May/June 2022

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ISSUE no. 423

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Week In Review
Hosted by
Laura Mueller

Will lessors **continue to order this year**?

Lessors continue to build orderbooks and, as of mid-April, had placed almost 350 aircraft orders since December, according to *Airfinance Journal*'s Fleet Tracker.

Between December 2021 and April 2022, *Airfinance Journal* estimates that lessors placed combined gross orders for 349 aircraft out of 661, or 52% of the Airbus and Boeing orders.

This included 299 Airbus orders and 50 Boeing orders from lessors.

Air Lease's confirmation of a memorandum of understanding for 32 Boeing Max 8/9 aircraft on 4 April was another sign of confidence from leasing companies in the narrowbody sector. The order added to another for 18 units in February.

Last month BOC Aviation entered into an agreement with Airbus to purchase 80 new Airbus A320neo-family aircraft for delivery between 2027 and 2029. This is the largest single order that BOC Aviation has ever placed.

Aviation Capital Group placed orders for 40 Airbus A320neo-family aircraft late in December 2021.

In February, Aviation Capital Group signed a firm contract for 20 A220s and has now 75 aircraft commitments with Airbus and another 15 on order from Boeing.

US lessor Azorra Aviation signed a purchase agreement with Airbus for 22 A220-family aircraft in January.

Avolon placed orders in 2021 for Airbus aircraft. The Ireland-based lessor committed for four A320neo and four A321neo aircraft in March 2021, before adding 14 A320neo and eight A321neo aircraft to its orderbook a month later.

Boeing booked gross orders of 742 737 Max units last year. Airlines accounted for 583 orders while the Chicago-based original equipment manufacturer (OEM) recorded another 51 orders from undisclosed customers.

Leasing companies and private equity firms represented 108 Max orders in 2021, or 14.5% of the gross orders tally.

Two lessors, Griffin Global Asset Management and Dubai Aerospace Enterprise, placed their first-ever direct OEM orders in 2021, both with Boeing, while private investment firm 777 Partners committed for 68 737 Max units.

Aercap did not order any aircraft last year, nor did GECAS. As of 31 December 2021, it had 417 new aircraft on order, including 67 Max aircraft, 10 A220s, 265 A320neo-family aircraft, 12 A330neos, 25 787s, 33 Embraer E2s and five regional jets.

Aengus Kelly, Aercap's chief executive officer, recently said demand is "very robust around the world".

He adds: "We have seen elsewhere in the world that demand to travel has not gone away, and it comes back faster than the airlines realise in every region."

Challenging year for Boeing

Demand for new efficient aircraft continues to increase among airlines and lessor customers.

For the first three months of 2022, Airbus was ahead with 253 gross orders versus 167 for Boeing, but no doubt the 737 Max models have benefitted from a renewed appetite over the past 15 months.

Despite demand signals improving with supported medium-term skylines, the manufacturer will need to catch up on clearing its 737 Max backlog.

Boeing delivered 240 Max aircraft in 2021 – an average of about 20 aircraft a month. Lessors represented 30% of commercial aircraft deliveries.

The OEM continues to face a slower-than-expected ramp in Max deliveries, with an average of 27 aircraft a month since the beginning of the year. This compares with 20 average in the first quarter of last year.

Boeing delivered 81 Max aircraft in the first quarter including 34 units in March, 27 in January and 20 in February. Boeing will face a challenging year in 2022 with four potential milestones, which could be subject to an update at the July Farnborough air show.

Its management plan a ramp up in production to 31 a month this year but four hurdles could hamper the planned increase in deliveries.

1. The return to operations of the Max family in China, which continues to be delayed despite the Civil Aviation Administration of China (CAAC) issuing an airworthiness directive on 737 Max aircraft in December 2021, which would remove barriers for the model to return to service in China.

2. Then Boeing faces an uphill battle against time on the certification of the Max 10, the extended version of the Max family.

The Max 10 must be approved by the Federal Aviation Administration (FAA) by the end of this year or could face redesign-associated costs. The FAA is concerned the Max 10 programme "will be significantly challenged" to meet the deadline and asked Boeing in late March to submit a new projected timeline for seeking the federal agency's approvals.

Avolon chief executive officer, Domnhal Slattery, recently told *Airfinance Journal* that "it's another item on a long list of certification issues" that Boeing is trying to navigate. "And it feels that they are making little progress," he says.

Airfinance Journal's Fleet Tracker records 554 Max 10s on order or about 13.7% of the Boeing narrowbody backlog.

3. The Max 7 certification is also on the cards this year. The programme has close to 300 orders or represents about 7.4% of the OEM narrowbody's backlog, the data shows.

4. Last, the waiting game continues around the 787 deliveries.

The FAA ultimately determines the resumption of 787 customer deliveries and no timeframe had been given as *Airfinance Journal* went to press.

Boeing did not deliver any 787s in the first quarter. In a research note, Jefferies said it had assumed an April restart (but as *Airfinance Journal* went to press this was unlikely) and could now be pushed to the second half of this year. Jefferies assumed Boeing ended the first quarter with approximately 114 787s in inventory (up from around 111 at the end of last year).

In a recent note, *Leeham News* wrote that lingering certification delays also tie engineering resources that would otherwise be available for a new programme

Aercap's Kelly is not fussed about delays regarding the delivery of Boeing products. He says the pace of the deliveries matters.

"From our own unique position in the industry as the largest marginal supplier of capacity to the airlines, on the supply side, the longer airplanes don't deliver, the more positive it is for us. That's a fact, simple fact," he commented during the company's fourth-quarter earnings results.

No doubt a lift of those hurdles would increase Boeing's cash flows. Last year, the manufacturer generated positive cash flow, of $716 million, for the first time since 2019, because of increased deliveries of the 737 Max.

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Printed in the UK by Buxton Press, Buxton, Derbyshire.

Registered in the United Kingdom 1432333 (ISSN 0143-2257).

Airfinance Journal (USPS No: 022-554) is a full service business website and e-news facility with printed supplements by Euromoney Institutional Investor PLC.

Pegasus Airlines names Öztürk as new CEO

Turkish carrier Pegasus Airlines appointed Guliz Ozturk as its new chief executive officer (CEO), effective 1 May 2022. Ozturk, who has been serving as chief commercial officer since 2010, succeeds Mehmet Nane.

Nane had been Pegasus's CEO since 2016. He was named a member of the board of directors at the carrier's ordinary meeting of the general assembly on 31 March, as well as vice-chairperson of the board (managing director) following the decision by the board of directors.

Ozturk becomes the first woman air transport CEO in Turkish civil aviation history.

She began her career at Turkish Airlines and, between 1990 and 2003, she served as manager of international relations and contracts, alliance coordinator, as well as sales and marketing director.

Between 2003 and 2005, Ozturk was aviation and tourism project coordinator and director of human resources at Ciner Holding.

She joined Pegasus in 2005 as head of sales and marketing, to manage the launch of the airline's scheduled services and, in 2010, she was appointed chief commercial officer with responsibility for the commercial department, which includes sales, network planning, marketing, revenue management and pricing, cargo and guest experience.

A member of the board of advisers of Ozyegin University's Faculty of Aviation and Aeronautical Sciences, Ozturk is also co-chair of the Women in Sales (WiSN) social project, which was established in 2019 to further gender balance in company sales departments, under the umbrella of the sales network platform.

Nane says: "I am delighted to be passing the CEO baton, which I received in 2016, to Guliz Ozturk, who has made significant contributions to the growth and development of Pegasus for many years.

"I wholeheartedly believe that she will continue to wave the flag of Pegasus brightly in the skies. This appointment holds great value and significance also as Guliz Ozturk is to become the first woman CEO of an airline in the history of Turkish civil aviation."

Ozturk says she will continue with the principles of the carrier's success: technology and people.

"As Turkey's digital airline," she adds, "we will continue to offer digital technologies and unique innovations that will enhance the travel experience, with our approach that focuses on guest experience. Without compromising the basic principles of our business model, we will continue to manage our operations and activities with a sustainable environment approach."


Güliz Öztürk, Pegasus Airlines CEO

Ozturk will also focus on gender equality. "We will make every effort, institutionally and individually, to contribute to the equal participation of women and men in all areas of social life and to enable women to express their full potential," she says.

"As a company, we have been committed to gender equality for many years, and we have been at the centre of the struggle," adds Ozturk. "This change is also proof of the importance our company attaches to gender equality."

Ex-Natixis banker jumps to **MUFG**

MUFG has hired Benoist de Vimal as a director and head of origination for aviation in the Americas, based in New York.

Reporting to Olivier Trauchessec, the co-head of global aviation, Vimal will be responsible for managing aviation origination, including supporting MUFG's originate-to-distribute business model through capital markets and syndication and facilitating effective cross-sell with product partners.

With more than 15 years of investment banking experience, he joined from Natixis, where he was a senior member of the Aviation Group, responsible for arranging, syndicating, and restructuring a wide variety of aircraft finance transactions. He had been at the Natixis Paris office since 2007 in manager and vice president roles before moving to New York in 2014. In 2016 he was promoted to director head of Latin America-Aviation. Last year Natixis named him executive director aviation finance.

Castlelake makes C-suite changes

Castlelake has named Joe McConnell and Isaiah Toback as deputy co-chief investment officers (CIOs) and Brad Farrell as chief operating officer.

McConnell and Toback currently serve in portfolio management roles at Castlelake, overseeing the firm's value and aviation funds and value and income funds, respectively.

As deputy co-CIOs, McConnell and Toback will continue to partner closely with the firm's managing partner and chief investment officer, Evan Carruthers, directing and managing Castlelake's global investment strategy across the risk-return spectrum and supporting the growth and development of its investment teams.

They will continue to report to Carruthers, collectively comprising the office of the CIO.

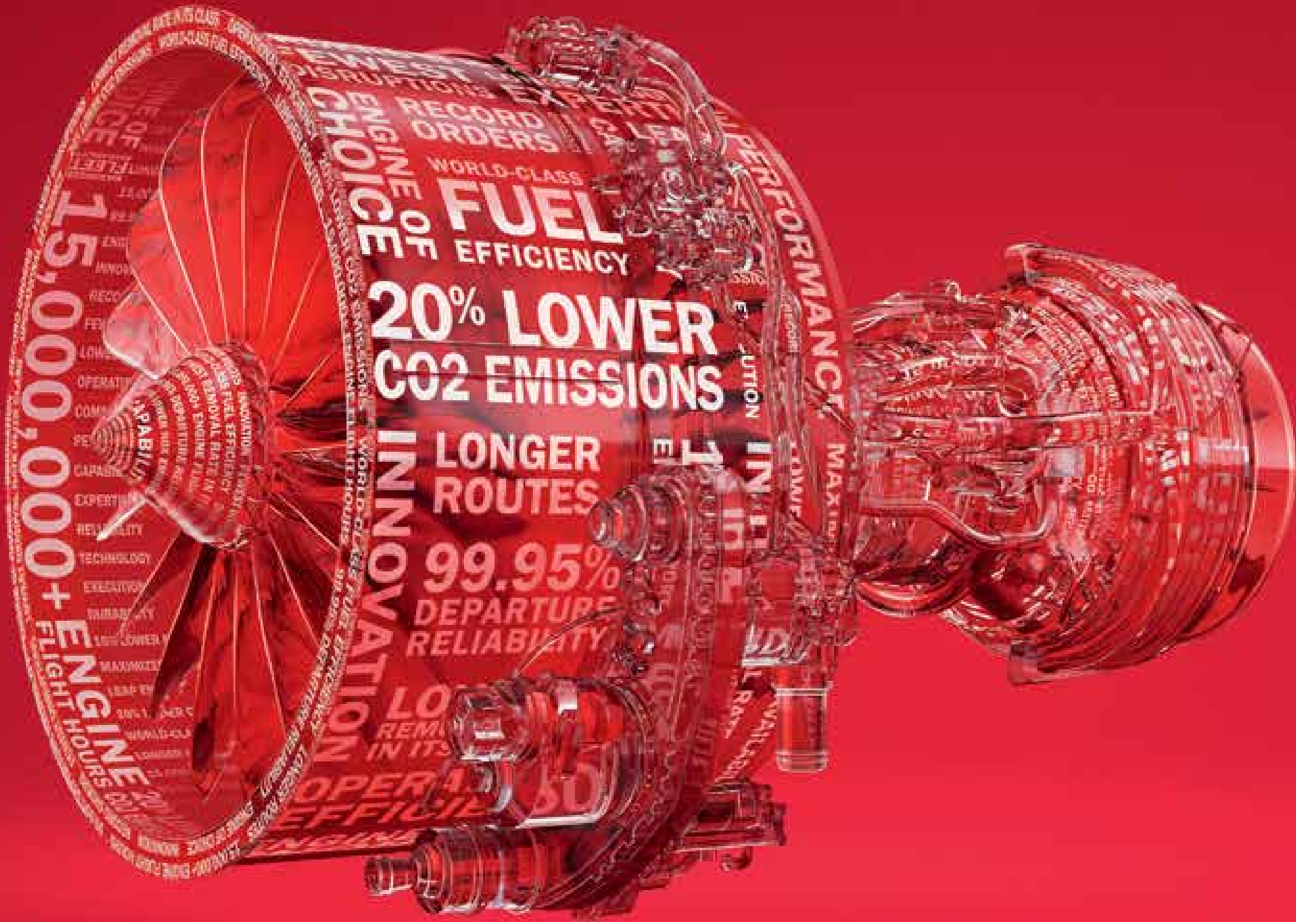
Toback joined Castlelake in 2015, and McConnell joined the firm in 2007.

As chief operating officer, Farrell's title reflects his responsibilities for Castlelake's financial, operational and administrative functions, including governance and execution of systems and processes that support its investment mandate. Farrell joined Castlelake in 2019.

He previously held the role of chief financial officer and will continue to report to the managing partner and chief executive officer, Rory O'Neill.

"We are pleased to recognise the experience, strategic skillset and leadership that Joe, Isaiah and Brad bring to Castlelake," says O'Neill. "As Castlelake looks toward the future and explores broader opportunities to provide capital solutions to asset sellers and borrowers in asset-rich private markets, Joe, Isaiah and Brad bring the expertise and leadership to drive our goals forward while maintaining the focus on relationships for which our counterparties have come to know us."

Carruthers says: "In addition to their distinguished individual track records, Joe, Isaiah and Brad have demonstrated consistent personal commitment to our firm's success, values and delivery of its investor-focused mission. I am excited to continue partnering with them as we realise the next chapter of Castlelake's evolution and accelerate our growth."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KLM names new CEO

Air France-KLM's board of directors have approved the proposal of the KLM supervisory board to appoint Marjan Rintel as its new chief executive officer (CEO), replacing Pieter Elbers.

Rintel is currently CEO of NS, the leading passenger railway operator in the Netherlands.

Before joining NS in 2014, she held various managerial, operational and commercial positions at KLM and Air France-KLM, such as hub operations at KLM and senior vice-president strategic marketing at Air France-KLM.

"Her extensive experience in the airline industry, her intimate knowledge of the group and her leadership qualities convinced the board that she is the right person to continue the work started by Pieter Elbers to transform KLM into one of Europe's leading airlines and a powerhouse for the Air France-KLM Group as a whole," says Air France-KLM.

Rintel will take up her new role on 1 July.

The group's board of directors also agreed the anticipated renewal of Benjamin Smith's mandate as the group's CEO for an additional term of five years – until the general meeting called to approve the financial statements for the year 2026, expected to take place in May 2027.


Marjan Rintel

SAS appoints Hilden as new CFO

SAS appointed Erno Hilden as executive vice-president and chief financial officer (CFO) in late March.

Hilden has held several operational leadership positions in the global airline industry. He was the CFO of Finnair between 2010 and 2015, having been promoted from chief operating officer. More recently, he held a position as executive vice president for privatisation at Saudia Airlines.

"I am very pleased to welcome Erno Hilden to SAS. Erno's extensive financial experience combined with aviation expertise makes him a valuable addition to SAS's top management team. He will play a key role during the current transformation plan, SAS Forward, where we are securing a long-term financially stable and competitive SAS," says Anko van der Werff, president and chief executive officer.

SAS says current CFO Magnus Ornberg will leave the carrier during the spring but is remaining in his current role to ensure a seamless transition for Hilden.


Erno Hilden

Former Airbus executive Floret joins Amedeo

Amedeo appointed Isabelle Floret as an independent non-executive director to its board in late March.

Floret held multiple senior leadership roles throughout her career at Airbus, most recently serving as head of leasing markets.


Isabelle Floret

During her time at Airbus, she also served as senior vice-president for the Pacific region.

Mark Lapidus, Amedeo's chief executive officer, says: "We are delighted and honoured to welcome Isabelle to the board. Isabelle brings extensive commercial aviation and broad business experience that will be invaluable to Amedeo."

Floret left Airbus's leasing team after 17 years' service in 2021.

El Al promotes Ben-Tal Ganancia to CEO

Israeli flag carrier El Al has promoted Dina Ben-Tal Ganancia to the position of chief executive officer (CEO), making her the first woman to head up the company following the resignation of Avigal Soreq in late March.

Ganancia joined El Al in 2008 and has most recently served as the carrier's vice president for commercial and industry affairs.

She has previously held other commercial and finance roles at El Al, including director of revenue management and fleet planning manager.

Her predecessor, Soreq, was appointed CEO in late 2020 and stepped down last month to become CEO of energy company Delek US Holdings.


Dina Ben-Tal Ganancia

In mid-March, El Al signed a non-binding agreement with UK insurance company Phoenix for a $130 million loan secured against the airline's Matmid frequent flyer programme. The loan will bear interest in the range of 5.5-7%, to be determined when the final agreement is signed, according to a filing.

An optional mechanism has been established in which Phoenix will receive options for the purchase of 25% of El Al's shares in Matmid, which can be exercised at any time until the end of 2027.

Finance institutions launch **sustainability initiative**

The non-profit organisation for aviation finance specialists aims at tackling the ESG challenges of the aviation finance industry.

A team of 26 institutions from the aviation finance sector have launched Impact (initiative to measure and promote aviation's carbon-free transition), a new and independent association dedicated to achieving net-zero CO_2 emissions by 2050.

The not-for-profit initiative is recruiting new members from the aviation finance community and aims to have representation from 40 to 50 companies over the next 12 months.

Members of the financing community include Apollo/PK Airfinance, Atoz Aviation Finance, Castelake, Dr Peters Group and Muzinich. Among the banks are Bank of China, Commonwealth Bank of Australia, HSBC, Helaba, ING, KFW Ipex Bank, LBBW, Natixis, NordLB and MUFG.

Board members include Jörg Schirrmacher (Helaba), Hugo Kanters (ING), Peter Smeets (360AF), Jean Chedeville (Natixis) and Philipp Goedeking (Avinomics).

Impact president, Ulrike Ziegler, says: "The time to act is now. Impact is determined to promote credible change to ensure a sustainable future for our industry. We look forward to engaging with our aviation finance colleagues across the globe to develop an independent and viable route to net zero."

Impact will promote new, sustainable aircraft financing measures designed to drive fundamental change across the global aviation finance community.

"Aviation is critical to the mobility of modern society, but it is also a carbon-intensive industry," adds Ziegler. "As aviation financiers, it is our responsibility to contribute to the global transition to a low carbon economy and to promote sustainability through responsible lending practices that encourage innovation and carbon reduction."

Impact has a mission to promote new, sustainable aircraft financing measures, with the intention of driving fundamental positive change across the global aviation finance community.

It is comprised of five collaborative working groups designed to deliver a credible and transparent roadmap to reduce CO_2 emissions from aviation to net zero by 2050.

The areas of focus include:

- establishing standards to be applied in transition finance. What are the core characteristics of sustainable finance? Which standards should apply and how can adherence to them be monitored?
- tracking the progress of decarbonisation through metrics;
- maintaining comprehensive reporting of the industry's decarbonisation progress;
- building strong networks with aviation industry stakeholders; and
- knowledge management to ensure that important studies and data are available to all of its members.

Impact will publish a comprehensive annual report on aviation's decarbonisation progress and the consistency of its financing rules. It will also seek a close relationship with all stakeholders in aviation to encourage participation and diversity of thought, to test the feasibility and effectiveness of proposals and to join forces toward the goal of sustainability.

The initiative will also use modern digital knowhow management technologies to compile centrally and share important studies and data, accessible to all members.

The organisation recalls the challenges for the industry.

Between 2004 and 2019, CO_2 emissions from aviation increased by 2.5% a year, while global aviation traffic grew by more than 5.2% annually – that faster growth more than cancelled out the benefits of more efficient aircraft and engine technologies.

The International Energy Agency estimates that aviation needs to reduce its CO_2 emissions to 210 million tonnes by 2050 or by 2.4% a year to achieve the goal of net zero in 2050 set out in the Paris Climate Agreement and reaffirmed by the International Air Transport Association.

"Immediate action is needed. Impact is willing to meet this challenge and tackle the many questions it poses: which benchmarks should be used to financially support sustainable aircraft, airlines, infrastructure and business models? Which rules should manufacturers, airlines and financiers use to report the sustainability of their commitments in aviation? How can decarbonisation progress be reported credibly, comprehensively and transparently? And how can mere greenwashing be avoided?"

Sustainability innovation in the aircraft finance sector is gaining momentum.

In the first quarter of this year, Japan Airlines (JAL) announced plans to issue sustainability bonds in a move it describes as the "world's first" transition bonds in the aviation industry.

The carrier plans to issue two ¥10 billion ($81.6 million) series of five- and 10-year sustainable development goal (SDG)-linked unsecured corporate bonds. Proceeds from the SDG bonds, which are aligned with the 2015 Paris Agreement, will be allocated to "advance the transition to carbon-free operations in its air transport business", such as investing in upgrading the carrier's fleet to more fuel-efficient widebody aircraft and securing sustainable aviation fuel (SAF) supplies.

JAL intends to allocate fully the net proceeds to eligible projects within 36 months of transition bond issuance. Unallocated proceeds will be managed in cash or cash equivalents until the proceeds are fully allocated.

Lessor China Merchant Bank International Leasing closed a ¥15 billion denominated Samurai sustainability-linked green loan with MUFG Bank and SMBC in the final quarter of last year.

The structure of the deal is novel in its combination of Japanese yen-denominated debt financing (which are typically US dollar denominated) for leasing companies coupled with the first known "green/sustainability"-linked covenant package committed by an aircraft leasing company. This was also the first known Chinese National Development and Reform Commission-approved cross-border loan with a Chinese (aircraft) leasing company with such characteristics.

Societe Generale-CIB closed the first sustainability-linked aircraft-secured term loan provided to an airline – Air France – in January. The French bank financed a new Airbus A350-900 delivery – in December – for the French carrier in the form of a sustainability-linked debt facility.

Last November, Crianza Aviation arranged sustainability-linked operating leases for certain Boeing 787 and A350 aircraft. Banco Santander acted as the ESG structurer of the deal, which is the first sustainability-linked operating leases structured for an airline. The transactions are linked to an MSCI ESG rating, which will undergo periodic review and validation. The leases include a two-way step-up/step-down pricing mechanism to incentivise improvements in ESG performance and demonstrate commitment to a sustainability strategy.

Air Astana goes for Airbus makeover

Modern-technology aircraft leases are driving profitability. Soon Airbus A320neo leases from Aviation Capital Group and CDB Aviation will join the fleet, Air Astana Group chief executive officer, Peter Foster, tells **Dominic Lalk**.

After returning a strong financial performance to shareholders in 2021, Kazakh flag carrier Air Astana Group and low-cost subsidiary Flyarystan are poised to continue growing as the pandemic recedes.

Group chief executive officer, Peter Foster, tells *Airfinance Journal* that four key factors are at play driving Air Astana's success: huge domestic growth (Flyarystan grew at 553% in passenger numbers); strong regional yields (suppressed supply, returning demand); 'lifestyle route' growth; and complete fleet renewal (total retirement of all Boeing 757 and Embraer 190 aircraft, additional Airbus A321neo long-range units).

Brisk business is expected ahead for Air Astana Group because its airlines are mounting new destinations as the new A320neo-family arrives.

New lease deals

Foster disclosed exclusively to *Airfinance Journal* that Air Astana has awarded A320neo operating lease mandates to California-based Aviation Capital Group (ACG) and Chinese bank-backed CDB Aviation, covering seven deliveries in 2022-23. The seven A320neos will be assigned to the Flyarystan subsidiary, says Foster. ACG and CDB Aviation are new lessors to Air Astana Group.

In addition, Foster notes, mainline Air Astana is due another three A321neo long-range aircraft from another California-based lessor, Air Lease (ALC), also in 2022-23.

For CDB Aviation, the new Flyarystan A320neo deal continues the lessor's push into the CIS; for ACG, Air Astana will be the first lessee in the wider CIS region, excluding Russia, where it had moderate exposure before the invasion of Ukraine.

Daily utilisation rates for Air Astana Group's Airbus narrowbody fleet are up to 11.5 hours, says Foster, and the airline's three 767-300ERs are operating at "high utilisation rates", too. One 767 that had been temporarily converted for cargo-only usage was repurposed in late 2021.

From 2025, Foster confirms three 787 aircraft are scheduled to arrive, subject to final discussion with Boeing. The aircraft will enable Air Astana to fly to the USA. Foster notes that the existing 767s will be sold or converted to full freighters when the 787s arrive.

As *Airfinance Journal* went to press, and before the 10 Airbus Neo aircraft were due, Air Astana had a fleet of 27 aircraft comprising 767, A320neo, A321/A321neo/A321LR and E190-E2 models. Flyarystan operated a fleet of 10 A320s, including a single A320neo.

In April, *Airfinance Journal* broke the news that Air Astana's E190-E2 fleet had changed ownership after Aercap sold the whole portfolio comprising five units with leases attached to the flag carrier to new leasing entrant Azorra Aviation. The disposal completed Aercap's exposure to the E190-E2 series, although it remains involved in the larger E195-E2 programme.

Soaring revenues

For the full year to 31 December, Air Astana Group swung to a profit of $36.1 million, with revenues soaring 92% to $756 million. The group carriers flew a record 6.6 million passengers: Air Astana accounted for 3.5 million and Flyarystan for 3.1 million.

"We had a very good year last year," says Foster. "Far, far better than expected. Flyarystan grew at 553% in passenger numbers."

The pandemic may have forever changed Air Astana's business model, says Foster, noting that point-to-point flying is the way forward for the airline. In that vein, the group has inaugurated many new "lifestyle routes": to the Maldives, Phuket, Sri Lanka, Egypt, Montenegro, Heraklion in Greece, in addition to existing ones to Antalya, Bodrum and Dubai.

"We call them 'lifestyle routes' because they are leisure destinations no longer restricted to holiday periods. We are finding that many people are keen to travel for extended periods to agreeable places and run their businesses and, in some cases, educate their children remotely from there," explains Foster.

"Regional routes and, of course, our low-cost Flyarystan network are performing extremely well, too. There is very high demand and therefore high load factors and yields," he says.

> *All flights to Europe avoid Russian airspace; we will try to make up some of the extra cost with fuel surcharges.*
>
> **Peter Foster**, chief executive officer, Air Astana

Russia challenge

Living in proximity with Russia means Air Astana is heavily impacted by President Putin's war against Ukraine.

"Aside from the horrendous human cost of the war, the invasion (which I witnessed first-hand in Kyiv) has caused us to lose all flights to Ukraine and Russia, the latter because of withdrawal of insurance cover," resulting in an approximate loss of 12% of the group's international route network, says Foster.

The Kazakh flag carrier, however, says it is bridging that lost capacity with extra flights and new services to South Korea, Germany, Turkey, Greece, Montenegro, Georgia and Uzbekistan. Naturally, most of these new flights are still impacted by the war, however.

"All flights to Europe avoid Russian airspace and follow the southern route through the Caucasus, south of the Black Sea coast, Turkey and north from there. Greece, Montenegro and Turkey are hardly affected; however, Frankfurt and Amsterdam have an extra 90 minutes flying and London has to make a fuel stop on the Caspian," says Foster, noting that he will "try to make up some of the extra cost with fuel surcharges".

Net zero drive faces steep hurdles

Hugh Davies examines the challenges the industry faces in the quest for net zero, including the European Union's proposed taxonomy on sustainable financing.

While the aviation industry has proved its resiliency throughout the Covid-19 pandemic, the sector is still beset by the ever-looming climate crisis – in particular, its impact on aircraft financing.

The aviation finance community is increasing the drive towards environmental, social and corporate governance (ESG) metrics as scrutiny grows over its role in the climate crisis, with demand for ESG-linked financing products on the rise.

"Everyone is asking about the ESG aspect of financing and there has been a marked movement on the investor side over the last 12 months in terms of commitment to ESG," Milbank partner Nick Swinburne tells *Airfinance Journal*.

"We are seeing on a lot of transactions discussions around whether these transactions need sustainability-linked features," he adds.

On the lessor side, sustainability features are less common but still being analysed as the companies look to engage further on the topic of sustainability.

"We have certainly had discussions around how you would measure it against a lessor's portfolio but as a lessor you're slightly less in control of your portfolio because it's mostly up to the airlines how they operate," says Swinburne.

While demand is growing, investors lament the fact that there is no clearly defined framework for transactions to comply with ESG criteria.

However, there is one multilateral framework being developed by the European Union (EU) that could have wide-ranging implications for aircraft financiers in the future.

"Everyone is asking about the ESG aspect of financing and there has been a marked movement on the investor side."

Nick Swinburne, partner, Milbank

EU taxonomy

First published in 2020, the EU Taxonomy Regulation is a sustainable finance framework introduced to support the EU's Fitfor55 climate agenda with the aim of directing funding towards environmentally sustainable activities.

The taxonomy will provide the underpinning language of what is green and what is not green in the context of financing, including for the airline industry.

Once fully legislated, it will have a direct impact on EU investors in terms of disclosures required in relation to their investments in the aviation sector, but may also serve as a tool for investor engagement with companies by opening up discussion around the proportion of revenues and capital expenditure that can be defined as low carbon.

Jim Bell, partner at global law firm Watson Farley & Williams, says it is critically important for the EU to get the taxonomy right.

"It is vitally important that the aviation sector steers the EU's classification system into the correct position as otherwise it will cause problems in the future," he tells *Airfinance Journal*.

"Currently, its implications are limited to green financing and disclosure requirements but, in the future, it is likely to extend to capital adequacy and accounting treatment, and possibly also taxation," adds Bell.

Is the taxonomy likely to usher similar legislation in other parts of the world? According to Bell, the extent to which the taxonomy impacts aviation finance globally largely depends on whether the USA follows with a similar approach.

"The US is behind the EU in their approach to sustainability to date, but it is well known that President Biden is keen to move further down this path.

"The EU tends to be a first mover but when the US does something it often becomes a global position. If the US were to follow suit then it would completely change the aviation financing landscape," he adds.

Lessors specialising in mid-life, green time and end-of-life aircraft and engines are unlikely to have recourse to green benefits under the taxonomy. However, newer aircraft lessors are "likely to steer to younger fleets for greater taxonomy benefits for financial and strategic reasons, and therefore offload aircraft to midlife lessors earlier", says Bell.

One source points out that a lot will depend on how the European Commission decides to approach the technical screening criteria (TSC) for aircraft financing to qualify as a "transition activity".

He notes the draft TSCs published in August 2021 were not well received by the market, particularly in relation to the proposed decommissioning requirements, which include the so-called "scrapping rule". This rule requires that an old, non-taxonomy-compliant aircraft is decommissioned to make way for new, more efficient ones until 2030.

Bell explains that the EU approach is set on decommissioning aircraft and will only support new aircraft investment as part of the taxonomy up to a certain ratio.

"The EU's originally proposed solution was by only supporting qualifying aircraft where another non-qualifying aircraft is evidenced as decommissioned in its place, but this will now likely move to a global-based system where qualifying aircraft are supported by reference to the global ratio of decommissioned aircraft to new deliveries, which is around 40%. Outside that limit, you will not get support under the taxonomy, even where the aircraft meet its other qualifying criteria," explains Bell.

Another component of the taxonomy relates to the take-up of sustainable aviation fuel (SAF) as part of the transition to zero emission aircraft by the middle of this century.

The Aviation Working Group, which has engaged with the European Commission's technical working group (TWG) developing the taxonomy, says the EU's proposal on SAF introduction post-2030 would only work if based on availability of alternative fuels on reasonable commercial terms.

The organisation notes that proposed SAF requirements are unrealistically high, compared with forecast production, logistics, and availability, arguing that the additional cost of SAF in the current environment far outweighs the benefits of green financing, meaning the take-up for green financing will be extremely limited.

"The obligation to use SAF should apply in respect of the airline's fleet or, where it relates to an aircraft lessor, the fleet of the airline such aircraft is leased to... Given that exact SAF production, logistics and availability are unknown, it is necessary to link the requirement to a market-based measure, rather than an absolute percentage," states the organisation.

The TWG is expected to publish its final position on the details of the classification system later this year.

Is net zero possible?

Many financiers and industry stakeholders are sceptical that the aviation sector can achieve net zero by 2050, a goal which, although subscribed to by the International Air Transport Association (IATA) and the wider aviation community, is challenging for the airline industry as one of the hardest sectors to decarbonise.

One legal source observes there will be implications for asset impairment as new legislation is brought forward on the basis of the EU taxonomy.

He believes the only way aviation will reach net zero is by governments providing large amounts of support to swap out assets, where they effectively pay for decommissioning.

"The problem is aviation assets are very expensive and the amount of capital needed to swap out aircraft is huge for players already invested in assets they thought were going to be worth a decent amount of money for the next 25 years.

"How does it work if you're five years in and some legislation comes in that ultimately determines that your asset is maybe unfinanceable or financeable at a far greater cost going forward? The potential impact would be huge and so a mistake or a wrong approach by the EU could have a devastating effect on an aircraft owner," adds the source.

"I haven't a clue whether the industry will get to net zero," Avolon's chief executive officer, Domhnal Slattery, tells *Airfinance Journal* when quizzed whether the industry can achieve the target.

He adds: "I do believe that the industry will strive to get there because I think the key stakeholders, the key thinkers and the key strategic influencers in this industry will try to do so.

"But we are starting the journey; the key people in this industry are focused on solving this problem. It's the single biggest and most audacious goal I think we can have as an industry – unquestionably. And anybody who thinks that it's not a central issue is, well, we know what happened to dinosaurs, right?"

Airfinance Journal asked Air Lease's executive chairman, Steven Udvar-Hazy, his view at the ISTAT Americas 2022 event.

"None and nil," he replied during a fireside chat on the probability of aviation hitting IATA's net zero target by 2050.

He believes that the cost of implementing and achieving those targets is "virtually impossible".

"The reason for that is, even if you take a low GDP growth of 2-3% a year on average, in the next 25 years, the demand for air transportation products will be so great that it will be impossible to create enough production, enough innovation to achieve those target emissions," he says.

"I just don't think they are achievable unless we had a static situation where we froze the world where it is today and said 'Okay, we will take what we have now and we're not going to grow the industry and we'll achieve this target'," adds Udvar-Hazy.

It is vitally important that the aviation sector steers the EU's classification system into the correct position as otherwise it will cause problems in the future.

Jim Bell, partner, Watson Farley & Williams

It's the single biggest and most audacious goal I think we can have as an industry – unquestionably. And anybody who thinks that it's not a central issue is, well, we know what happened to dinosaurs, right?

Domhnal Slattery, chief executive officer, Avolon

However, a recent report published by Climate Action 100+, which represents 615 investors responsible for more than $65 trillion in assets under management, said action needs to be taken in aviation demand management areas for the industry to reach the net zero target.

These include capping business travel at 2019 levels, curtailing long-haul flights of more than six hours for leisure travel at 2019 levels and shifting demand to high-speed rail infrastructure where possible, measures the industry does not want to hear.

The report finds that without these demand management measures or alternatives with an equivalent impact on emissions, residual emissions in 2050 could be over double than what is required under the International Energy Agency net zero target.

Ben Pincombe, head of stewardship for climate change at Principles for Responsible Investment (a UN-supported international network of investors), admitted the industry must face some "hard truths" if it is committed to reaching net zero by 2050.

"The industry holds its future in its own hands," says Pincombe, who adds: "The amount of demand management required depends on the rate and scale of SAF rollout in the short term, alongside well thought through technology deployment. If the sector fails to respond effectively, it is likely to face significant and rapid regulatory tightening, and ever greater scrutiny and challenge from capital markets."

The organisation also argues that engaging with companies on the issue of demand management should not be seen to conflict with financiers' fiduciary duties.

"By constraining air traffic growth, it is more likely that the sector can become aligned with the 1.5°C pathway, which ultimately helps mitigate the long-term systemic risk to investors' portfolios resulting from climate change," says Pincombe.

Regardless of whether the industry can reach net zero, it is clear aircraft financiers will increasingly have to consider regulatory frameworks being proposed as part of these ambitious targets.

Cash is king

Owain Jones, Wizz Air's chief supply chain and legal officer, discusses the carrier's cash management strategy, funding opportunities and recovery trajectory in an interview with **Hugh Davies**.

Just as the aviation industry started to emerge from the Covid-19 pandemic, the outbreak of war in Ukraine and subsequent economic sanctions imposed on Russia dampened the recovery runway for European carriers.

For ultra-low-cost carrier Wizz Air, the ability to maintain strong cash reserves was a key element of the airline's success during the pandemic and will remain the strategy to brace for future economic downturns, the company's chief supply chain and legal officer, Owain Jones, tells *Airfinance Journal*.

"We implemented a number of other important measures to further safeguard the business," recalls Jones, "including supplier payment term extensions, contract renegotiation, early redeliveries of older aircraft and salary reductions for all employees, including senior management.

"This cost discipline and focus on cash-positive flying resulted in Wizz Air maintaining a strong liquidity balance of around €1.4 billion [$1.5 billion] as of 31 December 2021 and maintaining our investment-grade balance sheet throughout the pandemic," he adds.

Jones says Wizz Air's strategy of keeping a high cash balance and ensure all flying was at least cash positive was vindicated during the pandemic.

"Some of the measures we have since implemented, such as renegotiated agreements and extended payment terms, have now become the norm," he says.

"We believe that Wizz Air has been correct to ramp up expansion during the downturn, as opportunities have facilitated network growth and diversification of our business into new markets as we have continued to renew our fleet at a significant pace," adds Jones.

Financing opportunities

Despite market conditions still impacted by increased commodity prices, geopolitical tensions, Russian sanctions as well as the pandemic, the industry is seeing a gradual pick-up of issuer activity in debt markets in the past few weeks with Wizz Air expecting more opportunities to raise funds in the capital markets in the first quarter of fiscal year 2023.

Jones notes the focus would primarily be on the euro debt market, using the carrier's existing €3 billion Euro Medium Term Note programme if it does participate in the capital markets.


Owain Jones

Wizz Air has already issued two €500 million notes, which mature in January 2024 and 2026 with coupons of 1.35% and 1.05%, respectively.

"Both of these bond offerings were heavily oversubscribed, reflecting Wizz Air's investment-grade balance sheet, strong credit profile and investors' confidence in our business model," says Jones.

Quizzed on upcoming aircraft financings, Jones says the airline has been able to secure "ever-better pricing" over the past couple of years with "intense competition" between aircraft lessors and banks to provide financing for its new aircraft deliveries.

"Looking ahead, Wizz Air will always look to the market to compete for transactions so as to secure the best financing deals, and we look forward to continuing to engage positively with aircraft financiers in the future," says Jones.

He also notes there is "strong interest" from Japanese operating lease with call option (Jolco) financiers who are looking participate in financing arrangements for Wizz Air's new aircraft.

"This is reflected in the fact that we used Jolco financing structures for 10 of our new aircraft deliveries in 2022," adds Jones.

Wizz Air has been tapping Japanese investor funds to finance its incoming new-technology aircraft throughout the pandemic.

In 2021, Credit Agricole-CIB arranged the debt portion of a Japanese operating lease financing covering two Airbus A320neo aircraft with JP Lease.

Earlier in 2022, *Airfinance Journal* also reported that BNP Paribas, Marsh Insurance and AVIC Leasing are financing four A321neo deliveries for Wizz Air this year. That transaction was the first Balthazar-backed financing in Asia and the first Balthazar full recourse lessor facility.

In March, MUFG agreed Jolco financings covering three A321neo aircraft for Wizz Air, the first MUFG transaction completed with the carrier.

Wizz Air's delivery backlog comprises firm orders for 34 A320neos, 244 A321neos and 47 A321XLR aircraft, with four A321neos delivered to the airline in March, according to the Airbus data. The carrier has purchase rights for another 75 A321neos.

Recovery

Wizz Air has seen demand largely recover from the onset of the Ukraine crisis at the end of February, with Jones noting the airline is on track to increase capacity in the April-June quarter of 2022 by 30% compared with 2019, measured in available seat miles.

The aggregate impact of Russia/Ukraine was a 2% reduction in flights in February, explains Jones, with operations in Ukraine, Moldova and Russia amounting to 7% of flight capacity in March.

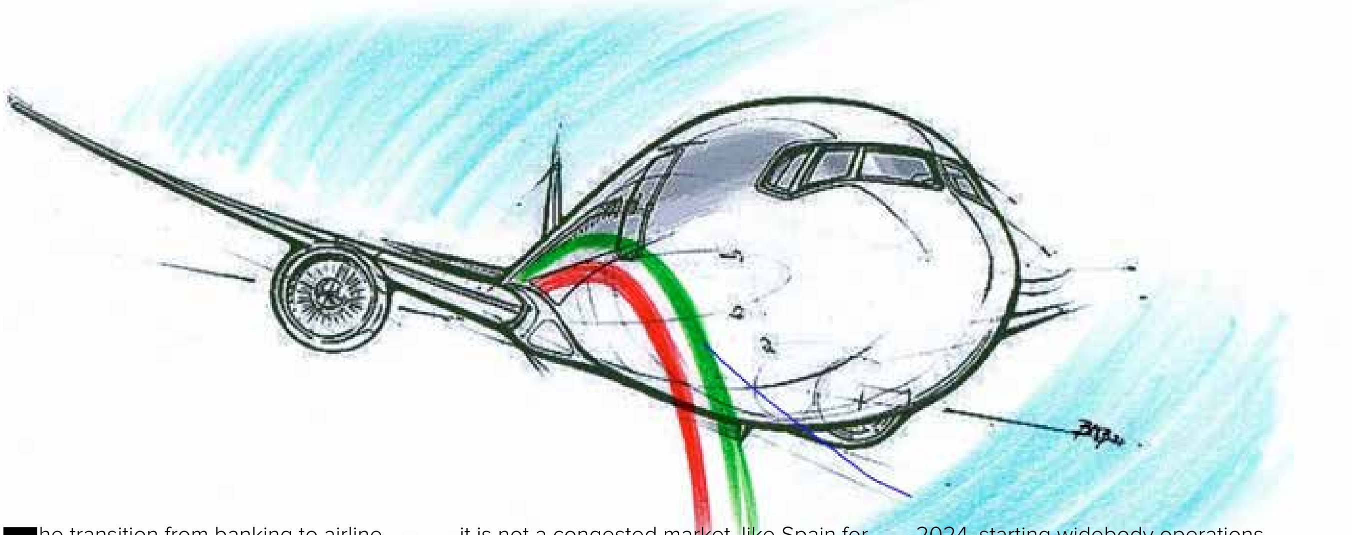
Wizz Air has since announced additional deployment of aircraft to different locations across its network and has capped a proportion of its fuel cost exposure for the next four months with zero cost hedges in response to rising oil prices.

The carrier reached 86.2% load factor during March, a significant improvement compared with 62.5% in March last year.

"There has also been a clear positive impact from the reduction in Covid-19 travel restrictions," adds Jones, "and, overall, we have started to see a normalisation in demand with booking patterns starting to look more like those in 2019, pre-pandemic."

From banking to starting an airline

The former Natixis Transport Finance chief financial officer, Marc Bourgade, will apply lessons learned in air finance to launch Aeroitalia. **Olivier Bonnassies** reports.



The transition from banking to airline chairmanship is no easy task but former banker Marc Bourgade sees an opportunity in Italy with Aeroitalia, a start-up carrier that plans to begin services in the second quarter.

Bourgade has worked in the aircraft finance sector for more than 20 years, having been the chief financial officer of Natixis Transport Finance bank for six years.

As chairman, he has invested equity into the carrier and is the sole owner of Aeroitalia.

The origin of his project dates back from his days as a banker.

"I have loved my time in the banking sector but one of the reasons I left after 20 years of service was the administrative aspect of my job. We had less time to look after our clients because banks have become very regulated. It creates burdens to what we are meant to produce for the bank," he says.

Bourgade says the "shadow banking" side of the industry is more reactive and flexible.

"This is why I created Flying Solutions in 2016. The objective was to continue serving clients as a consultant and close financing deals like a bank." Bourgade has closed more than $2 billion-worth of financing deals since then.

"I know the credit risk aspect of airlines as well as management and commercial models that work or not. Before the Covid-19 pandemic, I started to work for an investment fund that looked at acquisition opportunities in Europe. We studied airline business plans for months. This was key to understanding different airline models and markets. Then I realised that Italy has growth opportunities for a new entrant as it is not a congested market, like Spain for instance," he says.

At the time, Alitalia was up for sale but Bourgade decided to start from scratch. "The advantage of starting from scratch," he says, "is you know the cost aspect of the business. In our case, we start conservatively."

The company has hired executive Gaetano Intrieri as its chief executive officer. Intrieri is a former adviser to Italy's minister of transport.

Former Avianca owner, Germán Efromovich, has also joined the team as a consultant and board member.

"We needed a management team that has experience in aviation, knows the Italian market and understands how an airline functions," says Bourgade. "We start operations with a break-even objective in our first year of operations."

He adds: "Aeroitalia will focus on charter operations first because this guarantees revenues from the day we have the AOC."

Fleet plans

The carrier will have a Boeing 737-800 fleet. "We looked at the Airbus and Boeing narrowbody products and we selected the 737-800. In my days at the bank, I have always had a good relationship with Boeing," he says.

Leasing was an obvious choice. Bourgade reveals that Aeroitalia has signed its first 737-800 lease with Macquarie Airfinance.

"The plan is to grow the fleet to six units by one year of operations," he comments.

But Bourgade has a vision of a mixed fleet of narrowbody and widebody aircraft.

Given that traffic recovery in the widebody sector is not anticipated before 2024, starting widebody operations within two years could be risky. However, Bourgade says it is the right time to invest.

"We have demand for this type of operation but we need to position ourselves on certain routes and markets. Not all routes or markets will recover by 2024 but, with the right product, we could start widebody services in 2023."

Pre-Covid lease rates were substantially higher than now, he notes, adding that Aeroitalia is seeking aircraft at competitive rates.

He reveals that the carrier has looked at purchasing aircraft, but that export-credit-financed assets where the customer has defaulted take time to acquire. "We felt that those repossessed aircraft could be remarketed sooner to save tax payer money."

Based in Rome, Aeroitalia will perform its first flight immediately after obtaining its AOC, which, they hope, will be in the very near future.

Setting up an airline in Italy can be challenging but Bourgade says the local authorities have facilitated the process smoothly and, in particular, the Italian Civil Aviation Authority, which has been "extremely professional".

The carrier will fly international routes but has plans to operate domestically, too.

Italy is one of the largest exporters in Europe and the business market is very developed. Bourgade expects Aeroitalia to move from its charter services niche and become a more "conventional carrier" within three years.

He adds: "Once we have a track record of operations in Italy we will open the capital to further grow our operations."

Bain Capital, Griffin launch ULCC Arajet

Arajet, a new ultra-low-cost airline, takes flight as the Dominican Republic's new flag carrier following an equity investment from Bain Capital, writes **Dominic Lalk**.

Arajet has announced its arrival as the Caribbean's first ultra-low-cost airline (ULCC). It has its headquarters in Santo Domingo. Its mission: making air travel accessible to travellers to and from the Dominican Republic, the Caribbean, and North and South America.

In the long run, *Airfinance Journal* understands from speaking to key stakeholders, Arajet hopes to rival Copa Airlines, a firmly established network carrier which has successfully connected North, South and Latin America via its Panama hub for the past two decades using an all-Boeing 737 narrowbody fleet.

"Arajet will have the full support of the Dominican government, as they seek to grow tourism into the country and enable Dominicans living abroad to visit their home with low-priced air fares," the Dominican Republic's president, Luis Rodolfo Abinader Corona, said when the airline officially launched earlier this spring.

Arajet is expected to commence operations from Las Americas airport in Santo Domingo with flights to the Caribbean islands and Central America starting June. The new entrant hopes to add flights later this year to key North American markets with populations having significant familial ties to the Dominican Republic, including New York, Boston, Miami and Chicago. An estimated 2.2 million people of Dominican descent live in the USA.

"The Dominican Republic and the wider Caribbean region is underserved by low-cost airlines, and passengers deserve a more affordable way to travel in our market. We believe Arajet is well-positioned to transform the Santo Domingo airport into a modern, new hub for destination and connecting traffic," says the airline's founder and chief executive officer, Victor Pacheco.

"We are excited that our passengers will be the winners by paying the lowest fares while flying on brand new airplanes. Arajet is also proud to play a significant role in job creation and GDP," he adds.

The business will be led by Pacheco and Mike Powell, who formerly served as the chief financial officer at Wizz Air.

Arajet is financially backed by Bain Capital Special Situations and Griffin Global Asset Management. The airline also has the support of the Dominican Republic government and Vinci Airports.

"These partners believe in our vision and see the same bright future for this market and beyond," says Pacheco.

"We are pleased to be Arajet's strategic partner and look forward to supporting Victor, Mike and their team's growth plans and mission of dramatically reducing the cost of flying while making air travel more accessible to a wider range of people," says Griffin founder and chief executive officer, Ryan McKenna.

Arajet will exclusively operate new 737 Max 8200 aircraft, with Griffin supplying the maiden five Max 8 aircraft to the airline from its own orderbook with Boeing.

Airfinance Journal understands that Boeing was instrumental in getting Bain, Griffin and Dominican stakeholders to meet and eventually partner up to establish Arajet. Boeing rival Airbus has had a lot of success with helping new low-cost carriers set up and support them throughout their growth, so this was a good opportunity for Boeing to follow a very similar strategy (such as it has with Lynx Air in Canada and Akasa Air in India).

Arajet has firm orders, purchase options and lease agreements in place for its first 40 aircraft to deliver over the next several years to meet anticipated demand.

Arajet's five leased 737 Max 8 aircraft from Griffin will be the first to enter service; they are all expected to deliver through the end of the third quarter of 2022.

Additionally, the airline has 20 737 Max 8200 high-density aircraft on firm order from Boeing, as well as options for a further 15 units. *Airfinance Journal* understands that following the first five Max aircraft from Griffin, Arajet will open up the lessor pool, seeking deals with firms other than Griffin.

"We are excited to support Arajet as they build a leading ULCC in the Dominican Republic by providing the necessary financial and operational resources that will enable the airline to significantly scale its operations and serve more customers," says Bain Capital's managing director, Matt Evans.

As travel and tourism recovers globally, Arajet will bring about 4,000 new jobs and significant new economic development to the island nation. Tourism makes up 8.4% of the Dominican Republic's GDP.

Airfinance Journal understands that Arajet will be flying to tier one airports, rather than following the Ryanair model that often sees passengers arrive at airports two hours away from city centres. The carrier's hub will be at Las Americas in Santo Domingo, although Arajet is also planning secondary hubs or outposts at the Dominican Republic's tourism gateways, including Punta Cana, Puerto Plata and La Romana.

Kingpin of Jol and Jolco deals

The market for Japanese aircraft financings remains depressed, but it is in difficult times when responsible asset managers such as ABL Aviation add the most value to investors, its founder and chief executive officer, Ali Ben Lmadani, tells **Dominic Lalk**.

The market for Japanese operating lease (Jol) and Japanese operating lease with call option (Jolco) structures remains challenged in 2022 as some investors still reel from bruising experiences in the various airline restructurings. Carriers from around the world are still keen on closing new deals, but bank funding and trepidation from equity arrangers are often the limiting factors.

ABL Aviation is one of very few firms in the market which has grown its Jol and Jolco business since the beginning of the pandemic.

"Despite the pandemic and the impact it has had on the industry, ABL Aviation and our Japanese partners have actually seen a year-on-year growth in transactions. Our reputation of being a responsible and innovative asset manager is growing amongst Japanese investors, which is helping to drive new deals and giving us access to some of the best airlines worldwide." Ali Ben Lmadani tells *Airfinance Journal* exclusively.

"We now have a track record and strong reputation in Japan as a reliable asset manager. During the Covid-19 pandemic when there has been much uncertainty, we have built trust by protecting our investors and worked hard to find innovative solutions for them."

"It is in difficult times when responsible asset managers like us add the most value to investors," he adds.

ABL and its local partners in Japan closed 22 aircraft transactions in the 12 months to April 2022: the Jolco financing of two Airbus A350-900s for Lufthansa; an A320neo for Pegasus Airlines; the sale of an A320 on lease to Wizz Air and an A321 on lease to Eva Airways from Jol investors to US investors; the sale of eight A320s on lease to Latam; the acquisition of eight A220 aircraft on lease to Delta Air Lines and an A321neo on lease to Alaska Airlines.

"Our level of activity in the market was supported by the excellent sales capacity of our Japanese partners, who quickly provided market and technical data and responded to queries from the Japanese investors," says Ben Lmadani.

ABL was one of the first industry players to introduce A220 regional aircraft to the Japanese tax investor world, signing deals for eight A220-100 Jol financings with US heavyweight Delta as aircraft operator in 2021.

Ben Lmadani and his team added another A220 deal in early 2022, this time as lessor of four A220-300 aircraft to Air France financed utilising pooled Japanese investor funds.

The four A220s, with an initial lease term of 12 years and two extension options for a year each, are scheduled for delivery in October, November and December 2022. The final aircraft is expected in February 2023.

The first two A220s financed under a Jol structure also went to Air France, in a deal led by Chishima Real Estate's aircraft finance division.

"Although it wasn't initially in demand, we worked with our partners to market the A220 and its significant benefits, including its performance and ESG capabilities. We were the first to be able to market it in Japan and show why it is such an appealing asset. It is a brilliant aircraft; the lightweight design and engine means it delivers 25% lower fuel burn per seat than previous-generation aircraft. It also has a very competitive price tag. We created a new demand with investors and sold eight of the aircraft in Japan in 2021," says Ben Lmadani.

As investor appetite for the A220 and other new-technology aircraft is set to increase as the industry recovers, ABL cautions that players involved in dedicated freighter deals could be in for a rude awakening once the bulk of air cargo returns to passenger aircraft bellies.

"We saw in the past that there were a few Jolcos with freighters where the call option wasn't exercised. We are worried that as commercial aviation industry recovers and airlines start to reach capacity, it will have an impact on the freighter operators, and we might see some call options not exercised in the future. For passenger airlines with freighter aircraft and operations, it is a different story," says Ben Lmadani.

He reconfirms that credit does seem key at the moment in deals with airlines. Only the strongest credits seem to be open to Jolco transactions at this time.

"For the immediate future, the Jol and Jolco market is focusing only on tier one airlines because of their creditworthiness. We are happy at ABL Aviation, with our partners, to look at mid-life aircraft for the Jol and Jolco markets, but it needs to be for tier one airlines," says Ben Lmadani.

He adds: "Our technical expertise and strong negotiation skills with transaction parties allow us to protect the investor's interest on eight rejected Jolco aircraft during Latam's Chapter 11 process, ensuring all the money was repaid to investors with a profit."

"We have seen in recent months some cases of irresponsible management of aircraft assets to the detriment of junior noteholders and Japanese equity holders. Talking from an investment and asset manager perspective, the buck stops with us when it comes to protecting our investors," he adds.

ABL Aviation tells *Airfinance Journal* it is planning to open a Tokyo office in 2022 to be better able to support its local partners and more quickly supply them with analysis, which they need to respond to investors efficiently.

"The Jol and Jolco market is a long-term investment for ABL Aviation," says Ben Lmadani, "and our Japanese relationships are extremely important to us."

Cargojet sees future with 777 freighters

Olivier Bonnassies explains why the Canadian cargo carrier focuses on the 777 converted freighter as its strategy for long-haul operations.

Cargojet Airways is the launch customer for Mammoth Freighters' Boeing 777-200LR freighter programme after signing for two units last October.

It recently executed agreements for an additional two 777-200LRMFs.

The prototype aircraft, a 12-year-old unit previously operated by Delta Air Lines, will be the first aircraft delivered to Cargojet, in the fourth quarter of 2023. The remaining three are due in the first quarter of 2024, and the third and fourth quarters of 2024.

In March, Cargojet also executed an agreement for the purchase and conversion of four 777-300ER aircraft with expected delivery dates of the third and fourth quarters of 2024, the second quarter of 2025 and the first quarter of 2026. *Airfinance Journal* understands that the four aircraft are Etihad Airways 777-300ERs and are being sourced from Altavair Airfinance.

The cargo carrier has also invested in a 777 simulator.

Cargojet's president and chief executive officer, Ajay Virmani, says the 777 strategy is a combination of ACMI operations and initially some Far East routes.

"They're always in demand like flights from Hong Kong or China or South Korea or some of these Far East places today to reduce the dependence on the Chinese market. There's a lot of flights coming in from Vietnam and even Thailand," he commented on a fourth-quarter 2021 analyst call.

"Our customers are branching into some of those Asian countries where the lift is not as much. So we have an opportunity on these 777s to operate from the Far East. Any of those destinations today, even if we fly to one destination, you can only always connect from other destinations on an interline basis feeding into that.

"We would look at probably Far East for our initial plans... flights going as far as Far East, coming back into Vancouver, then going over to Europe and maybe to India. The 767 network would probably be more suitable to bring in Europe – to connect in with our 777s to Europe and also 777s to South and Latin America as well," adds Virmani.

This would make Cargojet a truly global airline serving all five continents.

The 777s would operate long-haul intercontinental operations from Asia to Canada and the 767s would be for medium-haul routes.

Chief strategy officer, Jamie Porteous, described a large pool of available aircraft, as passenger aircraft have been retired either early or prematurely. "But we haven't seen pricing really drop on the feedstock yet, primarily because the demand to convert those aircraft into freighters remains extremely high globally, and there's a limited capacity to actually convert the aircraft," he says.

Cargojet recently entered into a new long-term strategic agreement with DHL Network Operations (USA) to provide air-transportation services for DHL's global network.

The agreement will see Cargojet's 777 converted freighter operating for the Deutsche Post DHL Group.

"Cargojet is an important aviation partner of DHL in North America and we see this expansion of our relationship further strengthening intra-regional and intercontinental links to and from this region," says Mike Parra, chief executive officer, DHL Express Americas.

He adds: "Its versatile cargo fleet and high on-time reliability positions us well to further capitalise on the dynamically growing e-commerce market, in particular. This step builds on the significant investments we have made in DHL's aviation capacity and capabilities over the last two years in the Americas."

The agreement is for an initial five-year term with a renewal option for an additional two years.

Cargojet will provide ACMI, CMI, charter and aircraft dry lease services to support DHL's international requirements for Europe and North, South, Central and Latin America, as well as Asia.

The cargo carrier utilises 12 freighters to service DHL's current requirements. DHL intends adding five additional 767 freighters during the 2022-23 timeframe to fulfil its anticipated network requirements.

"Our strategy is to use more 757s domestically and take the 767s out for ACMI business. So this strategy is obviously based on the demand and what I hear from the customers and what we have been told and what the requests are."

Ajay Virmani, president and chief executive officer, Cargojet

It says the new DHL agreement is expected to diversify further its portfolio of services in line with its previously announced strategic goal of achieving a balanced portfolio.

It ended 2021 with 28 freighter aircraft and one passenger aircraft. In 2022, Cargojet will add 757 freighter capacity with a total of five units.

Last November, it executed an agreement for the purchase of three freighter-converted 757-200 aircraft, with expected delivery dates in the first quarter, third quarter and fourth quarter of 2022.

In January, Cargojet signed a letter of intent for two converted 757-200s with expected delivery dates in the second quarter and third quarters of 2022.

Virmani says the domestic network is a combination of 767 and 757 networks.

"Our strategy is to use more 757s domestically and take the 767s out for ACMI business. So this strategy is obviously based on the demand and what I hear from the customers and what we have been told and what the requests are. So the 757 also provides our customers with better service as they can do more nonstop flights from Hamilton to western Canada and eastern Canada and similarly from Montreal as well and the way back," adds Virmani.

This year, Cargojet will also increase its 767-300 freighter fleet.

Between November 2020 and July 2021 Cargojet executed purchase agreements for four 767-300 airframes as feedstock for future conversions, with three expected delivery dates through the third quarter of 2022. The remaining aircraft is due in the first quarter of 2023.

The capital expenditure (Capex) plan for this year will range from C$525 million ($419 million) to C$550 million, according to interim chief financial officer, Sanjeev Maini. This includes C$120 million for maintenance Capex. Virmani says Cargojet also has two 767 and 777 simulator-related Capex financings.

Projected Capex will be in the range of C$225 million to C$250 million for 2024 and between C$175 million and C$200 million in 2025.

The company reported a C$167.4 million net profit in 2021, overturning an C$87.8 million loss the previous year. In 2021, revenues were up 13% to C$758 million. Earnings before interest, taxes, depreciation, amortisation and restructuring or rent costs (Ebitdar) reached C$348 million, giving a 45.9% Ebitdar margin.

Cargojet recently amended its revolving operating credit facility (RCF) with a syndicate of financial institutions.

The maturity extension was pushed by about 18 months to 7 February 2027. The company says it reflects the transition from Libor to SOFR (Secured Overnight Financing Rate) and waives the requirement for Cargojet Airways to enter into new aircraft security agreements.

The amendment also allows Cargojet to request that the lenders increase the aggregate commitments under the credit facility by up to C$100 million for an aggregate availability of up to C$700 million. The RCF is co-led by Royal Bank of Canada, CIBC and Bank of Nova Scotia. Other lenders include National Bank, Bank of Montreal, Laurentian Bank of Canada and ATB Financial.

No recovery on horizon for aircraft lending in China

China's zero-Covid policy is slowing aviation development in the Asia-Pacific. Capital and talent have taken flight, and lending has slowed. **Elsie Guan** reports.

The Asia-Pacific aviation industry is still lagging behind global recovery efforts, most importantly because of China's zero-Covid approach that has seen capital and talent take flight since the early days of the pandemic.

Nord LB Asia-Pacific senior director for aviation finance, Wen-Yu Ting, says the German bank expects the activity level in China's aircraft leasing sector to be lower than pre-Covid at least for the next one to two years.

"We are seeing significantly less demand for secured debt financing from PRC's lessors compared with pre-Covid. Nevertheless, we continue to find ways to support our core clients as we have done so over the last 30 years and throughout the cycles on their financing requirements and we have closed deals in 2020 and 2021," says Ting.

Nord LB has many contacts with Irish subsidiaries of Chinese first-tier bank-backed lessors. "We believe that as the market recovers globally (led by traffic recovery in US and European markets), some of these PRC lessors will eventually return to invest in the sector and with that, the financing requirements and volume will pick up," says Ting.

Nevertheless, Ting confirms that Nord LB continues budgeting nearly the same lending caps for aviation as pre-pandemic although focused on opportunities in other markets than the Asia-Pacific region.

Nord LB's aviation group recently expanded its professional teams in London and New York, each hiring a senior director origination, Sylvain Gloux and Matthew Hughey, respectively, to coordinate aviation finance and investment solutions in regional offices.

A Japanese bank source talks about "restarting" activity to describe its aviation finance business status in the current stage when speaking with *Airfinance Journal*.

"We just pitched two cases from a US airline and a US lessor. Before that, aviation finance business was on hold for some time in our bank," says a source from Sumitomo Mitsui Trust Bank.

She notes that the bank's budget management for aviation finance business during the fiscal year of 2022 has just started.

> *We believe that as the market recovers globally (led by traffic recovery in US and European markets), some of these PRC lessors will eventually return to invest in the sector and with that, the financing requirements and volume will pick up.*
>
> **Wen-Yu Ting**, senior director for aviation finance, NORD/LB Asia-Pacific

A source from Korea Development Bank Guangzhou branch (KDBGZ) tells *Airfinance Journal* that the bank's aircraft financing was non-existent in the first three months of this year.

"It is more deserted for the aviation finance market during the first quarter of 2022 compared with the same period of the previous year, however, our bank is still optimistic about aircraft leasing in the long run," she says.

KDBGZ was established in June 2005 with five employees from South Korea and 34 local employees. The bank branch's customers include Korean and Chinese companies, its official website shows.

In terms of the aviation finance sector, KDBGZ's main customers are tier one Chinese financial leasing companies, which are usually bank-backed lessors, says the source.

The source adds that KDBGZ has few competitors from these lessors' parent banks.

"Credit lines granted by parent banks are limited and it usually involves related transactions. Lessors will consider economic benefits and choose cheaper-cost financing channels. Sometimes, it is enough for them to just rely on parent banks for financing, but it finally depends on market considerations," she says.

As a state-owned policy development bank in South Korea, KDB engages significantly in supporting the country's aviation industry, including Korean Air's takeover of Asiana Airlines.

Korean Air's parent, Hanjin KAL, agreed to acquire Asiana for KRW1.8 trillion ($1.6 billion) financed via a KRW800 billion investment from KDB – KRW500 billion by issuing new shares to the bank through a third-party allotment and KRW300 billion through the issuing of exchangeable bonds.

Currently, KDB owns 10.58% shares in Korean Air's parent, Hanjin KAL.

Chinese banks quizzed by *Airfinance Journal* say they will keep supporting the domestic aviation finance industry.

The Eximbank of China has continually supported aircraft leasing and aircraft introduction, including the whole process of manufacture and sales of Comac ARJ21 and C919 aircraft, according to a source from the bank.

"Aviation finance, including the aircraft leasing business, has always been a major direction in our bank. We do not have a line of limit in terms of financing amount. It depends on specific projects where we offer different support," says an Eximbank source.

Another Chinese state-owned policy bank, China Development Bank (CDB), is the controlling shareholder of CDB Leasing, holding 64.4% equity interest in it. However, the bank has a different strategy with its leasing subsidiary in aviation finance.

A China Development Bank source tells *Airfinance Journal* that it will "primarily focus on Chinese-manufactured aircraft financings and decrease percentages of Airbus and Boeing aircraft programmes step by step".

CDB was established in China in 1994 and restructured as a limited liability company in 2017.

Its only leasing platform, CDB Leasing's aircraft business has returned to profit in the past year, recording a Rmb312.9 million ($40 million) profit before tax for the 12 months to 31 December 2021, compared with a loss before tax of Rmb305.9 million in 2020.

As of 31 December 2021, CDB Leasing had a total portfolio of 368 aircraft: 251 owned and 117 committed.

FTZs in China seek innovative aircraft solutions

To remain competitive, Chinese free-trade zones now offer broader and more innovative lease financing solutions for aircraft, reports **Elsie Guan**.

The Tianjin Binhai government announced in March that the Tianjing Dongjiang free-trade zone (DFTP) had become the centre of leased aircraft trading in China.

After more than 10 years' development, the DFTP has expanded its leasing industry chain from bonded-tax lease to aircraft full-life-cycle service system.

The DFTP offers innovative aircraft solutions ranging from "lease + purchase and sale", "lease + maintenance" and "lease + modification" to extend its services from capital end to asset end, from aircraft lessors to aviation-related enterprises, continuously improving its after-sale service system of the industry, a source from DFTP tells *Airfinance Journal*.

Obviously, aircraft leasing and trading is not new. Quality aircraft asset management, however, especially during off-lease and transition periods, is an area where a lessor based in a Chinese free-trade zone (FTZ) can improve, adds the source.

China Southern Air Leasing recently purchased a Boeing 737-800 on operating lease to China Southern Airlines from Aercap via its special purpose vehicle (SPV) incorporated in DFTP.

With the support of DFTP, China Southern Air Leasing says it completed a series of customs procedures, including aircraft off-lease, export, exit and re-entry into Chinese customs in just one day.

"The whole process does not require the actual entry and exit of the aircraft, saving considerable aircraft adjustment costs for the customer," says the source, noting that it is usually customary that aircraft need to exit/be exported from a country first before they transition to a new owner/start a new lease.

In September 2021, the DFTP completed its first bonded passenger-to-freighter (P2F) leasing business. Bocomm Leasing converted an off-lease 737-800 passenger aircraft to a freighter and leased the 737-800 freighter to China Postal Airlines, while the owner of the 737-800 passenger aircraft in the old contract was an overseas SPV of Bocomm Leasing.

According to relevant regulations, the original lease must be cancelled and the P2F conversion must be completed after leaving China, and then it declared to enter the country with the new identity of a cargo aircraft to execute a new contract.

During the Covid-19 pandemic, the cross-border adjustment of aircraft faced great uncertainty, which may lead to the failure of executing new contracts.

Bocomm Leasing communicated with Tianjin Dongjiang management committee and Dongjiang Customs seeking to complete the whole process from aircraft off-lease, P2F conversion to aircraft sublease in the FTZ, so that the business could be proceeded smoothly.

As a result, the aircraft simultaneously completed its ownership transition from an overseas SPV to a FTZ and its identity transition from a passenger aircraft to a freighter in China.

"The whole process involved technical engineering, airworthiness certification, air rights registration, physical supervision and customs declaration. It strengthens aircraft life-cycle services in the DFTP," says the source.

DFTP confirms that it has completed nearly 2,000 aircraft lease transactions to date.

Johnny Lau, chief consultant of PwC Aviation Business Services, says that DFTP's success is hard to be copied by other FTZs in China, noting that DFTP has a high sensitivity and a quick reaction to changes in the industry.

"The flexibility of leasing policies, the dynamics of governmental support, and the linkage between different functional departments, including customs and taxation, are very important for a free-trade zone to develop its aviation finance business," says Lau.

China's bonded-tax finance lease model initially started in aircraft leasing in 2009, when the DFTP successfully introduced two Boeing aircraft. DFTP created a marketing model for other lessors to enter into the aircraft leasing business in China.

Tianjin FTZ, Shanghai FTZ, Guangdong FTZ and Fujian FTZ are the four leading free-trade zones in China. The trade zones have given their registered companies a variety of tax incentives in order to promote the development of aviation finance in China.

> *"The flexibility of leasing policies, the dynamics of governmental support, and the linkage between different functional departments, are very important for a FTZ to develop its aviation finance business."*
>
> **Johnny Lau**, chief aviation consultant of PwC Aviation Services

In June 2021, PwC China Aviation Finance Innovation Lab was established at Shanghai FTZ Lingang New Area.

The establishment of PwC China Aviation Finance Innovation Lab is PwC's strong support for the development of the civil aviation industry and aviation finance industry in Lingang New Area.

The new area will also be built jointly with PwC to promote the construction of Shanghai as an international financial centre and enhance the global competitiveness of China's aviation financial industry in Shanghai, according to the Lingang New Area.

Xiaobin Jin from Fudan University, Bing Li from Juneyao Group and PwC's Lau were appointed the first aviation finance experts for Lingang.

Lau expects the lab will assist Shanghai FTZ with more innovative financial services in the aviation finance industry.

"After the Comac C919 is produced, how we can help them promote their aircraft in the financial field is a very important issue," says Lau. "Airbus and Boeing have got many governmental supports such as export credit, and their financial products are relatively mature. But, in China, it is still at a preliminary stage."

Supply chain hold-ups add to delivery pain

Air Lease's executive chairman, Steven Udvar-Hazy, and ALC's chief executive officer, John Plueger, tell **Laura Mueller** about the latest problems delaying the delivery, and production, of much-needed aircraft.

Airlines and lessors looking to expand in the absence of available aircraft face significant challenges as supply chain disruptions make further delivery delays inevitable. Soaring oil prices triggered by Russia's invasion of Ukraine will only make the pain worse as airlines and lessors clamour for new-technology aircraft.

The industry's cry of frustration could quickly move from being a throat-clearing exercise to a desperate plea for help.

"Every one of our single-aisle Airbus aircraft is delayed, and I just found out this morning that our Boeing 737 Max deliveries also are delayed this year," Air Lease's executive chairman, Steven Udvar-Hazy, told *Airfinance Journal* during a fireside chat at ISTAT Americas.

"The supply chain, starting with the engine manufacturers, the people who make landing gear, the people who make avionics... are not equipped today to meet the production goals of the two manufacturers." Add in increased absenteeism and working from home, and it is clear further delays are ahead. "You can't build airplanes on a Zoom call," he adds.

The situation means Airbus and Boeing are "faced with very difficult strategies".

ALC's chief executive officer (CEO), John Plueger, echoed those thoughts. He told a JP Morgan conference on 16 March that 18% of the Airbus workforce was off because of Covid-related matters. Plueger confirmed to *Airfinance Journal* that Airbus told him that figure, but the information was "probably a month or two old" as of April.

"It would not surprise me to get further delays beyond that," he adds.

ALC is scheduled to take delivery of 27 Airbus A320neo-family and 33 737 Max-family aircraft in 2022. All of the aircraft are already placed with customers.

There is much debate about whether an increase in production supports a post-pandemic recovery of the narrowbody sector, especially given the wide variance in airline recovery by region and with increases in output that are well above pre-Covid rates.

Udvar-Hazy dismisses an uptick in production rates no matter how much the manufacturers argue for them.

"Between them, they're talking about 110 and 120 aircraft per month. We don't see that. We just don't see that the supply chain infrastructure and the aerospace industry, at this point, can support 110 to 120 single-aisle deliveries of just Boeing and Airbus.

"On top of that, there's the Airbus 220, the Embraer E2, and a whole host of military programmes that are also taking a tremendous amount of resources. I think these over-optimistic forecasts of production rates are not achievable," he adds.

Market share is a concern for Boeing.

"In February, Boeing delivered 22 airplanes, just 22 airplanes. Is that where they want to be? The writing is on the wall," says Udvar-Hazy.

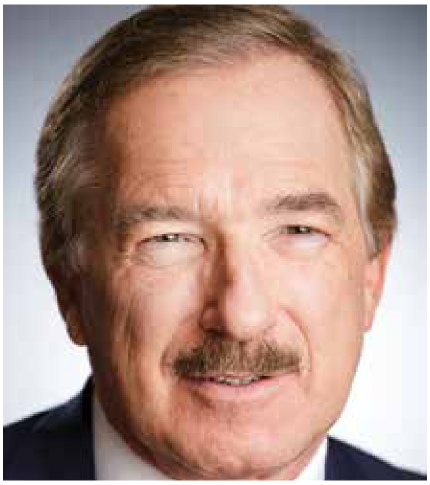
He admits Airbus was "unexpectedly successful" after the A320neo was launched. "I don't think Boeing anticipated that a re-engined A320 family would be as successful as it was. At that time, people were worried about fuel prices and emissions, so I think there was this frenzy that, if you can have 15% fuel savings, that's really meaningful, and it's worth transitioning to the new technology."

He recalls that Boeing had a number of designs for new-generation aircraft "that were totally new, clean sheets of paper". However, Airbus's top salesperson, John Leahy, "with his successful penetration of the airline markets with the Neo, stopped that in its tracks".

Still, Boeing did not "fully understand" that airlines were migrating to larger average-size aircraft.

"That's where the market share has changed. If you take the A320neo and the 737-8, it is a pretty good equilibrium, very close."

He argues that the A321neo has changed that dynamic, and that's how Airbus is inching towards a 60% market share. "And I think Airbus could even reach 65% because Boeing does not have a credible response."



"In February, Boeing delivered 22 airplanes, just 22 airplanes. Is that where they want to be? The writing is on the wall."

Steven Udvar-Hazy, executive chairman, Air Lease

The 737 Max 10 is not as effective in "its overall versatility, performance capacity and passenger appeal as the A321. That's just the bottom line".

On 24 March, the US Federal Aviation Administration (FAA) warned Boeing that it might not gain certification of the 737 Max 10 ahead of a critical safety deadline set by US Congress.

Congressmen Peter DeFazio, who leads the US House of Representatives Transportation and Infrastructure Committee, said at a hearing that he would oppose an extension to the 31 December 2022 deadline for the aircraft's certification.

The aircraft certification bill gave the FAA a two-year grace period to certify the aircraft without the advanced flight crew-alerting system.

But if Boeing misses the deadline, it faces costly disruptions to the programme, warns a C-suite lessor source, speaking on condition of anonymity.

"I think the Max 10 certification risk is real, and I am not sure that Boeing can hit those targets," says the lessor. "Boeing may have to redesign the aircraft, and then the delays will be significant. The Max 10 backlog is not insignificant. Size does matter. Delta and Boeing are close to a significant Max order that will have Max 10s. Also, Qatar is taking Max 10s," adds the source.

Delta Air Lines is reportedly in discussions for up to 100 units of the Max 10, even though it has not placed any Max orders so far.

Boeing does not break out Max orders by type, but *Airfinance Journal* data shows 560 737 Max 10s on order. The original equipment manufacturer recorded 749 gross new orders across the 737 Max family in 2021.

The Max 10 is "unfortunately" another item on a long list of certification issues Boeing is trying to navigate, according to Avolon CEO, Domnhal Slattery. "And it feels that they are making little progress," he adds.

The Max is still not flying in China.

At the ISTAT Americas 2021 event, Boeing said it expected China to give the green light on 737 Max certification by the end of 2021, following the ban on the narrowbody in March 2019.

But 2021 has come and gone, and there is still uncertainty over when the Max will resume flying in China.

Udvar-Hazy would not be drawn on a date for certification.

"That decision is to be made at the highest levels of the Chinese government, not at the China Aviation Authority level," he says.

"The only thing I can tell you is that the Chinese airlines that already have 737 Max aircraft... are yearning to put those airplanes back in the air. There's no shortage of demand from the Chinese operators that already had those aircraft in the inventory. But there's a lot of dynamics going on between China and the US right now. And I think the 737 Max is a relatively insignificant part of that total relationship issue between the two governments," adds Udvar-Hazy.

Deliveries of the 787 series have been halted since 2021 as Boeing addresses a series of manufacturing fixes and inspections. The manufacturer only delivered 14 787s in 2021.

"Boeing's focus needs to be on getting that backlog cleared because there are nearly 130 aircraft parked and that cannot deliver," says Slattery.

Asked what Boeing has said about possible delivery dates, Slattery adds: "They don't have clarity. They literally don't have any clarity on the delivery."

Udvar-Hazy agreed the timing of delivery schedule remains elusive. "There is a department in Washington DC called the department of transportation, or the US Federal Aviation Administration. Right now, it is a headless ship, but why don't you call them and ask for a date on 1-800-FAA-787," he quips.

FAA administrator Steve Dickson left the agency on 31 March. Dickson had been in the role since 2019 after being nominated for the position by then-President Donald Trump.

"Mañana, mañana, Mañana [tomorrow, tomorrow, tomorrow]" is Boeing's response to questions about the restart of 787 deliveries, says Udvar-Hazy. "I have heard that for the past nine months. We have 11 787s in Charleston that are ready and painted, but we can't take delivery."

However, a source indicates there is talk of the FAA signing off on newly produced aircraft soon. "That may trigger one to two deliveries per month starting next month, but there is still no clarity on already produced aircraft," says the source.

Udvar-Hazy calls a summer resumption of deliveries "optimistic" and stresses the timing is "really a regulatory question" between Boeing and the FAA.

The slow pace is "all because of the Max, and what Boeing did with the Max," he adds.

There is oversight of Congress on the FAA. "It's an overreaction to a tragic set of events. But I have to say that Boeing did this to themself."

The 777X programme also has a big question mark over the timing of its certification approval. The aircraft is late after originally being targeted for delivery in 2020.

Boeing, which took a $6.5 billion charge on the programme because of delays and disruption in 2021, is not expected to achieve certification for the widebody before mid-to-late 2023.

Boeing's CEO, Dave Calhoun, says the manufacturer is "confident" the widebody will be certified in the fourth quarter of 2023.

Airlines for aircraft

Consolidation in the airline sector could present a solution for carriers looking to grow with limited access to aircraft slots.

Robin Hayes, CEO of New York-headquartered Jetblue Airways, made no secret of the value that Spirit Airlines' orderbook brings to the expected combined carrier.

"Acquiring new airplanes in the narrowbody market over the next few years will be very challenging," Hayes notes during an analyst call discussing the takeover proposal. He says access to Spirit Airlines' orderbook sets the merged carrier "up for success" with a "very compelling orderbook".

"Acquiring new airplanes in the narrowbody market over the next few years will be very challenging."

Robin Hayes, CEO, Jetblue Airways

Airfinance Journal's Fleet Tracker shows the combined entity would lead to an Airbus narrowbody fleet comprising about 400 aircraft, including 71 A320neo-family jets.

The combined carrier's orderbook would comprise another 312 new-technology Airbus narrowbodies, including 100 A321neos, 67 A320neos and 92 A220s.

Spirit also has 31 A319neos on its orderbook with the European manufacturer and expects to receive 24 new A320neo aircraft this year, increasing this fleet to 72 units.

Hayes adds that the merger will also provide flexibility to retire older aircraft and exercise aircraft options for additional aircraft.

A C-suite lessor, speaking on condition of anonymity, believes "some interesting dynamics could emanate" from the initial Spirit and Frontier merger agreement.

"And although Jetblue has entered the fray, I have to think that Alaska and American are on the bench and considering options," says the lessor, adding: "With the uncertainty of global recovery, everyone is focused on the domestic market, so there is a shortage of capacity. Sure, flying widebodies is an option, but it is not too attractive in today's fuel environment."

Financiers likely to shun Russia for significant time

Avolon CEO Domhnal Slattery does not expect aircraft lessors or banks to return to Russia quickly after sanctions are lifted. **Laura Mueller** reports.

Operating lessors had until 28 March to end their exposure in the region under European Union sanctions imposed over the invasion of Ukraine.

However, Avolon chief executive officer (CEO) Domhnal Slattery does not expect lessor appetite for the region to return any time soon, even if restrictions are lifted.

Regarding what post-war understandings would need to be in place for Avolon to consider doing business in Russia, he tells *Airfinance Journal*: "I think the appetite of the community in general and the appetite of the banks to provide capital into a post-negotiated Russian settlement will be very, very limited at best.

"Pre-war, we were pretty slow to embrace Russian risk. If you look at the scale of our portfolio in Russia over the past 12 years, our exposure was always pretty de minimis for the entire country, often 2% and often as low as 1%, so we were never a lessor with a big appetite for Russian risk because we perceived there to be political risk."

Avolon has a net exposure of "below $200 million" to Russian carriers after the repossession of four aircraft and the offsets of security deposits, maintenance and other fees. It has 10 units that remain in the region.

Slattery would not be drawn on whether Western governments could step in to help resolve insurance claims following Russia's seizure of leased aircraft, as suggested by the CEO of Air Lease, John Plueger, at a JP Morgan conference in March.

"It is very difficult to say. From our perspective, it's a headache, not a migraine. We believe our contingency and possession insurance policies are valid and in place," he says.

"I think the lessors will be obliged by their auditors to take the financial hits on this pretty quickly as soon as the first quarter and then begin to mitigate that risk either through insurance claims or otherwise. And then, it depends on what the scale of that ultimate claim will be and then what the various stakeholders want to pay. And that's going to be a long game, and how that plays out, who knows?"

Aercap submitted a $3.5 billion insurance claim in the first quarter on its $5 billion all-risks policy pertaining to the lessor's Russia-based aircraft and engine assets.

I think the appetite of the community in general and the appetite of the banks to provide capital into a post-negotiated Russian settlement will be very, very limited at best.

Domhnal Slattery, chief executive officer, Avolon

Prior to the sanctions Aercap exposure to Russian carriers was 135 aircraft and 14 engines.

Aercap's chief executive officer Aengus Kelly says 22 aircraft had been recovered from Russia along with three engines at the end of March.

Slattery remarks that the $3.5 billion insurance claim is a "big number."

Asked whether Avolon would submit a claim, Slattery reiterates his previous point that the lessor is insured and "will continue in line with the insurance policies."

The operating lessor does not expect lease revenues to return to growth before 2024 after figures slipped in 2021 and 2020 due to the financial fallout from the pandemic.

"It will take a couple of years for Avolon's P&L to heal, but it is tracking exactly as we expected it to, bar any financial impact from the Ukraine situation. Our plans for our revenue is growing by the month; these power-by-the-hour arrangements that we had to put in place in during the pandemic will gradually bleed off and get back into normal leases," Slattery says.

The lessor's full-year lease revenue totalled $2.14 billion in 2021 compared with 2020's total of $2.27 billion, which fell 13% compared with the $2.26 billion reported in 2019.

Boeing issues

On 24 March, the US Federal Aviation Administration warned Boeing that it might not gain certification of the Boeing 737 Max 10 ahead of a key safety deadline set by Congress.

Slattery says: "Unfortunately, it's another item on a long list of certification issues" that Boeing is trying to navigate. "And it feels that they are making little progress. There are not that many Max 10s sold, it is clearly another issue but it's not something that directly impacts us.

"I'd be much more focused on 787 deliveries and trying to get that backlog cleared because there are nearly 130 aircraft now parked but that they can't deliver."

Asked what Boeing has said about delivery dates, Slattery says: "They don't have clarity. They literally don't have any clarity on the delivery."

Aercap's Kelly is not fussed about delays regarding the delivery of Boeing products. The pace of the deliveries matters more, according to him.

"From our own unique position in the industry as the largest marginal supplier of capacity to the airlines, on the supply side, the longer airplanes don't deliver, the more positive it is for us. That's a fact, simple fact," he commented during the company's fourth-quarter earnings results.

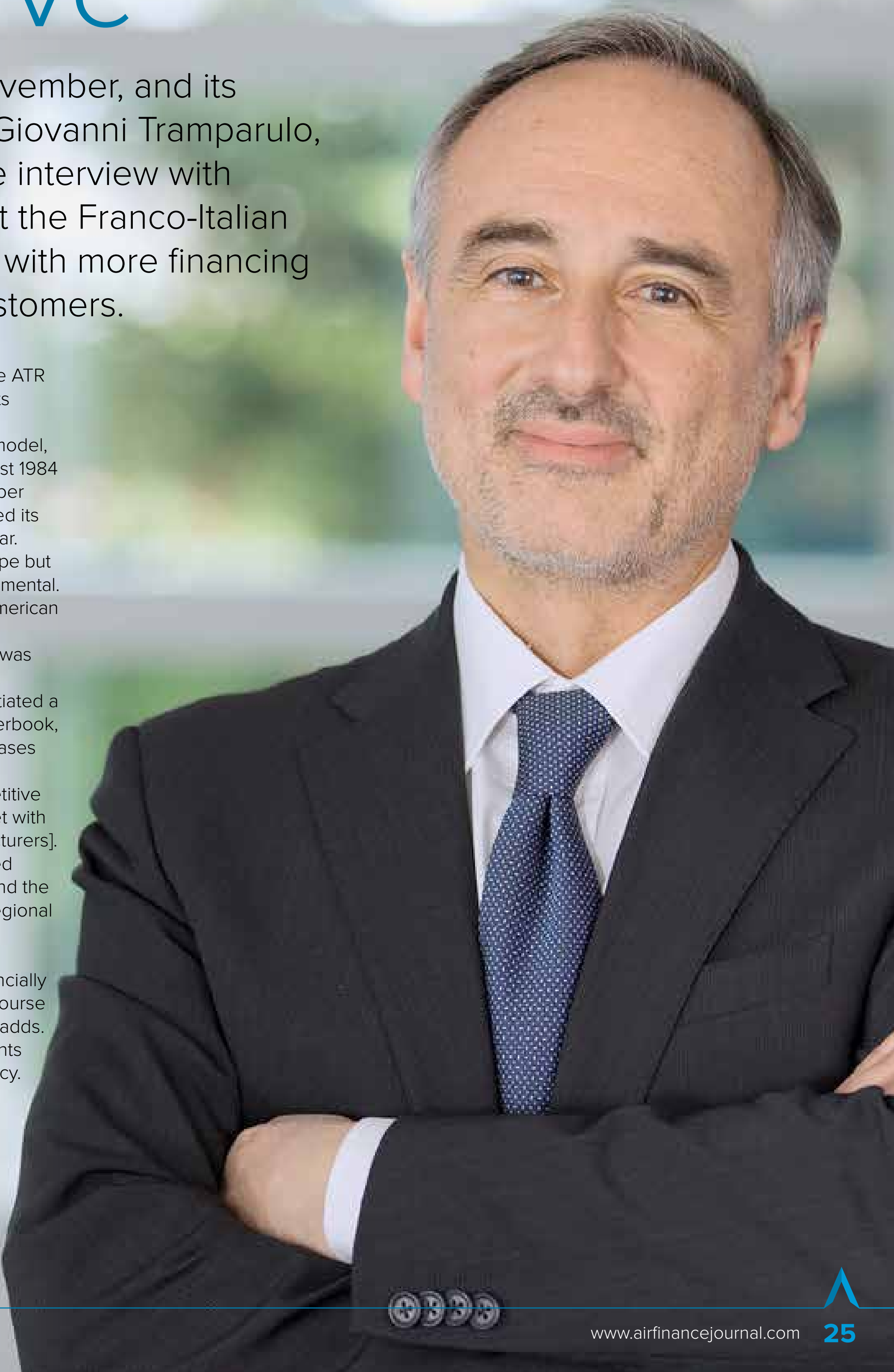
"Where we have supply hiccups, it's not always a bad thing for us," he adds.

Kelly observes that the Max 8 is in strong demand and that the gap in the lease rates between an Airbus A320neo and Max 8 models is "pretty much closed now".

"They're not that far apart at all where there was a significant gap for much of the last couple of years," he comments.

‘**Investing in aircraft assets** remains attractive’

ATR turned 40 last November, and its chief financial officer, Giovanni Tramparulo, reveals in an exclusive interview with *Airfinance Journal* that the Franco-Italian manufacturer is ready with more financing tools to support its customers.



“Financing was a shot in the arm to the ATR programme for the first 10 years of its existence,” says one industry source.

ATR’s first aircraft was the ATR42-300 model, which performed its maiden flight in August 1984 and received type certification in September 1985. Launch customer Air Littoral operated its first revenue flight in December of that year.

The company had early success in Europe but its penetration of the US market was fundamental. Over the years, ATR sold its products to American Airlines Eagle, Pan Am Express and Trans World Express, but the decisive campaign was Continental Express in 1987.

As part of the sale, the US carrier negotiated a guarantee from ATR for its 54-aircraft orderbook, which was financed through leveraged leases with the manufacturer’s guarantee.

“The 1985-95 period was a very competitive environment in the regional aircraft market with seven OEMs [original equipment manufacturers]. In the meantime, many new carriers started operations. The deregulation in Europe and the US provided an opportunity for start-up regional carriers,” says ATR’s chief financial officer, Giovanni Tramparulo.

“At the time, regional carriers were financially weak and financing was based on full recourse basis provided by the manufacturers,” he adds.

This led to OEMs’ profit and loss accounts being heavily exposed to risk of bankruptcy.

The major change occurred with IFRS norms and the privatisation of some companies involved in aviation. The IFRS accounting principle reduced OEM support to customers.

"If OEMs provided a guarantee of more than 10% of the total asset, the OEM could not book the margin on the transaction. Selling without booking any margins no longer made sense for the OEMs," says Tramparulo.

The regional market restructured in the late 1990s and early 2000s to leave effectively three main players: ATR and Bombardier along with Embraer, which focused on the regional jets.

"This led to a duopoly in the turboprop market with ATR and Bombardier, who adjusted their pricing and naturally reduced their recourse financing," he says.

In late 1980, ATR developed captive operating lessor structures with Banque Indosuez (now Credit Agricole-CIB), Societe Generale and Guinness Peat Aviation, where ATR had 25%, the banks had 12.5% and GPA had a 50% investment in the structure.

"We initially developed operating leasing first through those structures before having leasing companies as clients," says Tramparulo.

In 2021, operating lessors represented 47% of all ATR deliveries through sale and leaseback transactions. This was up from 23% in 2019.

Between 2000 and 2005, the market turned to regional jets and the turboprop manufacturers suffered as demand surged for 50-seat jets, which later moved to the 70- to 90-seat market.

While airlines were attracted by the speed of jet aircraft, they had no data on fuel consumption and maintenance costs, argues Tramparulo.

"Airlines did not realise about those costs before 10 years and consequently moved to larger jets to reduce their cost per seat," he says.

Over time the export credit agencies (ECAs) have supported around 18% of deliveries, according to Tramparulo.

"During the crisis period (2008-09) it reached 45-50% of deliveries. Today, we are at around 8% of the annual deliveries," he adds.

Tramparulo says the low ECA exposure is mainly because of the 2011 Aviation Sector of Understanding (ASU) conditions created by the Organisation for Economic Cooperation and Development regarding commercial aircraft export financing.

As fees increased, based on a curve model, the rationale was that the best-rated borrowers had access to other sources of financing. Therefore, there was less incentive to provide them with ECA guarantees.

ASU conditions were more expensive and customers moved to other sources of financing.

Operating lessors for ATR products started to surface about 2007-08, he recalls, with the first sales contracts in 2010 and 2011 with Air Lease, Nordic Aviation Capital (NAC) and GECAS.

"Today, around 45% of ATR aircraft are purchased by lessors."

Giovanni Tramparulo, chief financial officer, ATR

Those commitments provided a platform for the manufacturer.

"Today, around 45% of ATR aircraft are purchased by lessors. Operating leases provide flexibility for airlines and are less complex than bank financing," he says.

"Some banks traditionally finance ATR products. Those know the value of regional aircraft and support ATR. Our average typical financing covers one to five aircraft at $20-100 million. Some banks are interested in big ticket transactions while others are more restricted to lower amounts."

Inflation favours asset owners

Investing in aircraft assets remains attractive, says Tramparulo. "The 10-year US Treasury bond is 2.33%, French 10-year Treasury bond is 0.95%. The risk is limited but so are the rewards. Inflation in the euro zone was 7.5% in March.

"With current interest rates and inflation, it is difficult to understand why an investor would choose to buy prime European government bonds at current price levels, which essentially guarantees a loss of purchasing power and a loss of capital if you need to sell them," he adds.

Tramparulo argues that investing in aircraft as an asset is a natural hedge, like in the late 1980s. "At that time, capital gain on future residual values was almost certain," he says.

Buying into lease transactions or companies at a price/earnings ratio of about 10 times guarantees a dividend yield higher than 10-year bond yields, with the added prospect of growth, he says.

"A well-managed operating lessor can expect a return on equity of 10-12%, which is very attractive at current inflation rate and current government bond yields.

"In the next few years, we may have a gain on the future value of the aircraft. This is a turning point because over the past 10 years the interest rates have remained low and in a low inflationary environment making money was relatively difficult," he says.

Residual value impact

ATR has a dominant position in the 50- to 80-seat sector, but should Embraer introduce a new turboprop aircraft, could ATR residual values be impacted?

"The fact that there is potentially a new competitor in the market has no effect on residual values. The impact on residual values is based on volumes and market penetration," says Tramparulo. "The demand-and-offer equilibrium dictate residual values behaviour, not the number of actors in the market.

"If there is another manufacturer in the turboprop market, it shows that there is a market. To invest into a new product demonstrates you are comfortable with market demand and market share."

Different financing approach

In 2021, ATR delivered 31 aircraft to customers. According to Tramparulo, the ECAs represented 8% of all deliveries. Sales and leasebacks represented 47%. Aircraft financed under commercial debt totalled 28% of deliveries, while the remaining 18% were cash sales.

"Cash financing is relatively stable, despite airlines' difficulties over the past two years. There have always been cash sales," stresses Tramparulo, "but those may also include corporate types of financing, not asset-financed types."

He says risk profile analyses in the regional market are different from traditional carriers for a comprehensive credit assessment.

"Regional airlines are smaller than traditional airlines and operate smaller fleets. When we analyse regional airline risk profiles, we go beyond the profit-and-loss account and their market share," he says.

Tramparulo says regional airlines may:

- be essential to a local population (in particular for islands);
- be essential to the development of tourism of a country;
- operate subsidised routes, which means no competition and stable profit; and
- operate routes with no or limited competition and good profitability or low but stable profitability.

"With regional airlines, it is more about connectivity and essential air services. We also look at their shareholders, vertical integration in the industry or simply diversification of their investments," says Tramparulo.

Growth opportunities

ATR sees many opportunities for growth.

There are more than 1,200 turboprops in the 30- to 70-seat category that need replacement, and this replacement wave has already started in many countries such as Japan with Japan Air Commuter and Hokkaido Air System, in the USA with Silver Air, both countries replacing ageing Saab 340s. The most recent example of this trend is Maldivian introducing ATRs to replace its ageing turboprop fleet.

ATR's secondary market has proven to be very dynamic during the pandemic. The number of aircraft available increased in 2020 because of the contraction in demand caused by Covid-related travel restrictions, but is now drying up.

"In 2021, we recorded close to 50 transactions on the ATR72-500, an amount comparable to what we saw in 2019 and we welcomed nine new ATR operators. Similarly on the ATR72-600, we registered close to 50 transactions and five new ATR operators," says Tramparulo.

"The trend on the secondary market is accelerating this year on the ATR72-600 model for which we have visibility of more than 30 new aircraft commitments, while on the ATR72-500 we are seeing an all-time low number of aircraft available," he adds.

The ATR42-500/-600 remains in high demand, he notes, and there are only a few units available on the market.

The boom of the freighter market has also been an important driver in 2021 with 17 passenger-to-freighter conversions.

In addition, with the e-commerce boom, the freighter market is growing exponentially. The manufacturer foresees a demand for 460 freighters over 20 years in the up-to-nine-tonne category. ATR offers a brand new dedicated freighter aircraft, the ATR72-600F.

NAC restructuring impact

Tramparulo says the current situation of NAC, ATR's largest operating lessor, does not change the manufacturer's approach to the ATR operating lease market.

He emphasises that the interest from operating lessors and financial institutions in ATR products in the regional market is driven by the significant number of countries where the ATR is in operation (100 countries) and the high number of operators (200 airlines).

Geographical diversification is a way of reducing portfolio financial risk by avoiding excessive concentration in any one market or with a limited number of operators.

Tramparulo says: "This has always been the ATR strategy."

Balthazar's brother

The insurance market is the latest source for ATR financing. Welcome to Melchior.

Over the past 40 years ATR has increased its spectrum of financing solutions for customers to complement traditional sources in the aviation finance market, embracing commercial debt, export credit financing and tax-enhanced financing schemes – Japanese operating leases with call options (Jolcos), French tax leases.

The latest initiative targets the insurance market.

"The insurance market is an area that we are pursuing because it makes sense: the aircraft investment profile matches well with the long-term conservative, low-risk appetite of insurance companies. Institutional investors, hedge funds and the capital markets are all seen as potential financiers of aircraft," says ATR's chief financial officer, Giovanni Tramparulo.

"Like Boeing has developed AFIC or Airbus has developed Balthazar, ATR has developed an aircraft non-payment insurance product: Melchior," he says.

The product was developed as an alternative source of financing for new ATR aircraft beyond the traditional sources of aircraft financing.

Airfinance Journal understands that an insurance policy is in place and Liberty Global, SCOR, Everest Re and XL Catrin have formed a consortium of insurance companies as the initial underwriting panel to provide capacity to fund ATR aircraft.

"We have teamed up exclusively with Marsh to develop financing with private insurance companies. We have not yet closed any transactions using this product but this is available," says Tramparulo.

The initial banks involved in Melchior include Bank of China London Branch, Bank of China (UK), BNP Paribas, Credit Industriel et Commercial, Credit Agricole-CIB, KFW IPEX-Bank, Development Bank of Japan, Landesbank Hessen-Thüringen (Helaba), Mitsubishi UFJ Financial Group, Natixis, Societe Generale-CIB, Standard Chartered Bank and Sumitomo Mitsui Banking Corporation.

Tramparulo explains that the product is a relatively similar concept to export credit support, providing an insurance guarantee to lenders who rely on the credit of insurers underlying the Melchior product.

"This product will help ATR customers to attract funding at competitive rates. It can also accommodate a variety of transaction structures from finance lease to Jolcos," he says.

"We are always looking to innovate and enlarge our financing sources. With this product we can reach long-term investors with a stream of revenues like insurance companies. Our products last and this is comforting for investors. We still have 118 aircraft that are more than 30 years old in operation. This demonstrates that our assets are long-term investments," he says.

The export credit agency (ECA) option for financing assets remains available.

"What we are asking from the ECAs is more agility and more reactivity. We normally factor nine months to implement an ECA-supported transaction and this is too long," says Tramparulo.

There have been some capital markets transactions including ATR aircraft, but the product does not match this form of financing.

"The capital markets are not naturally structured for regional aircraft because of the transaction sizes. Our type of transactions are smaller in size than typical capital market deals," he says.

In the current environment, Tramparulo sees a case for leveraged leases, for which the US market usually has long tenors.

"US leverage leases needed high interest rates," he says. "Without those, the product was irrelevant. Leverage leases require amortising the asset, cash flows, and this product could come back in the future, especially in an inflationary environment."

Lessors see **A330 cargo conversion** appetite

Olivier Bonnassies examines Avolon and CDB Aviation moves to convert some of their Airbus A330 passenger aircraft into freighters.

Lessors Avolon and CDB Aviation have a total of 85 Airbus A330 passenger aircraft, and are converting some of those widebodies into freighters.

Avolon's A330-200 and A330-300 portfolio comprises 54 units, about half of which is less than 10 years of age. CDB Aviation's A330 age profile is different as almost 60% of its fleet is between 10 and 16 years of age.

Its A330-200/-300 portfolio numbers 31 units, *Airfinance Journal*'s Fleet Tracker shows, with the majority being the -300 model.

Recently, CDB Aviation further increased its A330 passenger-to-freighter (P2F) programme with the addition of 12 conversions, bringing its A330P2F programme to 14 aircraft.

The lessor will expand its global conversion footprint by becoming the first customer for A330P2F conversions at the facilities of ST Engineering in Shanghai, China, and VT MAE in Mobile, USA.

These conversion locations have been added to the existing A330 P2F conversion facilities of Elbe Flugzeugwerke (EFW) in Dresden, Germany, and ST Engineering in Singapore. By the middle of 2022, the lessor plans to have aircraft converted simultaneously at three locations – in Dresden, Shanghai and Mobile.

It has added two new customers: Sichuan Airlines and Jiangxi Cargo Airlines for a total of three units, in addition to Mexico-based Mas Air Cargo.

CDB Aviation is bullish about the long-term prospects of the medium widebody cargo segment.

"The advance of e-commerce in the past year certainly informed our significant investment decision – 78% of the medium widebody fleet flies for express and e-commerce operators," says Cronan Enright, CDB Aviation's head of strategy.

"We think that the growth seen during the pandemic is now locked in and here to stay, and we see e-commerce as being a strong stabilising influence when air cargo was previously probably more prone to volatility," he adds.

Enright stresses that for CDB Aviation, 2021 was the year when the A330P2F came of age and finally gained the traction that it had promised.

In part, this was because of the growth of the medium widebody freighter fleet, which grew 7% in the past 12 months to 685 aircraft to satisfy strong express/e-commerce demand.

Enright also notes a replacement requirement for older freighters types, with 45% of today's medium widebody fleet being over 25 years of age.

He believes the freighter is also popular because of market recognition of some key A330P2F attributes: its greater volumetric capacity at a time when cargo densities are falling; its 62-tonne cargo capacity; its lower unit costs; its lower environmental footprint; and the advantages of fly-by-wire Airbus commonality.

Lessor innovation

Avolon partnered last year with Israel Aerospace Industries Bedek to become the launch customer for the A330-300 cargo conversion programme, with a commitment for 30 conversion slots.

The Ireland-based lessor says the global airfreight market is worth more than $150 billion annually and the sector is transforming, with air cargo traffic expected to double over the next 20 years.

Avolon has secured slots over a three-year period between 2025 and 2028.

In an interview with *Airfinance Journal*, Avolon's chief executive officer (CEO), Domhnal Slattery, says Avolon could convert all of its A330 feedstock.

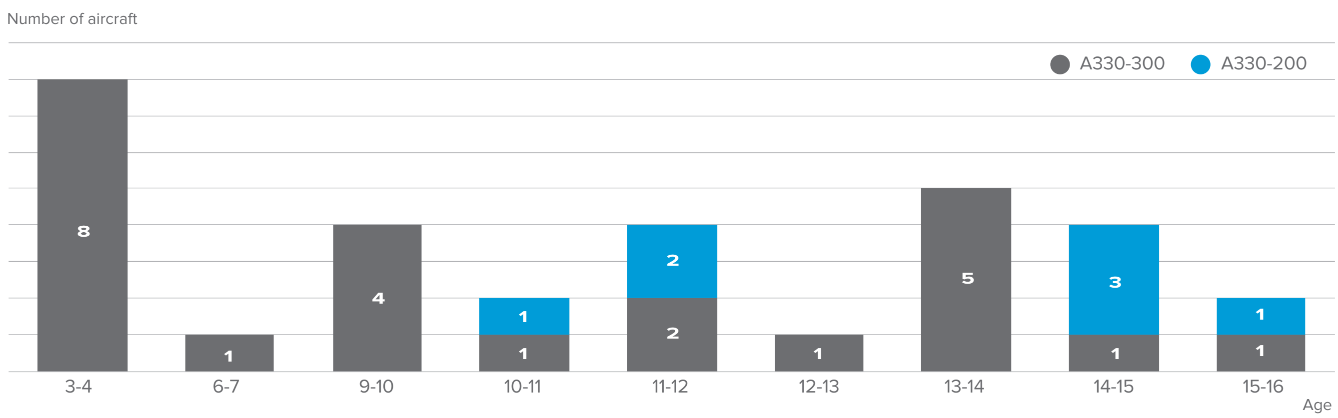
"We are going to convert all of these A330 freighters, certainly 30 of them, but I think we will convert between 50 and 100 aircraft," he says.

Slattery sees increasing appetite in the widebody freighter market and talks about "innovative lessors" addressing their feedstock.

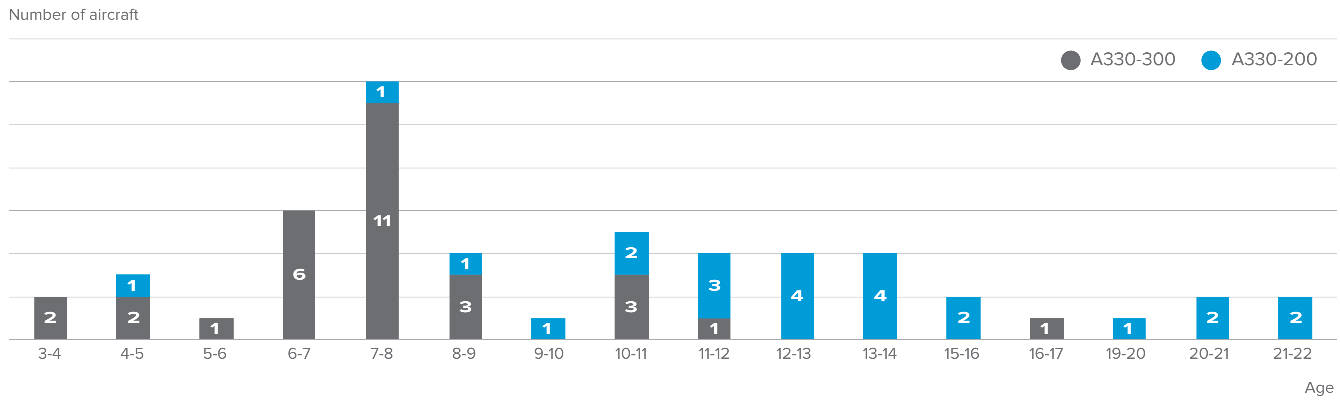
"You will say the more innovative lessors, dare I say Avolon is one of them, starting to figure out where we can create value for shareholders and add value to customers, something fundamentally different," he says.

Avolon has been involved in the e-VTOL market and launched Avolon-e last year, but Slattery also sees other projects outside Avolon's "bread and butter" space.

CDB Aviation A330 passenger fleet (AFJ Fleet Tracker, Feb 2022)



Avolon A330 passenger fleet (AFJ Fleet Tracker, Feb 2022)



"Starting its own freighter AOC is something Avolon could look at, especially if a freighter airline would have a better protection if vertically integrated. That is the question," he tells *Airfinance Journal*.

Another leasing platform, Altavair, has committed to acquire six A330-300s and 16 A330-200s from Etihad Airways, and *Airfinance Journal* understands that the company has agreed to purchase another four A330-300s from an undisclosed customer for conversion.

Altavair sees demand for both converted models, although the market is more for larger demand for the volume capability offered by the -300 model.

The leasing platform has 14 firm A330 conversion slots, of which four will be used for A330-200 conversions with two converted aircraft each going to MAS Cargo Airline (Mexico) and Hongyuan Holdings Group (China).

The other 10 A330-300s are committed to an undisclosed operator.

Early this year conversion house EFW delivered its first A330-200 passenger-to-freighter converted aircraft to Altavair, for forward lease to Mexico's Mas Air.

To meet the rising demand for freighter conversions, ST Engineering and EFW will set up new conversion sites in China and the US this year, and ramp up total conversion capacity for all their Airbus P2F programmes to about 60 slots a year by 2024.

Air Transport Services Group (ATSG) is coming into the A330-300 converted cargo freighters market. *Airfinance Journal* understands that the US company has secured its first conversion slots with EFW for mid-2023.

Smartlynx Airlines has signed an agreement with ATSG to lease six A330-300 converted cargo freighters on six-year leases.

ATSG plans to invest in next-generation A321 and A330 conversion positions to capitalise on mid-range freighter demand.

Its subsidiary, Cargo Aircraft Management, will enter the A330 leasing market in 2024 with the first of at least 20 converted freighters to be leased between 2024 and 2026.

The company will target Boeing 767, 777 operators in European and Pacific markets for medium range air cargo delivery.

"We intend to continue expanding our lease options for e-commerce and express shipping customers around the world while providing a suite of complementary service options, including engine and airframe maintenance support, flight services and logistics," says Mike Berger, chief commercial officer with ATSG.

Current fleet

Worldwide, 13 A330s have so far been converted into P2F versions, according to Fleet Tracker: nine A330-300P2Fs and four A330-200P2Fs.

Air Hong Kong, EAT Leipzig, DHL Air, Egyptair Cargo, Mas Air Cargo, Smartlynx Airlines Malta and Titan Airways are the main operators of the fleet.

The average age is about 14 years for the A330-300P2F fleet and 16.5 years for the A330-200P2Fs.

There are also 38 factory-built A330-200Fs in service and storage.

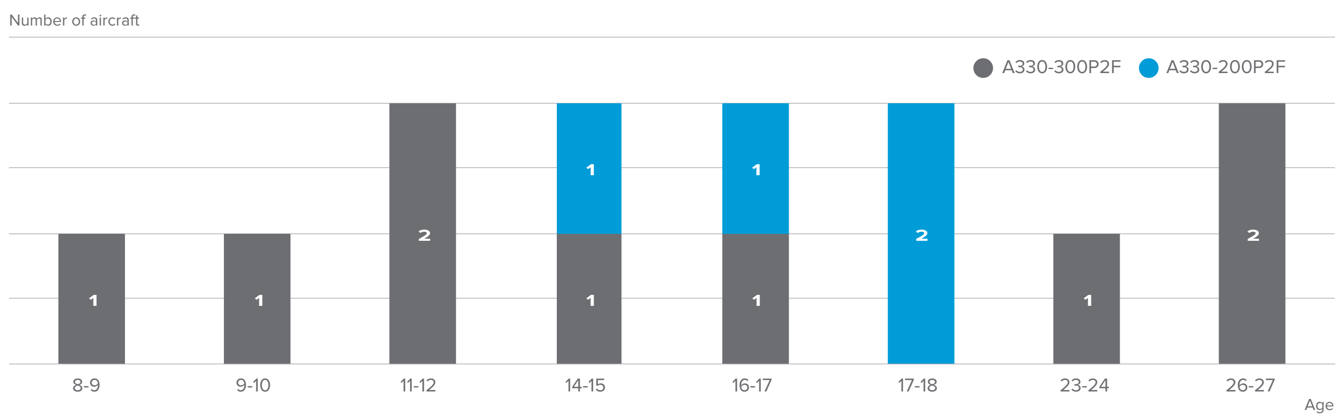
Fleet Tracker shows an A330-200/-300 passenger fleet of 1,214 units in service and storage. About 565 units, or 45.5% of the total fleet, are managed by operating lessors. More than 350 of those are aged between four and 14 years.

Aercap is the largest lessor with exposure to the A330-200/-300 fleets, with 82 aircraft owned and/or under management, the data shows. Avolon and CDB Aviation are second and third, respectively.

Carlyle Aviation Partners and DAE Capital complete the top five lessors.

Fleet Tracker shows that 19 leasing entities, having more than 10 A330s in their portfolios, represent 76% of the operating lessors' total.

A330P2F fleets (AFJ Fleet Tracker, Feb 2022)



Airfinance Journal **Awards shortlists**

AIRFINANCE JOURNAL **AWARDS**2021

Airfinance Journal received more than 255 submissions for its 2021 Awards, covering 174 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 senior aviation finance executives representing the banking and leasing industries:

- **Michel Dembinski**, former head of aviation EMEA, MUFG Bank;
- **David Goring-Thomas**, former MUFG managing director, head of global aviation finance;
- **Declan Kelly**, former chief commercial officer GECAS/chairperson Aircraft Leasing Ireland;
- **Richard Forsberg**, former head of strategy, Avolon;
- **Bertrand Grabowski**, independent adviser and former 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 shortlisted deals for each award category, the judges will, completely independently, select the winners from your submissions.

There are 30 categories considered in the *Airfinance Journal* 2021 Awards.

There are 30 categories considered in the *Airfinance Journal* 2021 Awards

Africa-Middle East Deal of the Year
- DAE Capital $1 billion unsecured bond
- Saudia SAR11.2 billion ($2.99 billion) Shariah-compliant term financing facility
- Flydubai AFIC-supported Japanese operating lease (Jol) for one Boeing Max 8 aircraft

Asia-Pacific Deal of the Year
- Crianza Aviation $425 million Balthazar-guaranteed loan for three aircraft
- AVIC Leasing $180 million Balthazar-guaranteed loan for four Airbus A321neo aircraft
- Philippine Airlines' pre-negotiated Chapter 11 cross-border restructuring

Europe Deal of the Year
- Aercap $2 billion term loan B
- Easyjet $1.87 billion commercial loan
- Turkish Airlines US Ex-Im Bank French Lease for nine 737 Max and three GEnx engines

Latin America Deal of the Year
- Avianca restructuring
- Aeromexico operating lease for 12 Max 8 aircraft
- Avianca $482 million sale and leaseback for 27 aircraft

North America Deal of the Year
- United Airlines $4 billion bond issuance and $5 billion term loan B
- American Airlines AAdvantage loyalty programme financing
- Castlelake $1 billion warehouse facility

Bank Loan Deal of the Year
- Castlelake $1 billion warehouse facility
- Griffin Global Asset Management $1 billion commercial loan
- Easyjet $1.87 billion commercial loan

Guaranteed Financing Deal of the Year
- Crianza Aviation $425 million Balthazar-guaranteed loan for three aircraft
- Pegasus Airlines $400 million UKEF-guaranteed finance lease for 10 aircraft
- AVIC Leasing $180 million Balthazar-guaranteed loan for four A321neo aircraft

Tax Lease Deal of the Year
- Flydubai AFIC-supported Jol for one Max 8 aircraft
- SAS Japanese operating lease with call option (Jolco) for one A350-900 aircraft
- Atlas Air Jolco for two 747-8F aircraft

Sale and Leaseback/ Operating Lease Deal of the Year
- Aeromexico operating lease for 12 Max 8 aircraft
- China Eastern Airlines CNY2 billion ($314 million) sale and leaseback for 12 A321 aircraft
- Spirit Airlines $3.4 billion sale and leaseback for 63 aircraft

Structured Lease Deal of the Year
- Flair Airlines finance lease for five Max 8 aircraft
- Turkish Airlines Italian lease combined with ACG guarantee for three A321neo aircraft

Used Aircraft Deal of the Year
- Stellar 2021-1 $282 million asset-backed securities for 21 aircraft
- Avianca sale and leaseback for 27 aircraft
- SAS $18 million portfolio financing for four aircraft

Cargo Deal of the Year
- CDB Aviation $240 million 12 A330P2F conversions
- KKR/Altavair $300 million four A330-200 conversions and leases
- Lufthansa Jolco financing for three 777F aircraft

New Fund/Alternative Financing Platform Deal of the Year
- Castlelake $2.6 billion inaugural capitalisation
- Gilead Aviation $1 billion warehouse facility
- ABL Aviation-Ellington JV

Equity Deal of the Year
- Cebu Air $840 million capital raising and liabilities reprofiling
- Easyjet £1.3 billion ($1.7 billion) rights issue and $400 million revolving credit facility
- Lufthansa €2.16 billion ($2.39 billion) rights issue

M&A Deal of the Year
- KKR $650 million purchase of CIT loan portfolio
- Aercap/GECAS $34 billion merger
- Carlyle $2.36 billion acquisition of Fly leasing

Airline Restructuring Deal of the Year
- Avianca restructuring
- Malaysia Airlines restructuring
- Norwegian Air Irish Examinership

Lessor Unsecured Bond Deal of the Year
- BOC Aviation $1 billion unsecured notes
- DAE Capital $1.25 billion unsecured notes
- Aercap/GECAS merger $21 billion unsecured notes

Airline Bond Deal of the Year
- Wizz Air €500 million unsecured bond
- Ryanair €1.2 billion unsecured bond
- Hawaiian Airlines $1.2 billion secured notes

ABS Deal of the Year
- Stellar 2021-1 $282 million for 21 aircraft
- SLAM 2021-1 $663 million for 16 aircraft
- SALT 2021-1 $893 million for 156 aircraft

Sustainability Financing Deal of the Year
- British Airways $553 million enhanced equipment trust certificate (EETC) for seven aircraft
- Air France $111 million A350-900 Balthazar-backed sustainability-linked senior secured loan

Environmental/ESG Leadership Deal of the Year
- CMB Leasing ¥15 billion ($122.4 million) green loan
- British Airways $553 million EETC for seven aircraft
- Air France $111 million A350-900 Balthazar-backed sustainability-linked senior secured loan

Best ESG Initiative of the Year
- Aviation Working Group's Carbon Calculator (ACC)
- Air France-KLM's ESG rating issued by Standard & Poor's
- CMB Leasing ¥15 billion green loan

News Event of the Year
- Presented by the *Airfinance Journal* editorial team

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

Innovative Deal of the Year
- SALT 2021-1 $893 million for 156 aircraft
- American Airlines $70 million cargo receivables securitisation
- SAS Jolco financing for one A350-900

Overall Capital Markets Deal of the Year
- Hawaiian Airlines $1.2 billion secured notes
- SLAM 2021-1 $663 million for 16 aircraft
- SALT 2021-1 $893 million for 156 aircraft

Overall Deal of the Year
- American Airlines AAdvantage loyalty programme financing
- Aercap/GECAS $34 billion merger
- Carlyle $2.36 billion acquisition of Fly Leasing

TEAM SHORTLISTS

Aviation Finance House of the Year
- Credit Agricole-CIB
- Societe Generale-CIB
- MUFG

INDIVIDUAL AWARDS

Aviation Person of the Year
- To be announced at the event on 5 May 2022

Lifetime Achievement
- To be announced at the event on 5 May 2022

Single-aisle aircraft **values recovering**

Current generation narrowbody values are returning to pre-pandemic levels, but the impact of the war in Ukraine on 737NG models and the original A320 family is as yet unclear.

The availability of passenger-to-freight conversion programmes bolsters 737-800 values

The respective fortunes of the Boeing 737 Max and Airbus A320neo have been at the forefront of industry discussions over the past two years, but the values and lease rates of the current generation models continue to play a significant role in the fortunes of lessors and financiers.

A look at fleet sizes illustrates why this will remain the case for some time. Fewer than 3,000 A320neo and 737 Max models have been delivered, whereas the combined in-service fleet of current generation models exceeds 11,500 aircraft, with close to 1,500 more in storage.

It appears that values are recovering across most narrowbody aircraft, but the 737-800 is performing particularly well. As yet the impact on values of the sanctions on Russia following the invasion of Ukraine is unclear. The non-return of aircraft may have an impact on supply but the sanctions remove a market that has previously absorbed A320s and 737s.

A greater concern is the impact that the conflict will have on political instability and the potential economic damage it will cause.

Market activity

Based on reporting by *Airfinance Journal*, there has been more activity recently for the 737-800 model than for the A320 family. Examples of deals for the Boeing aircraft include the introduction by Chinese carrier Sunan Ruili Airlines of a seven-year-old 737-800.

China continues to be an important market for 737NGs, particularly as the country's ban on the 737 Max continues. However, all Chinese operators will be concerned following China Eastern Airlines' grounding of its 106 737-800s in the wake of the crash which killed 132 people on 21 March.

Cargo conversion

Cargo conversions are becoming increasingly popular as lessors see the potential to support values of their assets. Some appraisers consider that market values of the 737NG, in particular, are being supported by the availability of a number of cargo-conversion programmes and an apparent demand for converted aircraft.

The availability of conversions for the A320 family lags behind the offering for 737 models with the A321 widely regarded as the best freighter candidate.

Appraiser views

There is a consensus among the appraiser community that values are returning, but opinions on how quickly and how completely the market will recover vary.

Lindsey Webster, senior vice-president asset valuations at MBA, sums up the outlook. "In the post-vaccine era, a fair amount of uncertainty with aircraft value recovery remains, especially as we enter a time of rising oil prices and interest rates and a fragile geo-political environment," she says.

MBA are among the companies that are most positive about the 737-800. Webster says: "Based on where values have fallen to and expectation for recovery, we anticipate values for the 737-800 will see the fastest recovery with a fair chance of market values returning to base, though lease rates are expected to remain depressed in the near term."

There are a number of factors behind the relative strength of the Boeing aircraft, not least the slow return to service of the 737 Max. Another factor is that availability has been limited thanks to a demand for feedstock for freighter conversions. MBA estimates that nearly 6% of the remaining passenger fleet has been committed to conversion.

MBA believes the A321 could have similar, if not greater, success than the 737-800 in terms of demand for conversions. However, Webster points to the additional capabilities of the A321neo compared with its predecessor as a negative factor for the values of first-generation aircraft.

Fleets of previous-generation single-aisle aircraft

Model	737-700	737-800	737-900ER	A319	A320	A321
Years of build	1997-2018	1998-2020	2007-19	1996-2021	1988-2020	1994-2021
Total deliveries	1,113	4,874	504	1,405	4,689	1,689
In service	819	4,351	448	999	3,457	1,456
Stored	139	438	56	199	716	200

Source: *Airfinance Journal* Fleet Tracker, 30 March 2022

She concludes: "Given that A321neo production is ramping back up, the A321-200 may see a slower value recovery, particularly if passenger demand stalls and fuel prices remain high."

Olga Razzhivina, senior Istat appraiser at Oriel, says the recovery in the narrowbody sector is being led by domestic and regional traffic picking up – particularly as the Northern Hemisphere summer begins. In this context, at the end of March, the company increased its estimates for lease rates for all variants.

Razzhivina says: "The incumbent generation has a large installed fleet and the younger aircraft will have a role to play throughout this decade. Of the Boeing aircraft, we expect the 737-800 will continue being the strongest variant. Although the 737-900ER is larger, its fleet size and dispersal are not sufficient for strong performance. Of the Airbus aircraft, the focus may shift towards the A321, especially the sharklet-equipped younger versions because they can complement the A321neo fleets."

However, the growing fuel prices and increased environmental, social and governance factors may hasten fleet replacements and reduce the incumbent generation's role.

Mike Yeomans, director, valuations and market analysis, IBA, also sees the availability of passenger-to-freighter (P2F) conversion programmes as a factor in the 737-800's value performance. IBA estimates more than 100 aircraft have been converted across the various production lines.

He also provides some further background on how the in-service fleets of the Neo and Max models are impacting values of the previous-generation aircraft. IBA says there are about 740 737 Max aircraft in service, including parked and stored aircraft that have been delivered to customers. By comparison, about 2,150 A320neo-family aircraft are in service.

Yeomans explains the significance of this differential.

"Operators of Airbus A320ceo-family aircraft have commonly selected the A320neo for their future fleet requirements, and Boeing 737NG family operators have often selected the 737 Max," he says. "As such, a faster rate of A320neo delivery means that there is potential for more A320-family aircraft to be displaced by the new deliveries and create supply in the secondary market. This is something IBA has seen during the pandemic and grounding of the Max. Both the number of parked and stored A320 aircraft and the inventory on ground with lessors have been higher for the A320ceo compared with the 737-800."

Yeomans expects values of the first-generation A321 to stage a stronger recovery compared with the A320. He says market feedback on the A321P2F conversion is very positive and this will benefit the supply and demand balance as it has for the 737-800.

Gueric Dechavanne, vice-president, commercial aviation services, Collateral Verifications (CV), also expects the 737-800 to perform well, not least because Boeing has a long way to go before it reaches a mature production rate for the 737 Max.

Dechavanne echoes the thoughts of other appraisers on the ramping up of A320neo production and how operators will be tempted by the significant advantages offered by the latest-generation aircraft. He sees the A321 doing well for a while as traffic recovers, but suggests a similar trend to the A320 as production of the largest Neo model is ramped up.

CV sees both the A319 and 737-700 as niche aircraft that can work well for certain markets which do not have sufficient traffic to support A320s or 737-800s. However, market demand for these models will remain limited as airlines look to the more efficient A220s or Embraer E195-E2s for thinner routes and markets. Dechavanne also sees the 737-900ER as a niche product.

Current market value for last year of build ($m)

Model	737-700	737-800	737-900ER	A319	A320	A321
CV view	21.4	32.2	31.0	19.8	33.5	40.2
IBA view	21.9	35.9	34.3	29.4	32.4	44.5
MBA view	26.7	37.7	39.7	20.6	38.6	47.9
Oriel view	17.1	30.6	29.1	27.4	33.8	41.6

Current market value 10-year-old models ($m)

Model	737-700	737-800	737-900ER	A319	A320	A321
CV view	14.9	22.0	20.9	11.8	20.9	27.5
IBA view	14.5	21.2	21.7	13.1	17.5	22.9
MBA view	16.1	21.9	22.9	12.2	20.1	23.6
Oriel view	10.4	16.1	16.2	11.2	15.1	17.6

Lease rate for last year of build ($'000s/month)

Model	737-700	737-800	737-900ER	A319	A320	A321
CV view	175	240	250	180	250	310
IBA view	158	226	227	178	207	270
MBA view	165	234	246	128	239	297
Oriel view	145	240	240	190	260	275

Lease rate 10-year-old models ($'000s/month)

Model	737-700	737-800	737-900ER	A319	A320	A321
CV view	130	170	180	115	160	220
IBA view	123	154	162	127	142	184
MBA view	120	165	165	85	150	175
Oriel view	115	175	180	95	160	170

Advantage turboprops as fuel prices rise

The regional aircraft market proved relatively resilient during the Covid pandemic, but rising fuel prices make the older generation aircraft increasingly expensive to operate. **Geoff Hearn** considers whether a new-generation turboprop might offer a solution for airlines seeking a 90-seat aircraft.

Embraer is proposing both 70- and 90-seat turboprops

Airlines that identify a need for an aircraft seating between 70 and 100 seats are limited in their options. Several aircraft in that size category, such as the CRJ900, are out of production. The new-technology aircraft such as the Embraer E2 models and the Airbus A220 typically accommodate in excess of 100 seats.

The Embraer 175 is arguably the most successful aircraft in that category, but the manufacturer has announced a three-year pause in the development of the second generation (E2 version).

It says: "The reprogramming of activities is associated with the ongoing US mainline scope clause discussions with the pilot unions regarding the maximum take-off weight limitation for aircraft with up to 76 seats, together with current global market conditions for commercial aviation and the continuing interest in the current E175 jet in the US market." Embraer now anticipates the E175-E2 will enter into service in 2027-28.

The only aircraft in that size category, apart from the E175, with substantial order backlogs are the Chinese ARJ21 and the Russian-built Sukhoi Superjet. Neither aircraft has potential to enter the western market. The Chinese aircraft does not have the necessary certification and any remaining potential export market for the Sukhoi model has been removed with the sanctions on the Russian economy, following the invasion of Ukraine.

The Covid pandemic and difficult market conditions contributed to the demise of Mitsubishi's proposed Spacejet models, which would have competed in the 70- to 100-seat market segment, but now seem unlikely to enter production.

Time for the turboprop?

The economic climate might suggest that there is an opening for a large turboprop. In contrast to the situation with the E175-E2 development, Embraer appears to be increasingly keen to launch a new-design

Current, recent and proposed aircraft types with capacity about 90-seats

Manufacturer	Type	Typical seats	Maximum seats
ATR	ATR72-600	72	78
De Haviland	Dash 8-400	74	90
Embraer	E175	76 (in US configuration)	88
Spacejet	M100	76 (in US configuration)	88
Bombardier/Mitsubishi	CRJ900	88	90
Comac/Avic	ARJ21-700	85	95
Spacejet	M90	88	96
Embraer	E190	98	114
Sukhoi	SSJ	98	108
Bombardier/Mitsubishi	CRJ1000	100	104
Embraer	E190-E2	106	114
Airbus	A220-100	110	133

turboprop, with the company hoping to make a decision in the next 12 months. Given the go-ahead within a year, the new aircraft could potentially enter service around 2027.

In reports from the Singapore air show in February, Embraer commercial aviation president, Arjan Meijer, is quoted as saying that the proposed turboprop would be less noisy than existing aircraft. The currently proposed rear-engined configuration would help reduce cabin noise, which is often cited as a deterrent to passenger acceptance.

Embraer is proposing both 70- and 90-seat turboprops. The pair will use the same fuselage as its E2 regional jet family, which will simplify production. However, the availability of a suitable new engine capable of delivering substantial fuel burn savings compared with current generation powerplants is seen as a key requirement for the programme to be launched. Embraer is in talks with Pratt & Whitney, Rolls-Royce and General Electric (GE).

If launched, the larger of the two Embraer models would have more capacity than the ATR72-600. The Franco-Italian manufacturer has muted the possibility of introducing a larger turboprop, but has no plans to launch such an aircraft. The company has a policy of updating the ATR72-600 and the model continues to chalk up sales.

The ATR72-600 is well regarded by the financing community, having topped *Airfinance Journal*'s Investor Poll in the regional aircraft category for the past three years. ATR says it would welcome competition from Embraer, but an all-new rival might encourage the Franco-Italian manufacturer to revisit launching a new model, particularly if a suitable engine emerges to power the proposed Embraer aircraft. It seems likely that any new ATR programme would include a variant larger than the ATR72-600.

De Havilland of Canada offers its Dash 8-400 turboprop with a 90-seat configuration, but this is very much the upper limit of the aircraft's capacity and has a limited potential customer base. The Canadian manufacturer has paused manufacturing of the model, raising questions about the demand. Nonetheless, Embraer predicts there will be 2,260 turboprop deliveries over the next 20 years.

Fuel price sensitivity

Turboprops are inherently more fuel-efficient than turbofan-powered aircraft, such as regional jets. This provides an economic advantage as well as better environmental credentials until such time as all aircraft are powered by sustainable fuels.

Given the differences in efficiency, the choice between regional jets and turboprops is influenced by fuel price.

Indicative relative cash operating costs at fuel price of $1.9 per USG

	Typical turboprop	Typical regional jet
Relative trip cost	84%	Base
Relative seat cost	81%	Base

Indicative relative cash operating costs at fuel price of $3 per USG

	Typical turboprop	Typical regional jet
Relative trip cost	80%	Base
Relative seat cost	77%	Base

Source: Typical turboprop is based on average of Dash 8-400 and ATR72-600 costs. Typical regional jet is average of CRJ900 and E170. Assumes 200-nautical mile sector.

The cost advantage of more efficient turboprops increases as prices rise, and if recent conditions were to continue, it would weigh heavily in the turboprop's favour.

What will happen to fuel prices longer term is subject to conjecture, but it looks unlikely they will return to pre-pandemic levels anytime soon. Even, Adam Pilarski, senior vice-president, Avitas, who has a history of correctly predicting lower values than the industry consensus, believes prices are set to remain high in the short term.

He told *Airfinance Journal*: "There are many scenarios to consider, but most realistic is that oil prices will be fairly high, but still below $100 per barrel. However, demand for travel will also be impacted. Overall life is changing fast and many variables are all moving fast. The rational thinking element is evaporating and right now airlines will be driven by how to survive rather than how to be environmentally friendly, or even reasonably profitable."

As Pilarski's view implies, demand for travel is impacted during crises and this can be a problem for turboprop manufacturers in that high fuel prices, which favour turboprops, often occur at times when airlines are struggling economically and are therefore not in acquisition mode.

In the absence of concrete proposals by manufacturers, it is difficult to compare how 90-seat turboprops would compare with similarly sized regional jets in terms of operating cost. But the relative costs of 70-seat aircraft provide a broad indicator of likely percentage differences.

The previous analysis by *Airfinance Journal* for 70-seaters was done for a fuel price of $1.9 per US gallon and showed the average cost per seat of a turboprop to be about 19% lower than a comparable regional jet on a 200-nautical mile sector.

The advantage decreases significantly as sector length increases. If the cost benefits of a 90-seat turboprop are similar, which seems likely, there appears to be an opening for a new turboprop, even at what now appears a modest fuel price. If the fuel price increases to a not inconceivable $3 per US gallon, the turboprop's cost advantage per seat becomes more significant – about 23%, according to the analysis.

It is, of course, possible that a new-technology turboprop will provide even greater cost advantages. Whether these advantages will be sufficient to convince airlines to choose a 90-seat turboprop rather than one of the relatively new-technology larger crossover jets, such as the A220-100 or E195-E2, is one of the unknowns in the business case for developing the new aircraft.

The turboprop versus regional jet debate becomes more complicated when comparing total direct operating costs. The higher speed of regional jets can translate into higher productivity, which offsets capital costs. This benefit typically increases for longer routes.

The *Airfinance Journal* analysis for 70-seaters shows that given equal acquisition costs, the turboprop becomes more expensive to operate than a regional jet on sectors of 500 nautical miles and above. This is the case even at current high fuel prices. Turboprop acquisition costs have historically been lower than regional jets, but whether this would be the case for an all-new-technology 90-seater is a matter of conjecture. Potential selling price will be a key consideration in any decision to launch a new aircraft.

Passenger perception

The 90- to 100-seat market remains a difficult segment for aircraft manufacturers as the recent demise of several programmes indicates. A radically new turboprop with improved fuel efficiency and low noise may be sufficiently attractive to convince operators to embrace it, but passenger perceptions may continue to hinder acceptance.

Rating agency unsecured ratings

Airlines

	Fitch	Moody's	S&P
Aeroflot	WD	-	-
Air Canada	B+(neg)	Ba3(neg)	B+(neg)
Air New Zealand	-	Baa2(stable)	-
Alaska Air Group	BB+(neg)	-	BB(stable)
Allegiant Travel Company	-	Ba3(positive)	B+(stable)
American Airlines Group	B-(stable)	B2(stable)	B-(Stable)
Avianca Holdings	WD	-	D(NM)
British Airways	BB(neg)	Ba2(neg)	BB(neg)
Delta Air Lines	BB+(neg)	Baa3(stable)	BB(Stable)
Easyjet	-	Baa3(stable)	BBB-(stable)
Etihad Airways	A(stable)	-	-
Grupo Aeromexico	-	-	B-(developing)
GOL	B-(stable)	B3(stable)	CCC+(positive)
Hawaiian Holdings	B-(stable)	B1(stable)	B-(Stable)
International Consolidated Airlines Group	-	Ba2(neg)	BB(neg)
Jetblue	BB-(neg)	Ba2(Positive)	B+(Positive)
LATAM Airlines Group	WD	-	-
Lufthansa Group	-	Ba2(neg)	BB-(stable)
Pegasus Airlines (Pegasus Hava Tasımacılıgı Anonim Sirketi)	BB-(neg)	-	B (stable)
Qantas Airways	-	Baa2(stable)	-
Ryanair	BBB(Stable)	-	BBB(stable)
SAS	-	Caa3(neg)	CC(neg)
Southwest Airlines	BBB+(neg)	Baa1(stable)	BBB(Positive)
Spirit Airlines	BB-(neg)	B1(positive)	B(positive)
TAP Portugal (Transportes Aereos Portugueses, S.A.)	-	Caa2	B-(watch neg)
Turkish Airlines	-	B3(neg)	B(stable)
United Airlines Holdings	B+(neg)	Ba2(neg)	B+(stable)
Virgin Australia	WD	-	-
Westjet	B(neg)	B3(positive)	B-(neg)
Wizz Air	BBB-(stable)	Baa3(neg)	-

Source: Ratings Agencies - 14/4/2022

Lessors

	Fitch	Moody's	S&P	Kroll Bond Ratings
Aercap	BBB-(stable)	(P)Baa3(stable)	BBB(stable)	-
Air Lease Corp	BBB(Stable)	-	BBB(stable)	A-(stable)
Aircastle	BBB(stable)	Baa3(Stable)	BBB-(stable)	-
Avation PLC	WD	-	CCC(Developing)	-
Aviation Capital Group	-	Baa2(stable)	BBB-(stable)	A-(stable)
Avolon Holdings Limited	BBB-(Stable)	Baa3(stable)	BBB-(stable)	BBB+(stable)
AWAS Aviation Capital Limited	-	Baa3(Stable)	-	-
BOC Aviation	A-(stable)	-	A-(stable)	-
CCB Leasing (International) Corporation	-	-	A (stable)	-
CDB Aviation Lease & Finance	A+(stable)	A2(stable)	A (stable)	-
Dubai Aerospace Enterprise	BBB-(Stable)	Baa3(stable)	-	BBB+(stable)
Fly Leasing	-	B1(neg)	BB-(neg)	BBB-
Global Aircraft Leasing	-	B1(neg)	-	-
ICBC Financial Leasing	A(stable)	A1(stable)	A(stable)	-
ILFC (Part of Aercap)	BBB-(stable)	Baa3(stable)	-	-
Macquarie Group Limited	A-(Stable)	A3	BBB+(stable)	-
Marubeni Corporation	-	Baa2(stable)	BBB+(stable)	-
Mitsubishi UFJ Lease	-	A3(stable)	A-(stable)	-
Park Aerospace Holdings	BBB-(Stable)	Baa3(Stable)	-	-
SMBC Aviation Capital	A-(neg)	-	A-(stable)	-
Voyager Aviation	WD	WD	-	WR

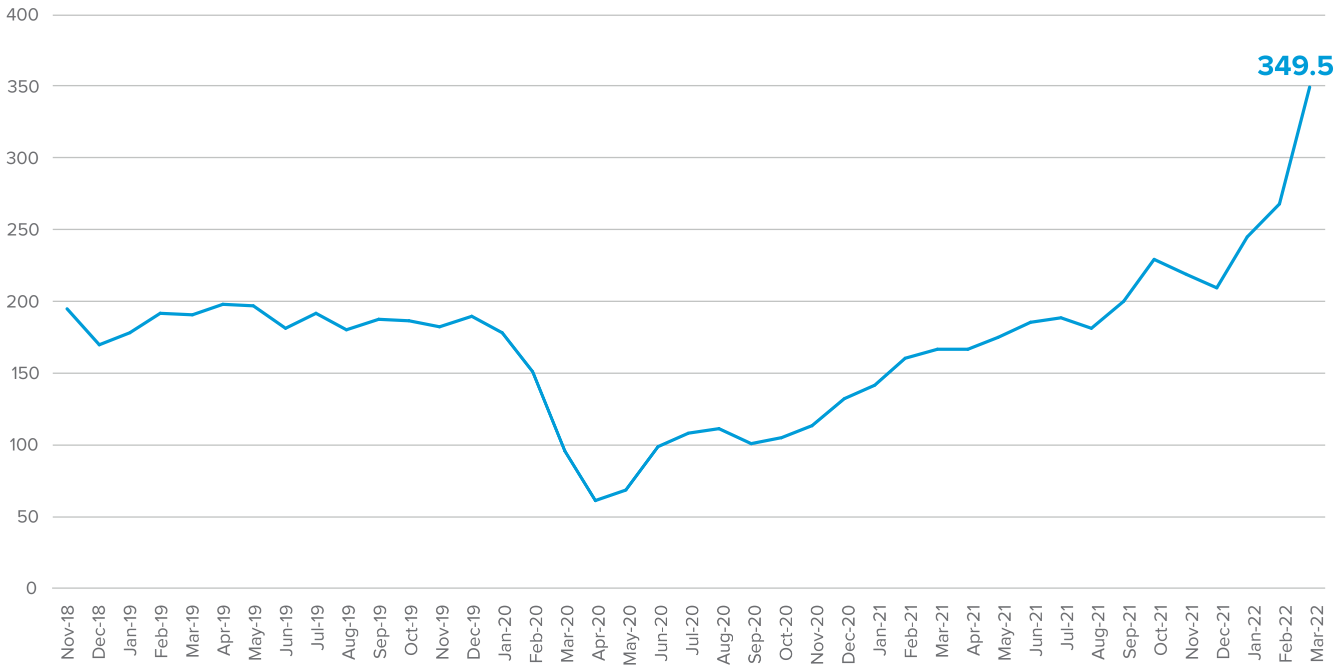
Source: Ratings Agencies - 14/4/2022

Manufacturers

	Fitch	Moody's	S&P
Airbus Group	BBB+(stable)	A2(stable)	A(stable)
Boeing	BBB-(stable)	Baa2(neg)	BBB-(neg)
Bombardier	WD	Caa1 (Stable)	CCC+(positive)
Embraer	BB+(stable)	Ba2(stable)	BB(positive)
Rolls-Royce plc	BB-(stable)	Ba3(neg)	BB-(stable)
Raytheon Technologies Corp	-	Baa1(stable)	A-(neg)

Source: Ratings Agencies - 14/4/2022

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



Source: *US Energy Information Administration*

Commercial aircraft orders by manufacturer

	Gross orders 2022	Cancellations 2022	Net orders 2022	Net orders 2021
Airbus (31 March)	253	170	83	507
Boeing (31 March)	167	22	145	535
Embraer	23	0	23	81
ATR	2	0	2	35

Based on *Airfinance Journal* research and manufacturer announcements until 18/04/2022

Recent commercial aircraft orders (March-April 2022)

Customer	Country	Quantity/Type
Air France-KLM	France	Four A350F
Air Canada	Canada	Six A321XLR
Air Lease	USA	32 Max 8/9
Arajet	The Caribbean	20 Max 8-200
BOC Aviation	Singapore	10 A321XLR, 20 A320neo, 50 A321neo
DHL Aviation Americas	USA	Six 777F
Iberia	Spain	Three A321neo
Undisclosed Customer	N/A	46 A320neo
Undisclosed Customer	N/A	13 A320neo, 41 A321neo
Undisclosed Customer	N/A	15 Max aircraft

Based on *Airfinance Journal* research March-April 2022

New aircraft values ($ million)

Model	Values of new production aircraft*
Airbus	
A220-100	32.6
A220-300	37.4
A319neo	37.4
A320*	40.6
A320neo	50.4
A321*	47.7
A321neo	58.6
A330-800	87.5
A330 900	102.4
A350-900	146.3
A350-1000	159.0
A380	140.7
ATR	
ATR42-600	15.3
ATR72-600	19.0
Boeing	
737-800*	33.8
737 Max 8	47.8
737 Max 9	49.4
767F	80.0
777-300ER	132.4
777F	161.4
787-8	107.5
787-9	138.0
787-10	148.1
De Haviland	
DHC 8-400*	19.6
Embraer	
E175	26.4
E190-E2	31.1
E195-E2	33.9
Sukhoi	
SSJ100	20.0

Based on ISTAT appraiser inputs for Air Investor 2022. *Values for last year of build

New aircraft lease rates ($'000 per month)

Model	Low	High	Average
Airbus			
A220-100	210	245	227.5
A220-300	230	270	250
A319neo	227	290	258.5
A320*	210	310	260
A320neo	285	380	332.5
A321*	269	360	314.5
A321neo	325	430	377.5
A330-800	562	700	631
A330 900	655	750	702.5
A350-900	850	1,100	975
A350-1000	900	1,250	1,075
A380	640	1,234	937
ATR			
ATR42-600	105	135	120
ATR72-600	115	165	140
Boeing			
737-800*	125	325	225
737 Max 8	265	340	302.5
737 Max 9	265	340	302.5
767F	400	700	550
777-300ER	850	1,015	932.5
777F	950	1,260	1,105
787-8	630	875	752.5
787-9	805	1,100	952.5
787-10	835	1,150	992.5
De Haviland			
DHC 8-400*	125	180	152.5
Embraer			
E175	170	241	205.5
E190-E2	190	225	207.5
E195-E2	216	260	238
Sukhoi			
SSJ100	140	198	169

The only way is down for Russia

Adam Pilarski, senior vice-president at Avitas, attempts to explain the unexplainable events in Ukraine and their ramifications on the world.

The world was shocked on 24 February by the Russian invasion of Ukraine. It was not a classic case of a black swan event which is not predictable. Instead, it was the occurrence of a very probable event because there were signs pointing to what happened. So, why did the terrible tragedy occur? Where will it go? And what are the ramifications on the whole world? Is this the beginning of World War III?

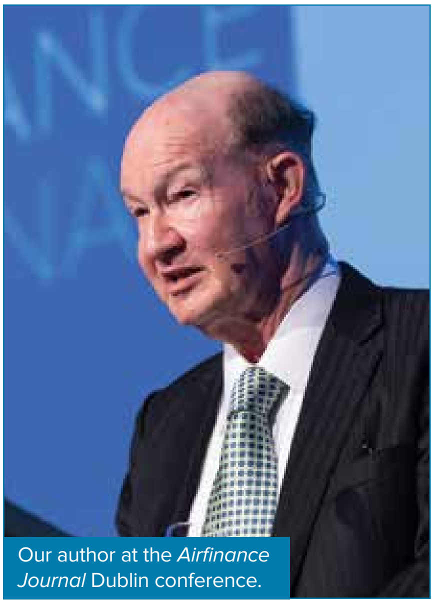
Let us start with the positive. No, I do not believe that this is the beginning of a major worldwide catastrophe. It is a global and very tragic adventure that will lead to tremendous, totally unnecessary, suffering all over the world. As of my writing, the war is still ongoing, so it is way too early to discuss the outcome.

But the obvious question on everybody's mind is, why did it happen? How come two neighbours in Europe sharing so much history and cultural background can come to this situation? There is also the Slavic element and even the common DNA. The mother of Russia's secretary of defence, for example, is Ukrainian.

So what are the reasons for the bizarre developments? I believe it boils down to a simple fact that it is all inspired by one individual. An autocrat, surrounded by sycophants in a kleptocratic environment, who stays in power too long is a recipe for disaster. Russia, unfortunately, has no history of elected democratic governments. From the Tsars through Lenin, Stalin, Khrushchev, Brezhnev, et al, the people are used to the Great Leader making the right decisions for them. Vladimir Putin's background as a KGB officer made him a natural to know how to stay in power.

He remembers the "good old days" when the Soviet Union defeated the truly evil Nazi Germany and liberated Europe at tremendous sacrifices. He apparently expected the Ukrainian women to bring welcoming flowers to the "liberating" Russian forces. He was longing to MRGA, or Make Russia Great Again. But the longer he stayed in power, surrounded only by "yesmen", the stranger his pronouncements became.

For example, he started using an old word derzava coming from Old Russian



Our author at the *Airfinance Journal* Dublin conference.

> *"Russia, by itself, is not that powerful. It turns out that even the thing they were most feared for (the military) appears to have been greatly exaggerated."*

meaning dominion or might. It described a golden orb with a cross or crown, which symbolised the monarch's authority. Most Russians tolerated these bizarre idiosyncrasies of their leader because Russia followed the Chinese system of government.

Both countries have a tacit agreement with their populations: you people can have a lot of economic freedom as long as you do not seek any political power. We all know what it meant for China because the standard of living has been rising at phenomenal rates. Chinese tourists became the new group visiting many countries for years now. The fleets of their airlines were growing at very solid rates and, in a few years, one of every four new aircraft delivered in the world was going to China.

The same thing happened with Russian tourists. A few years ago, I remember visiting Crete and being astounded by the multitudes of Russian visitors with hotels and tours being offered to them. I could not find a tour with English-speaking guides; the only available ones were in Russian. And visiting Moscow and St Petersburg was eye opening. Well-dressed people, stores with everything available from around the world and fabulous restaurants for the locals. It was very different from my visits to the Soviet Union.

And now Putin broke this agreement. And these changes are irreversible. Russians will not be able to travel internationally for a number of years. As The Beatles sang in their parody song: "You are, boy, Back in the USSR." Most people probably do not remember the line, "the Ukrainian girls really knock me out", but this is how Ukraine was integrated with Russian culture.

So, is it the beginning of World War III? With Russia and China against the world? I do not see it at all. Xi Jinping, the Chinese president, can see the strategic advantages of the war. He clearly does not support it unconditionally but can see advantages to China with the possible weakening of his adversaries.

Obviously, globalisation is taking another step backwards in the world. Russia, by itself, is not that powerful. It turns out that even the thing they were most feared for (the military) appears to have been greatly exaggerated. There are no others willing to step in to help MRGA. The negative side of the ledger, though, is clear. Thousands of innocent lives lost for absolutely no rational reason except to satisfy the ego of an uncontrolled megalomaniac.

Russia is on the way of other famous empires such as the Greek or Roman. It is leaving its imprint on world history but realistically within some years having little actual influence on the world. And years of much lower standards of living right now.