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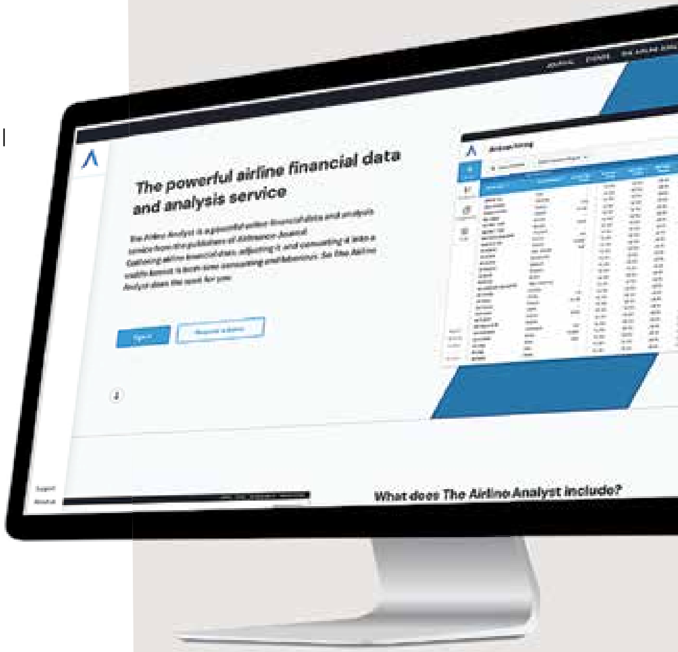

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AIRFINANCE JOURNAL

Equity not an issue, **but debt may be**

Sourcing debt could be a problem for new aviation platforms.

The money keeps pouring into the aviation sector, and it is a good sign that investors have confidence in the recovery of air travel.

The formula to attract funds remains unchanged: an experienced team with the biggest lessors or finance industry providers backed up by private equity money.

In the second half of April alone, two new aviation platforms were launched.

Private equity firm Warburg Pincus formed a speciality finance platform in partnership with aerospace industry veteran Al Wood and investment firm Kepler Hill Capital. Aquila Air Capital will have a broad mandate to purchase, finance and lease aircraft, engines and other aviation equipment.

The regional market is also active, as demonstrated in the formation of Adare Aviation Capital.

A trio of former Nordic Aviation Capital and Embraer employees announced plans for an aircraft-leasing platform focusing on the latest technology aircraft.

Airfinance Journal understands that a Canadian private firm is in the final stages of agreeing on an equity investment in the newly launched platform.

Another former Nordic Aviation Capital team, Azorra Aviation, has secured funds from private equity firm Oaktree Capital, which has a proven history of investment in commercial aircraft leasing. Oaktree can help finance the Florida-based lessor's activities further if the opportunity arises, in addition to the $350 million of equity invested in the next 12 to 18 months.

Transactions are in the pipeline, but the main challenge, for many reasons, for those newly established platforms will be sourcing debt from the banking market.

There are few active aviation banks. As a banking source notes, many of them put the brakes on during 2020, and only a very few remain active.

Also, newly established aircraft platforms look for non-recourse bank debt, and the banks capable of delivering comprehensive financing under such structures are only a subset of all aviation banks. Such financiers typically have proven aviation loan structuring capabilities and an established asset-backed securities (ABS) platform, and true distribution capabilities across various asset classes. They are also comfortable on the take-out of those structures.

From a bank perspective, several criteria need to be considered to extend non-recourse portfolio financings.

"The first one is the identity of the private equity, which needs to be a well-established player and well-known by the financial institution. The relationship is key here, and not every bank has comprehensive coverage and intimacy with the financial sponsor universe," says a banking source.

Another bank representative says sponsors may use their existing relationships with debt providers when introducing a new platform to the sector.

Also, the track record of the management team is essential.

"This is critical since the platform needs to be able to ramp up the aircraft portfolio quickly, and so the relationship with the OEMs [original equipment manufacturers] and with the airlines is key. It's not only a question of being known from the market but as well to be respected and trusted," adds the banking source.

He observes that the terms and conditions required for such financings need to go through the banks' credit committees and, as such, need to be evaluated and validated against other references points and, in particular, against pre-Covid 19 structures.

"It is really a night and day contrast as post-Covid 19 structures are definitely belt and braces.

"Based on my conversations with asset managers, pension funds and other potential investors, many more equity players would like to get involved in the aviation sector but cannot find the right access point," observes the bank representative.

He adds that most investors accept that the levered returns are at best in the low double digits.

The asset types may not be an issue for newly formed platforms, as shown in the appetite of the investors in the latest ABS transaction, Regional 2021.

The $255 million refinancing deal, which is a great transaction for the sponsor Falko Regional Aircraft, refinanced a bridge warehouse facility provided by Citi. *Airfinance Journal* understands that two investors joined the refinancing while Citi retained a minority portion. But at closing, 12 of the 39 aircraft were non-revenue aircraft.

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Delta Air Lines promotes Morge

Delta Air Lines has promoted Kenneth Morge to senior vice-president of finance and treasury. He has been vice-president of finance and treasurer for Delta since March 2012.

Morge has facilitated more than $30 billion in financing transactions across a variety of structures for Delta and currently oversees a broad scope of corporate finance activities, including capital markets, global cash management, insurance and financial risk management and corporate tax.

Morge served as managing director and assistant treasurer and has held several other positions since joining Delta as an analyst in the finance division in 1997.

"Ken has been a stalwart for many years. But particularly through this last year, he was probably the most important person at Delta, I'd say, and argue for very many, many days within the last year at Delta, and we really appreciate all the good work that Ken has done. So, thank you, Ken, for your work and great to see you get a well-deserved promotion," says chief executive officer, Ed Bastian.


Kenneth Morge

Last December, executive vice-president and chief financial officer, Paul Jacobson, left the Atlanta-based carrier after more than eight years in the role. He joined Delta in 2005 as senior vice-president, finance and treasury.

The carrier has appointed Garrett Chase and Bill Carroll as co-chief financial officers.

Chase is Delta senior vice-president, business development and financial planning, while Carroll is senior vice-president, finance and controller.

Regional executives form new leasing vehicle

Three regional aviation executives have formed Adare Aviation Capital, an aircraft-leasing platform focusing on the latest technology aircraft.

Stephen Gorman is the chief executive officer. He previously was the chief funding officer of Nordic Aviation Capital (NAC). He joined NAC in April 2016 through the acquisition of Aldus Aviation. He has more than 20 years' experience in the aviation industry and was one of Aldus Aviation's founders.

Simon Newitt, who spent 20 years with Embraer, is the lessor's chief operating officer. He served in various roles at the original equipment manufacturer and, most recently, was vice-president of contracts and asset management.

Mathieu Duquesnoy is the chief marketing officer. He previously was the chief marketing officer of Nordic Aviation Capital. He has almost 20 years' experience in the aviation industry. Before NAC, he spent 16 years with Embraer in a variety of sales and marketing roles.

Castlelake counsel joins Sun Country

Castlelake Aviation managing counsel, Rose Neale, is to join Sun Country Airlines as counsel.

Neale has been at Castlelake for almost eight years providing full legal, compliance and fiduciary oversight for Castlelake Aviation investments, including acquisitions, financing, leasing and sales, with current responsibility for a portfolio of more than 230 aircraft on lease to 63 airlines.

She previously worked at Best Buy as special counsel.

Neale also spent two years at Porter Orlin advising the senior management and portfolio managers on legal regulatory issues for the investment firm.


Rose Neale

Plane View adds TAP executive

US consultancy firm Plane View Partners has hired Nuno Leal, an airline executive with 15 years' experience in the aviation sector.

Leal was recently the head of fleet planning and management at TAP Portugal where he led the group's aircraft and engine acquisitions, leasing and financing.

Leal led TAP's fleet transformation with the Airbus A320neo family and A330-900 fleet integration.

He also oversaw the financing of more than $4 billion of new-technology aircraft and engines, and managed the phase-out and sale programmes for older aircraft to support the fleet renewal.

In March, Plane View Partners added former vice-president and treasurer of American Airlines, Tom Weir. He has 35 years of varied experience in the commercial airline industry, having worked for both original equipment manufacturers and airlines in that time.

Before American Airlines, Weir was vice-president and treasurer of US Airways. He held the same position at America West Airlines from 2000 through 2005.

Weir has worked for airframe manufacturers Airbus and Saab in director sales finance and manager finance positions. He has also held various business development roles at CIT Corporation.

Graham is Avolon's head of Americas

Avolon has named Steven Graham as head of Americas. He has been head of North America since 2017, and his new role will expand to incorporate North and Latin America. Based in New York, he will lead all of Avolon's activity in these regions.

Graham was one of the co-founders of Avolon in 2010. He has a Bachelor of Science (Hons) in Actuarial Mathematics and Statistics from Heriot-Watt University, Edinburgh, and is a member of the Institute of Chartered Accountants of Scotland.

The lessor also announced Felipe Campos as its new chief technical officer, based in Dublin, Ireland.

Campos, who is an engineer by training, has been Avolon's head of Latin America, responsible for all of the firm's activity in that region since 2016. As a customer-focused executive, he will bring "deep commercial perspective and strategic insight to his new role".

He has worked at GE Aviation and also with the airline groups LATAM and TAM, where he started his career in aviation in 2005. Felipe holds an MSc in Naval Engineering and Project Management from Escola Politécnica at the University of São Paulo. Campos holds an MBA from IBMEC.

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Chedeville becomes **Natixis**'s global head of aviation finance

Natixis has appointed Jean Chedeville as global head of aviation finance, corporate and investment banking.

Chedeville succeeds Gareth John, who took up his new role as head of investment banking, coverage and sectors, UK, in March.

In his new role, Chedeville remains based in Singapore and reports to Benedicte de Giafferri, global head of real assets.

He retains his role as head of aviation finance Asia-Pacific, in which he reports to Emmanuel Gillet-Lagarde, head of real assets and global trade, Asia-Pacific. Locally, he reports to Sanjeev Kumar, senior country manager, Singapore, and head of Southeast and South Asia, corporate and investment banking.

Chedeville started his career in 2003 at HSBC in Paris before moving to BNP Paribas in 2004, first in corporate banking based in New York, then, from 2006, in Singapore in aviation finance. He joined Natixis's aviation finance team in Singapore in 2014, and was named head of aviation finance, Asia-Pacific, in 2018.


Jean Chedeville

ACG names White chief revenue officer

Aviation Capital Group (ACG) promoted Carter White to chief revenue officer on 1 May. He also joined ACG's senior leadership team.

White joined the operating lessor in 2016 as head of aircraft trading. In this role, he was responsible for the strategic development and tactical implementation of all aircraft trading initiatives for ACG.

As chief revenue officer, White is to "strengthen ACG's ability to focus on customer needs" while enhancing revenue opportunities by driving closer alignment among the global marketing and aircraft trading teams.

He also has shared responsibilities for the continued growth and development of ACG's aircraft financing solutions programme.

Tom Baker, chief executive officer and president of ACG, says: "Carter has made significant contributions to ACG's commercial initiatives in his five years at ACG. His 25 years of aircraft leasing and financing experience, deep knowledge of aviation markets, understanding of asset values and global sector reach will enrich ACG's ability to serve customers and increase our commercial impact."

Kergaravat to lead **Airbus Financial Services**

Yan Kergaravat has become head of Airbus Financial Services (AFS) in Dublin, Ireland. He was previously chief financial and administrative officer at Airbus Interiors Services.

Kergaravat operationally reports to Karine Guenan, Airbus's head of financing and guarantees.

He succeeds James Cottle, who retires at the end of May.

Cottle had been with Airbus for more than 34 years and previously was managing director of AFS.

Natwest reassigns aviation director

Shawn Pickering has become the sole lead of the aviation business at Natwest. Fellow director aviation, Jacob Lloyd, has taken a new position within the bank as energy lead director.

Pickering, also an aviation director at the bank, has worked with Lloyd since 2018.

He has also been a director of helicopter finance at Royal Bank of Scotland.

Both have been responsible for origination and execution of the bank's mandate since its re-entry into the aviation market. Natwest's focus has mainly been on strong credit counterparties backed by new Airbus and Boeing assets over the past three years.

Flybondi gets new CEO

Argentinean low-cost carrier Flybondi has named Mauricio Sana as its new chief executive officer (CEO). Sana assumed the interim CEO position in June 2020, in addition to the chief commercial officer role.

Sana has more than 15 years' experience executing commercial strategies for airlines, hotel companies and travel agencies. He was manager of pricing and revenue management at Copa Airlines and headed the revenue management strategic support department of Aerolineas Argentinas.

Sana joined Flybondi in February 2019 as chief commercial officer. He previously worked at Decameron Hotels and Resorts in Colombia as revenue management corporate director.

Sana succeeds Sebastian Pereira, who died in April 2020. He had been CEO of Flybondi for 15 months.

Pereira joined in February 2019 from LATAM Argentina, where he was chief financial officer.

Boeing CFO to depart this summer

Boeing's executive vice president (EVP) and chief financial officer (CFO) Gregory Smith is to retire from 9 July.

Smith was appointed as CFO at Boeing in 2011 and later served in expanded roles as the EVP finance, enterprise performance and strategy, and more recently, EVP of enterprise operations, finance and sustainability.

Before he was appointed CFO, he was corporate controller and VP finance, serving as the company's principal liaison with the board of directors' audit committee to ensure regulatory compliance.

He has also served as the company's interim chief executive officer (CEO), immediately preceding Boeing's current CEO, David Calhoun.

"He leaves a legacy of leadership and lasting impacts over his 30-years with Boeing. I'm also grateful for Greg's commitment to support the upcoming transition and for his counsel as we select his successor," says Calhoun.

Boeing says the search for Smith's successor is underway.

Meanwhile, the US manufacturer has extended the company's age-65 standard retirement to age 70 for Calhoun, who has served as Boeing's CEO since 13 January, 2020.

Green is the colour

Etihad's cost of sustainability financing programme is linked to financial performance.

Etihad Airways plans to capitalise on its green financing initiatives over the past two years by raising more such funds for its growth.

In November 2020, Etihad Airways issued a five-year $600 million sustainability-linked transition sukuk.

"Sustainable financing is important for Etihad Airways," said Etihad Airways group treasurer, Daniel Tromans, during an interview at *Airfinance Journal*'s Middle East and Africa virtual conference.

"We are into this for the long haul. We see this as being very much the start of a new era, not only for us but as an industry. We definitely see this as the start of a long-haul shift," he adds.

"We are currently working on a potential financing structure that is a little bit broader than just the environmental piece, potentially looking at the environment social governance aspect formulae of the ESG.

"What we have seen has been well received by investors and the market by having elements like the key parameter indicators [KPI] link when you have some real skin in the game that makes that real commitment. That could be an area we look at."

He adds that Etihad may work with partners to develop green trade finance products such as green letters of credit and sustainable supply-chain finance options.

"Those are a bit more nascent but definitely something to think about for the future," he adds.

Last year's sustainability-linked transition sukuk was unique in many aspects, according to Tromans.

"This capital market format was unique as it had the use-of-proceeds angle but also sustainability-linked KPIs. We made commitments not only how we were going to spend the money but also to how the impact the deployment of the capital was going to have."

Etihad planned to use the proceeds to finance the next generation of aircraft, specifically its fleet of Boeing 787-9/10 aircraft. "Those are energy-efficient aircraft and have played a big role in transforming our fleet," he says.

"We also invested a small amount of the proceeds into research and development for sustainable aviation fuels," he adds.

Tromans says that the group also made a commitment linked to its financial performance.

"The commitment is linked to the overall cost of fund of the instrument to Etihad performance against a recognised sustainability KPI.

"We focus on CO2 emissions per RPK across the passenger fleet and we set ourselves a very ambitious target of 20% reduction of emissions by 2025. Effectively, if we achieve this target we will receive a lower cost of overall funding," he adds.

Tromans says investors' engagement was global, and the transaction was supported by a rating from Fitch.

"We met with investors we had not met before and this opened pockets of liquidity," he says.

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.

HSBC and Standard Chartered Bank acted as joint global coordinators and joint sustainability structuring agents of the $600 million landmark transaction, which was the first sustainability-linked issuance for the aviation sector and the first transition issuance for the aviation sector. It also marked the first combination of transition and sustainability-linked issuances globally, including conventional bonds and sukuk markets.

The deal was a new ratchet structure for issuer pay-outs, in this case, purchase of carbon offsets, and it was the first sustainability-linked bond structure to adopt purchase of carbon offsets instead of coupon step-ups.

Vigeo assessed the relevance of the KPIs as advanced, and the ambition of the sustainability performance target in the transaction.

Etihad has worked on a sustainability-linked framework for this type of transaction since 2019. The transaction was in line with the corporate ESG objectives of the group.

Etihad plans to reduce CO2 emissions to 50% of 2019 levels by 2035, and to achieve full net zero emissions by 2050.

In addition, Etihad has committed to purchasing carbon offsets to neutralise completely the CO2 emissions of its flagship 787-10 aircraft for a full year of operations in 2021.

Banks' views

There is a consensus that environmental, social and corporate governance (ESG) facilities are becoming more common when factoring in risk ratings and return on capital criteria in the aviation sector.

However, Covid-19 has, to some extent, played a role in pushing these criteria to one side as airlines focus on more immediate liquidity issues. Citibank's director EMEA aviation, Maybel Saleh, says the bank is seeing a lot of interest from investors for ESG financing, adding that it is actively advising clients to add an ESG angle when structuring a deal to attract more investor interest.

"We've been working a lot with clients to make sure we address this point when structuring deals," she says, both for environmental and social aspects of sustainability-linked debt.

Saleh notes airlines are taking environmental guidelines "very seriously across the board".

Meanwhile, First Abu Dhabi Bank's managing director and head of asset and project financing, Sarah Pirzada Usmani, says ESG is "very much a part of our evaluation decision", to a large extent stemming from the UAE's 2030 green agenda.

She refers to the arrangement of a UN Sustainable Development Goals-linked facility for Etihad early last year, which was one of the first in the airline industry and a first for a corporate organisation in the Middle East, as an indicator that interest was growing among the airlines for ESG financing.

Usmani argues that "airlines want to be doing the right thing" by investing in energy-efficient aircraft.

"As part of that, it is important for us to push that agenda," she adds, noting, however, that ESG evaluations still do not override traditional credit metrics – in particular, with the underlying values of aircraft falling because of Covid-19.

"ESG is an important agenda, but would we do an ESG facility for an airline that is not creditworthy, probably not," she concludes.

Natixis's head of aviation finance EMEA, Benedicte Bedaine-Renault, observes that while ESG criteria for financing was becoming "more topical" in late 2019 and into early 2020, Covid-19 has shifted this into a less urgent matter when structuring deals.

Bedaine-Renault notes that in some countries state support has come with environmental strings attached, which has led to more interest shown from corporate entities for ESGs to bolster their case for access to financing.

She nonetheless argues that ESG for aviation debt capital markets is not the most urgent topic currently, noting a "lack of motivation" for airlines which have "a lot of other important elements to tackle" in the context of Covid-19.

Bedaine-Renault says: "It's not the only KPI we're looking at… the LTVs [loan-to-value ratios] are the important topics when assessing aircraft financing."

ECAs ready to step up activity

Export credit agencies have been kept busy during the Covid-19 crisis and the work is not slowing down, write **Hugh Davies** and **Olivier Bonnassies**.

The Covid-19 crisis has drastically shifted the focus on how the finance sector manages financial arrangements for airlines in the Middle East and Africa region.

Citibank's director EMEA aviation, Maybel Saleh, speaking during *Airfinance Journal*'s Middle East and Africa 2021 virtual conference, said that the bank had been very busy in managing liquidity requests last year.

"As soon as the crisis hit, all our airlines practically came knocking on our door to ask for liquidity, so we really needed to be very selective given our industry limit constraints and the risk appetite internally," she says. "We had to be very selective in what we did and the deals we got approved."

Saleh notes that Citibank still managed to close more than $160 billion in transactions last year.

Focusing on the Middle East and Africa market specifically, Saleh says the bank has focused on refinancing existing facilities for airlines, ECA refinancing and managing deferrals as well as new ECA loans.

"ECA financing has been very popular for airlines given the creditworthiness of some, so they seek ECA financing much more these days than we saw in the last couple of years."

Natixis's head of aviation finance EMEA, Benedicte Bedaine-Renault, says that while there was "a lot of liquidity available", with a lot of investor interest in 2019, last year completely shifted the focus to liquidity management and assisting clients through increases in cash lines and providing various types of asset-backed financing.

"2020 was a very interesting year in that we remained open," she says. "It was not as if the tap was closed," she adds.

It was also a "very good opportunity in terms of client management" to build strong and long-term relationships and show that, in times of liquidity shortages, the bank was there "in the good and bad times", adds Bedaine-Renault.

She agrees that ECA financing is becoming a more common source of financing in the context of Covid-19.

"We see a lot of activity in this space… I think it's going to be predominately the type of transaction that is going to be done this year for airlines," she says.

First Abu Dhabi Bank's managing director and head of asset and project financing, Sarah Pirzada Usmani, says that while 2020 "was a very challenging year", the bank had remained "extremely supportive" of clients.

> *"As soon as the crisis hit, all our airlines practically came knocking on our door to ask for liquidity."*
>
> **Maybel Saleh**, director EMEA aviation, Citibank

She adds that the bank has homed in on key clients to provide liquidity lines, as well as managing a large number of requests for deferrals for existing leases to help stem airline cash burn.

"All in all, the sector remained extremely active, but, of course, for all the wrong reasons, but at least we were there to support them," she adds.

Usmani says that the lessors were "in a good spot" and that it was "really the airlines that were suffering".

She says: "I think the lessors will continue to remain a very critical source of financing for the industry. If anything, they will become more and more important because they have significantly deep pockets at this point in time and many of them are opportunistically looking at transactions."

Usmani adds that lessors have been "extremely successful" in securing sale and leaseback deals in 2020, from airlines that may have never considered such transactions pre-Covid-19.

According to her, this trend will likely continue as lessors see that now is a good time to buy aircraft.

"Airlines will only survive through this crisis… based on the amount of support from their underlying sovereigns," she adds.

Usmani also agrees that ECAs are "really stepping up" in the region, for widebody financing in particular, and that they will continue to play a "prominent role in this environment".

Boeing expects the banking market to fill funding gaps for airlines until confidence fully returns.

Vasgen Edwards, Boeing Capital managing director Middle East and Africa, expects banks to be active in pre-delivery payment financings in the future for airline customers.

"I also think hedging is going to be incredibly important. We have seen a 120-basis points spike in 10-year Treasury over the last 12 months," he says.

Edwards also expects banks to play a "fairly important role" in mezzanine financing, especially regarding loan-to-values.

"As we see more focus on credit there is less on assets, and therefore people are going to take less risk. There will be an opportunity there," says Edwards.

"Until confidence fully returns to operational trading, there will be these funding gaps in the lending structures and I believe this is where the banks have great opportunities," he adds.

He recalls that in 2016 and 2017 there was broad use of capital tools from airlines to finance new deliveries, but notes that "2020 has changed that dramatically", adding: "Bank debt formed a very significant part of that. Cash was used but there were refinancing outstanding."

Edwards says there is now an "absolute focus" on credit.

"We are in a risk-off environment. Something of that is starting to change very much from a lending basis; we see lenders move further back to their comfort zone, which is the credit piece, not the asset piece.

"They have set caps but there is definitely more support from local and regional credits as opposed to international lending. But I am more positive around the Middle Eastern carriers with their very strong support from shareholders and their fundamental part in many of the vision plans that the governments follow on diversification around the airlines and the enforcement of tourism as well as the foreign direct investment channels."

He recalls that 2010 was a liquidity crisis but now liquidity is "pretty strong".

Investor appetite remains in the Middle East region and, according to Edwards, four of Gulf banks are in the top 100 assessment for Tier 1 capital adequacy.

"That says a lot around the strength of Middle Eastern banks. These are institutions that are now national champions. They have huge product diversity, massive capabilities and are very liquid. They are very capable of supporting across their national other industry champions, the airlines, standing out as being critical to the vision and strategies followed by many of the sovereigns."

He sees these banks as fundamental to the recovery. "The Saudia deal," says Edwards, "just shows the firepower that the local banks can bring."

Flyadeal big year ahead

Covid-19 has been only a temporary setback for the Saudi Arabian low-cost carrier, which is continuing its growth trajectory with the A320neo, its chief executive officer, Con Korfiatis, tells **Hugh Davies**.

Saudi Arabian low-cost carrier (LCC) Flyadeal has registered rapid growth since it launched commercial operations in the kingdom in September 2017 but this ground to a halt when the Covid-19 pandemic materialised.

In an interview with *Airfinance Journal*, Flyadeal's chief executive officer (CEO), Con Korfiatis, says that while the crisis has slowed this growth trajectory, he argues that underlying growth opportunities still exist as the LCC market in the kingdom is still significantly underrepresented.

"This is a big year for us," affirms Korfiatis, despite the pandemic, noting that the Jeddah-headquartered airline will require all the capacity it can muster out to 2025.

He recalls that the carrier had grown its fleet to 11 Airbus A320s operating domestic-only by late 2019 to become the kingdom's second-largest domestic operator. These aircraft began being incorporated into the fleet new in 2017.

"It's been very quick growth. We're just about at 10 million passengers since we started flying in late 2017," he says.

"There's a booming market here. Flyadeal was established because LCCs were white space in the kingdom and Saudia saw that as an opportunity and they wanted to be first in."

But fast forward 12 months, and things "haven't exactly gone according to plan", according to Korfiatis.

"As we entered 2020, January was the best month since we launched the airline both in terms of the people we carried, the size of the network and even our bottom-line result. We were wildly profitable for the month of January 2020 and were looking forward to great things for the rest of the year."

He says the carrier "went from being pretty busy... to grounding absolutely everything" in the first quarter of last year, followed by a "waiting game" to review the market and long-term implications of the pandemic.

He notes that from mid-May of last year, domestic services recommenced at about 20% capacity, with requirements on biosecurity and middle-seat blockage in response to Covid-19 hampering operations considerably.

"We came back quite modestly," adds Korfiatis, describing fewer routes and lower frequencies while the carrier attempted to improve yields.

"Not being able to sell the middle seat is a huge additional cost per seat as an operator and we didn't want the aircraft to lose more money by taking off than being parked on the ground."

Moving further into 2020, he says the carrier was "very fortunate that the market stepped up" with "pent-up demand" for domestic flights and business traffic.

He adds that the 20% capacity level has progressively been pushed up to 100% for Flyadeal, with all its fleet becoming utilised as cases decreased in the kingdom.

"We've been able to maintain very full flights allowing for social distancing," he adds. "It's been a remarkably surprising recovery, probably as good as anyone could have expected and it really surpassed our expectations."

Network synchronisation

Flyadeal's CEO admits Saudia has given the LCC a free hand to tap into the low-yield traffic market in Saudi Arabia but he sees a path for cooperation.

Korfiatis says there has not been that much coordination between Flyadeal and Saudia. However, he believes the two can still work together "where the sum of the two equals three rather than two".

He says: "Saudia is a top 30 airline in the world in terms of size with 160-odd aircraft, whereas we're 12, so there's only so much coordination you can do when one has such a larger fleet than you have yourself."

Korfiatis notes that while the airlines have two different business models, their domestic route networks "overlap absolutely everywhere".

He adds: "We both do very well on the market because we cater for different customer segments." Korfiatis says that this overlap won't extend to long-haul networks, at least in the near term.

When asked whether a long-haul fleet might be an option for the LCC, Korfiatis says the introduction of widebody units is "hypothetical" and is not immediately being evaluated since "we need to really build the scale of the A320/321 operation first".

While he does not rule out their introduction in the future as a way of targeting potential long-haul, high-density traffic segments, including pilgrim and tourist traffic, he argues there would need to be sufficient scale for it to work.

"If you look at that low-cost model... there are far away markets that come here for religious purposes in very large numbers where a widebody works very well. Arguably, a large portion of that market is very low yield where a high-density product may make sense," adds Korfiatis.

It's something we'll look at in a feasibility study in a year or two.

Con Korfiatis, chief executive officer, Flyadeal, on introducing widebody aircraft

"It's something we'll look at in a feasibility study in a year or two," he says. "You wouldn't want to do it for one or two aircraft, but if you can see a business case for 10 to 15 widebodies, you might consider that at some point."

Fleet goals

The Saudi low-cost carrier expects to take delivery of seven A320neos this year from its orderbook of 30 units and 20 options. This includes three in the second quarter and the remainder through to the end of 2021.

The carrier previously scrapped an order for 50 Boeing 737 Max aircraft in summer 2019, opting instead for the A320neo.

Korfiatis affirms the LCC will be reviewing its A320neo options, potentially looking to the leasing market from 2023 and allowing lease contracts on its current A320 to expire naturally in 2025 and 2026 in order to utilise the aircraft fully.

"It's very much about a growth strategy for the airline," adds Korfiatis.

He also notes that "there is a place for the A321neo in Flyadeal", explaining that this is driven not so much by range but more by the extra seat-cost advantage of 240 seats rather than 186 seats.

"It will come into the fleet at some point," he comments.

"We could see ourselves being 50 or 60 aircraft by 2025 or 2026," he adds, noting this is about half the time frame in terms of growth of its Middle Eastern competitors.

Korfiatis says he will not rule out future additional aircraft leases as part of the Saudi low-cost carrier's growth strategy.

He states that the carrier's firm orderbook will be completed over the next three to four years and, as it reviews its aircraft options, it could look to the sale and leaseback market.

"We expect to be in the lease market for some additional aircraft over that timeframe as well... Not this year with the environment we're still in... perhaps from 2023 onwards," he reveals.

"They may come in through lease, and as we exercise options and other things we're going to have to look again at what sort of financing, whether it be more of the same or something different, that will apply then," he adds.

Korfiatis recalls that the LCC's current 11 A320 aircraft were received new in 2017 and that the carrier expects to "keep them fully productive" until their leases expire between 2025 and 2026.

"They've hardly been worked too hard at this point," adds Korfiatis.

Saudia inked a financing deal of about $3 billion with six Saudi banks in March partially to finance the acquisition of 73 new aircraft.

The deal was underwritten by six Saudi banks: Al Rajhi Bank, Saudi British Bank, Arab National Bank, Samba, Bank AlJazira and Bank Albilad.

The group has purchase agreements with Airbus and Boeing, comprising orders for 20 A321neos, 15 A321XLRs, 30 A320neos for Flyadeal, as well as eight 787-10 widebodies. Of these, five 787-10 aircraft have already been inducted into the fleet.

"Though the airline industry has been going through a challenging phase in 2020 and 2021, the total bids received for this financing exceeded SAR18 billion ($4.8 billion), which shows the market's confidence in Saudi Arabian Airlines Corporation's strategic long-term plans and its ability to deliver substantial growth in line with Saudi Vision 2030," Saudia said of the deal back in March.

Commenting on the Saudia financing deal, Flyadeal's Korfiatis says the decision to turn to either the debt market or the sale and leaseback market "depends on your motivation".

"From our point of view, it's around financing for future deliveries rather than leveraging sales and leaseback for operating cash-flow reasons or other reasons that some of the airlines have had to do."

Korfiatis explains that it was simply the right time to turn to the debt market in Saudi Arabia.

"We ran a campaign where it was an open book in terms of what the solution was," he says. "There's a lot of liquidity in the local market and very attractive cost, and so it made a very compelling business case."

Korfiatis adds: "That's got us up and running for our next phase of growth, so we're very pleased to have that."

‘Asia will be **fine**’

The movers and shakers in aviation finance reiterated at the *Airfinance Journal* Japan 2021 webinar that the Asia-Pacific will continue to drive global aviation demand. Northeast Asia, in particular, heralds deal-making opportunities for financiers and the wider aviation ecosystem. **Dominic Lalk** reports.

At the *Airfinance Journal* Japan 2021 event, aviation finance executives observed the varying effects the pandemic has had – and continues to have – on the various elements of Japan’s aviation financing chain: airlines, lessors, investors and institutions.

“I think right now Japanese investors and lessors are looking at good quality and new technology. There is a lot of liquidity in the market but there also happens to be a reassessment on the risk-return profile that comes with that,” says George Ai, executive vice-president at Novus Aviation Capital.

“We are seeing a lot of global banks coming back to the market. But again, same as with the lessors, they are looking at the quality of the deals and we are seeing margins dropping a little bit,” he adds.

“The Japanese banks are kind of mixed right now. Some of them are a little more aggressive than others but it is not like it was in the pre-pandemic days. However, I think the trend that they are coming back will continue, and hopefully quicker than later,” says the Novus executive.

“Yes, we have seen some activity from some of the Japanese banks. I think the trend is to follow quality and then maybe strategic relationships,” says Bradley Dailey, director of Alton Aviation Consultancy.

“One of the interesting things you have seen throughout the pandemic is a commitment from [Japanese] shareholders to continue to support their businesses or even grow them through Covid,” adds Dailey.

“Generally, I think the leasing space has been okay from a banking perspective. We have seen lenders continue to very aggressively pursue opportunities, and pricing has not widened considerably,” says Nikolai Lvov, director of aviation banking Asia-Pacific at Citi.

Marito Takamasa, joint general manager of aviation finance at Tokyo Century, notes that among Japanese aviation investors, institutions have been most affected by the pandemic.

“We can categorise Japanese lessors into three separate groups. The first group would be the Jol [Japanese operating lease] investors who would own their aircraft with a primary motive for tax sheltering. The second category would be lessors buying or taking aircraft with the intention of quickly flipping them to Jol investors. The third would be the Japanese institutions,” says Takamasa.

“Jol investors would usually most likely have other sources of income, so they do not rely solely on aviation income to run against their balance sheets. They may look at the current situation as an opportunity,” he adds.

“Lessors, if they are successful, they too should not have any balance sheet issues, so I would say they should be least affected by the situation. The institutionals, however, are the most affected because the amounts invested are the largest. With these substantial amounts, the loss potential is huge,” says Tokyo-based Takamasa.

Other financiers at the *Airfinance Journal* virtual event predicted that the market for Jol and Japanese operating lease with call option [Jolco] aircraft financings could take up to five years to recover to pre-Covid levels as investors seek less volatile asset classes, including container boxes, for their tax solutions.

Airline outlooks

“During the pandemic, Japanese airlines have so far been trying to obtain liquidity from banks and the capital market through public offerings. They have also made efforts to reduce their cost bases. Some might consider to rationalise the non-core asset base,” says Soichiro Sekito, co-head of global aviation team, head of EMEA and investment, senior vice-president at state lender Development Bank of Japan.

> *“There is a lot of liquidity in the market but there also happens to be a reassessment on the risk-return profile that comes with that.”*
>
> **George Ai**, executive vice-president, Novus Aviation Capital

JAL Group and All Nippon Airways (ANA) showed strong performance during the Covid-19 pandemic, says Lvov.

“JAL and ANA and others in the Japanese market have done a great job… proactively adjusting to the new reality. Frankly, the balance sheets of both remain very strong,” adds Citi’s aviation finance Asia chief.

As *Airfinance Journal* went to press, JAL confirmed to this magazine that it is in the process of increasing its shareholding in Narita-based Spring Airlines Japan. The airline is part owned by Shanghai-based low-cost carrier Spring Airlines, although most of the carrier is in the hands of Japanese investors including JAL.

In late 2020, JAL raised ¥183 billion ($1.8 billion) from the sale of new shares, exceeding its ¥168 billion target. At the time, the group said it would earmark about ¥15 billion to expand its low-cost footprint, which also includes Jetstar Japan and Zipair.

During the *Airfinance Journal* Japan conference, JAL accepted its 50th and 51st Boeing 787 aircraft deliveries, both -9 variants as Japan Bank for International Cooperation continues to guarantee import loan agreements with private financial institutions to cover JAL’s and ANA’s 787 transactions.

The Asia-Pacific region is going to be a main driver of aircraft demand, as it has been for the past two decades, say aircraft manufacturers.

Boeing expects the Asia-Pacific to receive about 41% of all single-aisle and 45% of all widebody deliveries over the next 20 years. Traffic in the Asia-Pacific is forecast to grow at 5.1% annually over the next two decades.

“We expect 1,360 new aircraft deliveries to northeast Asia to 2039, including 650 in the current decade to 2029,” Boeing’s managing director of China and northeast Asia marketing, Darren Hulst, tells *Airfinance Journal*.

He adds: “The reason the 10- and 20-year forecasts are so similar, unlike the global outlook, is that we think the northeast Asian market is a very mature market that has more replacement demand than others. There will continue to be a high concentration of widebody aircraft in operation in northeast Asia over the next two decades.”

Azorra eyes regional crossover market

Azorra's backing from Oaktree sets it up strongly to expand its regional and small narrowbody aircraft portfolio, John Evans, its chief executive officer, tells **Hugh Davies**.

With its fresh backing from Oaktree Capital, Azorra Aviation sees plenty of opportunities to expand its presence in the regional and narrowbody crossover leasing markets globally.

Azorra will examine all financing options as it seeks to expand its regional and narrowbody crossover portfolio, but says it has found a strong financial partner in Oaktree Capital.

In an interview with *Airfinance Journal*, Azorra's chief executive officer, John Evans, says Oaktree has a proven history of investment in commercial aircraft leasing.

"They bring a lot of resources to support our growth," says Evans.

"We found them to be very knowledgeable about the industry and very understanding about the opportunity and in complete agreement with us and particularly in the regional, what we call crossover narrowbody, space," he adds.

Opportunity in adversity

Evans explains that, far from discouraging the US lessor, the Covid-19 pandemic only accelerated the company's interest in raising outside capital to grow its portfolio.

"With Covid, we saw an opportunity with a clean balance sheet and an investment of five E190s. We didn't have a lot of restructuring to deal with, so we felt it was a good time to raise capital. The pandemic has obviously brought a lot of distress to the industry, to airlines and other lessors, with depressed values of aircraft and has created an opportunity," he adds.

"Within five years, we see ourselves as being a strong leader in the space that we're focused on – the sub-150-seat market," says Evans.

Azorra wants to tread cautiously on how it builds up its capital structure as it examines debt financing, warehouse facilities, sidecar financing and sale and leasebacks.

He notes that complex capital structures are "proving to be a real challenge" for other lessors and are something Azorra wants to avoid.

"We can learn from that and hopefully keep a clean and simple capital structure with the goal to finance the balance sheet and tap the commercial paper markets or other unsecured financing markets," adds Evans.

"Ultimately, we would like to finance the balance sheet rather than have secured mortgages on every aircraft. We're investing in a mobile asset, and when you tie it down into complicated financing structures with security it makes it difficult to keep the mobility of the asset if you have an issue and you want to move it.

"That's one of the things we want to be good at – moving the aircraft when, for example, you have a lessee that is struggling," explains Evans.

The Oaktree backing is expected to be fully invested in the next 12 to 18 months, Evans tells *Airfinance Journal*.

Regional crossover market

Evans affirms that there is still a lot of demand for the regional crossover space in the context of Covid-19, as passenger traffic demand dictates that most passengers will prefer flexibility with more flights per day on smaller aircraft than the reverse.

He reveals that the lessor's long-term growth plans also include opportunities in new-generation technology, including the Airbus A220 and Embraer E195-E2s, new E175s and other new regional aircraft that serve the sub-150-seat aircraft markets.

"We don't have a specific number of aircraft that we're targeting because we want to be opportunistic as well and not be bound by having too much specificity," he adds.

Evans argues that these aircraft types will help lead the recovery post-Covid-19 as airlines shift their focus from seat cost to trip cost.

"We saw the same thing after the financial crisis after 2008, there was much more of a focus on trip cost than seat-mile cost," says Evans.

He notes the A220-300's range profile will work especially well as a business traveller aircraft as the segment starts to recover, particularly in the USA, with orders from Jetblue Airways and Breeze Airways for the aircraft type as well as Delta Air Lines already operating both A220-100s and A220-300s.

"We don't have a specific number of aircraft that we're targeting because we want to be opportunistic."

John Evans, chief executive officer, Azorra Aviation

And though the E195-E2 has less opportunity in the USA because of pilot scope clauses, Evans says there's a "much bigger market in Europe for this aircraft type where Embraer has a "much larger incumbency".

He adds: "All the major carriers in Europe operate E-Jets, including Air France, Alitalia, Lufthansa, LOT Polish and British Airways... Eventually we think a lot of those will be a good opportunity to expand its presence with the E2."

Evans says there is a global market for both these aircraft, adding that the lessor will try to diversify its risk geographically across the world rather than being tied to any one region.

Since its inception in 2016, Azorra has completed transactions on nearly 40 aircraft, including deals with Panama's Copa Airlines and Alliance Aviation in Australia. The company owns and manages 11 Embraer aircraft.

It also has purchase and lease commitments on an additional six 65-seat E170 aircraft, which are in the process of being transitioned to American Airlines' regional subsidiary, Envoy, from BA Cityflyer.

Bankruptcies rattle Jol and Jolco investors

Japanese aircraft financing solutions could take up to five years to recover to pre-pandemic levels. **Dominic Lalk** reports.

Panellists at *Airfinance Journal*'s Japan 2021 webinar have predicted that the market for Japanese operating lease (Jol) and Japanese operating lease with call option (Jolco) aircraft financings could take up to five years to recover to pre-Covid levels as investors seek less volatile asset classes for their tax solutions.

"Equity sales activities have been very low after two state of emergency declarations in Japan, in spring 2020 and from January-March 2021," says Financial Products Group (FPG) managing executive officer, Takahiro Matsumoto.

"Investors were shocked to see rent deferral requests from airlines. Equity sales are gradually picking up, although the outlook remains uncertain as we are not sure how quickly the airline industry can return to pre-Covid levels. Investor demand in this segment is now at about 50% of 2019 levels, that is my estimate."

Matsumoto adds: "Jolco investor preferences have changed. Jolco investors now prefer container box Jolcos, rather than aircraft Jolcos. The market for aircraft Jolco is still open, but for certain airlines only."

Showa Leasing's global business division director, Hitoshi Tsuchiya, says: The investors have been very hesitant toward the airline industry and aircraft Jolco. They lost their confidence in the profitability of the business. We've had a tough time last year and this year."

Tsuchiya adds: "The lenders are now very conservative, focusing very strongly on the lessee credit. The banks are now much more focused on the lessee credit than the asset class or type of aircraft. Of course, the asset class still matters but the focus has definitely shifted."

Nishimura & Asahi partner Katsu Sengoku says: "At the end of the day, the debt providers and the equity arrangers would need to look at the credit risk of the ultimate credit of the debtor, which in aircraft Jol and Jolco transactions is the airlines."

Sumitomo Mitsui Finance and Leasing's (SMFL) managing executive officer and head of transportation, Shinichiro Watanabe, says: "The appetite was quite limited in the last financial year. Things improved in the second half. I do feel like the market is improving though, looking at March and April. I think investors are getting tired of passing on good opportunities. They are coming back."

> *"The lenders are now very conservative, focusing very strongly on the lessee credit."*
>
> **Hitochi Tsuchiya**, Showa Leasing

Watanabe adds: "In the case of debt providers, like SMBC, we tend to syndicate loans with non-Japanese aircraft specialist lenders and Japanese regional banks. The non-Japanese lenders are usually okay if it's a good credit involved but the Japanese regional banks, I would say, are still taking a 'let's wait and see' approach. So right now, if we want to structure deals, we have to syndicate with non-Japanese players and Japanese major banks."

Airline bankruptcies in Latin America have hurt investor confidence.

"There was a big trigger event regarding credit risk following the various major bankruptcies last year, especially in Latin America. So, investors have become much more aware, much more conscious of the credit risk involved, the name of airlines on the deal. Hopefully, this is the bottom of the market," says Watanabe. An additional challenge over the past two financial years was the Boeing 737 Max situation, he says.

"The Max remains a core part of the SMBC strategy. We had been very active in arranging Jol financing for 737 Max aircraft but after the two accidents we suspendeded the sales of Jol and Jolco equity for the 737 Max. Some investors have become very conscious of asset risk. As a result of that, we have kept those equity on the balance sheet. Our partners at SMBC were struggling a bit to distribute the debt financing to the regional banks. But now that the 737 Max is back, we are still very committed and hopeful to distribute all that equity," adds Watanabe.

FPG's Matsumoto says that the Tokyo-listed firm will continue to evaluate widebody Jol and Jolco opportunities in the market, a specialty that has differentiated FPG from its competitors.

"At FPG, we have more exposure to widebody financing comparatively. Pre-Covid, the competition was very tough, especially for narrowbodies. Everybody competed for narrowbodies because the associated risk was lower. Often we bid for the widebodies because there was less competition. Also, in the widebody transactions, sometimes they will accept JPY-denominated equity," Matsumoto says.

He adds: "Widebody transactions are high risk but less competitive. We know the merits and demerits."

"At Showa, our strategy is almost totally different," comments Tsuchiya. "We focus mostly on regional aircraft and narrowbody types. We've done transactions with widebodies in the past, but as you know the number of investors behind those deals is usually huge, so in case something goes wrong we have to take care of many, many investors. It is much more complicated."

All three panellists, agree that aircraft Jol and Jolco financings will bounce back in line with the gradual recovery of the industry, and airlines in particular.

"The market will return, although I think there may be a shift toward other aviation assets for Jol, like engines and helicopters. Less risk, less management," says FPG's Matsumoto.

"Demand will still be there in the future. Currently, investors are squeezed but there will be a recovery from that. Their preferences, however, may change from aircraft more toward container boxes," adds Showa's Tsuchiya.

"We need to be patient. It will take time until we return to pre-Covid Jol and Jolco volumes, but we will get there. Before Covid, I remember there were a lot of arrangers trying to bring new airline names and credits into the Jolco market. I think that may change. But as my fellow panellists probably agree, the proportion of non-aviation Jolco in five years may be greater than it is currently," says SMFL's Watanabe.

In the Japanese fiscal second half to 31 March, new deals remained limited. Deals observed have included Jol financings on five Delta A220-100s, Cathay A350-900 Jolcos and multiple Lufthansa A321neo Jolco transactions. The German flag carrier also refinanced an A320 under a Jolco mandate.

The haves and **have-nots**

Asia-Pacific airline revenues are among the hardest hit by the pandemic. Carriers are expected to account for more than one-third of the up to $95 billion cash burn forecast so far for 2021. More shutdowns are likely, writes **Dominic Lalk**.

The International Air Transport Association (IATA) has reported that, as of March, governments had provided more than $225 billion in relief for airlines to combat the Covid-19 pandemic, including more than $100 billion made available through cash injections and direct loans.

This, however, has created an unlevel playing field, with some carriers looking certain to emerge from the crisis cashed-up and ready to pounce, while others – often low-cost carriers – are left in the dust, destitute and struggling to survive.

Many of the region's flag carriers are undergoing restructurings, often with taxpayer monies. Budget carriers, however, are in most cases on their own. Lenders are wary of growing their exposure to the sector as credit risk reports over the past year rode roughshod over its recovery prospects.

More airline failures are expected as operators struggle to deal with mounting debt and depressed revenues. The Airline Analyst's managing director, Michael Duff, expects a "few more airline casualties across the world" over the next 12 months, particularly in the Asia-Pacific region where there are "weaker airline credits". More than 40 airlines have collapsed since the beginning of the pandemic.

Fitch Ratings agrees with *Airfinance Journal*'s in-house bellwether of airlines' financial health. Nearly all airline ratings stay under pressure as traffic remains severely depressed, notes the agency.

This will inevitably lead to more airline bankruptcies in 2021, "particularly among smaller and less well-capitalised airlines", states Fitch, although modestly higher traffic and cost-cutting efforts will help stem airline cash burn in the next year compared with 2020.

"However, the combination of higher debt and prolonged weakness in operating profits will drive weak credit metrics for the sector at least over the next 18 to 24 months," say the analysts.

It is a matter of intense debate which airlines will survive the crisis. Many will not," offers Pillsbury Winthrop Shaw Pittman managing partner, Paul Jebely.

"As for those would-be survivors, the debate wages over who – the government or the private sector – will be their saviours and on what terms salvation will be granted," he adds.

Spiking Covid-19 cases across various regions and inconsistent travel restrictions are expected to keep airline traffic low, at least through the first part of 2021. India, in particular, is of grave concern. At the end of April, India reported more than 350,000 new daily cases and just under 3,000 daily deaths.

IATA expects the airline industry to remain cash negative through 2021. Estimates for cash burn in 2021 have ballooned to between $75 billion and $95 billion, from a previously anticipated $48 billion, after new virus variants prompted tighter travel restrictions in many regions in the ongoing first half.

China

Chinese carriers, similar to airlines in Australia, are forecast to benefit from their sizable and restriction-free domestic networks. While most international flying remains off limits, domestic revenues are expected to exceed 2019 levels in 2021.

The big three state-controlled carriers and their many affiliates are expected to walk away from the Covid-19 pandemic relatively unscathed. The stable of HNA Group carriers will be overhauled in the conglomerate's ongoing restructuring and part-consolidated, but no major capacity shortfalls are expected.

Northeast Asia

It is a mixed bag of fortunes across northeast Asia. In Japan, flag carrier Japan Airlines (JAL) and All Nippon Airways have raised significant monies through March 2021 to keep themselves and their many low-cost associates afloat. They, too, benefit from robust domestic travel demand throughout the crisis.

Both airline groups are shifting their near- and medium-term focus on growing their low-cost footprints. As *Airfinance Journal* went to press, JAL confirmed it was ready to take a majority stake in Spring Japan, a third budget carrier in its portfolio after Jetstar Japan and Zipair.

It is a different story in neighbouring South Korea. Long before the pandemic, industry experts had flagged serious concerns on growing overcapacity and financial haemorrhaging in South Korea, both in the full-service and low-cost sectors.

The merger of flag carrier Korean Air and Asiana with the aid of Korea Development Bank will alleviate some of the pressure but new entrants, including fledging Boeing 787 operator Air Premia, are ready to put a strain once again on already-fickle yields.

The situation at low-cost carriers in South Korea is even worse. Experts speak of a "bloodbath" to ensue.

Southeast Asia

Southeast Asian carriers are only too familiar with bloodbaths. For decades analysts and financiers have warned that a disaster was in the making in the region.

Motivated by the financial failures and legacy excesses of flag carriers, particularly at Malaysia Airlines and Thai Airways, the past two decades have seen a proliferation of new-age budget-conscious airlines hitting the market.

The astonishing orderbook commitments of the new entrants started to backfire when the industry ground to a halt amid the pandemic. The Air Asia and Lion Group stables of carriers remain a chief concern amid breakneck debt and liability obligations.

Similar to South Korea, certain markets in Association of Southeast Asian Nations (ASEAN), particularly Thailand and Malaysia, are oversupplied, especially by low-cost carriers. Vietnam continues to expand at double-digit figures and its fledgling airline operators would be well-advised to note the lessons learnt by their ASEAN neighbours, say experts.

Singapore and its flag carrier, SIA Group, continue to be the rich kid on the block. No other airline group in the Asia-Pacific has added as many funds to their Covid war-chest as SIA did in record time in 2020 and continues to pursue in 2021. As *Airfinance Journal* went to press, it had learnt that SIA had agreed several Airbus A350 and 787 sale and leaseback deals for extra liquidity.

South Asia

Airline financial health across South Asian carriers is mixed. Most carriers continue to underperform, including virtually all flag carriers in this region. The rising star in South Asia continues to be Indian low-cost carrier Indigo, followed by financially viable Vistara. The recent severe spike in Covid-19 infections across India has quashed all prospects of a financial recovery in 2021.

Are widebodies **out of favour**?

As aircraft rejections and fleet restructuring pick up pace during the pandemic, lessors, OEMs and airlines are considering the options for widebodies.

As the Covid-19 pandemic continues to hamper visibility into 2021, airlines are being forced to rethink their fleet structures.

Widebodies are one of the main segments being impacted, with the pace of assets being shifted growing as airlines reject aircraft deals from their fleets.

Airfinance Journal has reported on several rejection events occurring in the past few months. Most recently, LATAM has opted to reject its seven-unit Airbus A350 fleet on lease from Aercap as part of a move to switch to an all-Boeing widebody fleet.

Norwegian is removing its entire Boeing 787 fleet as part of restructuring. The aircraft were leased from Aercap, Avolon, BOC Aviation and MG Aviation, though Aercap has found a home for nine units with a new start-up in Norway, Norse Atlantic Airways.

Turkish Airlines says agreements for the postponement and cancellation of certain aircraft deliveries "will be signed very soon".

While it has recently cancelled and converted 737 Max orders, the impact of the Covid pandemic on intercontinental demand and focus on short-haul networks makes it possible that Turkish Airlines' leased A330 fleet may also be targeted.

Euroatlantic Airways is also in talks with Aercap to renegotiate a 787-lease deal signed in early 2020. The airline says the aircraft is not currently needed because of low demand from Covid-19.

Meanwhile, Cathay Group reported in March that 34 aircraft are "unlikely to re-enter meaningful economic service again before they retire or are returned to lessors and to certain airline service subsidiaries' assets".

Airfinance Journal understands this includes the retirement of former Cathay Dragon 777-300s and A330-300s.

There has still been some activity for older widebodies, A330 equipment in particular, with Deal Tracker showing 10 A330-200/-300 operating lease transactions made in the past six months by Aercap, Carlyle Aviation, DAE Capital, Xiamen Air Lease and Avolon.

Windows of opportunity

While there is an acceleration in fleet reorganisation because of Covid, some operating lessors are still optimistic about placement opportunities for widebodies.

Norwegian is removing its entire Boeing 787 fleets

Avolon expects that most of the growth in aircraft post-pandemic will stem from new carriers and start-ups beginning activities from a smaller scale, its vice-president marketing EMEA, John Breslin, said during *Airfinance Journal*'s Middle East and Africa 2021 virtual conference.

As in-service fleets start to come out of storage after the pandemic, the new-technology fleets will grow proportionally in size as older generation equipment is phased out, according to Breslin.

"There are airlines out there, whether they're start-ups or small scale, that have a clean balance sheet and variable cost structure and want to take advantage of a recovery as it comes," says Breslin.

He adds that demand is strong on the narrowbody side, particularly new-generation narrowbodies that were "shaken loose" during the pandemic.

"While storage numbers are quite high, what we've seen recently is that in-service numbers for new-technology narrowbodies are actually back to where they were pre-crisis. Obviously, they're not flying the same utilisation but we see that as a good marker... that the market is coming back quite quickly and that any supply will have the demand to match it as we come out of the recovery."

Boeing Capital agrees, telling *Airfinance Journal* that as the airline industry restarts, it expects the recovery to start in domestic and regional markets where narrowbodies provide the most versatility.

"The recovery will progressively expand across networks to include larger aircraft and longer-haul routes. Widebody demand will be slower to pick up, though the focus will be on more efficient and versatile aircraft like the 787," adds Boeing Capital.

ACC Aviation's head of consulting, Rob Watts, admits that the topic of sustainability-linked financing may drive a change in the age profile of aircraft, as excess capacity would be cut from the older aircraft types first to improve fuel efficiency.

"Certain age brackets and certain aircraft types will be absorbed faster than others," he notes, referring to higher demand for narrowbodies and in particular new-technology narrowbodies over widebody equipment.

Avolon's Breslin, on the other hand, sees good prospects for new-generation widebodies, though current widebody aircraft types may lag in terms of desirability because of lower international demand.

"There are creative opportunities in the widebody space," he says, but adds there will be "marketing challenges" for lessors as these aircraft are taken out of storage globally.

"Our view is that there will be a market there for the likes of the A330s and the 777s, and whilst its challenging at the moment... after the crisis, we believe that most of the aircraft that were in service will come back to service, or, if they don't, there are other avenues of use for them."

These other avenues for repurposing a surplus of the current-generation widebody market will include freighter conversions, with a recent uptick in passenger-to-freighter (P2F) conversions being ordered for A330 and 767 equipment in response to strong cargo and e-commerce demand.

In the past few months, LATAM, MNG Airlines, Air Hong Kong, DHL Express and Turkmenistan Airlines have committed to acquiring converted widebody freighters.

Airfinance Journal understands that a cargo conversion firm is preparing to launch a P2F conversion programme for the 777, following the acquisition of Delta Air Lines' 777-200LR fleet.

The firm, called Mammoth, is led by cargo conversion experts Bill Wagner and Bill Tarpley, who managed the conversion of former American Airlines 757-200PCF and 767-300BDSF aircraft for Cargojet Airways.

Ben Smith, Air France-KLM's CEO, has also recently flagged freighter conversions for the 777-300ER as an "interesting option" to pursue, though no decision has yet been made.

Norwegian **reshuffle**

Can the Norwegian market support more airlines post-pandemic than pre-pandemic? **Hugh Davies** reports.

As new entrants look to take advantage of structural changes post-Covid-19, Norwegian aviation is gearing up to see six airlines being catered for in the market, compared with three local carriers before 2020.

Some of these newcomers are looking to learn from and improve on the Norwegian business model, though they may be overestimating a market recovery at least in the near term.

Incumbent SAS, for its part, says it is up to the challenge of increased competition coming into the market and believes it has the right framework and brand presence to weather the storm.

The airline's chief financial officer, Magnus Ornberg, tells *Airfinance Journal* that the carrier is bracing for a challenging market situation after the Covid pandemic because of overcapacity and newcomers to the market.

"SAS has had five successful years of stable growth before the pandemic, and an overall strong market position in Scandinavia, something we are determined to work hard for to keep going forward," says Ornberg.

"We believe that we have the overall structure, access to the right type fleet on different sizes, an operating model that is actually fit for this task that we have ahead of us," says Rickard Gustafson, SAS's president and chief executive officer, during an earnings call.

"I respect competition, but I don't fear competition," adds Gustafson.

Flyr, which launched a $70 million private placement in early 2021, is looking to begin activities from 1 July as it banks on Norwegian society opening up this summer.

The start-up says it will grow in a "sustainable" way. It is eyeing a soft cap on its fleet size at 28 Boeing 737 aircraft after its fifth year of operations and heavily streamlining its route network employee structure to keep costs low.

The start-up also mentions that BBAM Aircraft Leasing is "one of approximately 60 leasing companies that the company has approached" in its search for aircraft. Erik Braathen, Flyr's chairman, is director of Fly Leasing, which is managed and serviced by BBAM.

Hungarian low-cost carrier (LCC) Wizz Air entered the Norwegian market in late 2020, operating some 15 routes with bases at Oslo and Trondheim.

It has nonetheless faced a turbulent first few months in the market after its entry was met by labour complaints and regulatory challenges, forcing it to scale back and quickly close its Trondheim base.

Meanwhile, Norwegian has been granted approval in Ireland and Norway to come out of examinership after creditors approved the airline's reconstruction proposal.

The LCC will look to follow through with another capital raise worth Nkr4.5 billion ($541.4 million) in May this year.

As part of restructuring, the low-cost carrier will phase out its entire widebody fleet, which currently comprises eight 787-8 and 25 787-9 aircraft on lease primarily from Aercap, GECAS, Avolon, BOC Aviation and Norwegian's leasing subsidiary Arctic Aviation Assets, according to *Airfinance Journal*'s Fleet Tracker.

Norwegian is then expected to move to an all-737NG fleet, abandoning its 737 Max orders and aircraft already delivered.

In the domestic space, these carriers compete with Widerøe, a regional airline connecting communities across Norway. It operates a fleet of 44 De Havilland of Canada Dash 8s and four Embraer 190-E2s which it ordered in 2017, *Airfinance Journal*'s Fleet Tracker shows.

Long-haul void?

Norse Atlantic Airways has already initiated discussions with lessors over recent weeks, with plans to incorporate 787-9 equipment used by Norwegian before launching routes between Europe and the USA in December 2021.

The carrier signed agreements for six 787-9s and three 787-8s with Aercap in late March, with all aircraft expected to be incorporated by the end of the first quarter 2022.

Norse Atlantic also completed its own Nkr1.3 billion private placement, which was "multiple times oversubscribed", on 26 March.

Notwithstanding the competitive situation in Norway and on the transatlantic, the proposal poses significant risk without the right structure, especially given the current market environment as higher cabin density is no longer as favourable because of biosecurity constraints.

Norse Atlantic's CEO, Bjorn Tore Larsen, is confident these hurdles will not be a problem and sees now as the right time to launch such an endeavour.

"We believe that as the world now gradually reopens, the travelling public needs an innovative, low-cost intercontinental airline with modern and more environmentally friendly aircraft," Larsen tells *Airfinance Journal*.

> *Both Boeing and Rolls-Royce have guaranteed that the teething problems have been fixed.*

Bjorn Tore Larsen, CEO, Norse Atlantic

Larsen says while Norse has no links to Norwegian, it is open to partnerships with short-haul airlines in the region that can feed passengers to its intercontinental network and vice versa.

He is also confident the 787's Rolls-Royce engine problems that hampered Norwegian's long-haul routes will be resolved by the time Norse Atlantic is in the air.

"Both Boeing and Rolls-Royce have guaranteed that the teething problems have been fixed and that the Dreamliner utilisation is on par with all comparable aircraft types," adds Larsen.

With demand for widebodies low and a large number of aircraft and laid off crew readily available at short notice, used but still young Norwegian 787 units might be too competitive of a deal to pass over.

Nonetheless, Covid-19 vaccine supply challenges, vaccine hesitancy and uncontrolled Covid variants could lead to another lost peak revenue-generating season this summer, particularly impacting long-haul and transatlantic activities.

Africa suffers **financing shortages**

The Covid-19 pandemic has turned an unfavourable situation into a desperate one for African airlines, reports **Hugh Davies**.

Access to financing for airlines in Africa has been one of the major limiting factors to secure its development trajectory for many years, because of a lack of profitability in the sector.

The situation has been further exacerbated by the Covid-19 pandemic, but while most airlines will require refinancing to ensure their survival, some are better off than others, Romain Ekoto, chief aviation officer, African Development Bank (AfDB), tells *Airfinance Journal*.

Ekoto says that the low profitability in the sector and a lack of solid business plans, good governance and clear strategies all contribute to reducing the number of financing options available to airlines in the region.

He also notes that challenging financial conditions in the region push airlines into a higher likelihood of recurrent losses as they face higher premiums when seeking financing for aircraft fleet renewal or expansion plans.

The magnitude of the Covid-19 impact also relates to airlines' business models, argues Ekoto, with regionals such as Asky and Rwandair outperforming international hub carriers like Ethiopian Airlines or Royal Air Maroc during the early stages of the pandemic.

He notes that Ethiopian is an exception regarding its ability to access financing because of its scale and ability to adapt to the market.

The airline was able to recover 45% of its intercontinental seats by October last year, according to Ekoto.

"African airlines are in desperate need of support... General financial and economic measures will be needed by the aviation sector to overcome the current crisis and rebuild a resilient sector," he adds.

Before the pandemic, the global aviation industry had witnessed a "super cycle", recording 10 continuous years of profitability. This led to an influx of alternative capital sources, providing borrowers with flexibility and significantly reduced financing costs.

Afreximbank tells *Airfinance Journal* that this did not extend to most African airlines in any meaningful way, as most African airlines continued to record losses throughout this super cycle because of high costs of intra-African travel, low load factors, limited connectivity and inadequate infrastructure.

Afreximbank says that most of these challenges are expected to persist at least in the near term post-Covid-19.

"Given the significant impact of the pandemic on the aviation sector globally, and the observed reduction in risk appetite thresholds of both traditional and alternative sources of

capital, the near-term outlook for African airlines regarding access to finance is not great," adds the bank.

"The pandemic has exacerbated the effects of pre-existing structural weaknesses across the sector, and it may take a while for investor sentiment to return to pre-pandemic levels."

Airlines can improve their case to access financing by prioritising the reduction of short-term operational expenses and making structural changes; however, the usual engagement with the banking sector will still remain challenging for most.

"Governments can facilitate this process by providing resources to undertake these reorganisations, or by directly financing the needs, taking economic stimulus measures or alternatively by guaranteeing loans," adds AfDB's Ekoto.

Airfinance Journal's Deal Tracker shows South African Airways (SAA) received about $641 million of government funding to implement SAA's business rescue plan as part of its medium-term budget.

This is in addition to about $1 billion already allocated to SAA in the February 2020 budget for settling guaranteed debt and interest.

Royal Air Maroc has received $624.8 million in the form of a state-guaranteed loan. Deal Tracker also indicates Ethiopian was able to secure export credit agency (ECA) guarantees worth $137 million to finance the delivery of two Airbus A350s in November last year.

Comair has also secured more than $70 million in financing through new equity and debt funding, according to Deal Tracker, and has recently delisted from the Johannesburg Stock Exchange to be eligible for Covid-19 loan guarantees arranged between the South African Reserve Bank and commercial banks.

Ekoto says 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 impact caused by the Covid-19 pandemic. The International Air Transport Association meanwhile projects that airlines in the region are expected to post $2 billion net losses in 2020 as passenger revenues declined by more than $6 billion compared with 2019.

Worst is yet to come

The real impacts of the crisis are yet to be felt in Africa, particularly on aircraft values, according to a source.

"Depending on the aircraft type, there will be movement southwards in the underlying values of the aircraft, coupled with less commercial lending appetite, that will result in significantly lower loan-to-value, to the extent you can find banks that are willing to invest in the aviation space in an industry that is still trying to figure out what it's going to be like when it comes back," says the source.

They add that the political and geographical complexities of the region have played a significant role in hampering profitability.

"The big problem with Africa has always been… it's like lots of cities trying to be one city. It's lots of aviation groups trying to be one aviation group, but it just hasn't worked because everyone is looking inward and nationalistically."

The source adds: "I don't think the pandemic has hugely changed that. I'm not sure how much different Africa will be than it was before, airlines will take less aircraft… lessors with significant access to cash are financing a lot of the narrowbodies, and the few widebodies that are taken will probably go ECA.

"The problems are going to come when they start flying again because airlines are profitable or not on load factors… If they don't get that balance right of bringing aircraft back out of storage to operate profitably in the right way, every airline is going to have problems."

To overcome these challenges, African airlines will have to reassess their business plans, consider rationalising their fleets, actively seek opportunities for collaboration and continuously engage with potential capital providers.

"With the right business strategy and an improved pan-African regulatory framework that addresses the issue of limited intra-Africa connectivity, there is a good possibility the overall fortunes of the sector can be significantly improved," argues Afreximbank.

Structural solutions

The pandemic has also presented a unique opportunity to address some of the structural issues that have historically impacted on sectoral performance, including implementation of the Single Africa Air Transport Market and ratification of the Cape Town Convention.

Afreximbank argues that it is important for as many African states as possible to adopt the convention to help reduce the perceived risks of doing business in Africa and ultimately reduce financing costs for the industry.

Currently, 26 out of 54 African states, including Tunisia, Morocco and Uganda, have not ratified the convention.

"It is important that African governments and aviation sector industry groups at a minimum maintain momentum on addressing these issues," says Afreximbank.

The bank's $3 billion Pandemic Trade Impact Mitigation Facility, designed to address short-term liquidity challenges posed by the pandemic, has also been available to sector participants over the past 12 months.

Afreximbank also points to a number of structural "enablers" in Africa that can be leveraged in the medium and long term to improve airline prospects.

These range from an emerging middle class, increasing urbanisation and population density and shortages in land transport connectivity that can be enhanced more easily by air transport.

The bank points out that while Africa has the world's second-largest population, over the past decade it has contributed on average about 2% of global air traffic, underscoring significant growth potential in air traffic across the continent.

Afreximbank says it will continue to play an advocacy role to ensure these structural changes are implemented as well as help a reduction in the risk premium payable by African airlines by providing guarantees where appropriate and collaborating with ECAs and other development finance institutions.

In the long term, as the market environment improves, the role of these institutions will evolve, with commercial banks and other investors playing more prominent roles as their risk appetite thresholds increase.

Royal Air Maroc has received $624.8 million in the form of a state-guaranteed loan

Aircraft leasing ‘**Made in India**’

Established lessors are likely to stay where they are as a new breed of local aviation leasing and financing companies is setting up shop in India’s fledgling aircraft leasing hub in Gujarat, hoping to tap a $50 billion opportunity, experts tell **Dominic Lalk**.

India is continuing its efforts to bring aircraft leasing business to its shores in a domestic market projected to exceed $50 billion.

In a recent address, Indian aviation minister, Hardeep Puri, reiterated that the aviation sector was “one of the critical enablers as well as an indicator for India’s endeavour towards a $5 trillion economy”.

India is the third-largest domestic aviation market and “poised to become third largest in the overall civil aviation market very soon”, says Puri.

IFSC’s GIFT City

The country issued its ‘Framework for Aircraft Operating Lease’ transactions earlier this year, paving the way for offshore lessors to set up shop in its designated free-trade zones, specifically GIFT City in Gujarat.

The framework prescribes that an aircraft leasing company must obtain a certificate of registration from the International Financial Services Centre (IFCS) authority. IFCS was designed to onshore financial services and transactions carried out by Indian corporate entities and overseas branches and subsidiaries of financial institutions that would usually be carried out in offshore financial services centres such as Hong Kong.

Nirmala Sitharaman, the Indian finance minister, has offered tax benefits to foreign aircraft lessors which set up shop in GIFT City. Specifically, the finance ministry is proposing tax holidays for leasing companies and tax exemptions for airlines paying lease rentals to foreign lessors.

No competition for Ireland

Despite the attention India’s aircraft leasing ambitions have been getting in recent months, key industry experts familiar with the developments tell *Airfinance Journal* that India is unlikely to be able to compete with the traditional leasing hubs, particularly Ireland, in the foreseeable future. Rather, the executives believe that it will be primarily domestic firms which stand to gain from India’s foray into aviation finance.

“The Ministry of Civil Aviation [MoCA] and the government of India have strong ambitions to make India an aircraft leasing hub. This project started more than four years ago, when the authorities started to identify the roadblocks for Indian or foreign aircraft lessors to set up shop in India and why they are not doing so,” says Nitin Sarin of Sarin & Co.

“Long story short, it of course all boiled down to taxation and ease of doing business, with figures showing that it was 48% more expensive to do business from India as opposed to a country that has a favourable double-tax avoidance treaty with India, such as Ireland,” says Sarin.

“So, what the MoCA did was they started to work with the Ministry of Finance [the MoF] to resolve these issues, trying to reduce that 48% extra burden to at par with Ireland. They have got very close,” confirms the prominent Indian lawyer.

Teething issues

Success, however, is not guaranteed and it may take time until teething issues have been resolved.

"The thing you must understand is that it is a very complex set of laws that needs to be amended for this. You have the MoF on the one hand that needs to deal with taxes, you have Reserve Bank of India – which is a branch of the MoF that deals with things like foreign exchange – and you have customs, also under the MoF, which deals with import duties, etc," explains Sarin.

"Despite them all being under the umbrella of the MoF, they all are sort of independent authorities, and getting all of them to change and align their laws is very difficult in a democratic setting because everything needs to go for review, and drafting, and redrafting, and eventual approval from parliament. So, while we are very close to realising our leasing ambitions here in India, there is still a lot of work that needs to be done," the Chandigarh-based lawyer concludes.

"GIFT will complement other global aviation hubs well. With it, India is hoping to kill three birds in one stone – ie, reduce the USD risk for the aviation industry, further develop GIFT as IFSC of repute and create employment opportunities," Mandar Mhatre, managing director for India at global financial services provider Apex Group, tells *Airfinance Journal*.

"Following the measures introduced by the recent budget, we have seen concrete action from half a dozen firms, and we hear more global names are considering setting up operations in GIFT City. Apex Group is in advanced stages of exploration to set up an office in GIFT City. In addition to aviation leasing services, we will offer fund admin services for AIFs [aircraft investment funds] set-up in GIFT," adds Mhatre.

Dollar risk reduction, lofty tax benefits

"Apart from the very well-publicised tax benefits and harmonisation of rules, GIFT will substantially reduce currency risk for domestic carriers. Currently, 80% of aviation traffic is domestic, while over 50% of outflow is in USD, driven by lease payments and fuel. Add to this the fact that there's no real liquidity on INR-USD hedging beyond 12 months and transacting in local currency becomes very attractive. GIFT City is expected to reduce India's dependence on USD-denominated leasing; it will aid the development of a domestic aviation financing industry and attract long-term lenders like pension/insurance funds," explains Mhatre.

"Entities set up in the IFSC are essentially treated as "persons resident outside India" for the purposes of Indian foreign exchange control regulations. This will give Indian-owned lessors set up in IFSCs access to [cheaper] debt from the

"While we are very close to realising our leasing ambitions here in India, there is still a lot of work that needs to be done."

Mandar Mhatre, managing director for India, Apex Group

international markets and the ability to freely transact in foreign currency with respect to aircraft and associated assets, essentially United States dollar assets," say Watson Farley & Williams (WFW) Dubai-based partner Dhruv Paul and associate Varun Kapur.

The incentives provided to firms set up under the IFSC include a nil corporate tax rate for the first 15 years, which can be potentially achieved by availing the claim of tax holiday after the first five years of operation.

There is a waiver from payment of stamp duty on all activities related to setting up of units in the IFSC and acquisition of any movable property (including aircraft) or immovable property for a period of 10 years commencing 4 August 2020.

The capital gains tax arising from transfer of assets being aircraft or engines are eligible for a 100% profit-linked deduction for any 10 consecutive years out of the first 15 years of operations being claimed by the unit in the IFSC on its income, provided that the unit commences operations on or before 31 March 2024 and no withholding tax on aircraft lease payments in the nature of royalty made to non-residents by units in the IFSC.

"It's a strong case for someone, say a Chinese lessor or a UK- or Australia-based lessor who could set up a leasing company in GIFT City," says Sarin.

"For example, if they lease directly out of Australia, then they must withhold the 10% withholding tax. But, if that entity sets up at GIFT City and it is at GIFT City that the entity is earning the money, then, when remitting these funds further on to Australia, there's no withholding tax on that. In that sense, I would say there is a fair amount of incentive to attracting aircraft leasing companies to set up shop in India," believes Sarin.

Lessor opportunities

India is on the cusp of huge aviation growth. The latest forecasts expect that India will have a passenger base of 1.1 billion by 2040 and will need more than 2,200 new aircraft valued at more than $320 billion over that period.

Indian carriers lease most of their aircraft. More than 70% of the current Indian commercial aircraft fleet is sourced from lessors, compared with a 45% global average.

Avolon, GECAS, CDB Aviation, BOC Aviation and Goshawk had the greatest asset value exposure to Indian carriers through April 2021, shows *Airfinance Journal* Fleet Tracker data.

Indigo, the largest carrier, has more than 280 aircraft in its fleet and more than 620 additional units on order. Other budget carriers Go Air and Spicejet also have hundreds of additional aircraft on order from lessors and manufacturers.

Based on published data, carriers from India have more aircraft on backlog than airlines from China, including more than 1,000 order commitments for new narrowbody aircraft.

Fleet Tracker shows that most of this growth will be driven by the Airbus A320neo-family programme, with more than 700 outstanding orders from Indian carriers.

"I expect the initial growth to be driven by domestic players looking for technical JVs [joint ventures]. SBI [State Bank of India] has already spoken about setting up an aviation leasing business and more local banks will follow. All of them are likely to partner with global players, including Apex Group, to accelerate their learning curve. Going forward, though, I would expect a healthy mix of foreign players, pension fund money, private equity investors, along with early movers, to be part of this industry," says Apex's Mhatre.

"I do see the large leasing companies of the world remaining where they are, but at the same time I also see a new family of leasing and financing companies coming about here in India," says Sarin.

"The first few lessors have set up shop in GIFT City already and the first few deals are in the pipeline, but these are for smaller, lower value assets including helicopters and engines. That is where we stand," adds Sarin.

"Realistically, we expect the first aircraft leasing deals to materialise within 18 months, though, a lot hinges on how the pandemic pans out," adds Apex's Mhatre.

"The advantage India will provide will be for smaller, newer lessors who are wanting to lease to smaller entities in India that none of the bigger boys are willing to lease to. I see those people setting up shop in GIFT City with the aid of the tax breaks they are given. But why would someone who is established, say in Dublin, set up shop in unchartered waters in India? I don't see the reason why, unless we offer benefits which far exceed what they have currently. It may make sense for the smaller unestablished guys, but I don't see the bigger guys coming in from overseas for quite some time still, until it's a mature market, say hopefully in a decade or so," says Sarin.

"These reforms undertaken by the Indian government certainly indicate a strong level of support and commitment to creating a robust aviation leasing industry in India and many Indian financial institutions in particular will undoubtedly be considering the opportunities," say Bird & Bird Singapore-based partner Leo Fattorini and associate Jack Weise.

"As Hong Kong has found, it's not easy to become an established aircraft leasing hub overnight; however, with the right regulatory, legal and tax framework in place, GIFT City may well prove an attractive alternative to some in the leasing community, and introduce new sources of domestic finance to Indian carriers," adds the Bird & Bird executives.

CTC and other roadblocks

The road ahead may be bumpy, agree financial and legal experts. Significant roadblocks are to be expected.

"The Indian government wants to attract more Indian money. Indian banks have been, for various reasons, very inactive in the aviation space. What the authorities want is for not just the Indian fleet that is coming in to be transacted through GIFT City, but also for lessors to lease out to the rest of the world from GIFT City," says Sarin.

"My anticipation is that there may be some pushback from the tax authorities. We may have aligned our tax laws but what happens when the actual time comes, and a tax officer takes a different interpretation or a very conservative view? That remains to be seen," adds Sarin.

As many in the aviation finance industry will remember, the spectacular insolvency of Kingfisher Airlines a decade ago has left many aircraft financiers weary of doing business with Indian carriers as the lessons learnt were often too painful. In many cases, lessors were unable to repatriate their aircraft for many months, sometimes years, because India had failed to recognise and implement the Cape Town Convention (CTC) and its interplay with the Insolvency and Bankruptcy Code.

"The advantage India will provide will be for smaller, newer lessors who are wanting to lease to smaller entities in India that none of the bigger boys are willing to lease to."

Nitin Sarin, Sarin & Co

"Long-standing lessors still remember the difficulties in repossessing aircraft following the demise of Kingfisher Airlines almost decade ago. Although India has made positive strides to implement the CTC, and the enforcement of Ideras [irrevocable deregistration and export request authorisations] more properly into domestic law since, this remains largely untested in an insolvency scenario," says Bird & Bird's Fattorini and Weise.

"It should be said that many established lessors do now lease aircraft into India, having largely got themselves comfortable with these risks," they add.

"Remaining with enforcement, unlike English and NY [New York] law, Indian law does not recognise self-help remedies and few lessors welcome the prospect of litigating and/or seeking to repossess aircraft in the Indian courts. It remains to be seen what the governing law of domestic lease agreements will be; however, if lessors and financiers wish to retain the ability to transfer, finance and/or syndicate, it is likely that English or NY law will remain prevalent as the governing law of transaction documents," say Fattorini and Weise.

"We need to remember: this is an intricate carpet we are trying to weave, and every stitch is essential to create that beautiful piece of art at the end. So, whether it's Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment, whether it's tax, whether it's customs duty, they all have to come aligned and in India these things do take time," says Sarin.

"I have to say, the MoCA is really trying their very best to get things off the ground. But we are not China, because fortunately we are a democracy, but this also means that things and procedures take more time. But we will get there eventually, no doubt. What will get us there is our population – unofficially we've already crossed the two billion mark – and that is what will keep our economy and aviation industry booming," says Sarin.

First quarter washout

Despite the long-term prospects for Indian aviation and the establishment of lessors in the country, the forecast for the first half of 2021 is dire.

The three months to June, traditionally the best quarter in India, will be a "washout" this year as the country battles a fresh wave of Covid-19 cases, says Airavat Transport & Technology Ventures partner and former head of strategy at Go Air, Satyendra Pandey. India reported more than 360,000 daily new infections as *Airfinance Journal* went to press, the highest daily total recorded in the world.

Pandey notes that historically "cash gains in the first quarter are used to sustain the next quarter coupled with the sale and leaseback income", but both are depressed.

While government-owned banks have provided loan deferrals, and original equipment manufacturers, including Airbus, Boeing and Pratt & Whitney, have provided schedule flexibility, "there remains a large discrepancy between compensation offered and sought in some cases recognised on the books," adds Pandey.

Failing equity infusions, he stresses that further relief from suppliers and creditors "will almost certainly be sought" by the airlines.

"In the current context, Indigo and Tata-owned airlines – so Vistara and Air Asia India – carry with them good credit ratings for varied reasons. The other airlines are caught in a situation with diminishing cash flows and sale and leaseback income drying up and no place to deploy excess capacity," says Pandey. "Repossessions will increase if the current trend continues."

providing
financing solutions...

OCTOBER 2020
KGAL
1 A350-900
leased to
Lufthansa
Commercial Debt
Arranger & Agent

SEPTEMBER 2020
CATHAY PACIFIC
1 A350-900
Commercial Financing
Mandated Lead Arranger,
Facility Agent &
Security Trustee

SEPTEMBER 2020
AERCAP
USD 1,500,000,000
3,150% Senior Notes
due 2024
4,625% Senior Notes
due 2027
Joint Bookrunner

SEPTEMBER 2020
AVOLON
USD 650,000,000
5.500% Senior Notes
due 2026
Joint Bookrunner

AUGUST 2020
jetBlue
USD 115,584,000
Pass Through Certificates
Series 2019-1B
Bookrunner

JULY 2020
AIRFRANCE
1 A350-900
JOLCO
Overall Arranger

JULY 2020
AVIATION CAPITAL GROUP
A Pacific Life Company
USD 1,000,000,000
5.50% Notes due 2024
Joint Bookrunner

JULY 2020
Alaska AIRLINES
USD 1,173,919,000
Pass Through Certificates
Series 2020-1
Joint Bookrunner &
Liquidity Facility Provider

JUNE 2020
KLM
EUR 2,400,000,000
State Guaranteed Facility
Mandated Lead Arranger &
Bookrunner

MAY 2020
QANTAS
3 B787-9
Commercial Facility
Mandated Lead Arranger

MAY 2020
Engine Lease Finance
USD 65,000,000
Secured Term
Financing Facility
Arranger, Agent &
Security Trustee

MAY 2020
AIRFRANCEKLM GROUP
EUR 4,000,000,000
State guaranteed Facility
Mandated Lead Arranger &
Bookrunner

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Air Transportation

MAY 2020
AERCAP
USD 500,000,000
11 Aircraft Portfolio Financing
Facility Agent & Security Trustee

MAY 2020
QATAR AIRWAYS
USD 250,000,000
Term Loan Facility
Arranger & Facility Agent

APRIL 2020
SAS
1 A350-900
JOLCO
JOLCO Arranger

MARCH 2020
AVIATION CAPITAL GROUP
USD 650,000,000
AFS Aircraft Funding Facility
Mandated Lead Arranger and Bookrunner

FEBRUARY 2020
TURKISH AIRLINES
1 B777-F
AFIC Combined with FRENCH STRUCTURED LEASE
Joint Lead Debt Arranger, Lease Arranger & Agent

FEBRUARY 2020
NAC
USD 858,083,000
Senior Unsecured Notes Private Placement
Joint Lead Agent

FEBRUARY 2020
TEAM
SUNBD 2020-1
USD 256,980,000
Aircraft Engine Portfolio Lease ABS
Joint Lead Bookrunner & Liquidity Facility Provider

FEBRUARY 2020
allegiant
USD 545,500,000
Senior Secured Term Loan B Facility
Joint Lead Arranger, Joint Bookrunner & Joint Syndication Agent

FEBRUARY 2020
AVOLON
SAPPHIRE AVIATION FINANCE II
USD 620,000,000
Aircraft Lease Portfolio ABS
Joint Lead Bookrunner & Liquidity Facility Provider

JANUARY 2020
ALAFCO
1 A320 NEO
Leased to
SAS
Lease Financing
Agent & Arranger

JANUARY 2020
American Airlines
USD 1,220,000,000
Senior Secured Term Loan B Facility
Joint Lead Arranger & Joint Bookrunner

JANUARY 2020
AIRFRANCE KLM GROUP
EUR 750,000,000
1.875% Senior Notes Due 2025
Joint Bookrunner

Making deals happen again

The pandemic has not been a complete disaster for aircraft lessors, writes **Laura Mueller**.

To glimpse the impact of the coronavirus on global businesses, consider operating lessors. After years of hum and haw, two lessor sales closed in March.

While Covid-19 was not the reason for these moves, the lessors' desires to close sales transactions were likely amplified as the virus spread.

After years of sales talks and denials, General Electric (GE) finally secured an exit from aviation leasing on 9 March.

Rival Aercap will pay $24 billion for which Citigroup and Goldman Sachs have already committed financing for $34 billion of GECAS assets. GECAS will receive 111.5 million of newly issued shares and $1 billion in Aercap notes or cash.

The deal marks the largest financing in the aviation sector and underscores the strength of the debt markets.

"The debt markets are a big reason why this merger happened. The market was commenting on American Airlines' $10 billion deal with institutional investors being the largest ever a day earlier. Then Aercap was able to secure a $24 billion bridge loan, giving it the confidence to pursue the merger," says a source.

A few weeks later, on 29 March, Fly Leasing, which includes 84 aircraft and seven engines, was sold to Carlyle Aviation Partners.

Joe Donovan, the company's chairman, told *Airfinance Journal* that the move was the result of years of frustration with the public markets.

The stock markets have not been an easy ride for lessors. Fly Leasing has been trading at less than 50% to book value. It went public at $23 per share in 2007.

"It was the realisation that we were probably too small to be an efficient public company. We traded at a significant discount to our NBV [net book value], so we could not economically raise new equity. And so, it really became a liquidity event," says Donovan.

"Covid accentuated some of the trading difficulties we've had, but it by no means was the reason for the sale," he adds.

GE's sale of its leasing unit is part of a larger corporate imperative focused on deleveraging and paying down debt.

The conglomerate had already taken significant steps to reduce its aviation finance exposure and offloaded the lending business, PK Airfinance, in December 2019.

GE says it will use the GECAS sale proceeds and its existing cash sources to reduce debt by about $30 billion.

Goldilocks buyer

The merger of the world's two largest lessors is just one example of the structural change that the Covid-19 pandemic has ignited across various sectors.

According to EY research, such disruptions have fuelled a surge in mergers and acquisitions starting in the second half of 2020.

A stronger-than-expected rebound in global M&A value beginning in July 2020 is set to continue throughout 2021 and beyond "as companies position themselves for improved economic activity and reframe their future for the post-Covid-19 pandemic era".

Private equity firms were active in 2020, EY notes, and they will be more so as businesses and sectors reposition themselves during the anticipated recovery stage.

"The stock markets have not been an easy ride for lessors. Fly Leasing has been trading at less than 50% to book value. It went public at $23 per share in 2007."

Joe Donovan, chairman, Fly Leasing

"With $2.8 trillion in dry-powder available, including nearly $1 trillion dedicated to buyouts, private capital is well-positioned to take advantage of the value creation anticipated in 2021. The growing presence of special purpose acquisition companies in the market could bring other forms of capital to the deal table next year," adds EY.

Private equity (PE) money, however, is surprisingly absent from the leasing sector's biggest shake-up in recent years.

Still, certain market observers argue an all-cash deal with private equity money would have been a better bet for GE in today's market.

"I think playing off the five big PE firms against each other would drive better value and give them cash today rather than holding on and hoping to ride the convexity of share price to try and get better value seems a riskier play," observes one lessor.

And although cash is king, it is also possible that GE did not want to sell GECAS for an all-cash deal at the bottom of the market. Private equity money also presents other problems.

"It would have been difficult to get to investment grade with PE ownership, raising $25 billion a potential challenge," says a source. "Also, there is no way that GE could have taken a public stake back. Even if GE had taken a private stake back, the exit would be very tricky. It is tough to sell a minority stake privately."

Although the GE board and management considered alternatives, it is hard to imagine anything other than a public company as the new owner, given the size of the purchase.

Any interested party also would need to take on Milestone Aviation, which few entities, especially aircraft lessors, would want to do in the current market. While tie-up talks with other lessors makes sense, because of the size of GECAS, any buyer would need to be prepared to lever up to pay for the purchase. Also, GE would likely need to own more than 50% of the combined company, complicating any sell-down process.

"With $2.8 trillion in dry-powder available, including nearly $1 trillion dedicated to buyouts, private capital is well-positioned to take advantage of the value creation anticipated in 2021."

"Chinese banks could probably do it because of the number of assets on their balance sheets, but they're out of the running for GECAS," adds a lessor.

Aercap became a sort of goldilocks buyer with the "just right" exit strategy for GE by checking three key boxes: certainty, confidentiality and the ability to take back public stock.

The transaction allows GE to exchange 100% of its ownership in GECAS for 46% of pro-forma Aercap, which is more than twice in size while adding $25 billion in cash.

Crucially, GE will own stock allowing it to participate in synergies and scale that the pro-forma company will bring.

The transaction is expected to be completed by early 2022. Still, according to a source familiar with anti-trust procedures, regulatory approvals could be extended because the parties need to file in every country where they have lessees.

Still, there is also potential for geopolitical considerations in certain jurisdictions such as China that could further delay the process.

The combined company will have more than 2,000 owned and managed aircraft, over 900 owned and managed engines, more than 300 owned helicopters and 300 customers worldwide.

No doubt, the sheer size of the deal is likely to gain attention from antitrust regulators because the lessors are already almost twice as big in fleet size as Avolon, the sector's third-largest lessor.

Aercap or GECAS may have to sell aircraft to shrink the combined portfolio to satisfy the regulators, adds the source.

Shareholder hopes

By merging, the combined entity will have a global portfolio that is 16% of the entire leasing portfolio, providing aircraft to more than 25% of the world's airlines.

Aercap says the combined customer profile will provide greater diversification with about 300 customers.

The top 10 customers of the combined company are expected to represent 30% of the company's NBV, compared with about 45% currently for Aercap.

Airfinance Journal data shows the top four lessee exposures will account for 413 aircraft: American Airlines (194), United Airlines (93), China Southern Airlines (69) and Southwest Airlines (57).

Total assets on a pro-forma basis for the combined companies totalled $76 billion as of 31 December 2020.

At closing, the adjusted debt-to-equity ratio of the combined company is expected to be 3.0x.

While the antitrust process is underway, lease rates could increase, notes a market observer, with GECAS and Aercap on the sidelines for the next several months.

In many ways, as recovery begins, the mega lessor will be well placed to tap into fleet renewal, putting it on a more sustainable path to double-digit return on equity (ROE), says a source.

"ROE is the ultimate best way to measure a leasing company. But if you look at Aercap, it used to be in the mid-teens. Over time, the mid-teens have been grinding down to 10. Pre-Covid, Aercap was lower than 10.

"Covid is a great excuse to take some write-downs and reset. Also, Aercap is due to add a whole bunch of narrowbodies, which should help its returns," adds the source.

Aercap has more widebody aircraft in its fleet than GECAS. At the end of the end of the first quarter, Aercap's 268 widebody fleet included: 19 Boeing 767s, 18 777-200ERs, 22 777-300/300ERs, 114 787s, 68 Airbus A330s and 27 A350s. It also has orders for 23 787s. GECAS, on the other hand, had 123 widebodies including 10 747-400s, 11 767-200s, 23 767-300s, nine 777-200s, 33 777-300s, one 787-8, eight 787-9s, 12 A330-200s, seven A330-300s and nine A350-900s. It has orders for 12 A330- 900neos and four 787-10s.

Of course, lease companies need to manage their exposure; however, critics of the merger are quick to say the deal is a tool for pro-forma Aercap to "kitchen-sink" a lot of its problems through purchase price accounting as it did in the 2013 purchase of ILFC.

The lessor expects new-technology aircraft to reach 75% of the combined Aercap-GECAS in-service fleets by the end of 2024.

New-technology aircraft accounted for 56% of Aercap's aircraft NBV at the end of 2020. Aercap is assuming about $1 billion of sales a year.

"In reality, it is a fairly diminished amount for a balance sheet of this size. If we were to increase that level of sales, what you would see is a further acceleration of that 75% and further reduction probably in the debt-equity levels, and improvings in the ratings," Aercap's chief executive officer (CEO), Aengus Kelly, said on an earnings call.

So far, narrowbodies represent 59% of the total fleet in NBV terms, while widebodies and regional jets accounted for 40% and 1%, respectively.

"Only time will tell if 2,000-plus aircraft is too big to create the right economic returns for the capital they deploy, or the risk they take by deploying capital."

Firoz Tarapore, chief executive officer, DAE

By December 2024, narrowbodies will increase in NBV terms to 66% at the expense of widebodies (33%), while regional jets are forecast to remain at 1%.

On completing the integration of GECAS, Aercap expects to generate selling, general and administrative synergies (SG&A) of $150 million compared with the combined 2019 SG&A expenses for the two businesses.

Aercap insists that the takeover is at an "attractive purchase price" with a discount to the net asset value.

As of 31 December, the GECAS business had a net asset value of $34.2 billion, excluding the US deferred tax liability of about $800 million that will be eliminated as a result of elections under Section 338(h)(10) of the US Tax Code.

Based on the closing price of Aercap's shares on 5 March, the consideration has a value of $30.6 billion, representing a discount of $3.6 billion compared with the net asset value of the GECAS business as of 31 December.

Aercap will recognise the GECAS business balance sheet at fair value on the completion date.

GE notes in an annual report that after completing the transaction, it will "elect to prospectively measure" the investment in Aercap at fair value and expects to have continuing involvement with Aercap, primarily through its ownership interest and ongoing sales or leases of products and services.

"In addition, we expect to sell our stake in an orderly fashion over time," adds GE.

In connection with the merger, GECAS was moved into discontinued operations and recorded a net loss of $2.6 billion for the first quarter.

This amount includes a loss on sale of $2.8 billion from the Aercap transaction, offset by about $200 million of earnings.

Size Matters

DAE CEO Firoz Tarapore describes the largest aviation merger as a "fantastic deal" for both Aercap and GECAS because it allows them both to further their strategic interests.

"There are the normal set of issues around like antitrust clearance but I am sure all of them will get appropriately resolved," he says.

But he also warns of diseconomies of scale.

"There are some legitimate questions whether there are more real diseconomies of scale in our business. Only time will tell if 2,000-plus aircraft is too big to create the right economic returns for the capital they deploy, or the risk they take by deploying capital."

BOC Aviation agrees: "We view this combination as generally good for the major players in the industry, removing as it does an overhang. There is nothing that we have seen that suggests being a behemoth confers any benefits relative to an adequately scaled business (generally >$10 billion in aircraft assets), so we don't see it as anti-competitive," says Timothy Ross, head of investor relations.

Air Lease's executive chairman, Steven Udvar-Házy, is unfazed by the news of a mega lessor.

"While they [pro-forma Aercap] will be busy and distracted, we will continue to do what we do best. All you have to do is look at our 2020 financial results versus Aercap, GECAS, Avolon, Fly, DAE [Dubai Aerospace], etc," he says.

During an online event, major ratings agencies dismissed the notion that the Aercap-GECAS merger and the sale of Fly Leasing to Carlyle will lead to further consolidation among larger rated lessors.

BOC Aviation also dismisses any near-term consolidation.

"Our focus remains on producing the largest shareholder returns rather than having the largest balance sheet, so we are not anticipating any copycat moves right now," says a BOC Aviation spokesperson.

But with aircraft leasing seen as integral to airlines' recovery plans and investors sitting on mounting cash piles, perhaps Covid will help push another deal over the line.

Neither Aercap nor GECAS was available for comment.

HNA restructuring was long overdue

Under HNA Group's ongoing restructuring, affiliated group leasing entities are likely to be combined, although Bohai Leasing will be hard-pressed to play a greater role, HNA experts tell **Elsie Guan**.

When it comes to China's HNA Group, the writing was on the wall for a long time that a major overhaul was required. Covid-19 and its shocking reverberations only accelerated the Chinese conglomerate's dire need for restructuring, including its diversified leasing interests.

On 30 January, Shanghai-listed Hainan Airlines applied to Chinese courts for restructuring alongside two other listed companies of HNA Group – HNA Infrastructure Investment and CCOOP.

Apart from these group entities, HNA-affiliated companies to have filed for bankruptcy and restructuring by creditors include Grand China Airlines, Air Chang'an, Shanxi Airlines, Lucky Air, Fuzhou Airlines, Urumqi Airlines, GX Airlines, Kehang Investment, HNA Technology, HNA Capital and HNA Industry.

While bankruptcies and other formal restructuring proceedings have impacted airlines elsewhere, this is the first big airline group restructuring in mainland China.

A bankrupt Hainan Airlines will not benefit anybody because this would greatly impact the entire Chinese aviation ecosystem and overall economy. Bankruptcy is a last resort. Restructuring the conglomerate, which holds and operates more than 700 aircraft, is a better solution, Jordan Yang, a partner of AllBright Law Offices in Beijing tells *Airfinance Journal*.

In a joint report from AllBright and Bird & Bird, the legal experts indicated concern in the aviation finance community with regards to the HNA restructuring drive.

Under the People's Republic of China (PRC) law, bankruptcy procedures include restructuring, settlement or liquidation. Bankruptcy restructuring, as is the case here, refers to the reorganisation of the business of a company that may already be in a bankruptcy but has the potential to recover through restructuring.

The restructuring plan must designate classes of creditors and claims. Each class of creditors shall vote on the draft plan separately but only the impaired creditors are permitted to vote. If more than two-thirds in amount and one-half in number of the creditor class vote in favour of the plan, then the plan shall be deemed accepted by such class.

If all classes accept the draft plan, it shall be deemed adopted by the creditor's

"Restructuring the conglomerate, which holds and operates more than 700 aircraft, is a better solution."

Jordan Yang, partner, AllBright Law Offices

On 30 January, Shanghai-listed Hainan Airlines applied to Chinese courts for restructuring

meeting and the court will further confirm the plan if it complies with the PRC Enterprise Bankruptcy Law, says the report.

In many ways, a PRC bankruptcy restructuring is similar to US Chapter 11 proceedings because it is focused on recovery and future profitability. A successful restructuring permits the debtor to restructure its debts, sell off selected assets, trim costs and obtain new financings.

In most restructuring cases, pre-petition equity holders are diluted or even wiped out in the restructuring plan, explains the report.

Hainan Airlines has said it could introduce new strategic investors as it seeks to rehabilitate.

"Restructuring means that there is a high probability that strategic investors will be introduced. Funding and operation will also be considered and adjusted. How to rejuvenate the main aviation business should be the direction of restructuring," says Yao Zhou, a partner of Dentons in Beijing.

There are no specific regimes or requirements for airline insolvencies in the PRC. Under the PRC Bankruptcy Law, a leased aircraft will not be included in the estate of an insolvent PRC lessee.

Accordingly, aircraft owners may recover their aircraft from an insolvent PRC lessee through the bankruptcy administrator. Furthermore, in the case of secured aircraft financing, a mortgagee has a preferential right over a lessor's ownership interest in respect of the secured aircraft, whether or not during bankruptcy proceedings, according to a Dentons report provided by Zhou.

On 13 March, Hainan's high court allowed 321 HNA-affiliated companies to file for restructuring, assigning HNA Group's manager as the general administrator of the restructuring of the 321 firms.

HNA Group announced earlier it had integrated the 321 affiliates into three sector heads, including airlines, airports and supply and marketing, for which it is seeking strategic investors.

With or without new investors on board, Hainan Airlines is aiming to remain independent once successfully overhauled, although this may prove difficult.

> How to rejuvenate the main aviation business should be the direction of restructuring.

Yao Zhou, partner, Dentons

"It is likely that Hainan Airlines will become a state-owned carrier. Creditors may become shareholders, and equity of current controlling shareholders may be diluted in the process of restructuring," says AllBright's Yang.

"Some creditors still want to continue to fulfill their contracts rather than retrieving their aircraft because it is hard for them to remarket their aircraft in the market now, especially under the Covid-19 pandemic," says Yang.

At least 20 lessors are involved in Hainan Airlines' restructuring programme.

Airfinance Journal's Fleet Tracker indicates that Bocomm Leasing, GECAS, Avolon, Tianjin Bohai Leasing and CDB Aviation are the most impacted lessors. Bocomm Leasing, GECAS and Avolon have more than 40 aircraft with HNA carriers, while Tianjin Bohai Leasing and CDB Aviation have more than 20.

Zhou does not think that large-scale aircraft termination will happen because of the restructuring. "If their fleet management efficiencies could be improved, the reduction of fleets is beneficial, not negative," notes Zhou.

Yangtze River Financial Leasing, Puhang Financial Leasing and HNA Leasing Holdings are among the 321 HNA companies to have filed for restructuring.

"There is a very low possibility for Bohai Leasing to take over these lessors' businesses because Bohai Leasing is not in the list of companies to be restructured. Unless Bohai's shareholders decide to merge more lessors into the business, I think Bohai will not invest in other HNA-affiliated lessors as a strategic investor," says AllBright partner Jordan Yang.

According to a Bohai Leasing filing with the Shenzhen Stock Exchange, the lessor says it is possible that the company's equity structure will change because of HNA's overhaul, in which some of its own shareholders are involved.

According to Article 18 of the country's Enterprise Bankruptcy Law, a PRC lessee may terminate its aircraft lease agreement on a selective basis. However, lessors may also be concerned about their ability to repossess their aircraft should it come to that.

If a relevant aircraft lease agreement contains provisions according to which an event of default is trigged, the lessor shall be entitled to repossess its asset, says Yang.

With an aircraft lease agreement covered by the Cape Town Convention, where a PRC debtor enters into bankruptcy restructuring, the debtor or the administrator shall release possession of the aircraft where a lessor requests within 60 days, according to Yang.

China's legislative body approved the Cape Town Convention and Aircraft Protocol in 2008.

Bohai Leasing posted an operating loss of Rmb9.8 billion ($1.5 billion) for its fiscal year to 31 December 2020. The previous year the lessor recorded an operating profit of Rmb3.8 billion, according to a report of Bohai Leasing's financial results.

Total revenues were Rmb27.4 billion in 2020, a 29% drop from the previous year. As of 31 December 2020, Bohai Leasing total assets accounted for Rmb250 billion, compared with Rmb266 million at te end of the previous year.

The lessor had 606 owned and managed aircraft and 270 aircraft on order as of 31 December 2020.

A Bohai Leasing filing with the Shenzhen Stock Exchange states: "The decrease in aircraft rental and sales revenue, as well as the decline of aircraft valuation and bankruptcies of lessees in 2020, resulted in an increase of provision of impairments, which in turn affected the financial performance of Bohai Leasing last year."

Airfinance Journal's Fleet Tracker indicates CDB Aviation is among the most impacted lessors in Hainan Airlines' restructuring

Airfinance Journal Awards shortlists

AIRFINANCE JOURNAL AWARDS2020

More than 233 submissions were received for the *Airfinance Journal* Awards 2020, covering more than 145 unique deals.

The shortlists include deals of the year, team awards and individual categories.

Unlike other awards, which rely exclusively on their hosts' views, *Airfinance Journal* works with the collective voice of the global industry.

Our international judging panel includes five senior aviation finance executives representing the banking and leasing industries:

- **Michael Halaby**, former head of aviation debt origination EMEA, Deutsche Bank;
- **Richard Forsberg**, former head of strategy, Avolon;
- **Michel Dembinski**, former head of aviation EMEA, MUFG Bank's;
- **Bertrand Grabowski**, independent advisor and ex-board member of DVB Bank's aviation and rail businesses
- **John Feren**, former executive, Aviation Capital Group and Boeing.

The combined knowledge and experience of our expert judging panel provides the *Airfinance Journal* Awards adjudication process with an added layer of independence that is not found at our competitors' awards.

After the *Airfinance Journal* editorial team has selected three short-listed deals for each award category, the judges will, completely independently, select the winners from your submissions.

There are 32 categories considered in the *Airfinance Journal* 2020 Awards

Africa Deal of the Year
- Acia Aero $25.7m revolving credit facility for 11xA/c
- TAAG Angola Airlines $145m commercial loan for 6xDash8-400s
- Egyptair Cargo $60m commercial loan for A330-200P2F

Asia-Pacific Deal of the Year
- Bain Capital A$3.5bn Virgin Australia acquisition and restructuring
- Qantas A$500m debt programme
- Cathay Airways HK$39bn recapitalization plan

Europe Deal of the Year
- Rolls-Royce £5bn recapitalization plan
- IAG €2.7bn equity issuance
- Virgin Atlantic Airways £1.2bn recapitalization plan

Latin America Deal of the Year
- Avianca $722m DIP loan
- Azul Airlines R$1.7bn convertible bonds
- Latam $2.45bn DIP loan

Middle East Deal of the Year
- Qatar Airways $800m Finance lease for 7x787-9
- Etihad Airways $600m Sukuk

North America Deal of the Year
- United Airlines $6.8bn Mileage Plus Programme
- Delta Air Lines $5bn senior secured notes/term loan
- Jetblue Airways $550m revolving credit facility

Bank Loan Deal of the Year
- Airbus €15bn commercial loan
- Bleriot Aviation Funding $300m warehouse facility
- Qantas A$500m debt programme

Guaranteed Financing Deal of the Year
- Skywest Airlines $80m AFIC-supported financing for 4xE175
- Pegasus Airlines €450m UKEF guaranteed finance lease for 10xA/c
- Turkish Airlines $250m ECA guaranteed loan for 2x787-9

Tax Lease Deal of the Year
- Wizz Air Hungary $150m French tax lease for 3xA320neo
- Cathay Pacific Airways $350m JOLCO for 2xA350-900
- Pegasus Airlines $55m JOLCO for 1xA320neo

Operating Lease Deal of the Year
- Delta Air Lines sale and leaseback for 16xA/c
- Lufthansa $275m JOL for 5xA321neo
- ST Engineering aviation fund for 1xA321

Sale and Leaseback Deal of the Year
- Alaska Airlines 10xA320 sale and leaseback
- United Airlines 22xA/c sale and leaseback
- Easyjet 20xA/c sale and leaseback

Structured Lease Deal of the Year
- Turkish Airlines $815m Finance lease for 6xA/c
- Altavair $622m Secured loan facility for 13xA/c
- China Post Airlines Operating lease for 2x737-800

Used Aircraft Deal of the Year
- Cathay Pacific 6x777-300ER sale and leaseback
- Altavair/KR $600m warehouse Facility for 38xA/c
- United Airlines $3bn EETC for 352xA/c

Cargo Deal of the Year
- FedEx $970m EETC 2020-1
- Titan Aviation $300m warehouse facility
- KV Aviation $133m commercial loan for 6x737-800

New Fund/Alternative financing platform Deal of the Year
- Castlelake up to $5bn Boeing aircraft fund
- Bleriot Aviation Funding $300m warehouse facility
- GECAS/PIMCO $3bn aviation fund

Equity Deal of the Year
- Rolls-Royce £2bn equity issuance
- Norwegian Air Shuttle $1.6bn recapitalization
- Lufthansa €600m convertible bond

M&A Deal of the Year
- Hitachi 39.7% MUFG equity investment
- Marubeni/Mizuho Leasing $7.4bn acquisition of Aircastle
- Bain Capital A$3.5bn Virgin Australia acquisition and restructuring

Lessor Unsecured Bond Deal of the Year
- Hitachi 39.7% MUFG equity investment
- Marubeni/Mizuho Leasing $7.4bn acquisition of Aircastle
- Bain Capital A$3.5bn Virgin Australia acquisition and restructuring

Airline Unsecured Bond Deal of the Year
- Ryanair €850m unsecured bond
- American Airlines $500m unsecured bond
- Etihad Airways $600m Sukuk

EETC Deal of the Year
- Castlelake $485m for 7xA/c
- Alaska Air Group Series 2020-1 $1.17bn for 61xA/c
- United Airlines Series 2020-1 $3bn for 352xA/c

ABS Deal of the Year
- SAPA 2020-1 $620m for 21xA/c
- WEST V $366.69m for 57xEngines
- Sunbird 2020-1 $338m for 30xEngines

Innovative Deal of the Year
- United Airlines $6.8bn Mileage Plus Programme
- American Airlines $1bn unsecured bond
- Pegasus Airlines €55m JOLCO for 1xA320neo

Overall Capital Markets Deal of the Year
- American Airlines $1bn unsecured bond
- SAPA 2020-1 $620m ABS for 21xA/c
- Air Lease Corporation $850m unsecured bond

Overall Deal of the Year
- United Airlines $6.8bn Mileage Plus Programme
- SAPA 2020-1 $620m ABS for 21xA/c
- American Airlines $1bn unsecured bond

Editor's Deal of the Year
Presented by the *Airfinance Journal* editorial team

News event of the year
Presented by the *Airfinance Journal* editorial team

TEAM SHORTLISTS

Aviation Finance House of the Year
- BNP Paribas
- Societe Generale CIB
- Citi

Lessor of the Year
- Avolon
- Air Lease
- BOC Aviation

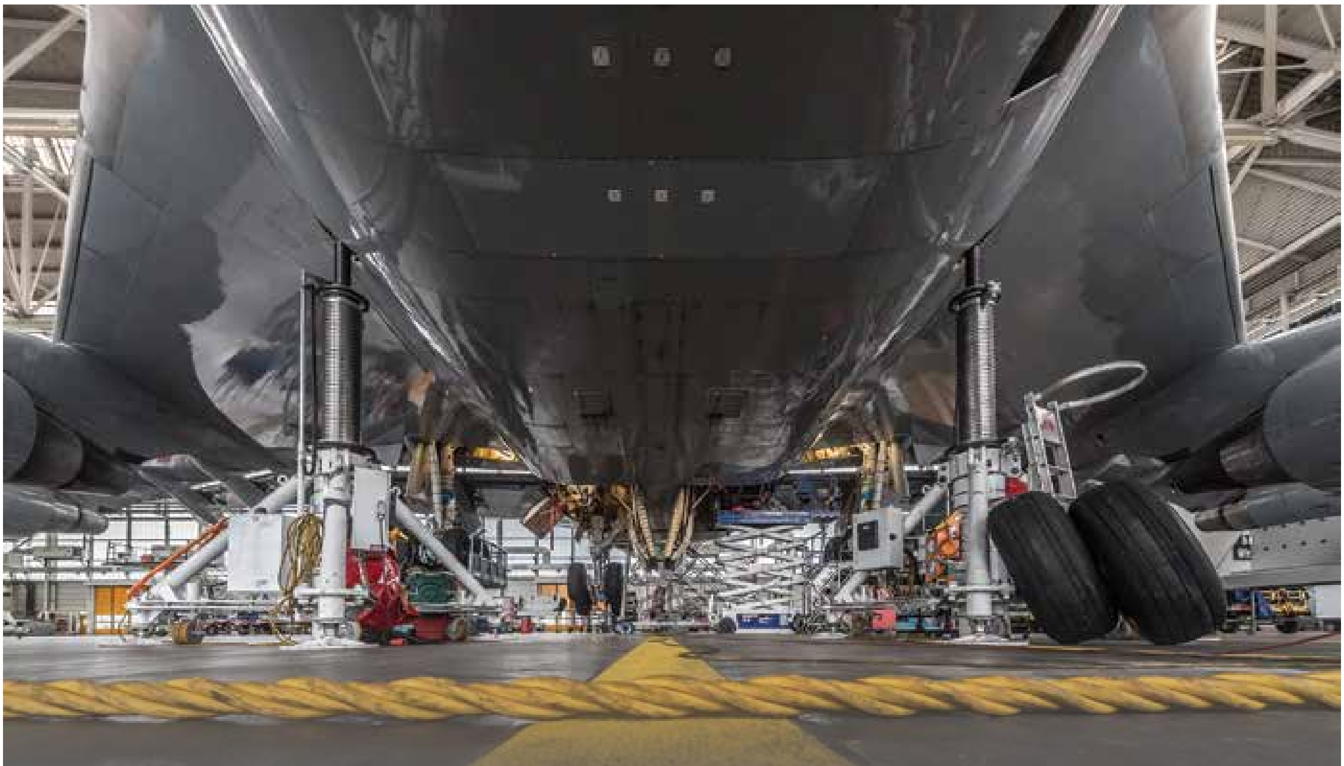
Airline Treasury Team of the Year
- Pegasus Airlines Treasury Team
- Delta Air Lines Treasury Team
- Qantas Airways Treasury Team

Lessor Treasury Team of the Year
- Avolon Treasury Team
- Air Lease Treasury Team
- BOC Aviation Treasury Team

INDIVIDUAL AWARDS

Aviation finance person of the year
To be announced at the event on 23 June 2021

Lifetime achievement
To be announced at the event on 23 June 2021



Recovery still some way off

Geoff Hearn looks at the market for maintenance, repair and overhaul, and finds that the sector is among the hardest hit by the Covid pandemic.

Given its dependence on the airline industry, it is unsurprising that the commercial aircraft maintenance, repair and overhaul (MRO) market has suffered as a result of the Covid-19 pandemic. The requirement for MRO services is driven by aircraft utilisation and, with a large percentage of the fleet still in storage, activity has been severely curtailed – leading to an associated reduction in demand for MRO services, which will take some time to recover.

The consensus of industry observers is that recovery will take at least two years to get back to 2019 levels of demand, with some suggesting that such a recovery will take closer to four years. All this is in stark contrast to the situation prior to the pandemic when the MRO market, driven by an airline industry that was registering record profits, was experiencing strong growth.

Covid impact

After many years of growth, the 2020 MRO market showed a striking decline in demand. According to consultancy firm Naveo, the first quarter of 2020 was strong for many companies, but as Covid struck and airlines reduced activity, the market began to suffer in April. The impact on the different branches of the MRO industry varied in line with the flexibility that airlines had to reduce their spending.

Discretionary work such as modifications as well high-cost events such as engine shop visits have been deferred where possible. The impact on the engine market, which accounts for about 50% of the total spend, is likely to be longer term as airlines turn to using the remaining life (green time) of surplus powerplants, rather than sending engines for shop visits (overhaul).

Lufthansa Technik results reflect difficult environment

Lufthansa Technik's results briefing in early March gave some insights into the scale of the problems faced by MRO providers over the past year. The Hamburg-headquartered company said that its fiscal year 2020 revenue plummeted by 43% year-on-year to €3.75 billion ($4.45 billion). Its chief executive officer, Johannes Bussmann, said during the briefing that 2020 was the toughest year in the company's history.

Bussmann points to a number of trends that Lufthansa Technik believes will influence the eventual recovery from the Covid pandemic. One key point is the likelihood that the current commercial aircraft fleet will rollover more slowly than was previously expected.

The prediction of a slower fleet rollover is perhaps surprising, given the Covid pandemic is increasing retirements of ageing, maintenance-intensive aircraft.

Sven Taubert, head of corporate foresight and market intelligence, Lufthansa Technik, provided *Airfinance Journal* with an explanation of the company's thinking.

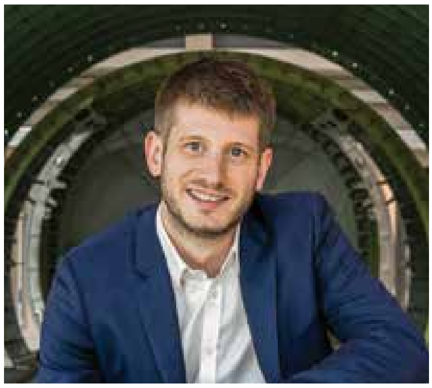
"As a result of Covid, we currently expect that, up to and including 2030, around 5,000 aircraft will not be produced compared to our [pre-Covid] 2020 forecast. The early retirements are mainly long-range aircraft, which do not have large fleets. The main production cuts in terms of aircraft numbers are for single-aisle models," Taubert tells *Airfinance Journal*.

"Airbus is projecting building 40 aircraft per month [rate 40] instead of the rate 63 it was planning prior to the Covid pandemic. Boeing is planning to increase production to around 31 aircraft per month in 2022 instead of the previously monthly planned 57 units. It is still unclear if or when pre-Covid production rates will be achieved again, but it is unlikely that it will happen before 2025," he adds.

"Moreover, [Airbus] A320s and [Boeing] 737NGs are currently parked in significant numbers. If an airline has, for example, A320neos within their warranty period, they will fly these instead of older A320s – saving green time on the older fleet. This green time will be used to bridge the gap until the delivery of delayed new-generation aircraft. Furthermore, prior to the Covid crisis, many 737NGs underwent a major MRO event to compensate for missing 737 Maxs. These aircraft are more or less good to go for another eight to 10 years," says Taubert.

Lufthansa Technik also believes that the relative resilience of the freight market is playing a role in the composition of the commercial aircraft fleet.

Taubert says: "Normally, cargo aircraft represents around 6-7% of the [commercial aircraft] fleet. Now, with many aircraft parked, it is 12-14%. This fleet is mainly old second-life aircraft. For example, two-thirds of active Boeing 747s are cargo versions.



"As a result of Covid, we currently expect that, up to and including 2030, around 5,000 aircraft will not be produced compared to our [pre-Covid] 2020 forecast."

Sven Taubert, head of corporate foresight and market intelligence, Lufthansa Technik

These aircraft will not retire early, so you have a significant number of old-tech aircraft that are very stable in the market."

The conclusion is that all these effects result in a slower fleet rollover, particularly in the medium term (2025). Lufthansa believes the effects get smaller towards 2030.

Lufthansa also believes four-engined aircraft are set to be phased out of passenger service, although up to two-thirds of the fleet will remain as freighters. A further premise is that some downsizing of aircraft is likely, with large narrowbodies being replaced by aircraft such as the A220. On the other hand, Lufthansa expects A321neo long-range models to take over some routes previously served by widebodies.

The 2020 MRO market showed a striking decline in demand

Forecast spend

Richard Brown, managing director of consultancy Naveo, says the increased retirements of ageing, maintenance-intensive aircraft that would have required heavy airframe checks and third/fourth engine shop visits will reduce the material and labour hours required, reducing MRO expenditure for operators, but impacting revenue for the original equipment manufacturers (OEMs) and MRO organisations.

Brown adds that operators are returning to service the youngest aircraft in their fleets, which are typically under warranty. The next aircraft/engines to be reintroduced are the ones that have recently undergone major checks/overhauls. Older aircraft are likely to be parked until traffic returns and, by then, airlines will decide whether to invest in maintenance or replace with new models.

In the light of these trends, Naveo forecasts that the MRO spend in 2021 will be about 25% lower than the equivalent figure for 2019.

Shape of recovery

Naveo believes it will take until 2023 for MRO demand to recover to pre-Covid levels. The consultancy's latest forecast suggest that MRO spend in 2024 will be about $92 billion. Engines will account for the largest proportion of this (55%), followed by component repair (20%) and line maintenance (15%). Heavy airframe maintenance is forecast to account for the remainder (10%).

Covid has impacted the forecasted MRO spend by operator region, with some regions predicted to recover quicker than others. Factors at play include the relative size of domestic markets and the prevalence of short-haul markets versus long-haul markets.

The current outlook suggests that, by 2023, Europe will overtake North America to be a larger generator of MRO spend. Asia-Pacific and China combined represent the largest MRO market – $23 billion in 2021 rising to $32 billion in 2024.

Naveo anticipates that, as the recovery gathers pace, operators will continue to be in cash-conservation mode. However, deferred airframe maintenance will start to happen, engines will require overhauls as their green time is exhausted and inventories will need to be restocked. Spending is also likely to be controlled by an increase in the use of used serviceable material, where possible.

Some things do not change

Some of the trends that were apparent in the MRO sector prior to the Covid pandemic continue to influence the development of the market. It remains the case that engines are getting more complicated and OEMs increasingly dominate the after-sales market as the technology and tooling required for maintenance requires increasing investment.

This trend reduces the bargaining power of airlines and lessors to negotiate maintenance costs and has contributed to the increasing uptake of OEM flight-hour schemes. The terms of engine maintenance agreements are an increasingly important factor in aircraft selection.

Airframe OEMs have tried to increase their presence in the aftermarket space, but have not obtained the same dominance as their engine counterparts. The labour-intensive nature of airframe overhaul provides independent suppliers with more opportunity to compete, but nonetheless Airbus and Boeing look set to continue seeking an increased portion of the MRO business as it recovers to pre-Covid levels.

Data remains key

The increased representation of digitally enabled aircraft in the commercial fleet was a key MRO trend prior to the Covid pandemic, and industry consensus is that this will remain the case. Lufthansa Technik, for example, says it is continuing to progress digitalisation and believes that airlines will use the crisis to explore digital fleet management solutions.

The increasing importance of data is generally regarded as favouring aircraft manufacturers in their attempts to increase their presence in the MRO market. Before the Covid crisis, independent suppliers were forming alliances to compete with the increased OEM presence and this trend looks likely to continue. In any case, investment in data handling and processing will be increasingly required by any organisations that are intent on remaining important players in the MRO market.

Financiers and lessors beware

Despite the efforts of some suppliers, lessors and financiers often have an intermittent relationship with MRO providers. For an industry that relies heavily on forward planning, this is not ideal and the Covid crisis could make managing this relationship more difficult.

There is a belief among industry forecasters that the increased utilisation of aircraft and engines as economies recover will lead to a wave of maintenance events that will stretch available resources. The timescale for this is not exact, but it will probably occur about 2024/25. For lessors and financiers, who often seek maintenance capacity at short notice, this could prove particularly problematic.

Passenger-to-freighter conversion activity increases

The passenger-to-freighter aircraft conversion business has bucked the trend of the closely associated MRO industry, with an increase in activity driven by various helpful developments.

The conversion sector has increasing importance for the aircraft financing business. Lessors, in particular, are seeking to extend the life of their passenger aircraft assets, with younger aircraft increasingly being considered as candidates for conversion.

Aeronautical Engineers (AEI), which offers a number of conversion programmes, is among the companies which have seen increased activity with a variety of financial institutions and lessors. The company announced in late March that it would be providing Aviation Holdings with three more Boeing 737-800SF freighter conversions, bringing the private equity fund's total orders for the type to eight.

Earlier in the month, the company entered an agreement to provide Macquarie Airfinance with four 737-800SFs, which, according to a press release, could extended the lives of the aircraft in question by up to 40 years. AEI has also announced a deal this year with Aero Capital Solutions and GA Telesis.

Robert Convey, senior vice-president, sales and marketing, Aeronautical Engineers, tells *Airfinance Journal*: "Today, I am seeing 80% of my orders coming from lessors versus operators. This is due to the fact that feedstock [suitable passenger aircraft] pricing was quite high and only now seems to be getting to the level where an operator can afford the feedstock and conversion."

Convey says that the Covid crisis has been a turning point for AEI's 737-800SF conversion programme.

"It lowered feedstock pricing while at the same time made aircraft available – two things that were not happening prior to the pandemic. In addition, it greatly reduced passenger [aircraft] belly space while increasing demand for freight on most sectors," he explains.

Boeing offers its own 737-800 conversion, marketed as the Boeing Converted Freighter (BCF), which has also achieved significant success with leasing companies. BBAM is among the latest financial organisations to order the aircraft, joining lessors such as GECAS, which was the launch customer for the 737-800BCF as well as the AEI conversion.

In addition to the BCF and AEI models, conversions of 737 next-generation models are also offered by IAI and Pemco. Options for the A320 family are more limited, but Elbe Flugzeugwerke (EFW), an Airbus and ST Engineering joint venture, offers the A320P2F conversion, which entered service in October 2020.

The widebody market also has seen an increase in interest in freighter conversions, born, to some extent, out of necessity.

Talking about the Airbus A330-300 and 777-300ER situation on an *Airfinance Journal* podcast, Andy Mansell, partner of Splitrock Aviation, suggested: "Freighter conversion is the path for the best economic outcome."

An Airbus passenger-to-freighter conversion programme for A330s has been in the market for a few years, while IAI and GECAS launched a 777-300ER freighter conversion programme in October 2019. The conversion is designated 777-300ER Special Freighter (SF) and is the first after-market cargo modification launched for the 777 family.

There is no doubt that Covid-19 has changed the market for passenger-to-freighter conversions, both in terms of rising demand and the supply of feedstock. However, it is not clear how much lessors and financiers will benefit from these changes, not least because freighter values and lease rates are being held down by the increased supply of converted passenger aircraft.

The Covid pandemic has been a turning point for the AEI 737-800SF

A350-900 well set for the long-haul

Despite some short-term problems, appraisers are positive about the values of Airbus's leading twin-aisle aircraft.

The Airbus A350-900 is a long-range, twin-engine, widebody aircraft. Although it was originally launched in 2004 with an improved A330 fuselage, comments from potential customers persuaded Airbus to redesign and relaunch the A350 with a wider cabin cross-section. The manufacturer dubbed the redesigned models as XWB (extra widebody) variants.

The XWB family originally consisted of three variants – the A350-800, the A350-900 and the A350-1000. However, production of the A350-800 was cancelled as initial customers switched their orders to the larger A350-900, or the re-engined A330neo variants.

Developments

In late 2017, Airbus introduced an aerodynamic performance improvement package, which provided 400 nautical miles of additional range and 1% lower fuel burn. The improvements were leveraged in the development of the A350-900ULR (ultra-long-range) variant.

Airbus delivered the first A350-900ULR to launch customer Singapore Airlines in 2018.

The -ULR version has an extended range of up to 9,700 nautical miles. The increase is achieved by integrating a modified fuel system, which augments the aircraft's fuel carrying capacity by 24,000 litres without the need for additional fuel tanks. The -ULR model has a maximum take-off weight of 280 tonnes, which is now standard on all models. The A350-900ULR can be reconfigured as a standard -900, if required.

Airbus is reported to be considering the development of a freighter version of the A350, which would compete with the Boeing 777-200F programme.

Operating cost

Analysis carried out by *Airfinance Journal* prior to the Covid-19 crisis, suggested that the 787-9 has a modest advantage over the A350-900 in terms of trip cost. The caveat for this finding is that the A350-900 is a more capable aircraft in terms of capacity and range and this is reflected in higher leading weights – which in turn lead to higher operating costs.

Singapore Airlines was the launch customer for the ultra-long-range A350-900

ISTAT appraisers' views

Collateral Verifications (CV)

Gueric Dechavanne, vice-president, commercial aviation services

CV is aware of six A350-900s available for sale and/or lease worldwide in the secondary market. Because of the Covid-19 crisis, there are 78 aircraft currently parked but it is our belief that all of these will go back into service once the industry starts to recover.

The average cost for operating leases of new aircraft ranges between $950,000 and $1 million a month. Even in the current environment, we expect these numbers to remain stable because market demand for the aircraft is set to continue for the foreseeable future.

Although there will be some near-term softness in market values because of the current airline industry crisis, residual values should remain stable and unchanged for the type in the longer term. Because of its efficiency, the A350 will eventually replace ageing aircraft such as older A340s, A330s, as well as 767s and 777s.

With more than 750 orders since its launch, the A350-900 has already shown great signs of success and it will continue to do so as the fleet grows and proves itself to be the next generation of widebody aircraft for the industry. We expect this variant to remain the most popular among operators and investors alike. The larger variants of this aircraft offer improved seat-mile economics and greater cabin flexibility to better meet passenger demand, which we feel is compelling to operators.

In the 787-9, the A350-900 faces competition from an aircraft that offers attractive performance and operating economics. Both manufacturers claim that their aircraft offers better economics over the other, but CV feels that both types will do very well with the current and future demand for this type of aircraft from the global operator base.

Current market value ($m)

Build year	2016	2018	2020	2021 (new)
CV view	93.1	108.4	125.2	147.2
Oriel view	89.5	96.5	120.0	139.3

Assuming standard Istat criteria and respective maintenance status.

Indicative lease rates ($'000s/month)

Build year	2016	2018	2020	2021 (new)
CV view	675	775	875	950-1,000
Oriel view	705	745	820	895

AIRCRAFT CHARACTERISTICS

Seating/range

Max seating	440
Typical seating	300-350
Maximum range	8,100 nautical miles (15,000km)

Technical characteristics

MTOW	280 tonnes
OEW	116 tonnes
MZFW	195 tonnes
Fuel capacity (standard model)	131,000 litres
Engines	Trent XWB
Thrust	84,000lbs (374 kN)

Fuels and times

Block fuel 1,000 nautical miles (nm)	11,810kg
Block fuel 2,000nm	22,010kg
Block fuel 4,000nm	42,410kg
Block time 1,000nm	179 minutes
Block time 2,000nm	291 minutes
Block time 4,000nm	512 minutes

Fleet data

Entry into service	2014
In service	277
Operators (current and planned)	53
In storage	92
On order	497
Estimated production 2021	45
Average age	2.7 years

Source: *Airfinance Journal* Fleet Tracker 15 April 2021

Indicative maintenance reserves

C-check reserve	$105 to $110/flight hour
Higher checks reserve	$95-$100/flight hour
Engine overhaul	$290-$295/engine flight hour
Engine LLP	$265-$270/engine cycle
Landing gear refurbishment	$150-$155/cycle
Wheels, brakes and tyres	$375-$380/cycle
APU	$105-$110/propeller hour
Component overhaul	$420-$425/flight hour

Source: Air Investor 2021

Overall, CV feels the A350 family of aircraft will perform very well for many years to come and will continue to be one of the top aircraft choices by operators and investors.

Oriel

Olga Razzhivina, senior Istat appraiser

The A350-900 is emerging as one of Airbus's more successful twin-aisle programmes. Although still too young to rival the A330 fleet size, it is challenging the 787 in the new-generation widebody space.

Having entered service later than the 787, the A350 has benefitted from the experience of its rival. The all-composite fuselage has become a proven concept and the Roll-Royce Trent XWB engine design has gained from the Trent 1000 development. The aircraft's entry into service had none of the issues experienced by the 787.

In Oriel's opinion, being the smaller of the two variants in the A350 family places the -900 at the sweet spot for the twin-aisle future. While the dominant twin-aisles of the past, such as the 747 and the 777 were considerably larger, their size was the by-product of the requirement for range. With the new-generation offering similar, even greater, capability with smaller size and improved fuel efficiency, the industry is increasingly shifting towards this lower risk option.

At Oriel, we expect the smaller twin-aisle fleet to take a more prominent place while the niche for larger aircraft shrinks considerably. The current crisis has already accelerated this trend by hastening the removal of the remaining 747s, older 777s and A340s from passenger fleets.

The offer of extreme range, however, has so far gained little momentum, with only seven ultra-long-range A350-900ULRs ordered by Singapore Airlines. However, Qantas's project Sunrise could revive interest in the version. The post-pandemic change in passenger preferences for less contact could encourage direct routes rather than hub connections, leading to more demand for more point-to-point connections with smaller aircraft such as the A350-900.

Against today's backdrop of long-haul travel remaining severely depressed, all twin-aisles are adversely affected. The A350 is no exception, with aircraft from Hong Kong Airlines and LATAM Airlines restructurings as well as nearly new aircraft from ALAFCO available in the secondary market very early in the programme's life cycle.

This availability is putting additional downward pressure on the values and lease rates, which already had been suffering pre-pandemic.

The structural oversupply of twin-aisles in the 2010s had the strongest effect on the out-of-production types, and this malaise has spilled over to the new generation – lowering values and lease rates.

While it will take time for the current availability to be absorbed, long-term prospects for the A350-900 are positive. Oriel expects the values and lease rates of the new technology of twin-aisles to see recovery ahead of the previous-generation types. The production rate cuts enacted in 2020 help to curb supply.

Long term, we expect the A350-900 to be one of the mainstays of the twin-aisle sector, with values and lease rates performing better than those of larger types. However, as ever with long-haul aircraft, there is a susceptibility to major downturns. An addition of a freighter version would have a positive effect on the value retention longer term.

China Eastern takes delivery of first Tianjin-built A350

There are signs that, at least in Asia, the Airbus A350 market is returning to some sort of normality.

Singapore Airlines added three additional A350-900s to its fleet in April, making the carrier the largest operator of the type, with 58 aircraft now delivered from a total of 67 ordered. In a milestone event, China Eastern Airlines received an A350-900 from Airbus's Tianjin facility. The aircraft is the first A350 to complete its final assembly in China. A source has indicated to *Airfinance Journal* that China Eastern Financial Leasing will provide a finance lease for the aircraft.

With the latest aircraft, China Eastern will have 10 A350s, including one owned unit and nine units on finance lease.

Regional aircraft take their leave

Carriers in the market for 70-seat aircraft used to be spoilt for choice, with manufacturers of turboprops and regional jets vying for their business, but the choice is set to diminish. **Geoff Hearn** looks at the prospects for the remaining models on offer.

The 70-seat category of regional aircraft is undergoing a transformation with long-established manufacturers withdrawing from the market and several well-known types being phased out of production. New manufacturers have targeted the sector as a route into commercial aircraft production, but the prospects for new models look less than enticing.

Although the Covid pandemic has played a role in hastening the apparent demise of some models, the sector has always struggled to sustain the number of manufacturers vying for market share. It is a curiosity that while the large aircraft market has long been reduced to just two competitors, the regional aircraft sector has consistently been supplied by several manufacturers. Embraer, ATR, de Havilland of Canada and Bombardier have until recently all offered 70-seat aircraft.

In addition to these established participants, Japanese, Chinese and Russian manufacturers have been among those seeking to gain footholds. All of this activity is despite the sector representing a small percentage of the demand for commercial aircraft.

Forecasts vary in their definitions of size categories, so establishing a figure specifically for 70-seaters is difficult, but there are some pointers. Boeing's latest forecast, for example, foresees regional jets accounting for only 6% of the demand for commercial aircraft over the next 10 years – equating to about 1,240 aircraft.

De Havilland of Canada recently announced a pause in Dash 8-400 production

Embraer's most recent forecast does not break out the numbers for regional jets in the 70-seat category, but the company splits out turboprops, which it says will account for 1,080 deliveries through 2029.

Reduced field

The main models in the 70-seat category include: two turboprops – the ATR72-600 and the Dash 8-400 – and two regional jets – the CRJ700 and the Embraer 170. Of these models, only the ATR72-600 looks certain to continue in production.

The CRJ700 (now owned by Mitsubishi Heavy Industries) and the E170 have no outstanding orders, although the slightly larger E175 has a healthy backlog. De Havilland of Canada recently announced a pause in Dash 8-400 production and only a few unfulfilled orders appear to remain.

The prospect of new models being developed to compete in the market look to be receding. Mitsubishi has remained bullish about its proposed Spacejet family through difficult times, but the latest decision to "pause" development has prompted speculation that the aircraft will not be brought to market. The smaller version of the Spacejet – the M100 – can be classified as a 70-seater, but even if development is restarted it looks unlikely to have any impact on the market segment for many years. It might eventually compete with the second-generation E175-E2 in a category of their own.

Embraer has also revived talk of a new passenger turboprop, which it is looking to produce in 70-seat and 90-seat variants. However, entry into service is not planned before 2027, even if the programme is launched, as the manufacturer hopes, in 2022.

Orders

The ATR72 and the E175 models dominate the backlog in the 70-seat aircraft market.

Key data of current 70-seat models

Model	ATR72-600	Dash 8-400	CRJ700	E170	E175
Maximum seats	78	90	78	80	88
Typical seats	70	74	70	70	78
Typical range (nautical miles)	825	1,010	1,220	2,100	2,000
Entry into service	2011*	1999	2001	2004	2005
Current fleet (in service and stored)	547*	562	329	167	657
2018/2019 orders	33/47	26/9	0/0	0/0	164/30
2020 orders	2	0	0	0	20
Order backlog	189	16	0	0	170

*Excludes earlier ATR72 variants.
Source: Air Investor/*Airfinance Journal* Fleet Tracker, 15 April 2021

Indicative relative cash operating costs in high fuel-price environment ($2 per US gallon)

Sector length	ATR72-600	Dash 8-400	CRJ700	E170
200 nautical miles	Base	+24%	+39%	+42%
500 nautical miles	Base	+18%	+23%	+30%

Indicative relative cash operating costs in low fuel-price environment ($1 per US gallon)

Sector length	ATR72-600	Dash 8-400	CRJ700	E170
200 nautical miles	Base	+22%	+32%	+37%
500 nautical miles	Base	+16%	+19%	+23%

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

Sales for the E170 have petered out over recent years in favour of the larger E175, which has a substantial backlog thanks largely to strong sales in 2018. Orders for the CRJ700 had already dried up prior to the acquisition by Mitsubishi.

Unsurprisingly, given the pandemic, very few orders were registered for any of the aircraft in 2020. This has probably caused the Dash 8-400 the most problems – contributing to the pausing of production. Excluding 15 aircraft for Spicejet, which are the subject of legal action, there are nominally still 16 orders for the Dash 8-400, according to *Airfinance Journal*'s Fleet Tracker. The status of these aircraft is unclear in light of the production pause.

Although both the CRJ700 and the E170 are effectively out of production, the current in-service and stored fleets are potential threats to orders for new aircraft. Low capital costs of older regional jets could offset their higher cash operating cost when competing with turboprops.

Operating costs

To gauge the threat posed by pre-owned regional jets to the prospects of the ATR72-600 and to the chances of the Dash 8-400 restarting production, *Airfinance Journal* has carried out analysis of the operating costs for the various types.

The economics vary depending on sector length, so *Airfinance Journal* has looked at a relatively long 500-nautical mile sector, as well as at a more typical regional route of 200 nautical miles. The analysis also looked at the impact of fuel price on relative costs.

On a 200-nautical mile sector in a high fuel price environment ($2 per US gallon) *Airfinance Journal*'s analysis indicates that the cash operating costs of the regional jets are about 40% higher than the ATR72-600. The Dash 8-400 is more competitive than the jets, but struggles to compete with the more conventional turboprop with a 24% higher cash cost. With a lower fuel price ($1 per US gallon), the jets and Dash 8-400 are marginally more competitive.

On the 500-nautical mile sector, the jets are significantly more competitive. However, the *Airfinance Journal* analysis still indicates they have higher cash operating cost than both the turboprops, even in the case of the lower fuel price.

Some manufacturer analyses suggest that regional jets can have lower operating costs than regional jets on longer sectors, but these analyses usually focus on total direct operating costs, where the benefit of higher speed and the associated productivity helps reduce capital costs – making the regional jets more competitive.

Further analysis indicates that if the acquisition costs of the 70-seat jets can be reduced to about 75% of the cost of a new ATR, they can match the total direct operating cost of the turboprop, even on the shorter 200-nautical mile sector. That could pose a problem for ATR if used aircraft values remain under pressure.

> *“You can see what's happening. New operations are starting up, filling new niches thrown up from the Covid disaster.”*
>
> **Chris Beer**, managing director, Skyworld

In terms of cash operating costs, the Dash 8-400 does not appear competitive. However, the Canadian aircraft is significantly larger than its competitors, which reduces its operating costs per seat. The Canadian aircraft is certified to carry up to 90 passengers, which is 12 more than the maximum for the ATR and CRJ700, and 10 more than the E170 is able to accommodate.

The high-speed turboprop's unit operating cost also benefits from productivity gains compared with the ATR, although not by as much as for the regional jets. The aircraft also has greater flexibility than its competitors because it can be operated at lower speeds and reduced fuel burn on shorter sectors, while being able to compete with the flight times of regional jets on longer sectors.

Whether these qualities prove sufficiently attractive to garner enough orders for a restart of the programme remains to be seen.

Secondary markets

The competition that older regional jets might pose to turboprops is very dependent on the situation of the used fleet. While the increase in parked aircraft resulting from the Covid pandemic might suggest there would be a plentiful supply, there are developments that could limit availability.

The apparent successful introduction by United Airlines of the CRJ550, which is basically a CRJ700 operating in a two-class configuration, suggests there may be an opportunity for surplus 70-seaters, at least in the US market, operating as two-class 50-seat aircraft.

A recovery in the secondary market is essential if new-aircraft production is to return to previous levels, and there are some positive signs.

A significant plus for the Dash 8 programme was the sale of 11 former Flybe aircraft arranged by Skyworld Aviation in December. Skyworld's managing director, Chris Beer, says there are signs of a recovery in values and prices, with increased interest in stored aircraft. Beer points to other deals that suggest an upturn.

He cites, for example, that Chorus Aviation, which owned five former Flybe Dash 8-400s, has now placed all its aircraft in deals in various regions. Two aircraft are being leased to Connect, a new regional airline based at Toronto's Downtown airport.

Two more are being leased to a new Italian regional airline, Sky Alps, and the remaining aircraft will be leased to National Jet System in Australia.

Beer says: “You can see what's happening. New operations are starting up, filling new niches thrown up from the Covid disaster.”

Analysis by Skyworld shows that some regional types have fared better than larger single-aisle aircraft in terms of the percentage of fleets that have returned to service as the pandemic crisis eases. Manufacturers and financiers will be among those hoping this trend continues.

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-(neg)
Allegiant Travel Company	-	Ba3(neg)	B+(stable)
American Airlines Group	B-(neg)	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+(developing)
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)
Qantas Airways	-	Baa2(neg)	-
Ryanair	BBB(neg)	-	BBB(neg)
SAS	-	Caa1(neg)	B-(stable)
Southwest Airlines	BBB+(neg)	Baa1(neg)	BBB(neg)
Spirit Airlines	BB-(neg)	B1(neg)	B(neg)
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 - 21/04/2021

Lessors

	Fitch	Moody's	S&P	Kroll Bond Ratings
Aercap	BBB-(watch neg)	Baa3(neg)	BBB(neg)	-
Air Lease Corp	BBB(neg)	-	BBB(stable)	A-(neg)
Aircastle	BBB(stable)	Baa3(neg)	BBB-(stable)	-
Avation PLC	CCC(watch neg)	-	CCC(Developing)	-
Aviation Capital Group	WD	Baa2(neg)	BBB-(stable)	A-(neg)
Avolon Holdings Limited	BBB-(neg)	Baa3	BBB-(neg)	BBB+(neg)
AWAS Aviation Capital Limited	-	Baa3(neg)	-	-
BOC Aviation	A-(stable)	-	A-(stable)	-
CCB Leasing (International) Corporation	-	-	A (stable)	-
CDB Aviation Lease & Finance	A+(stable)	A1(neg)	A(stable)	-
Dubai Aerospace Enterprise	BBB-(neg)	Baa3(neg)	-	BBB+(neg)
Fly Leasing	-	B1	BB-(watch dev)	BBB-(watch dev)
Global Aircraft Leasing	-	B1	-	-
ICBC Financial Leasing	A(stable)	A1(stable)	A(stable)	-
ILFC (Part of Aercap)	BBB-(watch neg)	Baa3(neg)	-	-
Macquarie Group Limited	A-(neg)	A3(stable)	BBB+(stable)	-
Marubeni Corporation	-	Baa2(stable)	BBB(stable)	-
Mitsubishi UFJ Lease	-	A3(stable)	A-(stable)	-
Park Aerospace Holdings	BBB-(neg)	Baa3	-	-
SMBC Aviation Capital	A-(neg)	-	A-(neg)	-
Voyager Aviation	C	Caa1	CC(watch neg)	CCC-(neg)

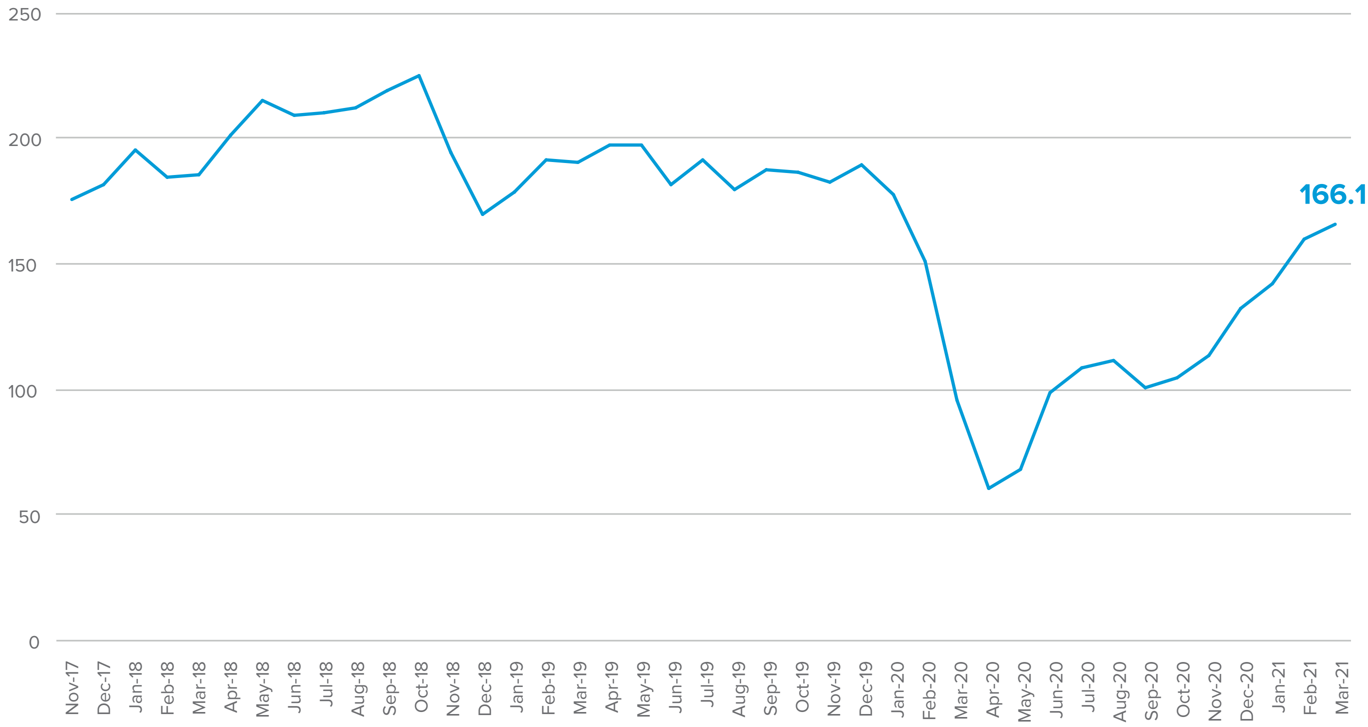
Source: Ratings Agencies - 21/04/2021

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 - 21/04/2021

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 (30 March)	39	100	-61	268
Boeing (30 March)	282	206	76	-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 30/04/2021

Recent commercial aircraft orders (February-April 2021)

Customer	Country	Quantity/Type
Avolon	Ireland	Four A320neo, four A321neo
Delta Air Lines	USA	25 A321neo
Southwest Airlines	USA	100 Max 7
Singapore Airlines	Singapore	11 777X
Silk Way West Airlines	Azerbaijan	5x777F
United Airlines	USA	50 737 Max
Unidentified Customer	N/A	Three 737 Max
Unidentified Customer	N/A	14 737 Max
Unidentified Customer	N/A	One 747-8F
Unidentified Customer	N/A	Four 787-10
Unidentified Customer	N/A	20 A220-300
Unidentified Customer	N/A	10 A320neo
Undisclosed customer	N/A	30 E195-E2
777 Partners	USA	24 Max 8

Based on *Airfinance Journal* research February-April 2021

New aircraft values ($ million)

Model	Values of new production aircraft*
Airbus	
A220-100	33.2
A220-300	37.8
A319	34.3
A319neo	37.2
A320	43.7
A320neo	49.3
A321	51.8
A321neo	57.1
A330-200	85.9
A330-200 Freighter	94.4
A330-300	98.2
A330-900 (neo)	110.4
A350-900	149.4
A350-1000	169
A380	219.2
Boeing	
737-800	46.3
737-900ER	48.6
737 Max 8	51.3
737 Max 9	52.5
747-8I	155.6
747-8F	183
777-300ER	153.9
787-8	118.5
787-9	143.6
787-10	150.5
ATR	
ATR42-600	16.2
ATR72-600	20.2
MHI-Bombardier	
CRJ700	24.1
CRJ900	26.2
CRJ1000	28.2
De Havilland Aircraft of Canada	
Dash 8-400	20.7
Embraer	
E175	28.5
E190	32.1
E190-E2	34.5
E195	33.9
Sukhoi	
SSJ100	23.3

*Based on ISTAT appraiser inputs for Air Investor 2021

New aircraft lease rates ($'000 per month)

Model	Low	High	Average
Airbus			
A220-100	204	262	233
A220-300	276	303	289.5
A319	230	283	256.5
A319neo	266	293	279.5
A320	295	353	324
A320neo	340	383	361.5
A321	350	424	387
A321neo	380	444	412
A330-200	640	745	692.5
A330-200 Freighter	657	715	686
A330-300	690	833	761.5
A330-900 (neo)	801	872	836.5
A350-900	1,050	1,195	1,122.5
A350-1000	1,233	1,342	1,287.5
A380	1,503	1,950	1,726.5
Boeing			
737-800	310	364	337
737-900ER	330	394	362
737 Max 8	350	394	372
737 Max 9	368	404	386
747-8I	990	1,264	1,127
747-8F	1,178	1,570	1,374
777-300ER	1,050	1,300	1,175
787-8	815	931	873
787-9	950	1,200	1,075
787-10	1,053	1,146	1,099.5
ATR			
ATR42-600	117	153	135
ATR72-600	144	185	164.5
MHI-Bombardier			
CRJ700	153	220	186.5
CRJ900	170	235	202.5
CRJ1000	182	255	218.5
De Havilland Aircraft of Canada			
Dash 8-400	140	200	170
Embraer			
E175	205	240	222.5
E190	230	275	252.5
E190-E2	239	263	251
E195	211	280	245.5
Sukhoi			
SSJ100	153	205	179

Back to **reality**

Adam Pilarski, senior vice-president at Avitas, on the new realities of real-life experiments determining the path humanity can take in the coming years.

Economics has changed over the past years. From an approach first to determine theoretically the best path forward, we moved into experiments in the field when various alternatives are tried and their consequences analysed. A few economists received Nobel prizes for such efforts, which historically was not even considered to be academic work.

The current work in the medical field dealing with the coronavirus exemplifies such developments. Theoretical work is important and the many doctors dealing with patients worldwide have made tremendous improvements in treating the disease.

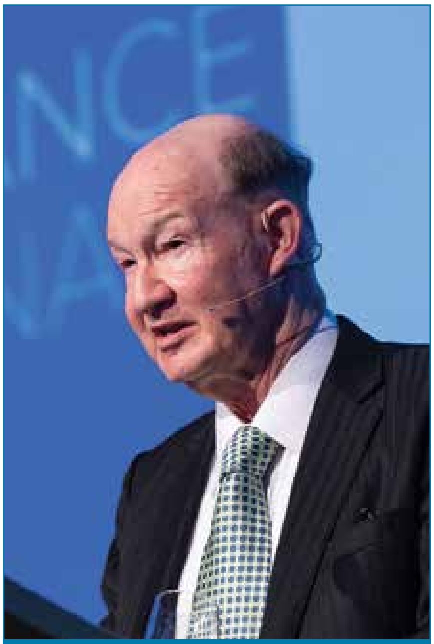
It is a time of pure experimentation to see what works. With the whole world participating, significant improvements are achieved. The same with vaccinations. Unlike the past, there were numerous attempts in many countries to develop vaccines. The competition and sharing of results led to a number of successful vaccines, which, it seems, are highly effective in preventing the disease or reducing its mortality.

Moving to our field of aviation, there are now two different theoretical views on short-term developments. These views are quite different visions of the future. One view is fairly negative, acknowledging the harsh realities of an industry whose reason for existence is to facilitate face-to-face contact between people. And as I said previously, social distancing is the antithesis of aviation.

An alternative and much more positive view is one that recognises the tremendous burden the pandemic has brought to our way of life. It emphasises the huge pent-up demand present and envisions a colossal and speedy recovery. While such an approach has elements of wishful thinking, it by no means is a low probability scenario.

It may be worthwhile to look at these two alternative scenarios in more detail because they will be playing out in the coming months before our eyes. All the participants in our industry will either benefit or suffer under these scenarios and the success or failure of many firms will depend on selecting the right path. The outcome will be determined by factors outside our control and having much to do with developments of the virus.

Aviation analysts, like society overall, are deeply divided about the path forward.


Our author at the *Airfinance Journal* Dublin 2020 conference.

> *The existence of many vaccines around the world and their efficacy bode well for a speedy end of the pandemic. This comes at a time when pent-up demand for travel is sky high.*

Those “glass half full” ones see a full resumption of previous realities. There is no doubt that progress regarding vaccines has been more positive than could have been predicted even a year ago. The existence of many vaccines around the world and their efficacy bode well for a speedy end of the pandemic. This comes at a time when pent-up demand for travel is sky high. Terms such as “revenge travel” and “expect a runaway train” are bantered around.

Government support in these tough economic times is leading a potentially massive economic recovery causing some economists even to caution of a possible overheated economy (read, inflation). The resilience of our industry is emphasised by the fact that we have experienced substantially fewer bankruptcies than had been feared. These views can be quantified in a conclusion that we will be back to 2019 traffic levels fairly soon, with some very reputable voices even talking now about early 2022.

Some other factors mentioned by the more optimistic folks are the facts that airlines have been very creative in accessing capital markets, including monetising their loyalty programmes. And original equipment manufacturers and leasing companies have been accommodating to airlines in terms of not pushing equipment onto them. Overall, reality has been much less disastrous than could have been reasonably expected considering the calamity of the traffic fall.

Those espousing a less positive view see a return of 2019 traffic levels at the earliest by 2024. They point out that the pandemic causes a rise in costs for airlines such as extra resources needed to sanitise aircraft and counters and other costs to deal with the virus. And with fewer people flying, airport charges should go up.

On the revenue side, we can also expect a negative impact of the pandemic. Even if leisure and VFR traffic comes back rapidly, virtually nobody believes that business traffic will rebound quickly. New technologies enabling more business contacts via zoom and the like will greatly depress what, for airlines, is their most lucrative passenger segment, possibly for a long time. To compensate for this, airlines will be forced to increase ticket prices for the back-of-the-bus people, a move that will reduce traffic further still.

So, which way will reality evolve? Theoretically, either the pessimistic or the optimistic paths are feasible. The only way to find out is through experimentation and patience to observe the outcomes. In the USA, some airlines are more aggressive in reactivating widebody aircraft, planning on a speedy return of longer-range traffic while others are much more timid, continuing to park or retire those types.

While we all wish for a speedy recovery, the only way to find out is to observe what will happen in the next few months in the reality of aviation. And congratulate the survivors for prudent actions.

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