before the global pandemic and about 140 basis points tighter than WEST IV.

News Event of the Year: GECAS-PIMCO $3bn aviation fund

Borrower/issuer: Gilead Aviation (Warehouse) DAC

Equity sponsors: GECAS and PIMCO

Lawyers: A&L Goodbody acted as Irish counsel to GECAS. Clifford Chance acted as US counsel to GECAS. Milbank served as US counsel to PIMCO. Walkers acted as Irish counsel to PIMCO

Amount: $3 billion

Tenor: January 2026

Date mandated: 19 October 2020

California-based fix-income investor PIMCO and GECAS established a $3 billion aviation leasing platform in October 2020.

The transaction creates a strategic investment platform to enable GECAS- and PIMCO-advised accounts to acquire new and young fuel-efficient aircraft to meet the needs of a diverse set of global airlines.

The deal involved a bespoke investment structure development to meet both PIMCO's and GECAS's detailed investment criteria and funding requirements.

GECAS and PIMCO have identified an area to be filled post-Covid-19 pandemic where a diverse and global set of airlines will need new and young fuel-efficient aircraft. The new entity will provide "much-needed" financing to carriers which are looking to upgrade their fleets with young and new aircraft.

GECAS will source transactions for the platform, act as servicer and provide asset management services.

While the new platform will initially focus on narrowbody aircraft, it will also have the flexibility to invest in "attractive opportunities" in the widebody market. The establishment of the platform is dependent on regulatory approval and customary closing conditions.

The transaction involved raising third-party debt and equity in addition to the investment from PIMCO-advised funds and GECAS.

The transaction will inject essential liquidity into this critical industry by providing financing solutions at a time when there are fewer traditional financing options for airlines.

"As the airline industry struggles with the effects of the Covid-19 pandemic, the PIMCO-GECAS platform will inject essential liquidity into this critical industry by providing financing solutions at a time when there are fewer traditional financing options for airlines," says Dan Ivascyn, PIMCO's group chief investment officer.

"Aircraft remain an attractive asset class in a critical infrastructure sector supported by solid long-term growth drivers," he adds. "GECAS's expertise as a world-class aircraft lessor aligns with our longstanding investment strategy in aviation finance."

Editor's Deal of the Year: Castlelake Lessor Term Financing

Borrower/issuer: CISec Holdings 22 T LLC

Structure: $420 million class-A notes, $64 million class-B notes

Banks: Certain client accounts managed by Guggenheim Investments are noteholders. UMB acted as security trustee and administrative agent

Lawyers: Milbank served as adviser to the noteholders. Vedder Price acted as adviser to the borrower and issuer

Amount: $485 million

Date mandated: 11 August 2020

Date closed: 13 November 2020

The sale and leaseback market, and consequently the financing market for sale and leasebacks, became very active during 2020. This transaction, however, was totally innovative because it combined technology from both traditional airline enhanced equipment trust certificate transactions and aircraft asset-backed securities transactions to create a new structure that appeals to a variety of investor types.

CISec Holdings 22 T LLC, a newly-formed special purpose company owned by certain funds managed by Castlelake, acquired two Airbus A350-900s, two A330-900neos and three A321-200ceos from Delta Airlines under a purchase and leaseback transaction.

The company borrowed the loans from a newly-formed special purpose limited liability company that, in turn, issued class-A notes and class-B notes to certain client accounts managed by Guggenheim to fund the loans.

It marked the first lessor secured notes financing using this innovative structure in almost a decade.

The transaction required a rateable instrument and drove the development of a new and innovative structure, building off familiar EETC technology, to accommodate both the lessor's financing needs and investor requirements.

Like a typical airline EETC, a default under the loans will provide the lenders, through the noteholders, the opportunity to exercise remedies. However, no event of default under the notes will occur unless interest on the notes is not paid or principal is not paid on final legal maturity. Interest on the notes is supported by a payment-in-kind feature for up to 18 months.

The borrower, the issuer and the aircraft and related leases are serviced by Castlelake.

The deal was negotiated and executed in a very short period of time with all documents being negotiated and the transaction being funded in less than four weeks. This is particularly notable taking into consideration the novel structure and lack of precedent documentation.

Overall Deal of the Year: United Airlines $6.8bn Mileage Plus Programme

Borrower/issuer: Mileage Plus Holdings, LLC

Structure: High-yield bonds and senior secured institutional term loans

Banks: Goldman Sachs Lending Partners acted as sole structuring and lead left arranger and bookrunner. Morgan Stanley acted as joint lead arranger and bookrunner

Lawyers: Milbank, Mayer Brown acted as counsel to Goldman Sachs. Kirkland & Ellis acted as counsel to United Airlines

Amount: $6.8 billion

Tenor: Seven years

Date mandated: 2 March 2020

Date closed: 14 July 2020

The United Airlines $6.8 billion Mileage Plus Programme transaction had all the ingredients to win the year's Overall Deal of the Year award.

Covid-19 decimated the airline industry. United Airlines' revenue plummeted, creating a $1.6 billion second-quarter loss compared with a $1 billion profit in the 2019 corresponding quarter. With expenses of more than $40 million a day, the airline needed to raise cash. One source of untapped value for the airline was its frequent-flyer programme, which generates $5 billion in annual revenue through its co-branded credit cards and other commercial relationships.

The first-of-its-kind transaction, pioneered by Mayer Brown, Milbank, Goldman Sachs and the United team, marked the first financing backed by a US airline loyalty programme, helping the US carrier to obtain cost-effective financing backed by its core asset.

At $6.8 billion, the financing is one of the largest in aviation history and is an hybrid transaction that melds concepts from corporate loan and bond transactions and from structured finance products, providing parent-level credit support as well as safeguards protecting the transaction and collateral in the event United files for bankruptcy. No other airline had previously leveraged its frequent-flyer programme in such a fashion.

The transaction was complex because the loyalty programme intellectual property was transferred to a special purpose subsidiary. Mayer Brown, with help from co-counsel Milbank, devised a structure that legally isolates United's Mileage Plus subsidiaries, including the entities party to its Mileage Plus-related co-branding agreements and intellectual property.

As a result, were United to default on this debt, it would be very difficult for the company to launch a new frequent-flyer programme post-bankruptcy. Instead, United has a strong incentive to continue making debt payments even in the event of a bankruptcy filing.

The structure allowed the loans and bonds to obtain a higher credit rating than would a financing that is unsecured or secured by other airline assets. United's credit rating is considered speculative non-investment grade. These bonds were issued at 6.5% (investment grade) and the deal was upsized because of investor demand.

The challenge was to create a structure that protected collateral and gave the airline better pricing terms while still ensuring the airline could operate its loyalty programme. Lead arrangers underwrote financing prior to syndication because of volatile market conditions in June 2020; however, the syndication of the bonds and loans was extremely successful, garnering significant market attention and investor orders.

Overall Capital Markets Deal of the Year: SAPA 2020-1 $620m ABS for 21xA/c

Borrower/issuer: Sapphire Aviation Finance II Limited and Sapphire Aviation Finance II LLC

Servicer/manager: Avolon

Structure: Three-tranche asset-backed securities

Banks: Mizuho Securities acted as left lead structuring agent and left lead bookrunner. Mizuho Securities USA and Deutsche Bank Securities acted as joint lead structuring agents and joint lead bookrunners. Credit Agricole Securities (USA) and MUFG Securities Americas acted as joint lead bookrunners. BNP Paribas Securities and Morgan Stanley acted as joint bookrunners. Natixis Securities Americas acted as a co-manager. Credit Agricole CIB acted as liquidity facility provider. UMB Bank acted as trustee, security trustee, operating bank and paying agent. Canyon Financial Services acted as managing agent

Lawyers: Milbank, Clifford Chance advised Avolon, the issuers and the certificate issuer. Milbank acted as counsel to the initial purchasers

Amount: $620 million

Date mandated: 11 September 2019

Date closed: 14 February 2020

SAPA 2020-1 represents Avolon's second asset-backed securities (ABS) transaction of the Sapphire vehicle after SAPA 2018-1. Such vehicles attract strong investor demand to the aircraft market.

The issuance comprises $490 million of 3.228% series-A fixed-rate notes, issued at a 3.25% yield, and a 65.6% loan-to-value (LTV).

The $86 million of 4.335% (4.375% yield) series-B fixed-rate notes have a 77.1% LTV.

Both tranches amortise on a 13-year straight-line schedule.

The $44 million 6.779% (6.875% yield) series-C notes have an 83% LTV and amortise on a seven-year straight-line schedule.

Libremax Capital was selected as the anchor investor in the equity certificates offered. The New York-based hedge fund committed to keep at least 20% of the equity certificates for two years and 10% for a third year. Avolon's interests were fully aligned with investors through a 9.5% equity retention, as well as a profit-sharing agreement starting when equity investors reach a 12% internal rate of return.

The transaction was well received during marketing, enabling Avolon to tighten its all-in yield by 1% since the last Sapphire issuance in 2018 despite extending the weighted average life of the notes.

SAPA 2020-1 represented the lowest blended yield across the entire debt stack in this post-financial crisis vintage of issuance. The 3.25% for A-rated aircraft ABS represented the lowest yield across all aircraft ABS A-rated bonds. The 375% for BBB-rated aircraft ABS was the joint lowest yield across all aircraft ABS BBB-rated bonds.

SAPA 2020-1 attracted strong investor demand with oversubscription occurring across all tranches, particularly within the senior part of the capital structure.

Despite announcing the transaction at price guidance, overwhelming demand for all the As and Bs enabled Mizuho to test at a lower yield of 3.25% for the A notes. The transaction recorded 39 unique investors across the capital structure. The A tranche was 5.1x oversubscribed, the B tranche 5.9x oversubscribed while the C tranche was fully subscribed.

The debt is backed by a diversified portfolio of aircraft with a weighted average age of 7.5 years and a weighted average remaining lease term of 6.4 years.

The portfolio is comprised of 18 narrowbody and three widebody aircraft on lease to 19 lessees, with 47% exposure to national flag carriers.

Innovative Deal of the Year: American Airlines $1bn bond issuance

Borrower/issuer: American Airlines

Structure: Secured senior notes

Banks: Street Strategic Solutions Fund I, and Broad Street Credit Holdings LLC, each of which is an affiliate of the merchant banking division of Goldman Sachs Group (Goldman Sachs Purchasers). Goldman Sachs acted as sole placement agent and bookrunner

Lawyers: Milbank as counsel to the Goldman Sachs purchasers. Latham Watkins as counsel to American Airlines

Amount: $1 billion

Tenor: 5.5 years

Date mandated: 1 July 2020

Date closed: 20 September 2020

The year 2020 required airlines to get creative in unlocking attractive assets to bolster liquidity. This was an important initiative for American Airlines and it demonstrated to lenders that there was untapped and arguably unappreciated assets in corporate brands.

The transaction was one of the first airline financings significantly to leverage brand and trademark intellectual property (IP) in the airline sector. It also represented the largest private placement in the USA by any investor in the airline sector.

American Airlines structured a $1 billion secured notes issuance with Goldman Sachs Merchant Bank with the company's corporate brand and IP as the underlying collateral.

The senior notes are secured by a first lien on the American Airlines trademark and aa.com domain name in the US and some foreign jurisdictions (the IP notes).

Derek Kerr, American's chief financial officer, said the company's IP was worth about $10 billion.

Another $200 million in senior notes (the LGA/DCA notes) are secured by a second lien on certain slots at New York's LaGuardia airport and Washington's Reagan National airport.

The notes are guaranteed by American Airlines Group, and mature about five-and-a-half years after issuance. They will bear interest at a rate of 10.75% a year, subject to certain rights of the company during the first two years the notes are outstanding, at its election, to pay interest at a rate of 12% a year payable one-half in cash and one-half in kind through the issuance of additional notes.

The transaction was a unique use of a valuable and previously unfinanced asset – the corporate brand.

It was also the first-of-its-kind brand intellectual property and take-off/landing slot financing.

The innovative second lien structure takes advantage of capacity under existing financings.

The $1 billion size allows an additional $4 billion of first lien capacity against the collateral.

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

The Covid-19 pandemic dealt a heavy blow to people's daily lives, on the economy at large and on the aviation sector as travel restrictions and national lockdowns pressured most of the passenger travel operators to reduce capacity or completely shut down for several months.

As the crisis deepened, several financiers and liquidity providers, paused or reduced their exposure or exited the aviation market, fearing a protracted hit to the market and to their returns.

As per its long-standing support to the market, BNP Paribas strongly reaffirmed its commitment towards aviation during 2020, by providing key support as early as a few weeks into the crisis, and supporting its core clients throughout a wide range of financing solutions, most of them specifically tailored or readjusted to tackle the unexpected challenges its clients were facing.

As can be seen in its transactions, the downturn of the aviation market did not stop BNP Paribas from taking part in more than $100 billion-worth of aviation-related financing products, representing more than double the size of 2019's deal flow.

This volume excluded any deals for which the bank performed restructuring or deferrals as a consequence of the Covid-19 crisis.

BNP Paribas underwrote $6.5 billion (up 4% year on year) of financings, and kept final takes of $4.4 billion (up 1% year on year).

The financier executed every type of financing transaction, including term loan, limited recourse financing, Murabaha term loan, warehouse facility, Japanese operating lease with call option (Jolco), French lease, Insurance-supported financing (Balthazar and AFIC), unsecured revolving credit facility, commercial loan, recourse portfolio financing and state-guaranteed loan on a total of 35 airlines.

The total volume of deals is mainly attributable to the liquidity needs the entire aviation sector has faced (airlines, original equipment manufacturers and lessors), which resulted in sizeable unsecured issuances (ie, $9 billion Skymiles securitisation and $5 billion high-yield notes and term loan B by Delta Air Lines, £5 billion – $7.1 billion – Rolls-Royce package, etc), alongside a wide range of rights issuances, at-the-market sales and convertibles (Easyjet, Cathay Pacific Airways, American Airlines, Lufthansa, etc), innovative portfolio structures (Bleriot Aviation Funding and Titan Aviation warehouses, Qantas's enhanced corporate loan, etc), sizeable and complex secured facilities (AFIC and Balthazar French leases with Turkish Airlines, Balthazar financing with Pegasus Airlines, which introduced Airbus's remote delivery procedures for the first time, Jolcos with AF-KLM, LATAM and Cathay, etc), added to the bank's continued commitment towards environmental, social and governance objectives through Jetblue Airways' $550 million sustainability-linked revolving credit facility.

Once again, BNP Paribas has proven – during a difficult period nonetheless – its ability to cater to its aviation customers' needs, providing innovative products in record time and efficiency, within a complex environment that continues to challenge the industry, operators and financiers.

Lifetime Achievement Award: Phang Thim Fatt

Phang Thim Fatt is the former deputy managing director and chief financial officer of BOC Aviation.

He stood down from the position on 30 September 2020 but remained with the company to ensure a smooth transition of his duties until his retirement three months later on 31 December. Thim Fatt's role included overseeing the finance, treasury, tax and risk departments.

Since Bank of China's acquisition in December 2006, Thim Fatt and his team have raised more than $31 billion in debt, with an average return on equity of 15%. At the time of his departure, BOC Aviation had reported $4.7 billion of cumulative profits since inception.

He joined the company in 1996 as chief financial officer and was appointed deputy managing director of BOC Aviation in July 2001. He graduated from the University of Malaya in Malaysia with a Bachelor's Degree in Economics (First Class Honours).

He worked with Robert Martin, managing director and chief executive officer, since 1998. This partnership successfully managed the group through multiple industry cycles.

Since 2000, its debt capital markets activity has allowed it to access multiple bond markets, including the Regulation S market, the offshore Chinese yuan bond market, the Singapore, Hong Kong SAR and Australian dollar bond markets and the US Rule 144A international market. Over the years, BOC Aviation has demonstrated its ability to diversify into new sources of capital to fund its growth. The lessor has raised more than $8.2 billion in debt capital markets financing since 2000.

BOC Aviation was one of the few aviation success stories in 2009, and some prudent financial planning by Fatt Phang allowed the company to capitalise on the downturn in 2010.

In the aftermath of the financial crisis, BOC Aviation launched a $300 million multicurrency medium-term notes programme. Over the subsequent years, it tapped the debt market in Singapore dollars, US dollars, Australian dollars issuances, as well as reminbi-denominated currencies.

BOC Aviation priced its debut $500 million five-year senior unsecured notes at 2.875% in 2012. The notes were part of a $2 billion euro-denominated medium-term notes programme, which was launched in September 2012. At the time, debt capital markets financing represented only 5% of BOC Aviation's financing activity, according to Thim Fatt.

In 2015, the Singapore-based lessor priced its first issuance of Rule 144A/Regulation S $750 million notes under its $5 billion global medium-term note (GMTN) programme.

In 2015, BOC Aviation performed its first portfolio sale in the capital markets with the Shenton Aircraft Investment I Limited asset-backed securities (ABS) transaction. BOC Aviation returned to the ABS market in 2021 with another transaction, Silver Aircraft Lease Investment Limited.

In 2016, BOC Aviation closed a $1.5 billion unsecured syndicated revolving credit facility, increased from an initial launch size of $1 billion. The facility, which comprised two $750 million tranches with tenors of three years and five years, respectively, was the largest financing transaction closed by the lessor.

The lessor had already prepared for an expected downturn in 2020 and had put additional liquidity in place during 2019. In addition, it increased the GMTN programme's limit to $15 billion from $10 billion in the first quarter of 2020, to provide further flexibility and continue accessing the debt capital markets for its future funding needs.

BOC Aviation has one of the highest credit ratings in the aircraft operating lease industry, with investment-grade corporate credit ratings of A- from both S&P Global Ratings and Fitch Ratings.

Airline Treasury Team of the Year: Pegasus Airlines Aircraft Finance Team

Pegasus Airlines, the Turkish low-cost airline, is eager to diversify aircraft financing products in its portfolio in order to manage the financing cost and to minimise the risk allocation.

Being a small team which is responsible for managing the financing of the 93-aircraft fleet (as at year-end 2020), Pegasus's treasury team has 57 Airbus A320neo-family aircraft on backlog, which are to be delivered between 2021 and 2025.

Despite the negative effects of the Covid-19 pandemic to the aviation market, the treasury team was able to deliver 14 aircraft in 2020, as originally committed to Airbus, without any change in its original 2020 delivery stream.

It also managed to add diversified financing structures in the fleet.

The team notably excelled in diversifying its financing channel by closing different structures last year, including:

- **Insurance-supported financing product Balthazar** for four A320neos. Because of Covid-19 precautions taken globally, international flight limitations affected the deliveries of the second, third and fourth aircraft. The Turkish carrier applied Airbus's e-delivery concept, with the fully remote deliveries of these Balthazar aircraft;
- **Japanese operation lease with call options (Jolco) financings** of three A321neo aircraft. Despite the negative developments on the Japanese equity market after the pandemic, Pegasus was able to close two Jolco financings during the second quarter and one in the final quarter of last year. The financings were closed with different parties, and one transaction marked the first time that the Jolco structure was funded with the debt guaranteed by Aviation Capital Group under its Aircraft Financing Solutions programme.
- **Export credit agency-supported financings**. Pegasus obtained the UKEF's guarantee in April 2020 for the financing of up to 10 aircraft. This structure was used to fund five A320neo and two A321neo deliveries in 2020. Another three aircraft were funded with the export credit agency guarantee in the first quarter of this year. Pegasus was the fourth airline to obtain the guarantee after export credit agencies reopened support for Airbus.

Pegasus also made progress last year with the phase-out of its Boeing 737-800 fleet. The carrier reached an agreement with operating lessor Air Lease (ALC) for the sale and leaseback of four 737-800s under which the US lessor will place an A321neo with the airline in spring 2023.

The carrier also announced plans in December to raise up to TRY2.5 billion ($320 million) from domestic qualified investors in one or more tranches.

The inaugural bond issuance closed in February 2021 with the TRY260 million transaction. The bond's principal payment has a one-year maturity and a variable interest of 300 basis points over the benchmark – the Turkish lira overnight interest rate.

Lessor Treasury Team of the Year: Avolon Treasury Team
Lessor of the Year: Avolon

Last year was the most challenging the commercial aviation industry has ever faced.

Lessors were not immune but the strength and resilience of Avolon's investment-grade platform was evident throughout the year, and its response to the Covid-19 crisis was built around three pillars: customers, liquidity and supporting its communities.

The Avolon treasury team is credited with an outstanding performance to lower yields and raising a massive amount of liquidity.

Dublin-headquartered Avolon worked to support its customers – quickly and in scale – through temporary rent deferrals.

Despite the challenging market environment, Avolon took delivery of 27 new-technology, fuel-efficient aircraft during the year, continuing to help support its customers' fleet renewal.

The lessor also supported airlines through sale and leaseback transactions for 44 aircraft, for a total of $2.3 billion.

During the year, it delivered 57 new aircraft and transitioned another 10. The lessor also sold 29 aircraft, three of which were managed.

At year-end, its owned and managed fleet numbered 572 aircraft with an average age of 5.3 years and average remaining lease term of 6.8 years.

When the scale of the pandemic became apparent, Avolon focused on liquidity, realigning its capital deployment pipeline with a fundamentally different industry outlook.

The lessor cancelled a 75 Boeing 737 Max order in the first quarter of 2020, and another 27 aircraft of the type in the second quarter that were due to deliver between 2020 and 2022.

The cancellations subsequently reduced its capital and debt principal commitments in the 2020-24 timeframe by more than $9.5 billion, helping further strengthen its capital structure.

It successfully raised a total of $4.4 billion of debt in 2020, including $3.4 billion of senior unsecured notes, and $675 million of secured term loan debt – all while remaining an investment-grade-rated credit.

These activities allowed Avolon to maintain an excess of $5 billion of liquidity throughout the year and ended 2020 with a total available liquidity position of $6.8 billion – the strongest liquidity position in its history.

This capital position was achieved while maintaining the leverage of the business conservatively low, with a net debt to equity of 2.3x at year-end, one of the lowest in the sector.

Executing these debt-raising activities against one of the most challenging market backdrops in aviation history, highlighted the strong investor demand for Avolon's platform. These factors were further underlined with a $1.5 billion unsecured bond offering in January 2021, which was priced at Avolon's lowest-ever coupon.

Reflecting on 2020, Avolon's chief executive officer, Domhnal Slattery, says: "We worked closely with our customers to provide support while also prudently managing our own capital position. We proactively realigned our capital commitments and addressed near-term debt maturities to position our business for what we anticipated to be a gradual recovery."

Last year, Avolon also actively participated in combating Covid-19 in the early stages of the pandemic.

The lessor worked closely with a number of partners, to charter three flights from China to Ireland which transported four million individual pieces of PPE together with ventilators and other vital medical equipment. It created a public fundraiser and raised €350,000 ($426,000) from the general public to be put towards the cost of acquiring PPE for front-line staff.

Aviation Person of the Year: Greg Lee

Greg Lee is a managing director in the financing group within the Goldman Sachs investment banking division.

He is co-head of the structured finance group and also head of airline investment banking coverage in the Americas. As head of airline investment banking, Lee is responsible for the firm's relationships with major airlines in the Americas.

He joined Goldman Sachs as a managing director in 2007. Previously, he worked at Salomon Brothers, Salomon Smith Barney and Citigroup for 14 years, focusing on structured finance product development and execution across a wide variety of industries.

Lee led a team of financiers that worked on rescue financings for airlines last year, in coordination with the merchant banking divisions.

Goldman Sachs demonstrated its ability to continue driving strong execution in a stressed environment for the airline sector, especially in the second quarter of 2020.

In a challenged operating environment, Goldman Sachs offered innovative capital solutions in landmark deals:

Greg Lee

United Airlines' $6.8 billion Mileage Plus Holdings debt financing: Goldman Sachs was the sole structuring agent and joint lead bookrunner of the $6.8 billion of the Mileage Plus Holdings debt financing. The issuance included $3.8 billion senior secured notes due June 2027 and a $3 billion senior secured term loan due June 2027.

The debt is backed by the intellectual property and cash flows associated with the airline's customer loyalty programme, Mileage Plus Holdings.

It was the first-of-its-kind transaction marking the first financing backed by a US airline loyalty programme, helping United obtain cost-effective financing in large size backed by its core asset. The innovative transaction structure leverages intellectual property of the airline loyalty programme and uses technology from structured finance and leveraged finance to achieve IG ratings.

At issuance, it was the largest capital markets offering by an airline. The transaction achieved significant oversubscription and led to a $1.8 billion upsize, tranche optimisation, and ultimately final pricing inside of initial whispers and price talk.

Delta Air Lines' $9 billion Skymiles secured financing: Goldman Sachs was the sole structuring agent and joint lead bookrunner of the $9 billion Delta Air Lines Skymiles secured financing. The transaction represented the largest aviation financing transaction, raising $2.5 billion of senior secured notes due October 2025 and $3.5 billion of senior secured notes due October 2028. The transaction also included a $3 billion secured term loan due October 2027.

The innovative transaction structure leverages intellectual property and diversity of cash flows of the airline loyalty programme to achieve investment-grade ratings.

The significant oversubscription led to a $2.5 billion upsize, tranche optimisation, and ultimately final pricing inside of initial whispers and price talk.

The transaction garnered investment-grade ratings from both Moody's (Baa1) and Fitch (BBB), representing significant up-notching to investment grade from the parent unsecured rating of Baa3 and BB+.

American Airlines (AA) transactions: Goldman Sachs was one of the four banks acting as joint lead managers on AA's 'Big Bang' financing in June 2020.

The $4.65 billion transaction included $2.5 billion senior secured notes due 2025 for which it acted as joint lead bookrunner. The firm also acted as left lead bookrunner and syndicate trading manager for AA's dual tranche $1 billion common equity and $1 billion convertible offering with $150 million 15% greenshoe.

The firm acted as sole placement agent and bookrunner in AA's $1.2 billion issuance. The senior secured notes were purchased by Goldman Sachs' merchant banking division. The $1 billion notes offer first priority lien on American Airlines brand, related/successor trademarks and domain names (IP Collateral) and second priority lien on AA's owned DCA/LGA slots (Slot Collateral). The $200 million notes were first priority lien on slot collateral.

The transaction represented the largest private placement in the USA by any investor in the airline sector. It was also a novel transaction in the airline industry leveraging intellectual property as sole first lien collateral.

Goldman Sachs was also involved in two enhanced equipment trust certificate (EETC) transactions in 2020: one in Europe and another in the USA.

The $1 billion British Airways 2020-1 EETC priced well inside initial pricing talk on the class A and 25 basis points inside guidance on both class A and class B.

On the $3 billion United Airlines 2020-1 EETC, Goldman Sachs acted as sole structuring agent and lead left bookrunner and liquidity facility provider. This single tranche transaction represented the largest EETC financing issued and the first EETC transaction collateralised by three collateral pools. The transaction also represented the first post-global financial crisis EETC to include spare parts or spare engines and the oldest aircraft financed in a EETC to date.

Goldman Sachs also acted as sole structuring agent, global coordinator and sole bookrunner of AASET 2020-1 asset-backed securities (ABS), a portfolio sale of $490 million assets, financed with $409 million of debt. Despite having an older-than-average portfolio for the ABS space, AASET 2020-1 priced at the tightest debt yields to date in the aircraft ABS space and Carlyle's fund sold 100% of its equity position.

The firm acted as joint sponsor, joint financial adviser, joint global coordinator and joint bookrunner of the €2.74 billion ($3.3 billion) IAG rights offering.

Goldman Sachs acted as financial adviser in Cathay's triple tranche HK$39 billion ($5 billion) recapitalisation. The transaction was the second-largest government-led airline recapitalisation package in the Asia-Pacific region.

The Hong Kong SAR government committed a total of HK$27.3 billion to Cathay Pacific, and the airline also secured a HK$7.8 billion bridge loan facility over certain aircraft and related insurances of the Cathay Pacific Group.

Goldman Sachs was joint lead arranger and joint bookrunner of Avianca's $1.27 billion debtor-in-possession tranche A – the $1.029 billion Tranche A-1 and $240 million Tranche A-2.

Blockchain helps kickstart international travel

Mobile app IATA Travel Pass will help travellers store and manage their verified certifications for Covid-19 tests or vaccines, reports **Laura Mueller**.

The aviation industry is desperate to reopen for summer holiday revenue, and the International Air Transport Association (IATA) is hoping blockchain will help kickstart international travel by reducing onerous quarantine requirements.

To address this challenge, IATA has launched the IATA Travel Pass, a mobile app that helps travellers store and manage their verified certifications for Covid-19 tests or vaccines.

It is more secure and efficient than current paper processes used to manage health requirements because it is based on decentralised blockchain technology, meaning there is no central database of personal data.

All the user's health details remain on the app: they are transmitted or centrally stored at no point, which assures the user of total control over all their personal data.

"To reopen borders without quarantine and restart aviation, governments need to be confident that they are effectively mitigating the risk of importing Covid-19. This means having accurate information on passengers' Covid-19 health status.

"Informing passengers on what tests, vaccines and other measures they require before travel, details on where they can get tested and giving them the ability to share their tests and vaccination results in a verifiable, safe and privacy-protecting manner is the key to giving governments the confidence to open borders," says IATA.

In June, Air France, British Airways, LATAM and Vietjet became the latest airlines to start the trial of the IATA Travel Pass. In March, about 20 airlines began trialling the new app. This trial is free of charge for customers and offered voluntarily.

In fact, to encourage the trial of the digital passport, travellers on LATAM who completed each step in the trial phase, including the survey at the end, received 1,000 bonus LATAM Pass Miles as a reward.

Avianca became the first South American to trail the pass in May.

British Airways chairman and chief executive officer (CEO), Sean Doyle, says: "We are committed to exploring ways to ensure that the customer journey is as frictionless as possible and sharing our learnings to help the travel industry take off again.

"We know that digital travel passes are part of the solution, and they will also play a key role in offering those travelling the reassurance they need before they arrive at the airport. We hope to be able to offer a customer-friendly digital option for every British Airways international route that requires proof of government-mandated Covid-19 status documentation."

The airline's parent company, International Airlines Group (IAG), has been working closely with IATA to co-develop the app.

Nick Careen, IATA's senior vice-president for operations, safety and security, says: "To reopen borders, governments need to be confident that they are mitigating the risk of importing Covid-19. Testing, or proof of vaccine, is the solution. IATA Travel Pass will collaborate with governments, airlines, laboratories and travellers to verify these documents securely, ensuring reliable information on the health status of travellers."

To access the travel pass, travellers will download the IATA travel pass app, which will require them to create a digital version of their passport. Passengers are then required to go to test centres either to acquire a Covid-19 test or vaccination, leaving them with their digital passport on their phone and their test or vaccination results.

This information is then run through the IATA system called Timatic – a system that has been used by airlines and travel agents for more than 60 years – to verify passenger data and requirements against border control regulations.

The system has now been updated to include worldwide Covid-19 regulations, allowing IATA to compare passenger data to restrictions.

IATA identified blockchain in its "Future of the Airline Industry 2035" study as one of the technologies that may have a major impact on the future of aviation, among other drivers of change such as new modes of consumption or the privatisation of infrastructure.

The Travel Pass consists of four independent components that can interact with each other:

MODULES	FUNCTIONALITIES
Registry of Health Requirements	• enables passengers to find information on travel, testing and vaccine requirements for their journey; • powered by IATA Timatic.
Registry of testing/ vaccination centres	• enables passengers to find testing centres and labs at their departure and/or arrival location that can conduct Covid-19 tests in accordance with the type of test required for their journey.
Lab App	• enables authorised labs and test centres to send test results or vaccination certificates to passengers securely.
Travel Pass App	• enables passengers to (1) create a digital passport, (2) verify their test/vaccination meets the regulations and (3) shares test or vaccination certificates with authorities to facilitate travel; • can be used by travellers to manage travel documentation digitally and seamlessly throughout the travel experience.

Smooth operator

BOC Aviation was swift in enacting its "downturn plan" at the start of the Covid-19 pandemic, and 2021 is shaping up to be another big year for the lessor, its managing director and chief executive officer, Robert Martin, tells **Dominic Lalk**.

Singapore-based, Hong Kong-listed BOC Aviation was executing a new business plan in response to the Covid-19 pandemic before many of its rivals had properly appreciated its severity, says the lessor's managing director and chief executive officer (CEO), Robert Martin.

"We enacted our downturn plan in March last year when most of our competitors didn't even realise we were in a downturn. People were still in Dublin at the AFJ [*Airfinance Journal*] conference while we were out here raising bond money because we could see what was coming here in Asia.

"Around the same time, Steven Townend, who was our head of revenue in Europe at the time, and I got on a plane to the US, sat with the big carriers there, explained to them what we could see going on with Covid over here and what we could do for them. Then, within a month, we started executing. That laid out our Capex [capital expenditure] for that year and this year, as well as our deliveries," recalls Martin.

He says 2021 will be "another big year" because the Chinese bank-backed lessor expects 79 new aircraft deliveries, including from purchase and leaseback (PLB) deals agreed at the start of the pandemic.

Martin tells *Airfinance Journal* that his team transacted more than $6.6 billion in purchase and leasebacks in 2020. Many of these were signed as early as March or April 2020.

"Asia had a good start to the Covid crisis, but the other regions have clearly taken over. We anticipated this right back at the start, when we did a rush of PLBs, transacting more than $6.6 billion, which was 40% of the net book value of our portfolio. Those have gradually been delivering both last year and this year," he says.

BOC Aviation agreed purchase and leasebacks in 2020 with airlines such as Cathay Pacific, Southwest Airlines, United Airlines, American Airlines, Wizz Air and Indigo.

"We focused the PLBs heavily on the big domestic markets where we could see governments were going to help and where we could see functioning capital markets. This is why our overall cash flow has been strong throughout this period, because we invested in recovery markets and reduced the proportion of our exposure to those weaker parts of the world – i.e., South-East Asia," says Martin.

"We've done nothing in South-East Asia in terms of PLBs, that type of business. We've had a few deliveries to people like Scoot, but basically that's all we've done in South-East Asia during this period.

"This takes me to one of the most important points: as an operating lessor, portfolio diversification is crucial; active portfolio management is crucial," says Martin.

In 2020, BOC Aviation delivered 54 aircraft to its airline customers, including one acquired by an airline customer on delivery. It sold 12 aircraft that year and signed 102 lease agreements as it "secured new business".

The company says it ended 2020 "as the world's most valuable listed aircraft operating leasing company in terms of market capitalisation". Its total assets had risen by 19% to $23.6 billion by 31 December 2020.

To fund its accelerated growth, BOC Aviation tapped the loan and bond markets, where it raised $5.5 billion and repaid $1.8 billion in debt. The firm's average cost of funds declined to 3.2% in 2020, from 3.6% in 2019.

Aercap-GECAS? Not a problem

The merger of leasing giants Aercap and GECAS could lead to tighter scrutiny of the aircraft leasing industry by regulators, although that is about the only concern Martin has with regards to the proposed $30 billion acquisition.

"Remember GPA [Guinness Peat Aviation]? The Irish love talking about how great GPA was. But let's not lose sight of the fact that once Aercap merges with GECAS it will be the size of the third-largest Irish bank. How does a regulator think about this?

"What we're worried about is gradually getting regulators more involved in the leasing business globally going forward," says Martin.

The leasing chief, however, is not concerned that the merger will give Aercap-GECAS undue market power. He doubts that even a merged Aercap and GECAS would be able to achieve the low cost of finance that BOC Aviation claims.

"The price we pay for our debt is already one of the lowest in the market. We're already priced at a discount to where Aercap raised money, so we won't be at any more disadvantage just because they merged with GECAS. We'll still be as competitive," says Martin.

The same concept applies to lease rates. "If their cost of debt is still above ours and they drop their lease rates, then all they'll do is lose money," says Martin, who believes that the largest impact of the merger will be on used aircraft trading.

"Where we think they will have the biggest impact is on the aircraft sales market side because clearly Gus [Kelly, Aercap CEO] is following what he did after acquiring ILFC, where he combined the two portfolios. To maintain the investment-grade ratings, however, he'll need to quickly sell certain parts of the portfolios.

"The number of used aircraft portfolios hitting the market will go up in the short term," says Martin. "They will become the biggest lessor by far for aircraft older than 12 years."

BOC Aviation, however, has not got its sights on any of them. "We are not looking at picking up any portfolios at the moment. I don't rule it out, but nothing that we're grinding our way through at the moment," he says.

Quizzed on manufacturer order concessions as a direct result of the merger, Martin notes this must not necessarily lead to significant discounts.

"On the aircraft pricing side, this is really a matter of how manufacturers view you. Look at how we've supported airlines and the manufacturers during the crisis with all the PLBs we've done. GECAS and Aercap didn't do that – they're pure leasing companies. In fact, GECAS wants its divorce from the GE Group to be a pure leasing company," notes Martin.

Liquidity is coming back fast, but...

"The big difference between this year [2021] and last year that even caught us by surprise was the speed at which the liquidity was coming back in the financial markets. That was phenomenal. If you think about it, even at the end of the fourth quarter last year we suddenly saw carriers getting EETCs [enhanced equipment trust certificates] away at good pricing, and we saw the ABS [asset-backed securities] market return on the debt side in the US. In Europe, we saw guys getting bond issues done.

"This then helped the imbalance in the world between the Americas, Europe and this side of the world where the access to the capital markets clearly was mainly in the US and in Europe, less so in the Asia-Pacific," he says.

BOC Aviation has in place a $15 billion medium-term note programme backed by its Chinese parent, Bank of China. The lessor has achieved record low coupons on its latest issuances.

The company ended 2020 with more than $5 billion in cash and unutilised credit lines.

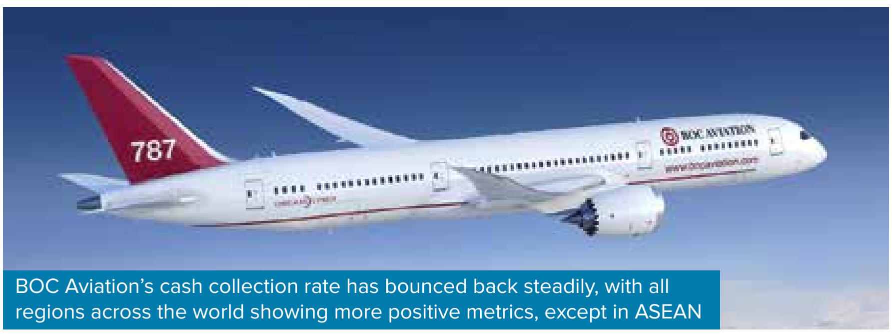
"Our policy is always to have significant liquidity. At the moment, we have even more liquidity than usual because of all the delayed and deferred deliveries," says Martin.

Airlines, however, will find it much tougher to secure inexpensive, if any, funding from the commercial banking sector.

"If you look at airline balance sheets, the debt-to-equity ratios are much higher than before if you compare 2019 to 2021. This is going to cause concern in the banking market so the banking market, we think, won't reopen in any significant way in the next two years.

"If you talk to the banks they will tell you they've been doing business, but then dig deeper and you'll find its generally in North America because they need to win the short-term debt deals in order to position themselves for the bond markets," says Martin.

Airlines have borrowed extensively throughout the crisis, including from governments, but there will soon come a time when they will want to refinance those debts, predicts Martin.



BOC Aviation's cash collection rate has bounced back steadily, with all regions across the world showing more positive metrics, except in ASEAN

More sale and leaseback opportunities ahead

"All these carriers that borrowed money from governments, they usually have pretty onerous terms attached. It may not be financial terms that are onerous, it may be the fact that the government then ends up with equity in the company, or they can't pay dividends, or they restrict the renumeration of the senior management. That means there is a strong incentive to refinance such debt as quickly as possible," says Martin.

"What all of this means is that we think there will be a second wave of opportunities in the SLB [sale and leaseback] market for people like ourselves who play in the SLB market. What is happening now is that we are seeing a SLB recovery for the stronger carriers, with rates driven down to the levels that we saw pre-Covid. We anticipated that would happen. We did our $6.6 billion, but we're not going to chase the market down. There is more to come yet. There will be more situations as we emerge from the downturn where we will be able to step in and support our customers," he adds.

Delivery stream in 2021

Martin says that 2021 will be another "big year" for BOC Aviation. The leasing executive reveals to *Airfinance Journal* that BOC Aviation is "looking at 79 deliveries, with 11 of these PDP [pre-delivery payment]-like structures where the airlines will buy them on delivery".

Delivery delays, however, are expected.

"With our 79 deliveries this year, already we have seen slippages in the first half, principally [Boeing] 787s that were due to come but that have been delayed by one or two months on average.

The Max is pretty much on schedule. We did a large number in December and January. We have five delivering to Tui this month [June]. Our Maxs are pretty much delivering on schedule compared to where we thought they were going to be," says Martin.

"We've also seen delays in the Airbus system, particularly in Hamburg, where planes have been pushed over the half year," he adds.

As of 31 March, the Hong Kong-listed lessor had a total fleet of 405 aircraft owned and managed with another 144 in its orderbook.

Widebody valuation crisis

Martin warns that the worst of times for widebody valuations may still be ahead, which will force another painful round of impairments on operators.

"In our view, widebodies haven't hit rock bottom yet. We expect appraiser values to hit rock bottom toward December this year. You shouldn't be surprised to see more impairments through this year as people take appraiser views into account.

"The disparity between P&L [profit and loss] and cash flow will really appear this year. People's P&Ls will be negatively impacted, but ironically their cash flows will be getting better," says Martin.

This, however, presents new opportunities for BOC Aviation. "Widebody pricing is typically a lot more volatile, so we tend to go in during a downturn," he adds.

Whitetails

"It's interesting. We keep a watch on what is going on both sides. Airbus keeps telling people there are no whitetails, but even last week we had an airline that is important that has whitetails this year. So, we know they are there. At Boeing, they are mopping up what were the Max whitetails very, very quickly. Most of those are being snapped up by North American airlines," says Martin.

It is a skewed landscape for 737 Max operators. There are five major markets that have yet to recertify the Max: China, India, Russia, Indonesia and South Korea.

"In India, I suspect, part of it is that there's a certain airline there who's the major operator of Maxs that doesn't want it to be certified yet because then it would have to pay all the debt and fees," says Martin.

"In Indonesia, it's the same thing. There's a lot of politics going on, I think. It's not just China – it's all those markets. You also need to consider overflying rights as well. It's not just the airlines from those countries that are affected but also other operators – think of Indonesia and Russia. Today, 172 out of 195 countries have reopened to the Max, but it's some of the most important markets that are still delaying re-entry," he notes.

Asean dilemma

The Asean region is falling far behind the rest of the world in terms of airline recovery.

The BOC Aviation chief executive notes an almost perfect payment record from airline customers in other regions, while Asean carriers remain late on their lease bills. This is mostly because Asean governments have failed to support their airlines, says Martin.

"It frustrates me when I hear people talk about Europe, the Americas, Asia. Anyone who's been involved in Asia for the past 25 years the way we have knows that we can't talk about Asia as one market.

"The way we look at Asia is: one, Greater China; two, North Asia driven by Japan and Korea; three, the Indian subcontinent; four, Australasia/Oceania; and, finally, South-East Asia, the 10 Asean countries," says Martin.

The Asean region has been of concern for more than a decade, particularly the huge orderbooks amassed by low-cost carriers in the region.

"The big difference between this year [2021] and last year that even caught us by surprise was the speed at which the liquidity was coming back in the financial markets."

Robert Martin, managing director and chief executive officer, BOC Aviation

"Even before Covid, Asean was very different from other markets. Firstly, in the pre-Covid era, we went through this period, many years actually, where we talked about over-ordering here in South-East Asia, in particular by the LCCs [low-cost carriers] – Vietjet, Lion Air, Air Asia Group, each with hundreds of orders.

"You're going to see significant order deferrals from all of the big LCCs here in the region," says Martin.

A lack of consistency, coordination and strategic planning has meant little support from many Asean governments to airlines during the crisis.

"As we went through Covid, governments in Asean, with the principal exception of Singapore, did not support their airlines. That had a big impact," notes Martin. "What Asean has got to do is find a way to get equity into the airlines. If they cannot, then I'm afraid to say one or two may not survive."

Vaccination rates, again with the principal exception of Singapore, have been extremely low in the Asean region. Even now many countries in the region are under lockdown restrictions and infection rates in various Asean countries have been on the rise again in June.

With this much uncertainty still prevalent among Asean airline operators, banks and lenders find themselves hard-pressed to support the aviation sector.

No functioning capital markets

"There are no functioning capital markets in this region. This is what differentiates Asean particularly from domestic China where the capital markets have been very, very strong for airlines all throughout Covid, and obviously the US market, as well as European markets. So, we have this situation where in Asean it's been the worst of all worlds," says Martin.

"There hasn't been a lot of shareholder money, again with the exception of Singapore, put into the airlines. The only place where we've seen significant new money is probably Cebu Pacific in the Philippines. But if you walk around the Asean countries and look at the flag carriers, they are either in restructuring or about to enter a restructuring. Garuda, PAL, Thai, Vietnam Airlines. Even worse is the situation at the carriers in the small countries – Myanmar, Laos, Cambodia," he says.

Martin adds: "These airlines have been heavily dependent on creditor support for their survival. This is something we don't see changing in the short term because vaccination rates aren't being significantly increased."

BOC Aviation's cash collection rate has bounced back steadily, with all regions across the world showing more positive metrics, except Asean.

"We see well in the payment records a very big difference between Asean and the rest of the world. Even if we contrast with Latin America, where we probably come the closest to low vaccination rates amid restructurings, the airlines there have been able to access the capital markets. Azul just sold a new bond; Gol is raising equity," notes Martin.

"When we look at metrics from around the world, Asean is the worst. India is the second worst, but still almost eight times as good as Asean in terms of our payment records. We've got almost a 100% payment record around most of the rest of the world. The only other place is Hainan Group where the restructuring is nearly done. If only they would stick to it," he says.

"We understand that people need short-term help but, long term, these airlines won't survive if all they do is restructure debt, restructure debt, restructure debt. They simply won't be able to repay it eventually.

"So, you should think there would be liquidations, but we haven't really seen that yet," says Martin. "And this brings us to the final point about Asean – the legal systems. The legal systems are very slow, just look at the Thai restructuring.

"We're 15 months into the crisis, Garuda hasn't even started yet, PAL hasn't even started yet."

What next for **Regional aircraft OEMs**?

Mitsubishi Heavy Industries has put its Spacejet programme on hold indefinitely given changes in the market environment. *Airfinance Journal* explores the incumbent players in the 70- to 100-seat market and their priorities. **Hugh Davies** and **Olivier Bonnassies** report.

Regional manufacturers ATR and Embraer have both managed to hold out during the pandemic because the regional aircraft market has been less impacted by Covid-19 compared with other segment sizes, and it is widely tipped to be the first to recover after the pandemic.

"We have been relatively resilient in our market," ATR's senior vice-president commercial, Fabrice Vautier, tells *Airfinance Journal*.

He says this comes from fundamental elements of the turboprop market that have endured during the pandemic, pointing to the aircraft's use in essential air and life-line routes and express cargo operations with a reduction in emissions of slightly less than 40% compared to 45% for jet aircraft and more than 70% for long-haul aircraft.

Vautier notes there is a shift in mentality in the regional market, where operators are now looking to focus on cost per trip rather than cost per seat.

"The turboprop and especially the ATR are very well placed in having the lowest cost per trip. We've seen many operators moving bigger modules to ATRs or turboprops in general," he says.

"Other customers who have done well, like Azul, have managed to optimise their single-aisle regional jets and turboprops to get good utilisation out of their turboprop fleet," he explains.

"These fundamentals have allowed us to get through the crisis and give a strong outlook for the regional market," adds Vautier.

Similarly, Embraer says it has seen its customers worldwide prioritise restarting operations on short-haul routes with their E-Jet fleets.

"Small-capacity airplanes are more prevalent on domestic and regional routes. Airlines that have versatile and efficient fleets, including up to 150-seat aircraft, both jets and turboprops, will be able to protect their networks in the downturns to come, and more profitably seize new opportunities in the upturns," Daniel Galhardo Gomes, Embraer's strategic marketing director tells *Airfinance Journal*.

New opportunities

Embraer is predicting a resurgent regional market in the aftermath of Covid-19.

"The Covid-19 crisis has generated some reluctance to travel, especially in long distance sectors. Therefore, it's no surprise to see airlines focusing on their domestic and regional networks, where restrictions are fewer and demand is more resilient," explains Gomes.

The company reveals it is actively studying new-generation turboprops, noting the segment brings good stability and is due for an update as current aircraft are based on 30-year-old platforms.

"We have held airline advisory boards to evaluate what airlines actually want in this segment. The response has been very positive – naturally, airlines are anxious to bring competition back into this market," adds Gomes.

The manufacturer is also continuing the development of the Embraer 175-E2, with the entry-into-service expected for 2024, as well as ongoing improvements for the E175-E1.

Commenting on US scope clauses limiting expansion of the E175-E2 into the market, Embraer sees the 86,000lb MTOW scope relief as a "natural step" to allow airlines to benefit from new technologies and increase their efficiency, given next-generation regional jets are heavier because of the larger, higher by-pass ratio engine.

"The company is closely following and prepared for the opportunities of MTOW US scope changes. In case it does not happen, remember Embraer has an 84% order market share in that category in the US since 2013, and that proves the E175 is the right aircraft to serve the regional environment in the US," says Gomes.

The Brazilian manufacturer is also unfazed by a growing 120-seat crossover segment impacting sub-100-seat sales.

"The relevance of the 70-100-seat segment is proved by the highly efficient US domestic network, the most profitable in the world," says Gomes.

The Covid-19 crisis has generated some reluctance to travel, especially in long distance sectors.

Daniel Galhardo Gomes, strategic marketing director, Embraer

He adds: "Worldwide, if we consider the E170/E175 and the CRJ700/900 together, we are talking about more the 1,300 aircraft in service, even with Covid, spread among more than 50 different operators."

Embraer's view is that one size does not fit all and that flexibility will play a bigger role in an airline's strategy more than ever because of the crisis.

"Even if we disconsider growth (which will surely happen), these current-generation aircraft will have to be replaced over the next years, and many of the markets in which those aircraft operate are not suited for upgauging – at least not without compromising frequencies and, consequently, connectivity," adds Gomes.

ATR is also confident the regional and turboprop market size will continue to grow as the recovery begins and the Covid-19 pandemic recedes.

Vautier notes that many new carriers are taking advantage of lower capital cost to enter the turboprop market, seizing on new opportunities left by legacy and low-cost carriers during the pandemic.

He reveals that the company has added 11 new ATR operators in the past 12 months, adding that ATR operators have opened nearly 100 new routes.

"The market forecast for the next 15 years is going to be at least at the level we saw before the crisis. There is room for a strong ATR... we have a pent-up market where we can still develop.

"China, for instance, where regional aviation is only 2% of flying compared with 25% in a mature market... India where there is only a hub-and-spoke system and if you develop point-to-point there is big potential," he adds.

Cargo growth

ATR's Vautier notes there is a "strong push" on the cargo side for the transport of vaccines and medical supplies that ATR aircraft can cater for.

There is also a strong replacement wave for regional freighters, with about 460 aircraft in the up to nine-tonne payload category expected to be replaced in the next 20 years, according to Vautier.

Quizzed on a second ATR72-600F customer, he says the manufacturer is confident there is room in the market for more regional freighter operators other than Fedex as the e-commerce boom fuels the regional cargo market.

Fedex's order for 30 units is expected to be completed by 2026. Its second ATR72-600F was delivered in early June, with another six scheduled to arrive this year.

ATR is also well placed to take advantage of a growing passenger-to-freighter market.

Vautier explains to *Airfinance Journal* that freighter conversions are a complementary segment to full freighters, ruling out a market cannibalisation of either segment because of the different economics between express freight and other cargo business models.

He notes that 13 ATR72-500s have already been converted in the first six months of 2021, compared with 13 for the whole of 2020.

The manufacturer offers passenger-to-freighter conversions and specific Covid-19 interior conversions for transportation of vaccines and medical supplies, in addition to its purpose-built ATR72-600F turboprops, which provide more volume for dedicated express services.

ATR has about 200 aircraft in its backlog, roughly unchanged compared with pre-crisis levels with six gross orders last year, says Vautier. Its objective is to maintain this level of backlog for the coming years and return to production levels of about 40 to 50 aircraft a year by 2024 or 2025 and pre-pandemic levels of around 70 aircraft after five years.

> *We've seen many operators moving bigger modules to ATRs or turboprops in general.*
>
> **Fabrice Vautier**, senior vice-president commercial, ATR

"We expect this backlog to remain steady in the coming years – firstly, because we expect to see a pick-up in deliveries. We expect to deliver at least twice as many aircraft this year as last year, but conversely we also expect to sell more aircraft this year," says Vautier.

Hybridisation the path forward

While ATR is examining all innovation options as they come to market, the most promising technology available in the near term is hybridisation, explains ATR's senior vice-president engineering, Stephane Viala.

He says battery hybridisation will be more difficult to implement without breakthroughs in storage capacity.

Instead, a ramp up in sustainable aviation fuel (SAF) and research and development into hydrogen, in the form of either combustion or fuel cells, are more realistic options in the medium and long term, although these have their own limitations from supply, logistics and regulation standpoints.

He recalls ATR's partnership with its Nordic customer, Braathens Regional Airlines, where the airline has been able to achieve a 46% reduction in CO_2 emissions since 2018 by incorporating a 50% SAF blend as well as working on navigation performance optimisation.

"We are looking at this in an incremental manner," says Viala, noting that while there are many hurdles to overcome, ATR sees its role as being able gradually to bring the technology to the customer when it is mature enough.

"Our aircraft is the perfect product to test and to scale up technologies that are developed at a smaller size... there's a lot of people looking at us in terms of using our aircraft effectively to scale up the technology and validate the technology as well," adds Viala.

Embraer says it is also actively studying state-of-the-art propulsion solutions for the sub-150-seat market.

"It's fair to say that innovations will come in our segment first... and some of the most disruptive of those will take time to mature," says Gomes.

"When it comes to the technology regarding propulsion of our turboprop project, for instance, that timeline is of course being considered in our current EIS scenarios. For this programme, the main point of attention is to make sure we are building a platform that will be ready to evolve in the future, and do so as soon as these new technologies are available and cost-effective," reveals Gomes.

The Brazilian manufacturer says it is on the frontline in terms of sustainability, having signed multiple commitments with the participation of other original equipment manufacturers (OEMs), suppliers and governments to reduce emissions and ratify investment in R&D into sustainable technologies.

Specifically on SAFs, over the past decade Embraer has supported the development and certification of different HEFA (Camelina Oil) and SIP (Sugarcane) biofuel projects, says Gomes.

De Havilland Canada challenges

Canadian regional aircraft manufacturer De Havilland Canada is on a different path. The company said earlier this year that it will not produce new Dash 8-400 aircraft at its Downsview site beyond currently confirmed orders.

Given that prevailing industry circumstances have hindered the ability to confirm new aircraft sales, it is a responsible and prudent measure that reflects current industry conditions, and will limit strain on the market and De Havilland Canada's supply base as the pandemic recovery occurs, says the company.

De Havilland of Canada is owned by Longview Aviation Capital, which expects to remain in the business for a very long time. Its vision is based on three timescales: very short term, medium term and long term.

"In the very short term, its priority is twofold: uninterrupted services to customers that are still flying. About 57% of Dash 8 fleet was in operation at the end of May, with some markets at almost 100% operation," says vice-president, sales and marketing, Philippe Poutissou.

De Havilland Canada is also focusing on completing the business transformation. A new site is the priority to resume aircraft manufacturing operations as the market recovers, but a couple of important elements will make the company truly independent from Bombardier.

"At the time of the transaction, we entered into a few service agreements to support IT and parts distribution in the name of continuity. We continued on Bombardier's IT system and now the focus is to finish that carve out. Bombardier had a distribution network for spare parts for its customers and as part of the sale, Longview continued to use depots and facilities in Chicago, Frankfurt and other parts of the world. We are now in the process of developing our own independent distribution network."

Bombardier sold the Downsview production site in 2018, with deadlines for the site and runway to be decommissioned.

Poutissou says the company initially planned to remain on the site for as long as possible, but given the reduced demand for new aircraft, it is an opportune moment to accelerate its exit. As a result, it has begun preparing to leave the site over the latter part of this year.

During the pandemic, the company mainly assisted customers to get aircraft back into operation.

"There is an oversupply of Dash 8 aircraft of older vintage in the market, and there are half-a-dozen lessors that have inventory to place. We see opportunities in the market," he adds.

Medium term

Poutissou says the company's medium-term goal is to be ready when the market demand returns and get the Dash 8-400 back into production.

"We see signs of upcoming transactions with used aircraft and signs of opportunistic purchases by lessors. We are also seeing new operations coming in to fill the gap where some airlines have exited the market," adds Poutissou.

He believes that excess capacity will get soaked up, and the company is willing to participate as it develops its relationships with new operators.

The company is also looking at product improvements for its fleet, but the technological change to electric aircraft, hybrid or hydrogen aircraft will not be available in the medium-term period. "That type of propulsion is for the long-term plan," he says.

Longer term

Longview has been monitoring and, in some cases, has been participating in some studies and concepts around this next wave of propulsion.

"It is clear that it will make its way through the turboprop aircraft type. In fact, Longview is well positioned to participate: we have aircraft in our product portfolio, such as the Twin Otter that require lower energy requirements.

"As we look towards the Dash 8-400, we think the timing for technology to mature to power that size of that aircraft is well over a decade away – certainly for commercial applications. We do believe the technology is coming and will make its way through the Longview family aircraft," says Poutissou.

"As we look towards the Dash 8-400, we think the timing for technology to mature to power that size of that aircraft is well over a decade away – certainly for commercial applications."

Philippe Poutissou, vice-president, sales and marketing, De Havilland of Canada

He says the company's position is to leave the field open to "select the technology that works best".

Poutissou expects retrofits and forward-fits for platforms that are the same or largely similar to the ones that have been successful today.

"The idea is to reuse the intellectual property (IP) that we own, and that IP does include the 30-50 seaters. But it is too far out to project that we will develop a smaller or a larger aircraft than the Dash 8-400, which serves the 70- to 100-seat sector," he says.

Longview holds 13 types of certificates with some aircraft being specialised but Longview has a track record of putting aircraft back into production, he says.

Freighter

Freight is a priority and the company says the time is right for the Dash 8-400 model to have the whole range of conversion options available.

Poutissou says until the beginning of 2020, the majority of Dash 8-400 aircraft were still with their initial owners and still in passenger use. As the programme matures, more trading happens and this has been accelerated by the pandemic.

"A natural outlet for an aircraft like the Dash 8-400 is the freight market. The Dash 8-400 brings attributes that the other aircraft don't offer today, particularly with its range capabilities. But it also gives access to markets where the ATR struggles, such as in the remote regions and high-altitude markets. We believe there is demand for the Dash 8-400 as a converted aircraft," he says.

Poutissou recalls that De Havilland Canada launched the Simplified Package Freighter (SPF) configuration over the past year. It mostly applies to existing operators which want to diversify into the cargo business and/or have a complementary cargo business.

"We further optimised that version and we will offer a service bulletin called the quick-change version. The first version was offered urgently in support of pandemic relief but now the company is offering a version that has more capacity with the introduction of a smoke detection system," he says.

The company also offers the combi version of the Dash 8-400 and is in discussions to launch it as a retrofit.

"We have had a number of requests for flying with 50-68 seats capacity and with an increased baggage compartment size." That version, which seats 50 passengers and also has a main-deck cargo hold, is already in service with Japanese carrier Ryukyu Air Commuter. Poutissou says the third programme is to launch an OEM package freighter. There is an STC in the market for a Dash 8-400 package-freighter conversion, offered by Cascade Aerospace.

There were a few conversions under the STC more than a decade ago, but the feedstock of aircraft was not readily available and the values were too high at the time, he points out.

"When we look at where the market is today, cargo is looking for a certain unit cost. In order to meet that unit cost, you need aircraft in that 15-20 year of age range in terms of values. We now see liquidity in terms of appropriate airframes in the market," he adds.

Poutissou says the company will offer the package freighter as an OEM service bulletin and also add a version with the large cargo door.

"The large cargo door version will have appeal, specifically for those remote regions," he says. "We think the aircraft are excellent replacements for the BAe ATP, Convair and Boeing 737 Classics with the Dash 8-400 package-freighter being a newer-generation aircraft with a digital cockpit, robust, reliable and with ongoing global support."

But Poutissou emphasises that De Havilland Canada's target today is not to build a production freighter aircraft.

Boeing 787-9 – route to recovery

Appraisers think values for the middle member of the Boeing 787 family will come under further pressure in the short term, but believe they will recover as long-haul travel returns. **Geoff Hearn** reports.

The Boeing 787-9 is the middle member of a three-aircraft family, which also includes the original 787-8 and the larger 787-10. Boeing has assigned the marketing label of Dreamliner to all models.

The 787 was designed to deliver a step change in fuel efficiency compared with the aircraft it was intended to replace and, to this end, incorporated new technology and materials.

The advanced design played a role in a problematic development phase that saw the initially planned 2008 entry into service of the 787-8 delayed until 2011. Early operations were also hit by technical issues. The stretched 787-9 model, which has a greater range than the original model, first flew in 2013 and deliveries began in 2014.

The programme has been successful in terms of orders, but continues to experience quality control issues, with what Boeing chief executive officer, Dave Calhoun, recently described as "nagging problems". The Covid-19 pandemic has added to difficulties, but deliveries of 787s restarted in March, and Boeing says it expects to clear the stored inventory (estimated to be about 100 aircraft) by the end of the year. More than 60% of the total 787 backlog is for the -9 model.

Boeing expects to clear its 787 backlog by the end of 2021

There are signs that orders for the type are picking up. Recent high-profile developments include an announcement in early May that Lufthansa is to take a further five 787-9s, adding to an initial purchase of 20 of the type in 2019.

Set against this are some difficulties in the secondary market. For example, Norwegian's problems have led to the ending of its long-haul services and the consequent availability of its fleet of 787s, including its -9s.

Current market value ($m)

Build year	2015	2017	2019	2021 (new)
Avitas view	76.9	93.8	113.6	134.9
Oriel view	81.5	88.5	98.0	137.5

Assuming standard Istat criteria. Maintenance status assumes half-life, except for new aircraft.

Indicative lease rates ($'000s/month)

Build year	2015	2017	2019	2021 (new)
Avitas view	593	685	778	870
Oriel view	590	620	690	810

Monthly rental will vary according to factors such as term and lessee credit.

ISTAT appraisers' views

Avitas

Martin O'Hanrahan, senior consultant

Designed as the long-range option within the 787 family, the 787-9 has proved by far the most popular model. The variant has secured almost 60% of the total orders for the family.

Five operators – United Airlines, All Nippon Airlines (ANA), Etihad Airways, Air Canada and American Airlines – account for about 30% of the active fleet. Boeing designed the 787 as a replacement option for aircraft such as the 767-300ER and A330-200, and has succeeded in capturing a convincing market share in this size class. However, Boeing recently experienced production problems and suspended its 787 line in October 2020, while it dealt with quality control issues. This led to a backlog of manufactured aircraft still awaiting handover to operators, but Boeing expects this backlog to be cleared by the end of 2021.

In terms of propulsion, the 787-9 offers two options – the GEnx-1B70 from General Electric (GE) or the Rolls- Royce Trent 1000. The market share between the

AIRCRAFT CHARACTERISTICS

Seating/range

Max seating	406
Typical seating	290-300 (two-class)
Maximum range (13,950km)	7,530 nautical miles

Technical characteristics

MTOW	253 tonnes
OEW	129 tonnes
MZFW	181 tonnes
Fuel capacity	138,700 litres
Engines	GEnx1B/Trent 1000
Thrust	71,000lbs (320kN)

Fuels and times

Block fuel 1,000nm	10,480kg
Block fuel 2,000nm	19,500kg
Block fuel 4,000nm	37,630kg
Block time 1,000nm	178 minutes
Block time 2,000nm	265 minutes
Block time 4,000nm	510 minutes

Fleet data

Entry into service	2014
In service	428
Operators (current and planned)	71
In storage	139
On order	318
Built peak year (2018)	120
Planned 2021	Under review
Average age	3.6 years

Source: *Airfinance Journal* Fleet Tracker 15 June 2021

Indicative maintenance reserves

C-check reserve	$110 to $115/flight hour
Higher checks reserve	$85-$90/flight hour
Engine overhaul	$305-$310/engine flight hour
Engine LLP	$315-$320/engine cycle
Landing gear refurbishment	$75-$80/cycle
Wheels, brakes and tyres	$100-$105/cycle
APU	$125-$130/APU hour
Component overhaul	$320-$335/flight hour

Source: Air Investor January/February 2021

two manufacturers is about two to one in favour of GE. The downturn in the industry provoked by the Covid-19 pandemic had a drastic impact on world air travel. While no part of the industry has escaped the effects, commercial widebody aircraft have been subject to a sharp spike in availability and many units have become surplus to needs. Operators around the world have struggled to deal with the crisis and those flying the 787-9 are no exception.

In addition, Norwegian – which had been flying more than 20 leased 787-9s – returned the aircraft to lessors in early 2021, adding to the excess capacity for the type in the market. Newer aircraft have fared better overall in terms of values and lease rates, and the 787-9 now has an established track record in service. The aircraft is a versatile and reliable long-range twin and offers full commonality with its siblings within the 787 family.

The immediate prospects for the 787-9 depend on the strength and timing of a recovery in international travel, after the almost complete collapse in traffic with the onset of the current crisis. Long-haul traffic continues to remain well below 2019 levels and it could be 2024 or later before the same volumes are reached once more.

As a new, efficient state-of-the-art long-range airliner, the 787-9 is well positioned to take advantage of renewed traffic growth and its fortunes in the marketplace can be regarded as very positive.

Oriel

Olga Razzhivina, senior Istat appraiser

The 787-9 is the most popular member of the 787 family, representing a new generation of carbon fuselage twin-aisle aircraft. The early programme delays and teething issues that affected the smaller 787-8 aircraft had been resolved by the time the larger 787-9 entered production. Spurred on by the buoyant traffic growth that occurred post the 2008 financial crisis, Boeing had increased 787 production rates to 14 aircraft a month – the highest figure for any twin-aisle programme.

This and other twin-aisle production rate increases caused oversupply in the sector, with the softness spreading into the 787 market by 2016. Even before the Covid-19 pandemic caused mass fleet groundings, the 787 values and lease rates had started on a downward slope.

The current crisis has forced both Airbus and Boeing to drop their production rates and the 787 has not escaped these cuts. Production has been reduced to five aircraft a month, with technical issues halting deliveries altogether for several months. Temporary rate reductions together with permanent retirement of some older aircraft will ease the oversupply, but will not eliminate it until long-haul traffic recovery is in full swing.

There are potential long-term fleet share issues affecting some 787s, including the -9 variant, related to their powerplants – the GEnx and Trent 1000. The discoveries of reduced critical part longevity in the Trent 1000 have caused extensive aircraft groundings and significant operational restrictions. Even though the manufacturer has resolved the issues, the reputational damage has been done. Two Rolls-Royce customers, Air New Zealand and ANA, have switched their top-up orders to GEnx-powered aircraft.

The Rolls-Royce engine still powers over 30% of the 787 orderbook for some 33% of operators, but if more customers select the GE powerplant, the Trent 1000 could become a niche engine. This could create a discount to the value of Rolls-powered aircraft because of reduced remarketability and negative perceptions of engine longevity.

There are also short-term issues affecting the 787-9. While many first-tier airlines are favouring it over older types, some smaller operators and those in bankruptcy reorganisation are rejecting aircraft they cannot pay for. For example, the LATAM 2015 enhanced equipment trust certificate, rejected by the airline, included four 787-9s. The ceasing of operations by Norwegian added significantly to availability, despite Norse Atlantic proposing to lease 12 aircraft from its predecessor's fleet.

These aircraft becoming available has created a significant downward pressure on values and lease rates in an already depressed market. Historically, even small numbers of younger aircraft entering a relatively strong market can affect values. The Skymark Airlines bankruptcy in 2015 introduced only seven new A330s to the market, yet this caused a significant softening of values and lease rates for the type, from which it has never recovered.

While Oriel would expect 787-9 values eventually to recover post-downturn, this recovery depends on the reopening of long-haul markets and could take even longer if more 787s are rejected as a result of further defaults and reorganisations.

Longer term, 787-9 values will recover from lows, which they are yet to reach. There are no known plans for a replacement and the 787 is likely to remain in production for decades. Together with its main competitor, the A350-900, the 787 will eventually replace older-generation aircraft in most mainline fleets.

Narrowbodies getting larger and going further

As Boeing gets to grips with returning the 737 Max to service, Airbus is seeking to maximise sales of the A321. **Geoff Hearn** assesses their respective prospects.

Bigger is better looks increasingly to be the view of many airlines when it comes to single-aisle passenger aircraft.

Operators, and therefore lessors, have been moving to larger variants of the narrowbody families offered by Boeing and Airbus. The lack of sales for the A319neo and the 737 Max 7 is the most obvious sign of this pattern, although the A220 somewhat bucks the trend.

The baseline A320neo and the 737 Max 8 models racked up impressive sales prior to the Covid-19 outbreak and, in the case of the Boeing model, before its worldwide grounding.

However, a trend to larger variants is clear to see from their increasing share of sales.

Another indication is that Chinese and Russian manufacturers looking to break the stranglehold of Boeing and Airbus have shifted focus to the development of larger models in an effort to adapt their products to market demands (*see box next page*).

Airbus has clearly benefitted from this trend in terms of market share, because its A321neo has outsold its Boeing rivals, not least because of the US manufacturer's delay in developing and producing the 737 Max 10 as a more viable competitor than the original Max 9 model. Airbus has been adept at leveraging the A321neo's success by offering longer-range versions of its largest single-aisle model.

A321neo

The Neo (new engine option) version of the A321 is the largest member of Airbus's upgraded and re-engined single-aisle family.

The manufacturer claims a per-seat fuel improvement of 20% compared with the original A321 model. The new variant also offers a range improvement of up to 500 nautical miles, which can be traded off against a payload increase of up to two tonnes.

Although the Neo variant is not stretched from the original A321, Airbus is offering increased seating capacity by optimising cabin space with increased exit limits and a new cabin door configuration. The manufacturer cites the maximum capacity of the new model as 244 seats – 24 more than the original A321 offers.

A321LR

The A321LR variant provides extended range for the A320neo family's longest fuselage version with the capability to operate sectors of up to 4,000 nautical miles (7,400km) with 206 passengers. The additional range is achieved by increasing the maximum take-off weight (MTOW) to 97 tonnes and by augmenting the fuel capacity with three additional centre fuel tanks. The first A321LR was delivered in 2019.

Key data of large single-aisle models

Model	A321neo	737 Max 9	737 Max 10
Engine	CFM Leap-1A or PW1100G	CFM Leap-1B	CFM Leap-1B
Max take-off weight (tonnes)	97	88	89
Max seating	244	220	230
Typical seats (single-class)	180-220	178-193	188-204
Typical range (nm)	3,995	3,550	3,300
Entry into service (target)	2017	2018	(2023)
In service/stored	531	57	none
Total orders	3,424	306	432

Source: Airfinance Journal interpretation of manufacturers' data/Fleet Tracker, June 2021

A321XLR

The A321XLR is a further variant that offers a range of about 4,700 nautical miles. The version has an additional increased MTOW of 101 tonnes, and is fitted with a rear centre fuel tank and an optional forward additional centre tank. Airbus is targeting 2023 for the XLR's entry into service.

737 Max 9 and 737 Max 10

The first member of the new Boeing single-aisle family is the 737 Max 8, which entered service in 2017.

The 737 Max 9 was originally intended as the largest model, but has met with limited success compared with its Airbus rivals. The 737 Max 10 is a further development, which allows Boeing to match the A321neo's key characteristics in terms of seat count and operating cost. The aircraft performed its maiden flight on 18 June 2021.

The Max 10 is a basic stretch of the Max 9 and, as such, will have 300 nautical miles less range. Boeing says this is not critical for the vast majority of single-aisle routes, although some analysts believe it risks leaving a market gap for the A321neo – particularly the new LR versions.

The Max 8 fleet (together with a few Max 9s) was grounded in March 2019 following two fatal accidents. The Max family was cleared to re-enter service in the US in November 2020 and most other authorities have followed suit, but the aircraft is still not cleared to fly in a number of jurisdictions, notably China. The grounding has had a knock-on effect on the larger Boeing models. First deliveries of the Max 10 are now scheduled to begin in 2023, which is at least two years later than originally planned.

Orders

The commercial aviation world has come to expect battles between Airbus and Boeing for market share, particularly in the single-aisle market, to end in honourable draws. However, in the case of the Max versus Neo models, Airbus has taken what looks like an unassailable lead in total numbers of aircraft ordered. Across the whole family the European manufacturer has amassed more than 7,000 sales, while its US competitor has garnered about 3,000 fewer. Much of this advantage can be attributed to Airbus's success in the market for larger models.

The combined total of Max 9 and Max 10 orders is below 750, which compares with an A321 figure approaching 3,500 units.

Seating

The A321 has a clear seating advantage over the Max 9. This deficit was addressed by the development of the Max 10, but there is an industry consensus that the A321neo retains a small advantage over the stretched Max variant. The differential is borne out by scrutiny of the respective manufacturer's literature. Boeing cites 188 to 204 seats as a range of typical seating, which compares with the spread of 180 to 220 suggested by Airbus.

Operating costs

Airfinance Journal has used its own model in an attempt to verify the accuracy of the manufacturers' claims on operating costs. The results suggest the cash-cost differential per trip between the Max 9 and the A321neo is in the Boeing aircraft's favour, but this advantage is negated in the cost per seat terms – even in the case of typical seating layouts.

If typical layouts are considered, the Max 10 has small operating cost advantage over the A321neo in both cost per trip and cost per seat. However, the cost per seat advantage is all but eliminated in the case of maximum seating layouts. The differences in costs are generally very marginal and are sensitive to assumptions – particularly the fuel efficiency of the various aircraft, which is difficult to verify from information in the public domain.

The Boeing aircraft appear competitive in pure operating cost terms, but the sales figure suggests that aircraft buyers may be looking at other criteria. The greater capabilities of the A321neo, particularly of the latest variants, appear to be swaying the balance in Airbus's favour.

Production rates

There are signs of a recovery in the single-aisle market. At the end of May, Airbus confirmed it plans to produce A320-family aircraft at a rate of 45 a month in the fourth quarter of 2021. The company is advising suppliers to prepare for a rate of 64 by the second quarter of 2023. In anticipation of a continued recovering market, Airbus is also asking suppliers to enable a monthly rate of 70 by the first quarter of 2024. The manufacturer is investigating opportunities for rates as high as 75 by 2025.

What proportion of production will be allocated to A321s is not clear, but the manufacturer is investing in facilities in Toulouse that will enable it to increase A321 production. Hamburg and Mobile (Alabama) are currently the only Airbus production sites configured to assemble A321s.

Boeing's targets look more modest as the company is understood to be planning to raise output of the Max family to about 42 units a month by the third quarter of 2022. It will be hoping to get closer to the Airbus rates by the time it starts delivering Max 10 models.

Indicative relative cash operating costs

	A321neo	737 Max 9	737 Max 10
Relative trip cost	Base	93%	94%
Relative seat cost (typical seating layouts)	Base	100%	95%
Relative seat cost (maximum seating layouts)	Base	103%	99%

Assumptions: 500-nautical mile sector; fuel price $1.6 per US gallon. Fuel consumption, speed, maintenance costs and typical seating layouts are as per Air Investor 2021

Challenging the duopoly

Airbus may be winning the battle for market share in the single-aisle market against its traditional rival Boeing, but the European manufacturer is not complacent about possible new competitors. In particular, China's C919 is being taken seriously by the company's management, according to its chief executive officer, Guillaume Faury.

In early May, he predicted that that the C919 will be a competitor for the Airbus A320neo towards the end of the decade. Although he believes only Chinese airlines will operate the aircraft initially, he suggests that the single-aisle market may go from a duopoly to a triopoly in the same timescale.

"We think it [the C919] will start in China because Chinese airlines are state-owned companies and it will be easier for them to buy it. It takes a long time to demonstrate the maturity of a product, to make it reliable and economically viable. But we think that it would not be strange that in the single-aisle aircraft market, at the end of the decade COMAC already had some market share," says Faury.

The aircraft has a platform of orders, but so far, confirming Faury's view, they are primarily from Chinese operators and financiers. How quickly the aircraft becomes competitive will depend on COMAC achieving its target of certifying the aircraft this year.

The C919 is potentially being helped by the continuing grounding of the 737 Max in China. Unlike most authorities around the world, Chinese regulators have yet to lift the ban on operations of the Boeing aircraft. Some commentators believe there is an element of politics in this decision.

Politics may have a further role to play in the development of the aircraft. The US government has reapproved GE Aviation's application to supply engines for the C919, but China has announced it will push forward with the development of the CJ1000 engine to provide an alternative homegrown powerplant.

A similar strategy is being pursued by another potential single-aisle competitor, Irkut's MC21-300. The Russian aircraft has been designed to operate with the PW1400G version of Pratt & Whitney's geared turbofan, but a test aircraft has also been flown with the domestically built Aviadvigatel PD-14. The MC21 has a base of orders, but like the C919 they are almost exclusively from domestic customers.

Most analysts, and it would appear Airbus also, believe that the C919 poses the bigger threat to sales of Boeing and Airbus aircraft.

Leading particulars of potential new Chinese and Russian single-aisle models

Model	COMAC C919	Irkut MC-21-300
Engine	CFM Leap-1A or PW 1100G	Aviadvigatel PD-14 or PW1400G
Max take-off weight (tonnes)	72.5/77.3	79.3
Max seating	190	211
Typical seats	158-168	132-163
Typical range (nm)	2,200/3,000	3,550
Target entry into service	2021	2021
Total orders	811	175

Source: *Airfinance Journal* interpretation of manufacturers' data

Rating agency unsecured ratings

Airlines

	Fitch	Moody's	S&P
Aeroflot	BB-(neg)	-	-
Air Canada	B+(stable)	Ba3(neg)	B+(neg)
Air New Zealand	-	Baa2(stable)	-
Alaska Air Group	BB+(neg)	-	BB-(positive)
Allegiant Travel Company	-	Ba3(positive)	B+(stable)
American Airlines Group	B-(stable)	B2(neg)	B-(neg)
Avianca Holdings	D	-	D(NM)
British Airways	BB(neg)	Ba2(neg)	BB(neg)
Delta Air Lines	BB+(neg)	Baa3(neg)	BB(neg)
Easyjet	-	Baa3(neg)	BBB-(neg)
Etihad Airways	A(stable)	-	-
Grupo Aeromexico	-	-	D(NM)
GOL	CCC+	B3(stable)	CCC+(stable)
Hawaiian Holdings	B-(neg)	B1(neg)	CCC+(positive)
International Consolidated Airlines Group	-	Ba2(neg)	BB(neg)
Jetblue	BB-(neg)	Ba2(neg)	B+(neg)
LATAM Airlines Group	WD	-	-
Lufthansa Group	-	Ba2(neg)	BB-(neg)
Pegasus Airlines (Pegasus Hava Tasımacılıgı Anonim Sirketi)	BB-(neg)	-	B (stable)
Qantas Airways	-	Baa2(neg)	-
Ryanair	BBB(neg)	-	BBB(neg)
SAS	-	Caa1(neg)	CCC(neg)
Southwest Airlines	BBB+(neg)	Baa1(stable)	BBB(neg)
Spirit Airlines	BB-(neg)	B1(positive)	B(positive)
TAP Portugal (Transportes Aereos Portugueses, S.A.)	-	Caa2(neg)	B-(watch neg)
Turkish Airlines	-	B3(neg)	B(neg)
United Airlines Holdings	B+(stable)	Ba2(neg)	B+(neg)
Virgin Australia	WD	-	-
Westjet	B(neg)	B3(neg)	B-(neg)
Wizz Air	BBB-(neg)	Baa3(neg)	-

Source: Ratings Agencies - 24/06/2021

Lessors

	Fitch	Moody's	S&P	Kroll Bond Ratings
Aercap	BBB-(watch neg)	(P)Baa3(stable)	BBB(neg)	-
Air Lease Corp	BBB(neg)	-	BBB(stable)	A-(neg)
Aircastle	BBB(stable)	Baa3(Stable)	BBB-(stable)	-
Avation PLC	WD	-	CCC(Developing)	-
Aviation Capital Group	A-	Baa2(stable)	BBB-(stable)	A-(neg)
Avolon Holdings Limited	BBB-(neg)	Baa3(stable)	BBB-(neg)	BBB+(neg)
AWAS Aviation Capital Limited	-	Baa3(Stable)	-	-
BOC Aviation	A-(stable)	-	A-(stable)	-
CCB Leasing (International) Corporation	-	-	A (stable)	-
CDB Aviation Lease & Finance	A+(stable)	A2(stable)	A(stable)	-
Dubai Aerospace Enterprise	BBB-(neg)	Baa3(stable)	-	BBB+(neg)
Fly Leasing	-	B1	BB-(watch dev)	BBB-(watch dev)
Global Aircraft Leasing	-	B1(neg)	-	-
ICBC Financial Leasing	A(stable)	A1(stable)	A(stable)	-
ILFC (Part of Aercap)	BBB-(watch neg)	Baa3(stable)	-	-
Macquarie Group Limited	A-(neg)	A3	BBB+(stable)	-
Marubeni Corporation	-	Baa2(stable)	BBB(stable)	-
Mitsubishi UFJ Lease	-	A3(stable)	A-(stable)	-
Park Aerospace Holdings	BBB-(neg)	Baa3(Stable)	-	-
SMBC Aviation Capital	A-(neg)	-	A-(stable)	-
Voyager Aviation	B(Stable)	WD	CC(watch neg)	WR

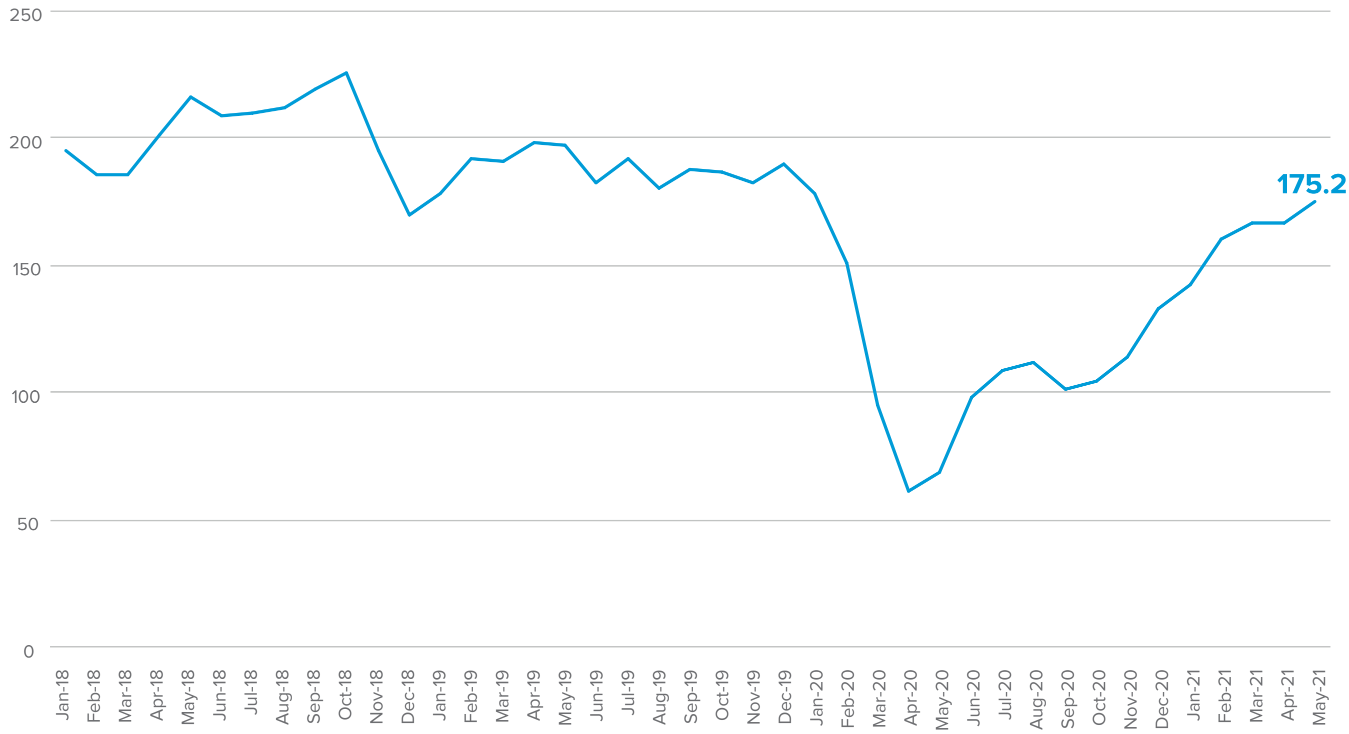
Source: Ratings Agencies - 24/06/2021

Manufacturers

	Fitch	Moody's	S&P
Airbus Group	BBB+(neg)	A2(neg)	A(neg)
Boeing	BBB-(neg)	Baa2(neg)	BBB-(neg)
Bombardier	WD	Caa2(neg)	CCC+(neg)
Embraer	BB+(neg)	Ba2(neg)	BB(neg)
Rolls-Royce plc	BB-(neg)	Ba3(neg)	BB-(watch neg)
Raytheon Technologies Corp	-	Baa1(stable)	A-(neg)

Source: Ratings Agencies - 24/06/2021

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



Source: *US Energy Information Administration*

Commercial aircraft orders by manufacturer

	Gross orders 2021	Cancellations 2021	Net orders 2021	Net orders 2020
Airbus (31 May)	94	125	-31	268
Boeing (31 May)	380	203	177	-471
Bombardier - Mitsubishi Heavy Industries	0	0	0	0
De Havilland of Canada	0	0	0	0
Embraer	30	0	30	20
ATR	0	0	0	5

Based on *Airfinance Journal* research and manufacturer announcements until 30/06/2021

Recent commercial aircraft orders (May-June 2021)

Customer	Country	Quantity/Type
Air Lease Corp	USA	Three 737 Max
Alaska Airlines	USA	13 Max
Dubai Aerospace	UAE	14 737 Max
Lufthansa	Germany	Five A350-900
Lufthansa	Germany	Five 787-9
Lufthansa Cargo	Germany	One 777F
SMBC Aviation Capital	Ireland	14 737 Max
Southwest Airlines	USA	34 737 Max
United Airlines	USA	70 A321neo
United Airlines	USA	150 737 Max 10, 50 737 Max 8
Volaris	Mexico	Two A320neo

Based on *Airfinance Journal* research May-June 2021

New aircraft values ($ million)

Model	Values of new production aircraft*
Airbus	
A220-100	32.6
A220-300	36.8
A319neo	36.7
A320	41.5
A320neo	49.2
A321	48.5
A321neo	54.5
A330-200	72.4
A330-200 Freighter	84.0
A330-300	80.6
A330-800	92.2
A330 900 (neo)	104.0
A350-900	145.8
A350-1000	159.1
A380	169.5
ATR	
ATR42-600	15.5
ATR72-600	19.3
Boeing	
737-800	43.4
737 Max 8	46.9
737 Max 9	49.0
747-8F	181.3
767F	78.8
777-300ER	141.7
777F	159.1
787-8	114.1
787-9	139.8
787-10	148.7
Mitsubishi	
CRJ900	24.4
DeHaviland	
DHC8-400	19.7
Embraer	
E175	25.8
E190	26.5
E190-E2	31.1
E195-E2	33.9
Sukhoi	
SSJ100	22.3

*Based on ISTAT appraiser inputs for Air Investor 2021

New aircraft lease rates ($'000 per month)

Model	Low	High	Average
Airbus			
A220-100	209	247	228
A220-300	230	273	256
A319neo	239	290	256
A320	238	310	279
A320neo	285	347	315
A321	260	370	310
A321neo	335	404	359
A330-200	394	606	515
A330-200 Freighter	535	750	654
A330-300	451	689	660
A330-800	585	703	652
A330 900 (neo)	668	803	726
A350-900	880	1,094	944
A350-1000	975	1,239	1,081
A380	807	1,435	1,227
ATR			
ATR42-600	104	136	124
ATR72-600	105	152	140
Boeing			
737-800	244	314	284
737 Max 8	262	325	296
737 Max 9	272	340	311
747-8F	1,214	1,485	1,347
767F	490	660	369
777-300ER	855	1,083	952
777F	1,043	1,207	1,140
787-8	705	867	747
787-9	810	1,038	887
787-10	910	1,118	943
Mitsubishi			
Mitsubishi CRJ900	165	205	178
DeHaviland			
DHC8-400	115	150	141
Embraer			
E175	178	225	200
E190	200	215	210
E190-E2	200	250	259
E195-E2	220	269	242
Sukhoi			
SSJ100	35	176	124

Is inflation returning to haunt aviation?

Adam Pilarski, senior vice-president at Avitas, asks how a return of inflation will affect aviation.

There are many short- and long-term disturbances of the dreadful Covid epidemic to our economic and social lives that also have a pronounced impact on aviation. In this article, I want to concentrate on inflation, which used to be a bane of our lives but for decades now has been relegated to the dustbin of history.

We do not even have to look back at periods of crazy hyperinflation when people were paid twice a day because a morning salary became worthless by the evening. In more modern times, presidents Nixon (1968) and Reagan (2000) were elected because the people were seriously concerned by relatively high rates of inflation affecting their lives profoundly and these two individuals offered solutions.

So, the question now is whether high inflation rates have a chance of returning? The latest statistics point to greatly accelerated rates of growth. Instead of the 2% we have been accustomed to in the USA, it is obvious we will surpass 3% this year, with latest statistics pointing to a 5% month over month increase for the past 12 months. The question is whether the latest uptick is a temporary aberration or part of a new reality.

The chair of the Federal Reserve and the secretary of the Treasury, as well as many economists, subscribe to the aberration version. Low treasury rates in the market indicate money is betting on inflationary pressures being a temporary phenomenon.

On a contrarian note, I want to raise some arguments that may point to a possible longer-run change in the fundamentals. Those who believe the temporary nature of price increases point to a push of pent-up demand after the abrupt disruptions in economic life because of the pandemic. But we are also facing supply side disruptions increasing input prices. These push up inflationary pressures. It is the same with the labour market where the number of job openings is notably higher than people looking for jobs.

How about longer-term trends? The huge economic stimulus packages in the USA are definitely excessive. This stimulus on steroids leads to a lot of money available and a substantial increase in the savings rate which will be spent as we exit the pandemic period. Hence, a short-term increase in prices is highly likely.

Our author at the *Airfinance Journal* Dublin 2020 conference.

> *“China is no longer the engine behind low-cost production in the world – hence, inflation rates around the world can be expected to rise in the coming years.”*

But how about long-term trends? If people start believing in 5%-plus rates, they will demand increases in wages to compensate them for further inflation, fuelling the inflation fire in the way we experienced many times before. The recently acquired greater strength of unions may accelerate the trend.

A few developments are worthwhile examining. One is the push towards a carbon-free environment which, by definition, will lead to the higher costs that society is willing to pay. Protecting the environment is wonderful and good for the next generations but it comes at a cost of higher prices.

Two is the increased role of the government in many countries worldwide. Governments must balance the different objectives which include efficiency, equality, growth and stability. There are obvious tradeoffs between all those universal goals. Achieving one comes at the expense of others. Moving the needle more towards social goals comes at the expense of efficiency and entails higher costs. The trends that are emerging now point towards more equality but less efficiency in the future.

Similarly with globalisation. The move away from globalisation that we have experienced worldwide in recent times accomplishes some social and national (or nationalistic) goals but moves us away from efficiency and low costs. Some argue that the years of low inflation was in part because of the ascendency of China to become a world economic power.

Cheap products imported from China kept inflation under control in the world for a long time. That period may have ended not because of the pandemic but because the rising middle class in China was beginning to enjoy the fruits of its labour in experiencing higher wages and standards of living.

Also, China is experiencing a long predicted demographic transformation which has led to shortages of cheap labour. China is no longer the engine behind low-cost production in the world – hence, inflation rates around the world can be expected to rise in the coming years.

Why is inflation so important for aviation? I remember times at the start of operating leasing where, because of high inflation, aircraft were sold at the end of a 10-year lease for more than the original purchase price. This was, of course, in nominal (or not inflation adjusted) terms but it contributed to a dramatic rise of aircraft leasing.

Will we see such times again? Inflation, if it raises its head again, will benefit some and hurt others. It will be interesting to see which way it will evolve in the coming years and how it will affect aviation.

AIRFINANCE JOURNAL

An *Airfinance Journal* special supplement

Guide to **aviation lawyers** 2021

Legal moves 2020-21

McCann FitzGerald promotes Deignan

Irish law firm McCann FitzGerald has promoted aviation finance specialist Laura Deignan as partner at its aviation and asset finance group.

Deignan has been involved in a variety of instructions, including multiple aircraft portfolio acquisitions and disposals and cross-border leasing transactions.

She specialises in aircraft finance and leasing transactions and acts for many leading aircraft lessors, financiers and airlines on all aspects of aircraft financing and leasing. These include secured lending, portfolio sales and acquisitions, cross-boarder leasing transactions and the establishment of leasing and financing platforms in Ireland.

Deignan also advises in relation to airline restructurings, aircraft repossessions and the registration and operation of aircraft in Ireland.

Her highlights include advising Standard Chartered Bank/Pembroke on a variety of instructions including multiple aircraft portfolio acquisitions and disposals and cross-border leasing transactions. Deignan also represented a number of aircraft lessors in connection with the Irish Examinership of Norwegian Air Shuttle and certain of its Irish incorporated affiliates.

She has also acted for SMBC Aviation Capital on a variety of instructions including aircraft sales and acquisitions and a wide range of leasing transactions.

Stephenson Harwood strengthens European presence

Stephenson Harwood has strengthened its aviation finance practice with the hiring of partner Laurence Hanley in Paris, France.

Also joining the law firm is associate Diane de Bustamante from Stream, formerly Ince & Co France.

Hanley's practice is focused on aircraft finance and commercial aviation. He advises airlines on all structured finance matters, from letter-of-intent stage to financing, covering debt, Japanese operating lease with call option (Jolco) and specialist sale agreements, tax structuring and aircraft portfolio securitisation.

On the operating side, he is a specialist aircraft lease negotiator. He advises lessors on aircraft purchase and leasing, and lenders – in the event of operator insolvency – on security issues and asset recovery. He also advises clients on the commercial contracts surrounding aircraft operation.

"Despite the current challenges brought by the global pandemic, the aviation sector has avoided the level of turbulence many predicted, and funding continues to flow into the aircraft financing sector," says Tammy Samuel, head of finance, Stephenson Harwood.

De Bustamante specialises in aircraft finance and deals, both under French and English law.

Her practice focuses on advising airlines, lessors, financial institutions – in particular in the event of operator insolvency – and owners of corporate jets, on a wide range of asset finance and leasing transactions. She also assists with more sophisticated tax structures such as Jolcos, title retention agreements and sale and leasebacks, as well as with international asset recovery and enforcement proceedings.

Single joins **Pillsbury**

Antony Single has joined Pillsbury Winthrop Shaw Pittman's asset finance team as a partner in London.

He comes to Pillsbury from Clifford Chance, where he was a partner and helped establish the firm's asset finance practice in the Middle East.

Single advises financiers and lessors on aviation, defence and other asset-based and receivables-backed finance and leasing transactions.

He has a broad range of financing and leasing experience, having worked on transactions utilising commercial debt, warehouse facilities, capital markets, funds platforms, and tax-enhanced and Sharia-compliant structured financings.

Single also has extensive experience in airline restructurings and workouts.

"Much like our seasoned asset finance professionals around the globe, Antony really does it all in this highly specialised sector," says Mark Lessard, leader of Pillsbury's finance practice.

"The fact that he has thrived in both up and down markets was very attractive to the team. Likewise, he brings bona fide accomplishments in the Middle East, where we share many clients and interests," he adds.

Last year, Pillsbury recruited aviation finance lawyer Patrick Reisinger from Clifford Chance to join its asset finance practice as counsel in New York.

K&L Gates grows Asian teams

K&L Gates has expanded its aviation practices in Hong Kong and Singapore with the additions of Eugene Yeung and Terry Chang.

Chang joined the Banking & Asset Finance Team at K&L Gates in the Singapore office as a senior associate.

Robert Melson, a Tokyo-based partner and leader of K&L Gates' global aviation finance practice, says: "Terry's addition will help our global team to assist our aviation clients with the myriad of issues that they currently face in light of Covid-19's impact on the industry."

K&L Gates also added Yeung as a partner to the firm's finance practice in Hong Kong. He joined from Pillsbury Winthrop Shaw Pittman.

Yeung, who is qualified in Hong Kong, Australia, New York, and England and Wales, focuses on aviation finance and restructuring and insolvency in Asia.

David Tang, managing partner, Asia, says: "His strengths and experience in both asset finance and restructuring will complement our award-winning aviation finance team's capabilities and add to our growing restructuring practice in Hong Kong and the Asia region."

Hogan Lovells adds former FAA chief counsel

Hogan Lovells has appointed Arjun Garg, the former chief counsel and acting deputy administrator of the US Federal Aviation Administration (FAA), as a partner based at the law firm's transportation regulatory practice in Washington DC.

Drawing on his deep government leadership experience, Garg will advise transportation clients on a broad spectrum of regulatory, litigation and corporate matters and help lead Hogan Lovells' aviation practice.

"Arjun is a top-tier lawyer whose leadership experience at two key Department of Transportation agencies will be extremely valuable to our clients," says Latane Montague, head of Hogan Lovells' transportation regulatory practice.


AIRFINANCE
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Week In
Review
Hosted by
Laura Mueller
Boarding Zone
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M01

Milbank comes out on top

Milbank is the winner of *Airfinance Journal*'s legal survey, which recognises the most active law firms in 2020 by regions and financing structures.

Law firm Milbank secured the number one spot in 2020 with its aviation team "firing on all cylinders" particularly with a strong performance in North America, Latin America, commercial loans and capital markets.

Clifford Chance was second, although it almost closed a similar number of transactions.

K&L Gates completed the podium, while White & Case and Pillsbury came fourth and fifth. Hughes Hubbard & Reed was the law firm which progressed the most year-on-year.

Airfinance Journal would like to thank all the law firms which participated in this year's survey. Our annual legal survey includes aviation finance deals based on submissions from law firms as well as *Airfinance Journal*'s Deal Tracker transactions.

Those are subsequently aggregated to create the winners.

Airfinance Journal received submissions from 18 firms, compiling 1,035 deals overall, including transactions gathered from Deal Tracker.

This is the fifth year *Airfinance Journal* has used data transactions from Deal Tracker for our legal survey. It provides a more accurate picture of the 2020 activity because it includes law firms which were not able to submit or decided not to submit. The firms that did submit have the most accurate representation of their deals in 2020.

In 2020, *Airfinance Journal* recorded 391 unique transactions compared with 947 the previous year.

The survey also highlighted more activity in the capital markets and commercial loans, reflecting the need for liquidity in the sector.

Europe represented 350 transaction points, or a third of last year's volume. Asia-Pacific was the second region with 326 transactions, or 31%. North America remained third by region but its market share increased to 23% from 20% in 2019.

Winner

Drew Fine, a Milbank partner, says the firm's global aviation team was very active.

"We had a high level of activity globally, particularly in North America, Latin America, Europe and Asia. The Covid-19 pandemic resulted in airlines having unprecedented liquidity needs. During the year, we saw both innovation and the largest airline financings in history," he says.

> *"We had a high level of activity globally, particularly in North America, Latin America, Europe and Asia. The Covid-19 pandemic resulted in airlines having unprecedented liquidity needs."*
>
> **Drew Fine**, partner, Milbank

With Covid effectively closing down aviation, airlines needed to generate liquidity in a quick and efficient manner.

"Initially, we worked on 364-day liquidity financings and that led to longer-term financings. The dire need for liquidity led to innovation resulting in loyalty programme financings, initially for United Airlines, but then for Delta Air Lines, Spirit Airlines and others. The loyalty programme financings were among the largest financings for airlines in history. Later in the year, Milbank was involved in the development of the current incarnation of the lessor EETC [enhanced equipment trust certificate], particularly to finance sale and leaseback transactions," says Fine.

Methodology

The legal survey reviews transactions for calendar year 2020 only.

Aviation law firms were 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.

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 represent all of the deals happening in the market, but it remains the most comprehensive survey of its type and crucially offers a real insight into the aviation market.

The survey gives a strong indication of which law firms are most favoured for certain product types and for certain regions.

Last year, we modified the evaluation criteria to reflect the transaction complexity as well as the law firm's role in a transaction rather than simply count the number of deals.

As a result, law firms are asked to self-assess the complexity of each transaction and their role in the transaction according to the following new set of criteria for which the specified points were awarded:

Complexity

- groundbreaking pioneer transaction – 10 points;
- complex transaction, some new parties or jurisdictions – 7 points;
- average complexity, repeat transaction with same players and jurisdictions – 5 points;
- less complex transaction – 3 points; and
- low complexity – 1 point.

Role

- drafting counsel for major transaction documents – 10 points;
- primary counsel to major transaction parties – 7 points; and
- secondary counsel to transaction parties – 3 points.

For all Deal Tracker transactions that were not part of the submitted deals, *Airfinance Journal* assigned one point for the complexity of a transaction and three points for the role played by the law firm. This resulted in a total score of four that was assigned to all Deal Tracker transactions which were not part of the submitted deals.

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 law firms.

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.

Legal Transaction of the Year: **Delta SkyMiles loyalty programme financing**

The *Airfinance Journal* editorial team selected the Delta SkyMiles loyalty programme financing as the winning submission in 2020.

Delta Air Lines drew a massive crowd for its $9 billion package of bonds and loans secured against its SkyMiles loyalty programme in September 2020, aimed at further buffering its liquidity position.

The Atlanta-based carrier became the third airline – after United Airlines and Spirit Airlines – to use its valuable rewards programme to raise liquidity as it continues to burn cash in a depressed travel market.

The financings involved multiple banks. Joint bookrunners Barclays, Goldman Sachs, JP Morgan and Morgan Stanley upsized the overall deal from an initial $6.5 billion. Goldman was left lead on the bonds; Barclays was left lead on the loan.

Delta, which at the time said it was burning $27 million a day in cash, revealed earlier in the month that it would not chase a $4.6 billion federal loan available under the Coronavirus Aid, Relief and Economic Security Act.

Milbank was involved in this innovative transaction, which provided the US carrier a total of $9 billion in liquidity.

The deal marked the largest airline financing in history at the time of the closing. The transaction involved a unique, cutting edge structure whereby all of Delta's loyalty assets – brand, customer information, co-branding agreements –were contributed to a new loyalty programme company and then financed. This structure has been copied for several subsequent financings by other airlines.

The three-tranche financing was structured as secured bond offerings from the capital markets as well as term loan facility. It consists of $2.5 billion senior secured notes at 4.5% with a five-year term as well as $3.5 billion senior secured notes at 4.75% due 2028.

The transaction also includes a $3 billion term loan with an eight-year tenor.

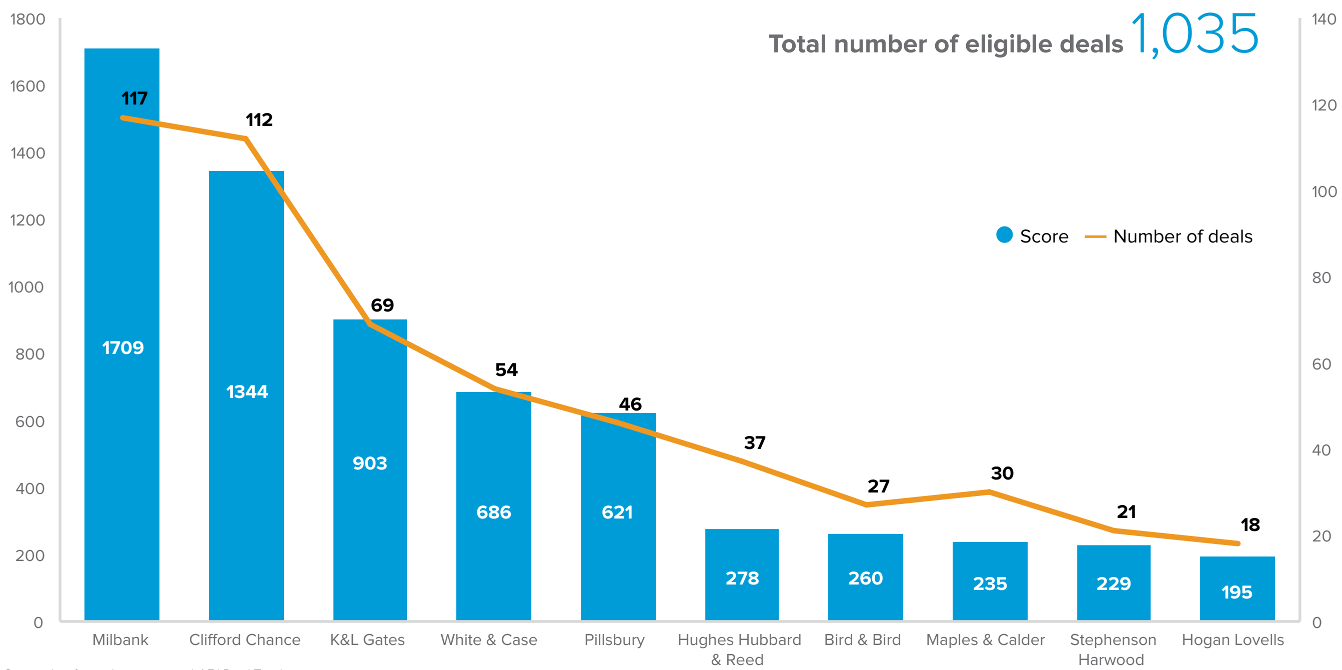
The blended average annual rate was 4.75%.

Milbank was the drafting counsel for major transaction documents and was the law firm advising the lenders. David Polk advised Delta Air Lines on the transaction.

"The Delta SkyMiles loyalty programme financing was particularly unique since Delta's loyalty assets were all owned by the airline and a new loyalty programme company was formed specifically for the financing," says Milbank partner Drew Fine.

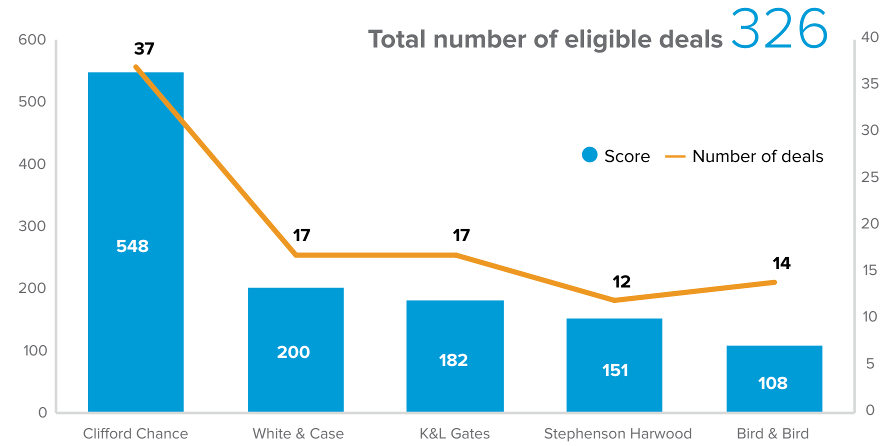
He adds: "All of Delta's loyalty assets – brand, customer information and co-branding agreements – were contributed to the new loyalty company and then financed. The transaction was structured in a way to strongly encourage the airline to continue the financing even after a potential future bankruptcy filing."

Top 10 law firms by number of deals



Source: law firm submissions and *AFJ Deal Tracker*

Asia-Pacific



Source: law firm submissions and *AFJ Deal Tracker*

The types of financings in the Asia-Pacific (Apac) region continue to diversify. Commercial loans represent 31% of transactions in the region, closely followed by operating leases (29%) and capital markets (28%).

Asia was the first to experience the Covid-19 downturn, yet, with the principal exception of Singapore, none of the governments in the Association of Southeast Asian Nations region has supported its airlines.

The Cathay Pacific Airways and Virgin Australia restructurings were the highlights of last year's airline headlines. Singapore Airlines Group (SIA Group) was also active in the equity market through a S$5.3 billion ($3.9 billion) rights issue and a mandatorily convertible S$9.7 billion bond issue for a total of S$15 billion. The group also closed commercial loans, as well as sale and leasebacks, to protect its liquidity position.

For the first few months of 2020, borrowing on an unsecured basis was almost impossible. Exceptions include the SIA Group, which was able to secure a S$4 billion unsecured loan from DBS Bank and some airlines in China which could access the domestic short-term notes market.

The Asia-Pacific market recorded 326 eligible deals last year, compared with 410 transactions in 2019.

Still Clifford Chance performed well above its peers with 37 eligible deals.

Clifford Chance says 2020 was an extremely challenging year for the aviation sector in the APAC region, with travel becoming very restricted from early on in the year and with a number of high profile airline restructurings commencing as the year wore on (eg Thai Airways, Malaysia Airlines, Virgin Australia, Nok, Philippine Airlines, HNA) and government backed capital raisings for others (eg Singapore Airlines and Cathay Pacific).

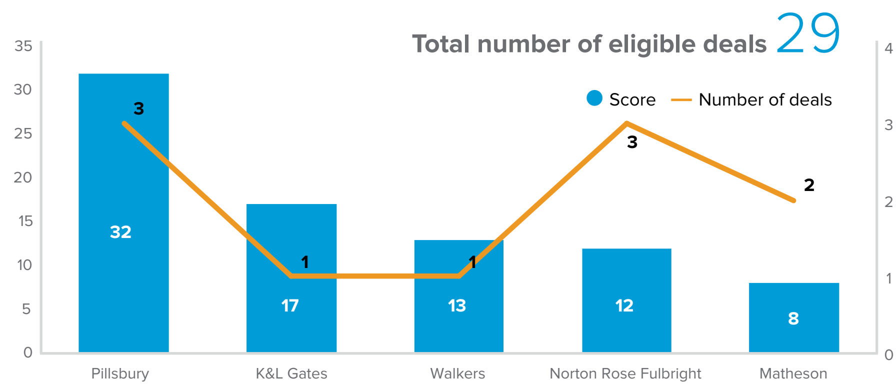
"On the investor side, a number of APAC based lessors (including tax structured lessors) encountered their first major airline restructurings (especially US Chapter 11 proceedings) as well as having to deal with continuing challenges to repossession and redeployment. Much of the year was spent working on restructurings and rental deferrals but there were some airlines across APAC which had entered the pandemic with unencumbered owned aircraft in their fleets and so were still able to raise new money through arranging financings or sale and leasebacks of such aircraft," says Clifford Chance.

White & Case came second in the region with about the same number of transactions as in 2019, when it ranked third.

Partner Simon Collins says: "Recovery in Apac continues to take time. While the large domestic markets such as China are active, regional and long-haul passenger traffic remain subdued. Additionally, confidence of investors and financiers has been impacted by the complex restructurings they have encountered. While the long-term forecasts for APAC are positive, the road to recovery in this region is long."

"Similarly, a number of lessors (APAC based and otherwise) were able to seek funding from shareholders in China and Japan. By the end of the year, domestic travel had largely recovered in the bigger domestic markets such as the PRC, Japan and Australia but airlines in most of the rest of APAC (especially those dependent on international travel) were still badly affected by travel restrictions."

Africa



Source: law firm submissions and *AFJ Deal Tracker*

Over the past few years, South African banks, such as Nedbank and Investec, have been among the more active in the region.

Air Côte d'Ivoire, Air Tanzania, Cabo Verde Airlines, Comair, Egyptair, Royal Air Maroc and Rwandair have benefitted from government-guaranteed loans, while some of the major carriers in the region are going through restructurings (Air Mauritius, South African Airways, Tunisair).

Kenya Airways is holding discussions with lenders to renew moratoriums on loan repayments signed last year in response to the Covid-19 crisis.

Ethiopian Airlines is the exception regarding its ability to access financing because of its scale and ability to adapt to the market. Romain Ekoto, chief aviation officer, African Development Bank, recently told *Airfinance Journal* the African Union Commission has estimated, together with aviation stakeholders, that about $20 billion of financial assistance would be required to bolster the airline sector's inability to withstand the impacts caused by the Covid-19 pandemic.

Pillsbury Hong Kong SAR managing partner, Paul Jebely, has been involved in many financings in Africa. His teams at Pillsbury and Clyde & Co have ranked first for six years and consistently remained in the top three law firms since the Airfinance Journal survey began in 2012.

He says: "It takes a concerted effort to be present in and patient with this market. The deal work is never easy, and the non-deal work (including restructuring) is seemingly never ending. Still, the work matters, because there is at some level an escapable development narrative for each commercial passenger (or cargo) aircraft that takes to African skies."

The region's ageing fleet is in need of replacement but there are pockets of fleet-renewal activity. Operating leases represented almost 50% of the activity in Africa last year. Some placements in the region have included regional aircraft. Over the past year, new carriers such as Green Africa Airways have started operations with used ATR72-600s ahead of a planned A220-300 fleet.

K&L Gates partner Sidanth Rajagopal confirms this trend. "Capitalising on the reduction in long-haul flights, regional carriers in Africa appeared to focus on taking regional aircraft on operating leases. This also gave rise to the region seeing the mushrooming of various low-cost airlines – ie, Green Africa, which only received its first aircraft in 2021."

TAAG Angola Airlines financed six Dash8-400 deliveries through a finance lease structure last year with African Export-Import Bank and Absa Bank.

One interesting financing was a structured term financing for Egyptair Cargo. The facility was raised to part fund the acquisition and conversion costs of three A330-200 P2F aircraft. The financing is secured on revenues generated by Egyptair Cargo through the International Air Transport Association's cargo accounts settlement system, the first time this has been done for an African airline.

Europe

K&L Gates recorded fewer eligible transactions last year in the European market than Clifford Chance but pipped the law firm for the number one spot, thanks to a better scoring.

Sebastian Smith, K&L Gates partner, says Covid lockdowns sent the European airline industry into disarray resulting in some difficult restructurings and enterprising solutions.

"Restructured lease terms had to be negotiated with the majority of European airlines. Many aircraft that were redelivered early in an as-is basis now had to be repaired, stored, insured and registered with CAMO [continuing airworthiness management organisations] arrangements in place, as there was simply no secondary aircraft for some aircraft types. Thankfully, we saw a surge of freighter lease conversions, using facilities such as EFW, and assisted in the negotiation of freighter conversion documentation and new leases with freighter operators."

Smith observes that difficult decisions ultimately had to be made with some equipment being sold piecemeal to part-out operators. "This all made for a very intense albeit interesting year."

The commercial loan market accounted for more than 40% of the transactions in Europe last year. Many governments rescued airlines through state-guaranteed loans and, in some cases, via the equity market.

The UK government quickly stated that it will not offer any industry-wide support programmes for the airline industry but rather bespoke solutions. That said, Easyjet, British Airways, Jet2, Ryanair UK and Wizz Air UK were able to access a generic Covid-19 Bank of England commercial paper programme for more than £2 billion ($2.73 billion).

In December 2020, British Airways announced plans for a £2 billion facility with a five-year tenor partially guaranteed by UK Export Finance under its Export Development Guarantee scheme.

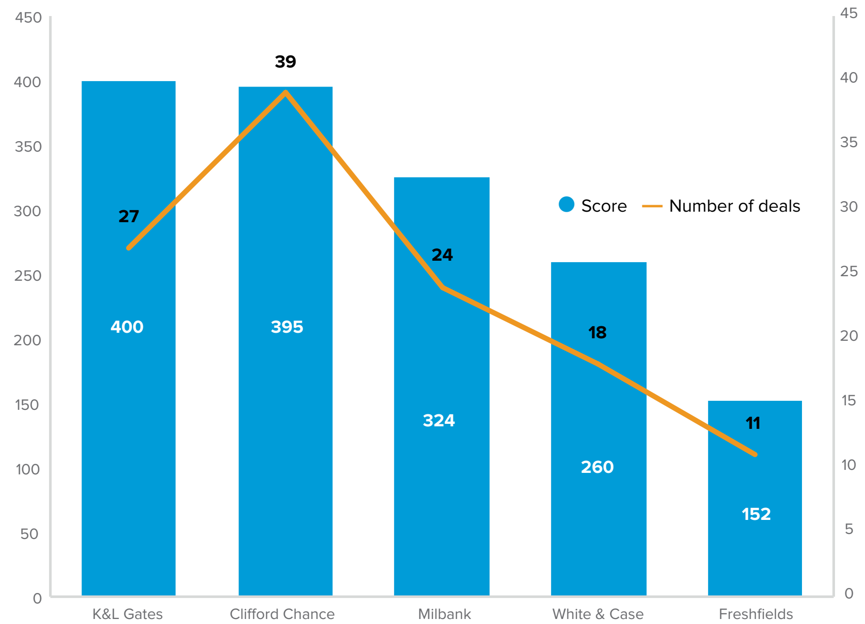
Easyjet followed through earlier this year signing a new term loan facility for $1.87 billion underwritten by a syndicate of banks.

The UK carrier was also proactive in securing some assets in the commercial loan market during 2020. As a result, its unencumbered fleet now accounts for 41%. Ryanair recently noted that more than 85% of its aircraft fleet is unencumbered.

France and The Netherlands offered loan support to Air France-KLM, while Lufthansa and its subsidiaries received support from different governments. Airlines in Spain, Portugal and the Nordic countries also received government-guaranteed loans. The Portuguese government recently increased its stake in TAP to 72.5% to support the carrier during the pandemic. Clifford Chance says the impact of Covid-19 on the aviation industry within Europe has been significant. "Many airlines in the region have been forced to seek accommodation from their creditors in the form of lease and debt restructurings, both in and out of court. In particular, we have seen a number of airlines, both European (e.g. Virgin Atlantic) and others (e.g. MAB Leasing) seeking to utilise English schemes of arrangement as a flexible tool to implement these restructurings without having to implement a formal insolvency process, as well as some airlines using Irish examinership (e.g. Norwegian)."

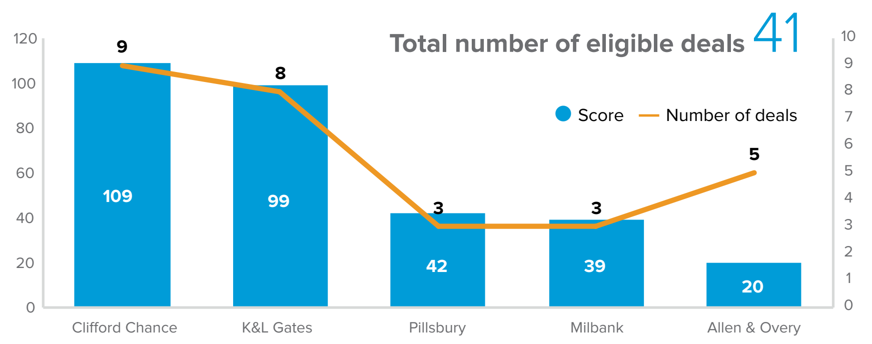
Looking through to 2021, as vaccination rates rise across Europe, Clifford Chance expects to see the continued recovery of aviation within Europe, but significant headwinds remain for many European airlines, particularly if there is disruption to 2021 summer traffic.

Total number of eligible deals 350



Source: law firm submissions and *AFJ Deal Tracker*

Middle East



Source: law firm submissions and *AFJ Deal Tracker*

K&L Gates significantly closed the gap on Clifford Chance last year in the Middle East region but Clifford Chance maintained its first position.

Rajagopal of K&L Gates says last year was a 'mixed bag' in the region from carriers looking at restructuring their fleet, to various requests for deferred rent payment, to carriers utilising various financing structures to shore up liquidity. The Middle East continues to have a microclimate which is different from the rest of world, he comments.

"We acted for lessors involved in various sale and leaseback transactions where the lessor community tapped into local banks providing funding through Islamic structures. In addition, all major carriers continued to discuss fleet rationalising methods with OEMs [original equipment manufacturers] including dealing with the Max aircraft," he says.

Commercial loan structures once again topped the ranking in the Middle East region last year but the region also saw some activities in the sale and leaseback market for new deliveries and older assets. Etihad Airways signed a landmark deal with Altavair Airfinance for the sale and leaseback of 13 A330s as well as the forward sale agreement for 16 Boeing 777-300ERs.

The highlighted deal in the region was Etihad Airways' $600 million sukuk which was described as the "world's first transition sukuk", a form of Islamic bond issuance financing linked to Etihad's carbon reduction targets and investments in next-generation aircraft. Clifford Chance and Allen & Overy represented the parties in this landmark transaction.

Clifford Chance says Covid-19 has had a substantial impact on the aviation industry in the Middle East. "With many airlines in the region relying on connecting passengers for a significant portion of their traffic, the travel restrictions imposed by governments around the world have caused them significant hardship, notwithstanding high domestic vaccination rates. Many of the Middle East airlines have relied on significant direct and indirect state funding in order to support them during this period, as well as raising funds through secured financings and sale and leaseback transactions," says Clifford Chance.

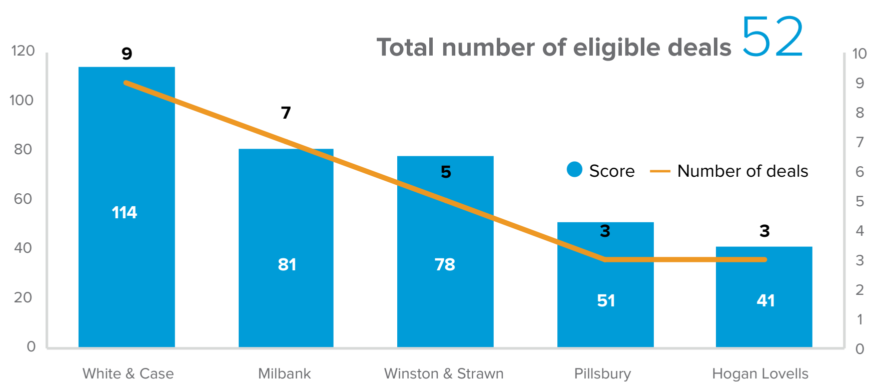
"Etihad Airways also became the first airline to issue a sustainability-linked sukuk, another sign of the increasing focus of aviation market participants on sustainability issues. Looking forward to 2021, we expect that recovery will start to take hold in the region based around domestic and regional traffic, but with a full recovery likely to take longer than in other areas given the reliance of many carriers in the region on long-haul flights."

The Middle East region is also attracting more asset manager/boutique players reflecting the financing requirements in the region in the future.

Sirius Aviation Capital commenced operations in ADGM during March 2020 and in just over a year has grown its fleet to 10 aircraft. The company plans to grow its fleet to 100 aircraft over the next three years.

Magi Aviation Capital, a more established boutique financing company expanded its footprint in the Middle East with the opening of a regional office in Doha, Qatar last year.

Latin America



Source: law firm submissions and *AFJ Deal Tracker*

Chris Hansen, partner at White & Case, says 2020 initially seemed like it would be another solid year for Latin American aviation finance.

"Early in the year, Aeromexico issued its first unsecured bond in the international markets in many years. The sale and leaseback market for new and used aircraft was strong, and the Jolco [Japanese operating lease with call option] market remained open to carriers in the region, with several deals completed or in the pipeline during January and February," he says.

Hansen adds that the problems faced by all airlines because of the Covid-19 pandemic were arguably more acute in the region.

"Most governments in Latin America were forced to focus their limited resources on directly fighting the pandemic and supporting populations that depend on the informal economy to a large extent, leaving airlines to fend for themselves to survive. This was in contrast to other regions such as Asia, Europe and North America, where in many cases significant government financial support helped keep local airlines afloat," he says.

Although there have been some commercial fundraisings in Latin America, there has been very little government support in the region.

A major development in the region last year was the use by LATAM, Avianca and Aeromexico of legal protection under the US Chapter 11 regime to carry out their respective restructuring programmes.

"There is now a growing confidence that each of these airlines will emerge from Chapter 11 and the Covid crisis in a strong and very competitive position," says

Winston & Strawn partner Mark Moody.

"White & Case clearly benefitted in 2020 from having very strong restructuring and aviation finance practices that have worked closely together for a long time and having been particularly active in Latin American aircraft finance for many years, working with airlines, lessors, lenders and ECAs [export credit agencies] on transactions in the region. This helped us to secure mandates on behalf of airlines in Chapter 11 (Aeromexico's special aviation counsel), DIP [debtor-in-possession] financiers, ad hoc bondholders and other creditors in the Chapter 11 cases," says Hansen.

Milbank was also active in the airline bankruptcies. "The Latam market was very active in 2020 due to the need for liquidity as well as the airline bankruptcies, including LATAM, Avianca and Aeromexico," says Drew Fine, a partner at Milbank. "We have represented Avianca as well as four of the five largest secured creditor groups in the LATAM bankruptcy."

Milbank also participated in the different financings of Brazilian carrier Gol Transportes Aereos: sale and leaseback transactions, engine financings, as well as US Ex-Im-supported financings.

White & Case's Hansen says investor interest in Latin American aviation remained high notwithstanding the pandemic. "Copa was able to secure convertible bond financing on favourable terms very early in the pandemic and other carriers such as Viva Aerobus in Mexico have also been able to tap that market lately."

Hansen says there is ample room for optimism that most or all traditional financing sources will return to the region in the coming years, but significant challenges remain.

"Though the signs are good, none of the Chapter 11 cases has yet reached its conclusion so there remains a level of uncertainty in the market," he says.

Hansen adds: "In addition, South America is currently the epicentre for the Covid-19 pandemic, with Argentina, Brazil, Peru and Colombia particularly hard hit. This is causing social and political upheaval in the region as well. As in other jurisdictions, it is extremely important that vaccination rates increase quickly in Latin America to secure a vibrant air travel market in the rest of 2021 and beyond."

North America

Airfinance Journal's Deal Tracker shows that more than $407 billion was raised in 2020, of which $108 billion was government-supported financings.

The response of governments in supporting their airlines through the Covid-19 crisis was varied. The USA has offered the largest and most comprehensive support package with a programme of grants and between five- and 10-year unsecured and secured loans. The top US airlines signed up early for the payroll-support programme, a 70% grant/30% unsecured loan offering plus equity warrants.

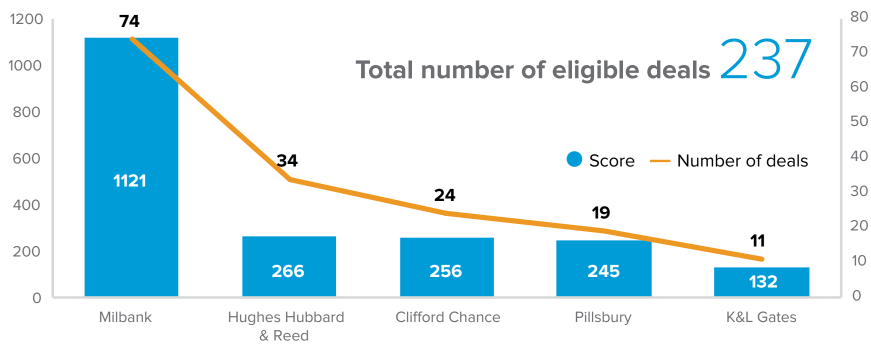
Milbank was the clear winner in this region, doubling the number of transactions from 2019.

Milbank's Fine points out the firm's involvement in almost every product. Milbank helped develop the lessor enhanced equipment trust certificates (EETCs), which were largely used to finance sale and leasebacks for aircraft leasing companies but also worked on loans and capital markets offerings. "The year 2020 was an unprecedented year for raising liquidity for US airlines," he says.

Over the course of the year, Milbank worked on deals to raise more than $50 billion for airlines in North America. Fine says the collateral for the loans included aircraft, engines, spare parts, slots, gates and routes and loyalty financings.

"Due to the urgent need for liquidity, the financings were completed quickly and efficiently. And since many of the early financings were 364-day financings, they all needed to be refinanced," he comments.

Fine says the loyalty financings were particularly interesting because they were a new financing product which needed to be structured properly to protect investors but give airlines operating flexibility.



Source: law firm submissions and *AFJ Deal Tracker*

"These financings proved to be very popular for airlines and investors," he adds.

The capital markets also played a key role in North America last year. The lessors issued unsecured bonds from the end of the second quarter to protect their liquidity levels while 12 EETC issuances raised almost $10 billion.

The asset-backed securities (ABS) market paused in March 2020 after a flurry of deals were issued in the first few weeks of the year. A total of five deals, worth $2.38 billion, were issued in the first quarter of last year, including two transactions with engines only.

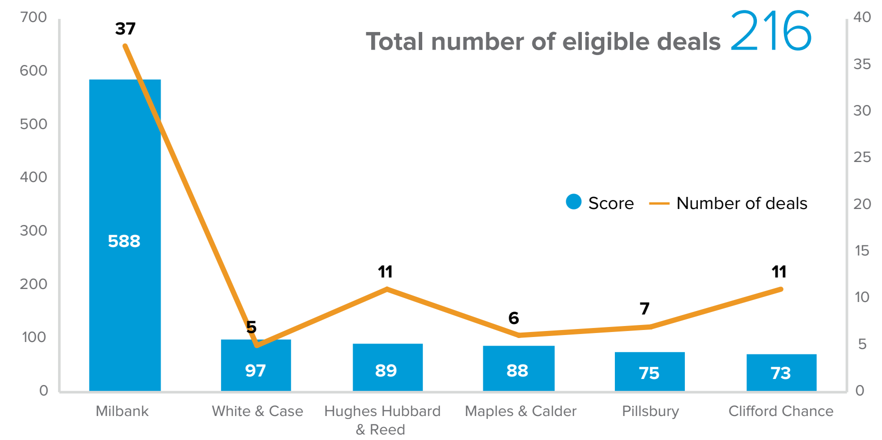
"The aviation sector once again demonstrated its deep resilience as streamlined business models built during prior "black swan" events, such as the 2008 financial crisis and 9/11, enabled industry participants to remain flexible while working with their customers and clients to navigate yet another unprecedented challenge," says Steve Chung a partner at Hughes Hubbard & Reed.

"This included proactively seeking unique financing alternatives; in fact, many of our industry-leading clients, Air Lease Corporation, Delta Air Lines, Griffin Global Asset Management, Hawaiian Airlines and United Airlines, managed to exceed expectations during this last year by capitalizing on their ability to adapt. As borders continue to open up, vaccination rates reach all-time highs and travel confidence returns, the future is again bright and optimistic for aviation," adds Chung.

"2020 was a devastating year for the aviation industry in North America. With the exponential increase in the Covid-19 cases in the region in 2020, the airlines grounded most of their aircraft and a complete lockdown was imposed in most of the countries. The sudden halt in air travel completely disrupted the aviation industry in the region. Airlines based in the U.S. raised capital through a mix of financing techniques including heavily utilizing government support through the pool of funds available under the CARES Act," Clifford Chance says.

"We continue to see a gradual recovery in the market as passenger demand continues to fuel domestic travel. Cargo remained a viable source of income for numerous operators in the industry. The North American market appears to be on its way to recovery in 2021 mainly due to the effective distribution of the COVID vaccine. We expect to see private equity and funds play a critical role in funding the growth of the aviation industry in the region," says Clifford Chance.

Capital markets



Source: law firm submissions and *AFJ Deal Tracker*

Airfinance Journal's Deal Tracker estimates that $142 billion-worth of capital market transactions closed in 2020.

Milbank's capital markets activity was off the charts in 2020. The firm was involved in 37 transactions, seven more than the previous year.

"Pre-Covid, the ABS market got off to a strong start with five ABS closing in January and February. Once Covid closed ABS down in March, the need for airline liquidity resulted in an unprecedent amount of capital markets financings, including some of the biggest deals in history. This included the $6.5 billion United loyalty financing and the $9 billion Delta loyalty financing," says partner Drew Fine.

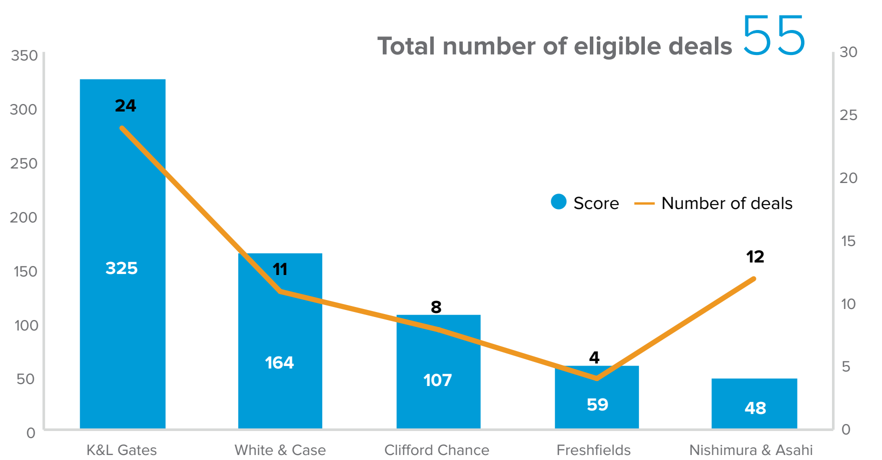
The firm also represented underwriters on EETCs for United Airlines, Delta Air Lines, Alaska Airlines, Federal Express, British Airways, Air Canada and Hawaiian Airlines. And then the substantial uptick in sale and leasebacks led to the development of the modern lessor EETC for aircraft leasing companies.

The collateral for the secured bonds included aircraft, engines, spare parts, slots, gates and routes and loyalty programmes. Several airlines also issued secured notes and did common stock offerings.

Hughes Hubbard & Reed and Clifford Chance recorded 11 capital market transactions each but White & Case came second in this category.

Justin Benson, global head of asset finance based in White & Case's London office, says: "The unprecedented impact of Covid-19 on the industry led to numerous capital-strengthening measures taken by airlines to bolster their equity and debt capital and to reinforce their cash liquidity positions. As a result, we saw a significant uptake in capital markets transactions, particularly in Europe and North America, with significant issuances by Air France-KLM, Aeroflot, Finnair and many others. Overall, 2020 was a strong year for airline issuances in the capital markets."

Structured leases



Source: law firm submissions and *AFJ Deal Tracker*

Over the past 12 months, the big wigs in aircraft financing have decried that demand for Jolco and Japanese operating lease (Jol) financings was "gone" and that the market was all but "dead".

The latest data, however, suggests otherwise. While there have undoubtedly been steep cuts in the volume of aircraft equity underwritten by Japanese investors, Jol and Jolco transactions did still see deals in Covid-dominated 2020.

Airlines continue to be preoccupied with securing government bailouts rather than structuring new aircraft deals.

The flow of new aircraft deliveries dried up significantly between the second and fourth quarter of last year, limiting the Jolco market. In the meantime, equity investors were hesitant to commit to the market. The lack of commercial debt for the most part of 2020 did not help.

This was a step back from 2019 when almost 110 deals closed as Jolco financings represented about two-thirds of the structured lease market. In 2019, the overall funding volumes increased, reflecting the confidence in the product and the credits, but also as a consequence of larger transactions requiring larger Japanese equity underwriting capabilities.

First Jolco transactions reached El Al Airlines, Royal Air Maroc and Air Mauritius, while LATAM tapped the market for new and used assets, as Jolco underwriters became more open minded on the risk.

Last year, Jolco investors were hit by some airline bankruptcies and are still digesting some restructurings, including returned/rejected aircraft and equity inventories. In total, 55 aircraft transactions closed in the structured lease market in 2020.

K&L Gates increased its lead position accounting for 45% of all transactions in this market.

"We have seen resiliency on the part of the Jolco equity market in the face of the Covid-19 pandemic," says Robert Melson, K&L Gates partner and global head of aviation finance.

He adds: "Although the number of debt providers for the Jolco market certainly contracted significantly, we worked with a few nimble Japanese leasing companies to structure a significant number of equity-only Jolcos. We also did quite a few traditional debt and equity Jolcos for long-term airline Jolco participants that continue to be seen as relatively safe by debt providers."

Melson says the equity never left and anticipates the number of Jolco transactions to increase in 2022 as Covid-19 travel restrictions decline and more and more debt providers return to the market.

Commercial loan

The commercial loan market accounted for 36.6% of the eligible deals in 2020. This was up from 20% the previous year.

Before Covid-19, the banking market had been resilient despite the abundance of liquidity and structured loans available for borrowers.

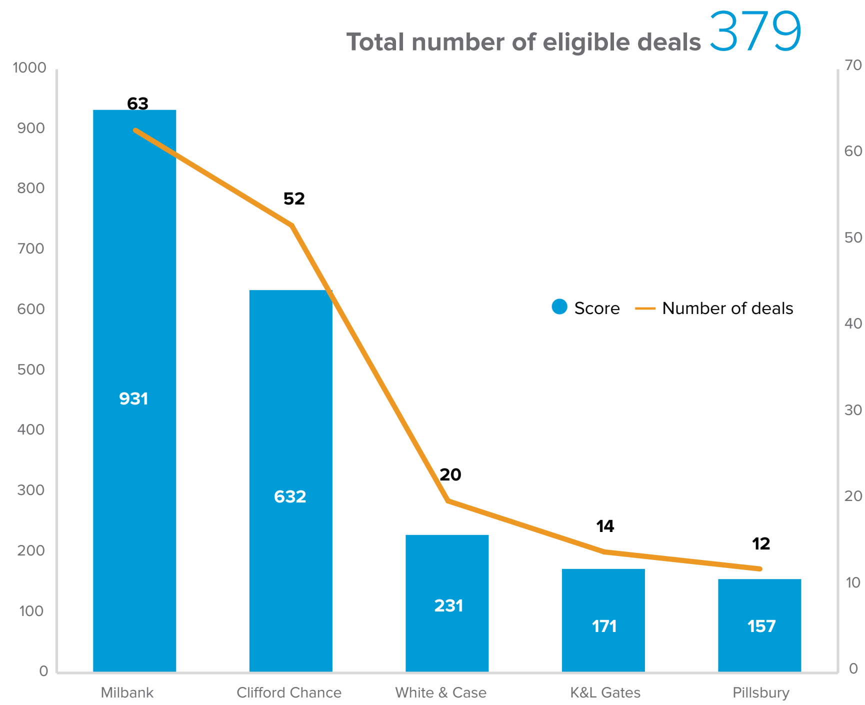
Covid-19 highlighted the importance of the banks, especially from the second quarter of the year. It also marked the pause or retreat from aviation of certain capital providers. Meanwhile, the alternatives offered to borrowers have increased. Over the past year, new players have come to the industry in search of reasonable yields.

Looking back at 2020, commercial loans were prevalent across North America, Europe and, to a certain extent, the Asia-Pacific, which reflects the general need for aviation financing.

The number of aircraft deliveries from manufacturers plummeted last year, but airlines and lessors turned to commercial loans for liquidity purposes.

As a result, 2020 saw a massive increase in commercial loans. According to *Airfinance Journal*'s Deal Tracker, this category accounted for almost $167 billion in financing last year, up from $75 billion in 2019.

Commercial loans also include insurance-supported financings, which have become more popular with airlines over the past few years.



Source: law firm submissions and *AFJ Deal Tracker*

Milbank headed this category with 63 transactions, or 11 more than Clifford Chance.

"As soon as Covid-19 closed down aviation, airlines needed substantial liquidity. Many relatively short-term liquidity financings were provided to airlines. These liquidity financings were ultimately refinanced with longer-term financing. The collateral for the commercial loans included aircraft, engines, spare parts, slots, gates and routes and loyalty financings," says Milbank's Fine.

The firm was also involved in warehouse facilities for Aercap, Sky Leasing and Carlyle Aviation Partners during the year, while it represented the investors in connection with a term loan B for Fly Leasing.

Sales & purchases

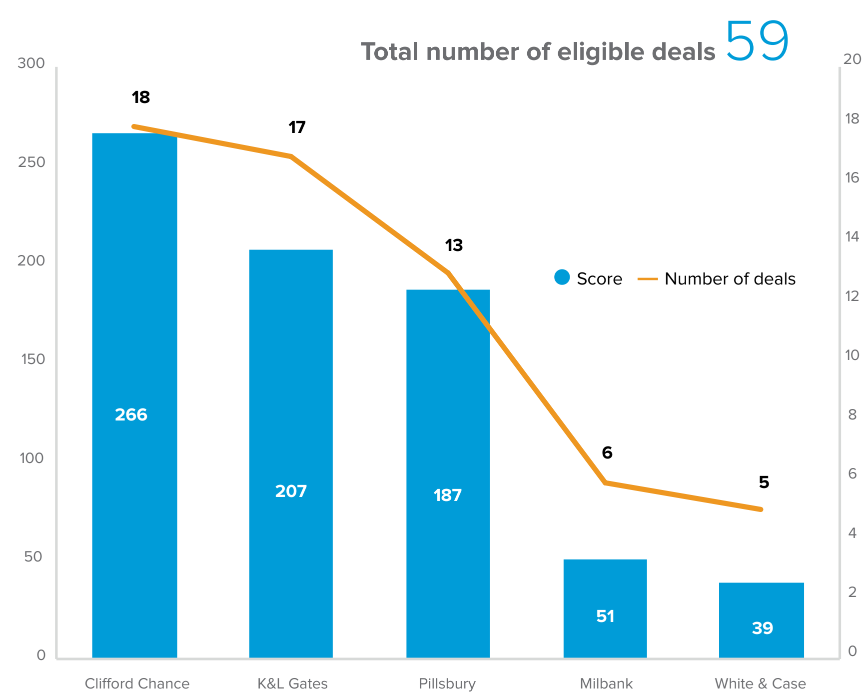
Clifford Chance and K&L Gates were the most active law firms in the sale and purchase market.

But the absence of liquidity as well as plans for buyers, in light of the Covid-19 pandemic, limited this market to about 60 transactions. This was only a fifth of the previous year's tally, when 300 transactions were recorded. There were about 345 transactions the year before that.

Some sale and leasebacks were performed on new equipment in 2020, while some airlines such as Easyjet sold unencumbered assets to raise their liquidity position.

"The sale and purchase market saw an overall decline in 2020 when compared with 2019; however, the US and European markets in particular remained buoyant through the midst of the pandemic," says Amanda Darling, a partner at K&L Gates.

"We also saw some aircraft trading activity among our Japanese investor clients, but less than we see outside pandemic conditions," she says.



Source: law firm submissions and *AFJ Deal Tracker*

Operating leases

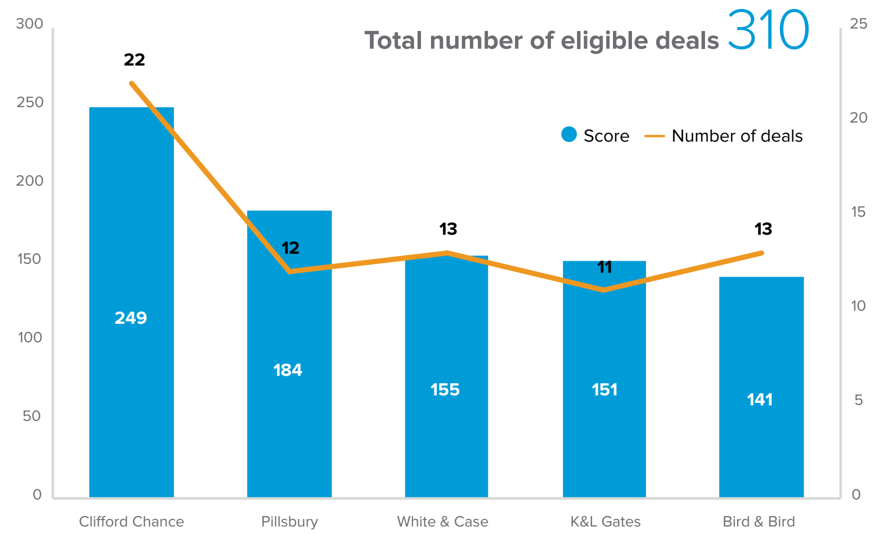
The operating lease market was not very active in 2020, mainly because of the level of capacity it could offer concerned airlines.

As airlines searched for a way of surviving the Covid-19 pandemic, balancing the fleet remained the priority. Many airlines halted growth plans to concentrate on the existing fleet and the stored/active aircraft.

Covid-19 has provided some opportunities for some airlines to benefit from market conditions for leasing aircraft, and this was reflected in lease rates.

Compared with 2019, the number of transactions last year halved.

Clifford Chance was a clear winner of this category but four law firms – Bird & Bird, K&L Gates, Pillsbury and White & Case – were neck and neck in the operating lease market.



Source: law firm submissions and *AFJ Deal Tracker*

"While operating lease transaction volumes between new counterparties softened in 2020, the pandemic nevertheless gave rise to a new trend of instructions involving the fast-paced re-leasing of portfolios of aircraft as several airlines moved their excess fleet capacity to group airlines in other jurisdictions necessitating revised lease structures, replacement security and reregistration in highly compressed time frames," says Pillsbury partner Debra Erni.

Europe continues to lead this category with almost 40% of transactions in 2020.

Operating leases continue to be the most popular financing solutions in the market of new aircraft deliveries. Lessors have large orderbooks with the manufacturers but also account for an increasing amount of purchase and leaseback transactions on new deliveries.

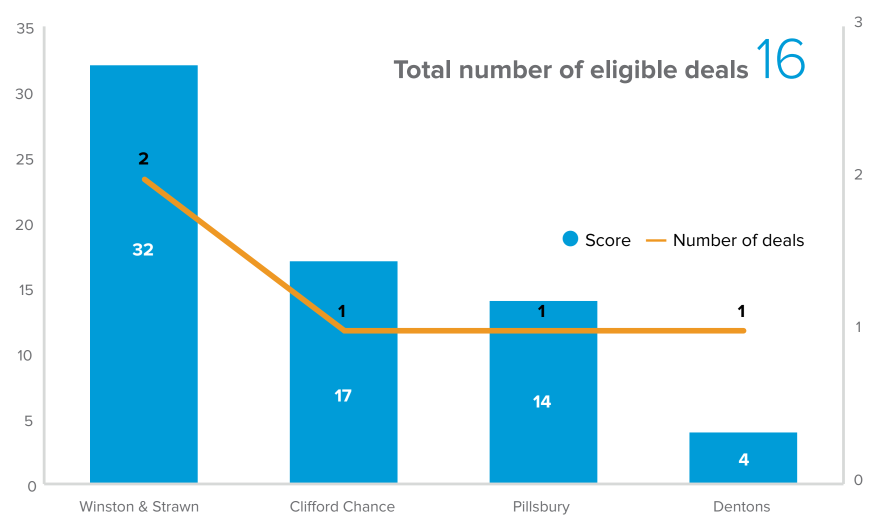
Export credit

ECAs are still underwriting financings, although the introduction of ECA premiums by the new Aircraft Sector Understanding rules almost a decade ago have impacted their attractiveness to airlines.

The transactions recorded in 2020 include some A380s for Emirates Airline, as well as A350-900 deliveries for Turkish Airlines and Ethiopian Airlines. Another Turkish carrier, Pegasus Airlines, tapped the ECA market for a total of 10 A320neo family (eight A320neos and two A321neos) deliveries last autumn.

Turkish Airlines also financed the purchase of two 787-9s with loans guaranteed by Ex-Im Bank in the first transaction completed by the ECA since it was reauthorised in July 2020.

Winston & Strawn topped the rankings in this category.



Source: law firm submissions and *AFJ Deal Tracker*

"It has clearly been a very difficult time for airlines during Covid, in particular those airlines with no access to support from their national governments," says Winston & Strawn partner Mark Moody.

"The ECAs have certainly played their part in trying to support airlines who have ECA-supported financings in place – this has included the ECAs developing an ECA common approach to airlines seeking certain restructuring terms during the pandemic, which has been implemented quickly in several cases," adds Moody.

Pillsbury partner Graham Tyler says: "From a borrower's perspective, like many other counterparties on secured aircraft financings, during the pandemic the ECAs have looked to preserve existing transactions as far as has been possible through deal restructurings not least because there have been few, if any, options for financial institutions or lessors to place aircraft that are returned early or repossessed.

"Looking forward, the ECAs will continue to have an important role in supporting the financing of new aircraft, perhaps for more financially challenged airline borrowers, but we don't anticipate the levels getting anywhere near those seen in the financial crisis back in 2008."

Tyler adds: "As the sector recovers, there will be many alternative options for borrowers to consider alongside ECA financings including raising money in the debt capital markets, the insurance-backed products of AFIC [Aircraft Finance Insurance Consortium] and Balthazar, secured commercial debt and the sale and leaseback market."

Rising **stars**

Airfinance Journal recognises six of the most promising legal associates for 2020.

Amanda Teoh

Senior associate, Herbert Smith Freehills
Singapore

Amanda Teoh is the senior associate in the Herbert Smith Freehills' Singapore aviation finance team, having joined from Clifford Chance in January 2019.

She has acted for banks, operating lessors and airlines in a range of aircraft transactions, including commercial and export credit financing, operating leases, and sale and novation transactions. She also experienced a client secondment with the aviation desk of leading aviation finance bank BNP Paribas in Singapore.

Teoh has extensive aviation experience across the Asia-Pacific region. Over the past 12 months, and notwithstanding the impact of Covid-19 on the industry, she has continued to act on market-leading transactions, most notably assisting Bain Capital on its acquisition of Virgin Australia, in which she took a leading role in conducting due diligence across the leasing and financing arrangements of Virgin Australia's fleet.

Throughout her career, Teoh has had the benefit of great mentors. While working with Simon Briscoe at Clifford Chance, she gained particular leasing expertise and became the resident expert dealing with Indonesian transactions and lease restructurings.

Since joining Herbert Smith Freehills, under the guidance of Siva Subramaniam and Samuel Kolehmainen, Teoh's practice has expanded to include acting for airlines, such as Scoot, Singapore Airlines and Air Asia, and advising on the aviation financing aspects of restructuring and insolvency transactions, including for Virgin Atlantic and Flybe.

Teoh is a quiet achiever, but combines legal knowledge with a commercial, pragmatic and collaborative approach to ensure a smooth transaction for all parties involved. This was recently recognised by her inclusion as an aviation rising star in The Legal 500 Asia Pacific 2021.

In addition to aviation finance, Teoh is an active member of the Herbert Smith Freehills' diversity and inclusion and corporate social responsibility committees, and is co-leading the firm's pro bono practice in Asia.

"Amanda's contribution to the team is invaluable in that she leads the junior lawyers effectively and she provides solid support on transactions to partners," says the legal firm. "By way of an example, in Bain's acquisition of Virgin Australia, Amanda was instrumental in managing the due diligence process of the fleet (involving over 130 aircraft and nine engines) and team (including partners) that undertook the due diligence."

Teoh holds bachelor's degrees in arts and law (first-class honours) from the University of New South Wales. She was admitted as a solicitor of the NSW Supreme Court in 2011, as a barrister and solicitor of the High Court of New Zealand in 2015 and as a solicitor of the Senior Courts of England and Wales in 2018.

Before commencing her corporate career with King & Wood Mallesons in Sydney, Teoh was a judges' associate with the president of the NSW Court of Appeal.

Cynthia Liu

Senior Associate, Hughes Hubbard & Reed
Washington

Cynthia Liu is a senior associate in Hughes Hubbard & Reed's Washington DC office, and a member of the firm's corporate and equipment finance groups where she focuses on commercial aircraft financing.

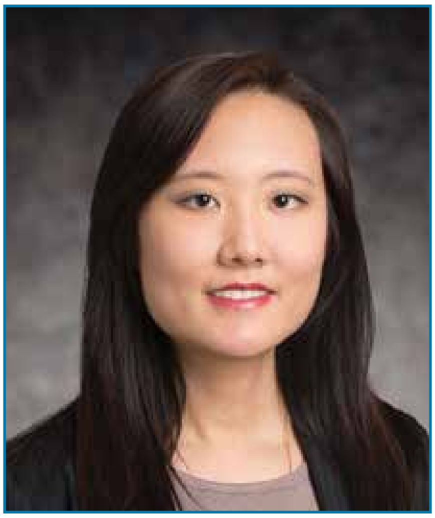
Liu represents commercial banks, leasing companies, borrowers, lenders, initial purchasers, arrangers, private equity investors and airlines in connection with secured and unsecured lending, simple and complex bank loans, sale and lease transactions and other financing transactions in the USA and around the globe.

Utilising her extensive aviation finance experience, she has helped clients navigate complex aviation matters, many of which have been named Deal of the Year by *Airfinance Journal*.

In 2019 alone, Liu served as counsel on two matters selected as 2019's Middle East Deal of the Year and North America Deal of the Year.

In the Middle East Deal of the Year, Liu and the Hughes Hubbard & Reed team advised a group of financing parties, including Citigroup Global Markets and BNP Paribas, in a $500 million Islamic finance Murabaha revolving warehouse facility for NCB Capital, a leading investment firm in the Middle East.

In the North America Deal of the Year, Liu and the Hughes Hubbard & Reed team advised Hawaiian Airlines in the Japanese yen-dominated (JPY) financings of six Airbus aircraft in a deal worth up to $233 million. This deal consisted of two separate loan agreements and came on the heels of Hawaiian's first-ever JPY financing.



"Cynthia has continued to earn recognition for her strong work ethic and dedication to the field and her ability to get the most innovative deals across the finish line."

Steven Chung, partner, Hughes Hubbard & Reed

Last year, Liu represented Hawaiian Airlines in its receipt of a $420 million loan (later increased to up to $622 million) under the Coronavirus Aid, Relief and Economic Security Act from the US Department of the Treasury. Earlier this year, she represented Hawaiian Airlines again on its $1.2 billion bond offering amid the company's recovery from the pandemic.

Liu also worked on several multimillion-dollar sale and leaseback transactions this past year for industry leaders including Delta Air Lines and Hawaiian Airlines.

She also has experience in the capital markets through the representation of Sculptor Capital Management as asset manager in a $446 million GECAS START III aircraft asset-backed securitisation (ABS) offering as well as Och Ziff Capital Management (now Sculptor Capital Management) as lead equity investor with the $577 million GECAS START II ABS offering.

Liu started her career at Hughes Hubbard in 2011 as an associate in the international trade practice, gaining experience handling trade policy, World Trade Organization litigation, trade remedies, US export controls and sanctions matters.

She joined Akin Gump in Washington DC in 2013 before returning to Hughes Hubbard in 2017. This combination of trade and regulatory experience and aviation finance expertise undoubtedly gives Liu a rare versatility that separates her from her peers.

"Cynthia Liu is truly a recognised leader in the aviation finance community," says partner Steven Chung. "She has an innate ability to help clients navigate through some of the most complex aviation matters and transactions. Beginning her career in just 2011, Cynthia has continued to earn recognition for her strong work ethic and dedication to the field and her ability to get the most innovative deals across the finish line."

Keith Mulhern

Senior Associate, A&L Goodbody
Dublin

Keith Mulhern is a key member of the aviation and transport finance practice at A&L Goodbody and has provided exceptional advice as the lead associate on a broad range of complex, innovative and award-winning transactions for important clients over several years.

He graduated with a Master of Law degree from the University of Cambridge (UK) and is known for having excellent legal and technical skills, a practical and commercial approach to transactions and a calm demeanour.

"Keith has acted on many complex transactions for Aergo over the years and has always impressed with his professional approach."

Neil O'Donnell, senior vice-president legal, Aergo Capital

Mulhern has acted for a wide range of aviation clients including leasing companies, airlines, banks, manufacturers, funds and credit support providers.

He has extensive experience acting on a variety of aviation financing and leasing products and structures including operating leases, finance leases, sale and leasebacks, Japanese operating lease with call option (Jolco) structures, debt finance (bilateral, syndicated and warehouse facilities), capital markets issuances (secured ABS and unsecured perpetual bonds), predelivery payment financing, Islamic financing, joint ventures/side cars, export credit agency-supported financing and Aircraft Finance Insurance Consortium (AFIC)/Balthazar-supported financing.

Mulhern has excellent experience advising on large, high-profile and complex restructurings and distressed transactions. Notably, he recently worked on advising several financiers and leasing companies in connection with the Irish Examinership of Norwegian Air Shuttle and its affiliates.

He has advised on a number of market-leading and award-winning capital markets transactions including the recent launch of the first aircraft ABS successfully to close since the severe impact of Covid-19 on the aviation sector. He also recently launched with David Berkery, partner, the first episode in the ALG Aviation & Transport Finance Soundbite Series with an overview of that transaction and its impact on the industry.

Mulhern's considerable ABS experience includes advising on Lunar Aircraft 2020-1, Raptor 2019-1, ZCAP 2018-1, Vx Cargo 2018-1 (all-freighter ABS), Prop 2017-1 (all-turboprop ABS) and Labrador Aviation Finance 2016. He also recently advised CALC on its $200 million unsecured perpetual capital securities issue through a private placement.

He has had a lead role working on transactions involving new, innovative and alternative financing structures such as acting for NCB Capital on the establishment of its Dara Aviation platform involving the acquisition and Islamic financing of a portfolio of 19 aircraft using a Murabaha structure.

Mulhern also advised CALC on its first aircraft investment sidecar, China Aircraft Global. He recently advised Aergo Capital on its Islamic financing of one Boeing 787 and one Airbus A350 with Dubai Islamic Bank using Sharia-compliant funding. He has also advised on financing products with new alternative financing and investment platforms including acting for Aergo Capital on its financing of one A321 and one 737 with Volofin and acting for new alternative lending platform, Valkyrie.

He also has wide-ranging experience advising on warehouse financing structures including advising each of Chorus Aviation Capital, Zephyrus Capital Aviation and Sculptor Capital Management, respectively, on their first aircraft warehouse facilities.

Mulhern also represents A&L Goodbody on the International Registry Advisory Board and works actively on projects for the legal advisory panel to the Aviation Working Group. He has also lectured and tutored students in Law Society of Ireland programmes including the Professional Practice Course (Part II) and the Certificate of Aviation Leasing and Financing.

"Keith has acted on many complex transactions for Aergo over the years and has always impressed with his professional approach and his ability to deploy ALG's legal input seamlessly into fast-paced deals," says Neil O'Donnell, senior vice-president legal, Aergo Capital.

"He is adept at providing commercially tailored legal advice that suits our business model and is effective at communicating such advice in a straightforward manner. He has consistently demonstrated a strong knowledge of the law and can marry this to his excellent understanding of the Aergo corporate structure and commercial dynamics," adds O'Donnell.

"Keith is an exceptional senior associate and brings expertise, professionalism and good humour to every aspect of his role. Although his client relationships and transactional experience is standout, the addition of his strong teamwork ethic and role in mentoring junior members truly makes him a Rising Star," says A&L Goodbody head of aviation and transport finance Marie O'Brien.

Amma Ofori

Associate, Watson Farley & Williams
London

Amma Ofori is an associate in the assets and structured finance group at Watson Farley & Williams, based in London.

She has notable experience acting for banks, lessors and airlines in connection with a wide variety of cross-border leasing and financing transactions. Over the past few years, Ofori has been involved with cutting-edge transactions such as ECA financings, warehouse facilities and Jolco financings.

Some of her recent transaction highlights include acting for Investec Bank (Mauritius) Limited in its arranging of a revolving credit facility by way of a private placement bond for Air Austral.

Ofori also has assisted a syndicate of lenders in connection with the Jolco financing of two Airbus A320 aircraft to be subleased by PT Garuda (Persero) TBK (with Japanese equity provided by Financial Products Group).

She represented Bank of China London Branch in connection with the Jolco refinancing of one A330-300 for AVIC Leasing. The bank acted as facility agent, security agent and hedge counterparty in the transaction.

Ofori also assisted on the ECA-supported financing of one A380 to be leased by Asiana Airlines.

She joined the firm as a paralegal in 2013, qualified as a solicitor in 2016 and has spent time in the firm's Singapore, New York and London offices.

Being part of the largest asset finance practice in London, Ofori has still managed to build a strong reputation with clients and colleagues as one of the leading associates for aviation finance in the City.

She is one of the few associates with extensive experience advising in multiple jurisdictions and on a broad range of transactions – from commercial aircraft to corporate jets and even simulators, and from complex warehouse financings and revolving credit facilities, to all types of general finance and leasing transactions in the aviation market.

Jim Bell, Watson & Farley global co-head of aviation, says: "Amma is a great technical lawyer with excellent commercial understanding. Amma has a distinct ability to keep a transaction running smoothly. Her fantastic experience, across multiple jurisdictions, makes her a real asset to our clients."

Nick Harding

Legal director, Clyde & Co
London

Nick Harding is well on track to being one of the best regarded aviation finance lawyers in the industry, noted not just for the depth of his skills but for the range of the work on which he advises.

Harding is noted by colleagues and peers for his outstanding technical skills. His broad experience shapes his legal analysis and drafting skills, which rank him alongside the magic circle partners with whom he habitually deals.

He is renowned for his highly professional approach to transaction management: early identification and resolution of issues, frequently with creative solutions; pro-activity and driving the deal forwards; a focus on key points which need to be pushed forcefully but fairly on behalf of the client, while being able to exercise good judgment in moving on from points of less importance which can hold up deals. This is different from "being commercial", which is too often a euphemism for dropping points in the interest of just getting a deal done.

Harding is well regarded in the industry for his calm and methodical manner and polite respectful approach to negotiation, articulating his points in a convincing manner without making the other side feel demeaned.

He joined Clyde & Co's aviation finance team in 2015, having previously worked for several years in the asset finance team at Dentons. He has experience in the financing and leasing of commercial and business aircraft and helicopters. His experience includes export credit-supported financings, finance and operating lease transactions, predelivery payment financings, tax-based leases (especially French tax leases and Jolcos) and financings, manufacturer-supported financings and warranty arrangements, asset value guarantees and sale and purchase transactions.

Harding also acts for financiers, owners and operators in the business jet market, advising on purchase, financing, operating and tax arrangements. Commercial airline clients for which he works regularly include Turkish Airlines, Wizz Air, Royal Air Maroc, Air Baltic, Aegean Airlines and Sun Express.

Among his recent innovative deals are the first Balthazar transaction in the global aviation market (Balthazar-supported French tax lease financing of five A321neo aircraft, with financing provided by BNP Paribas) and the second AFIC transaction for Turkish Airlines (two 787-9s), which was the first US Ex-Im Bank financing of a large aircraft since the bank's reauthorisation.

Over the past year, Harding has also been advising a number of airlines on Covid-19 related issues, and restructuring. Before that, he advised various airlines on issues relating to the grounding/delays in delivery of 737 Max aircraft.

Harding has advised a number of airlines on refleeting programmes and engine support. He acted for Air Baltic on its A220-300 aircraft including PW1000G engine warranty support, and acted on the EDC financing of the first deliveries, including the first A220 (then CS300) aircraft to be delivered as launch customer in November 2016; and acting on subsequent sale and leasebacks.

He also has extensive litigation experience, which he can bring to bear on his transaction advice. A recent highlight was acting for Alitalia's parent company, Compagnia Aerea Italiana (CAI), in the English Commercial Court in a dispute with Aircraft Purchase Fleet Limited (APFL). The dispute related to the non-delivery of 13 Airbus aircraft which, according to APFL, CAI was bound, but refused, to take on lease between 2012 and 2015 under a framework agreement in force between them.

After a two-week trial, the court dismissed in its entirety the $260 million claim for damages brought by APFL alleging renunciation of that agreement by CAI.

Harding also advises on regulatory matters – for example, in 2017, he assisted in the establishment of Wizz Air UK.

"We very much appreciate the quality of support that Nick provides to us," says Youness Agzid, head of the legal department, Royal Air Maroc. "He has a good understanding of our commercial requirements, and knows which points to push hard, and which can be traded or conceded. He clearly has real knowledge of industry practice and wide experience of a number of finance/leasing products and this comes across in his advice."

Imants Jansons, general counsel at Air Baltic, says: "In 2016, Air Baltic was a launch operator of the new Airbus A220-300 aircraft and Nick played a crucial role providing legal support in that complex journey making it a huge global success. Since then, he has become an integral part of all aircraft finance transactions and a person to turn to in case of all other aircraft-related legal issues.

"Nick's legal skills, industry knowledge and accessibility are well known and recognised at all levels of the company and his guidance is sought after not only by the legal team but also the finance and technical team. He has become a part of Air Baltic."

Charlotte McNeilly

Senior Associate Stephenson Harwood
London

Charlotte McNeilly is an experienced aviation lawyer with more than eight years' experience in the aviation sector. She has extensive experience advising banks, lessors and airlines on all aspects of aircraft financing, leasing and aircraft-trading transactions, each involving multiple jurisdictions. At Stephenson Harwood, she is the lead associate on all the team's key client relationships.

Of particular value is McNeilly's ability to deliver bespoke solutions for clients. She has recently advised on the conversion of several A330 aircraft from passenger-to-freighter configuration and the subsequent leasing. Negotiation of the leases was involved not only because it represented a new relationship for the lessor but also to take account of the predelivery freighter conversion process and a bespoke arrangement whereby the aircraft was to be operated by a third-party airline on behalf of the lessor's non-airline customer,

"Charlotte is a stand-out senior associate and we highly value her contribution to all aspects of our team and our business."

Richard Parsons, partner and head of aviation, Stephenson Harwood

resulting in the need for sensitive negotiations, balancing all parties' requirements and expectations.

On another matter, she negotiated unprecedented step-in obligations for a lessor into subleasing arrangements in order to secure the end user as a follow-on customer for the lessor in anticipation of the imminent insolvency of its direct lessee customer.

Landmark transactions on which McNeilly has advised include advising the investors in connection with Virgin Atlantic's groundbreaking bond issuance in which landing slots were used as collateral for the first time in Europe. She was primarily responsible for the main transaction documents and assisted with the investor roadshows and the ratings process. This transaction won *Airfinance Journal*'s Deal of the Year, Capital Markets, award.

In addition, McNeilly recently advised on a six-aircraft sale and leaseback transaction with Delta Air Lines at the height of the Covid-19 pandemic in which the documents were agreed in a record four days to meet Delta's strict timeline to ensure an improved cash-flow position for the airline. Two of the aircraft in the Delta sale and leaseback transaction were subsequently refinanced in what was the client's and the financier's first new money deal since Covid-19 resulting in more involved negotiation of the financing documents.

Before joining Stephenson Harwood, McNeilly worked for an aviation leasing company in Singapore where she managed all leasing, financing and trading transactions for the company. Consequently, she brings to each deal a commercial and outcomes-driven approach, and her time in-house has given her a wider view of the aviation industry as compared with most private practice aviation lawyers, having dealt first-hand with repossessions, lease transitions and technical supplier/consultant contracts alongside the regular leasing, financing and trading deals. McNeilly has maintained strong connections with her former employer and developed relationships between them and Stephenson Harwood, such that her former employer is now an active client of Stephenson Harwood's aviation finance team.

She has also completed secondments at two major aviation finance banks from which she also has great insight into the priorities and demands placed on commercial lenders in the aviation sector.

McNeilly has a track record for advising on high-value and complex transactions. Her work includes advising a syndicate of banks on the restructuring of secured debt in respect of an A330 in conjunction with the restructuring of MAB Aviation. She also represented a new joint-venture leasing platform on its inaugural aviation transaction purchasing three A321 aircraft via sale and leaseback with an Indian carrier (and associated secured debt financing).

Away from transactional work, McNeilly is involved in the team's business development and recruitment activities, and plays a leading role in delivering aviation-related training across Stephenson Harwood's global network. She is also responsible for the supervision and development of trainee solicitors in Stephenson Harwood's aviation finance team.

"Charlotte is a stand-out senior associate and we highly value her contribution to all aspects of our team and our business," says Stephenson Harwood partner and head of aviation, Richard Parsons.

He adds: "Whilst Charlotte is a technically excellent lawyer, with strong drafting and negotiating skills, she also has excellent commerciality, which clients really value. Charlotte is involved in all the team's key client relationships. I know that clients really enjoy working with her, not just because she is a great lawyer, but also because she is always so positive, engaging and unflappable."

Recent private equity **investment in aviation**

Private equity has been upping its game in aviation, writes **David Berkery**, Partner, A&L Goodbody.

Investment by private equity (PE) funds in the aviation sector is not a new phenomenon. PE houses such as Oaktree, CarVal, Terra Firma, Cerberus, Apollo and Fortress have owned or part-owned some of the largest aircraft leasing companies for years. But recently the risk profile and yield potential offered by aviation has attracted even more private equity investment, using a variety of different investment structures.

As the aviation industry grappled with the near worldwide halt of commercial aviation in 2020, new debt funding became increasingly difficult for most leasing companies to source but there remained a plethora of equity investors looking for the right investment opportunity.

Before the onset of Covid-19, there was massive year-on-year increase of the aviation asset-backed securities (ABS) market during the 2014 to 2019 period. It reflected the appetite among private equity firms to acquire aviation debt. While tradable E-Notes (issued under Rule 144A of the US Securities Act as securities of ABS vehicles) were not without their problems when it came to secondary trading, this product did introduce new and different equity investors to the aircraft leasing sector.

Limited partnerships

The most traditional method of raising private equity funds is to form a limited partnership with a defined investment strategy and a trusted general partner to manage the investment. These types of fund raises have been a crucial element in the growth strategy of numerous PE-backed leasing companies.

A typical investment strategy would be to access a warehouse facility to lever up the equity investment, acquire a portfolio of aircraft (either in a single acquisition or over a period of time) and then to take out the warehouse debt using an ABS or another cheaper form of long-term financing.

This type of equity raise has been frequently used by US-based platforms and asset managers, such as Aero Capital Solutions ($200 million equity raise in 2019 and $413 million in 2020), Castlelake, Apollo and Carlyle.

“Over the past number of years, sidecar joint ventures have become more and more popular in the aviation sector.”

David Berkery, Partner, A&L Goodbody

Raising equity through unregulated fund structures has some potential disadvantages, however, particularly when it comes to attracting investment from European investors and those who are limited to investments into regulated vehicles. Typically, investment by European investors in these types of funds needs to be on a “reverse-solicitation” basis, meaning the investor comes “at its own exclusive initiative” to the investment manager rather than the manager marketing the fund to them.

Given the amount of available capital there has been for aviation in recent years, this has not been a major concern for private equity-backed platforms. But it is clear that there would be advantages to using a regulated vehicle such as an Irish Collective Asset-management Vehicle or an Irish Investment Limited Partnership to raise an aviation fund, and we expect to see a lot more interest in these types of vehicles.

Sidecar joint ventures

Over the past few years, sidecar joint ventures have become more and more popular in the aviation sector. These structures typically marry a passive investor with capital to deploy, but lacking an aircraft leasing platform with the expertise and resources of an existing aircraft lessor.

A good example of this was the $2 billion Einn Volant structure created in 2017 between Caisse de dépôt et placement du Québec, a leading institutional asset manager, and GE Capital Aviation Services Limited (GECAS). More recently, GECAS entered into a similar arrangement with PIMCO, creating a $3 billion leasing investment platform. In both cases, the platform vehicle was an Irish entity capitalised using profit participating notes.

From the perspective of the private equity investors, they benefitted from world-class experience and expertise, access to the marketing network of a global lessor and improved access to warehouse and other financing.

From the perspective of the leasing company, aside from the new equity which is being invested into the vehicle and the ongoing servicing fees being generated, they can use the sidecar vehicle to allow them to do deals which may have otherwise triggered concertation concerns.

For example, an airline in Russia issues a request for proposal for a six-aircraft sale and leaseback transaction but the leasing company could trigger a concentration limit default if it leased more than four aircraft to airlines in that country. Working with the sidecar investors, the leasing company could still do that six-aircraft deal but on the basis that two of the sisterships would go into the sidecar vehicle instead.

Sidecar deals are structured to align interests between the parties as much as possible so that it is to everyone’s benefit that the platform succeeds. It was not surprising to see Kennedy Lewis team-up with Arena Aviation, Corrum Capital Management enter into a joint venture with Sirius Aviation in early 2021 and before that Avolon, CALC and Air Lease Corporation enter into sidecar arrangements with investors.

Loan book acquisitions

Even before the economic impact of the Covid-19 pandemic hit the aviation sector, the changes to global bank capital requirements imposed by Basel IV prompted certain banks to reassess their aviation lending platforms.

In 2019, it was reported that DVB Bank's aviation loan book was on the market and a suite of private equity investors expressed interest in acquiring the book. Similarly, General Electric's sale of PK Airfinance drew the attention of multiple private equity firms before its ultimate acquisition by Apollo Global Management and its insurance company affiliate, Athene.

As the effects of the pandemic took hold, certain other lenders in the sector looked to exit, and private equity investors saw value in the opportunities which emerged. In May 2021, funds managed by Stonepeak Infrastructure Partners and Sydney-based Bellinger Asset Management agreed to acquire a $1.1 billion performing aircraft loan portfolio (secured by 159 aircraft) from National Australia Bank.

Soon afterwards, funds managed by KKR launched a new lending platform (AV Airfinance) with a team of established aviation professionals and acquired an almost $800 million portfolio of aviation loans from CIT Group.

Also in 2021, alternative asset manager Entrust Global and investment firm Strategic Value Partners acquired DVB Bank's aviation asset management and investment businesses.

Despite the differences between aircraft portfolio acquisitions and secured loan portfolio acquisitions, the processes have been relatively similar:

- private equity investors have sought out expertise (either through a joint venture with an existing platform or by launching a new platform with experienced professionals);
- the new vehicle has sourced either a warehouse loan or an acquisition financing allowing it to leverage-up the equity commitment;
- the portfolio of loans has been acquired from the previous lender; and
- the vehicles have looked at ways of taking out the expensive acquisition financing either through a modified ABS, a collateralised loan obligation or a hybrid of the two.

It is reasonable to think we will see this model adopted by others if more traditional lenders in the sector seek to sell some or all of their positions.

New leasing platforms

A different strategy adopted by other investors has been to identify key individuals in the industry and to build a new platform around them. Bain Capital announced in early 2020 that it would provide capital to support a new leasing and asset management platform (Griffin Global Asset Management) with Ryan McKenna as chief executive officer of the new venture. Griffin has gone on to close a $1 billion warehouse facility enabling it to build its portfolio of aircraft and aircraft loans.

Another example of this can be seen in the M&G Investments equity investment in Sky Leasing under the executive leadership of Austin Wiley in 2019. By the middle of 2021, Sky Leasing had secured a $600 million warehouse facility (later upsized by an incremental $150 million), acquired a portfolio of young Airbus and Boeing aircraft and taken out the warehouse debt through its SLAM 2021-1 ABS with record low pricing on the senior tranche.

A similar approach was used in the formation of new US lessor Vmo with funds managed by Ares Private Equity attracting some of the original founders of Vx Capital Partners to launch a new leasing platform.

Existing platforms

There are many upsides to starting a new platform from scratch but depending on market conditions, growing a portfolio (let alone a team) can take time. This can be avoided by acquiring an existing platform, as was the case in CarVal Investors' acquisition of a 90% stake in Aergo Capital in 2014.

More recently, funds managed by Oaktree Capital Management adopted this approach when they invested in existing regional aircraft leasing platform Azorra Aviation based out of Fort Lauderdale, Florida.

In speaking with private equity firms looking to invest in the sector through the acquisition of an existing platform, it is clear that the make-up of the management team is more important than the make-up of the aircraft portfolio. Negotiations for this type of investment can frequently centre on ensuring that the management team remains in place after the investment has been made.

Other types of investment

Perhaps the most straight-forward investment into the aviation leasing and finance sector is to buy publically traded stock of listed aircraft lessors. This investment typically offers very limited execution risk and a clear path to exit in the future. However, a number of factors may make this option less attractive:

- since Avolon Holdings' delisting in 2016, the acquisition by Marubeni and Mizuho of publically traded Aircastle and, most recently, Carlyle Aviation Partners' acquisition of Fly Leasing, there are a limited number of listed aircraft lessors remaining in which to invest;
- the ABS tradable E-Note gave investors a taste for increased transparency and detailed information, an ability to influence management of the portfolio and (subject to limited substitution and reinvestment rights) a defined portfolio of aircraft into which it was investing; and
- this type of investment will be more sensitive to general conditions prevailing in the equity markets and, as the early days of the pandemic demonstrated, stock prices can be prone to greater fluctuation than the metal underpinning the investment.

ABS debt and E-Notes have also proven to be attractive investment tools for private equity investors over the years and the rapid post-pandemic return of the ABS market was testament to this. While it is unlikely we will see tradable E-Notes return in the near future, single third-party equity holder deals have a lot to offer investors.

In essence, these deals are similar to the sidecar joint ventures that have proven very popular recently. But instead of investing in a blind portfolio supported by a warehouse loan, the investor would have the benefit of due diligence on the defined aircraft portfolio while still inputting on the terms of the external debt and working with the servicer of its choice. Once trading conditions improve and large portfolio sales return, this type of structure may make a comeback.

Opportunities in a distressed environment

As certain airlines and leasing companies have faced distress, opportunities have arisen for private equity investors whose investment criteria tend to be more flexible than those of institutional lenders. As a number of airlines filed for Chapter 11 protection in 2020, private equity investors took the opportunity to provide debtor-in-possession financing on a super-senior secured basis.

Similarly, as secured lenders, bolstered by protections afforded by the Cape Town Convention, seek to exercise enforcement rights against insolvent airlines or lessors, private equity investors are watching closely for opportunities to acquire aircraft in distressed market conditions.

*A&L Goodbody acted as Irish counsel on transactions cited in the article. All factual information contained in this article is already in the public domain.

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