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NEW SOLUTIONS FOR A NEW AGE

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New solutions for a new age

GECAS' recent asset sales have not dimmed its ambition of remaining the world's largest leasing company by fleet size

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New opportunities, new lessors

The aviation industry is evolving quickly, particularly in the leasing sector, writes Jack Dutton.

A lot has changed in the aviation industry since *Airfinance Journal* last went to press. As we all expected, CIT Group's aviation leasing arm, CIT Aerospace, entered into a $10 billion deal with Avolon, which was purchased by Bohai Leasing only 10 months ago.

After the acquisition, Avolon's combined in-service portfolio will total 561 owned and managed aircraft with an average age of 4.6 years. The new lessor will also have orders and commitments for 349 aircraft, of which 282 are new-technology models. The deal is due to close in the first quarter of 2017. We examine it in more detail on page 21.

Although the recent CIT deal will make Avolon the third-largest lessor in the world by fleet size, GECAS does not want to give up its title as the largest. Speaking to *Airfinance Journal* as our cover story on pages 23-25, chief executive officer Alec Burger says that his lessor's recent portfolio sales are a result of a strong investor appetite for aircraft, of which GECAS wants to take advantage. Burger adds that, although low fuel prices are making airlines fly older aircraft for longer, it does not significantly impact on the new-technology customers, some of which only have an appetite for new aircraft.

The opening up of new markets also presents an opportunity for lessors. On 21 September, the US Office of Foreign Assets Control (OFAC) approved the first stage of the historic Iran deal, allowing 17 Airbus and 80 Boeing aircraft to be sold to Iran Air. The other OFAC licenses for the remaining aircraft on order are due to be obtained in the coming weeks. Other carriers in the region, including Iran Aseman Airlines, also reportedly have signed letters of intent to purchase new aircraft.

Speaking on an Iran panel at the 14th Annual Airfinance Conference in Dubai in October, Firoz Tarapore, chief executive officer of Dubai Aerospace Enterprise, observed that Iran has been compartmentalised between lessors residing in jurisdictions that are reluctant to do business there for a variety of political reasons and lessors which are not bound by political obstacles and which are "aggressively knocking on the door for potential clients".

Although the Iranian government has been cognizant of the opening up of its aviation market and the prospect of increased international business, many lessors and banks still will not act on Iran until they have seen a few aircraft deals go through in the region.

The export credit agencies may also see this as an opportunity to provide financing for some of the new deliveries into Iran. With the US and most of European ECAs being closed for aviation business, market sources say that Sace, the Italian ECA, has been in talks to help fund some of the aircraft going into the Persian country. Sources say that this may be for Airbus aircraft, behaviour that is not typical of the Italian ECA. One financier said with ATR being 50% owned by Airbus, it may be the case that Sace will be able to provide a guarantee on Airbus aircraft, even though they are not made in Italy.

Elsewhere in Asia, at the 5th China Air Finance Development Summit in Tianjin, there was a remarkable number of new participants, particularly from the leasing side of the business. Guangzhou-based Skyco International Financial Leasing, which we speak to on pages 34 and 35, is an interesting new entrant in this space, with an unconventional ownership structure. The company is 35% owned by the Guangdong Airport Authority, making it the first lessor from its country to have an airport as its major shareholder.

New entrants such as Skyco see opportunities through potentially lucrative gains to be had in the Chinese market, but they must be mindful that aircraft leasing is a business which requires a sophisticated and savvy workforce. Many Chinese lessors, such as Ping An and ICBC Financial Leasing, have established offices in Dublin to take advantage of Ireland's history of being at the centre of the leasing business.

GECAS' Burger believes that the wave of growth coming from China in the aviation sector is not simply a currency hedge: these new entrants are here to stay.

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COVER STORY

ANALYSIS AND INTERVIEWS

Holmes is Embraer's vice-president leasing

Embraer has appointed Martyn Holmes as its new vice-president leasing. He will report to John Slattery, president and chief executive officer of Embraer Commercial Aviation.

Based in Amsterdam, Netherlands, Holmes joined Embraer in 2012 as sales director for northern Europe, and had previously been sales director, Asia-Pacific, for Rolls-Royce Civil Aerospace from 2007 to 2012 and sales director at International Aero Engines, from 2005 to 2007.

Slattery was appointed chief executive officer of Embraer Commercial Aviation in June after the former CEO, Paulo César de Souza e Silva, was promoted to CEO of Embraer.

Easyjet promotes Duffy and Brown

Easyjet has appointed Peter Duffy as its new chief commercial officer.

Duffy was previously group commercial director, working on marketing, customer strategy and digital activity.

Carolyn McCall, chief executive officer, says: "The chief commercial officer role that Peter is taking on will mean that all revenue, wherever it comes from, is overseen and driven in one place. A key focus for Peter will be on developing our industry-leading revenue management system and new-revenue generation."

Easyjet has also appointed Chris Browne as its new chief operating officer.

Browne, who was previously chief operating officer at TUI Airlines, becomes a non-executive director at Easyjet.

In late May, the Luton-based carrier issued a request for proposals for sale and leaseback financing covering 25 Airbus A319 aircraft.

Recently, the low-cost carrier tapped the unsecured bond market for the second time, with a €500 million ($551 million) issuance with a seven-year term. The transaction priced at 1.125%.

Bradway joins Boeing board of directors

Robert Bradway, chief executive officer (CEO) of the US-based biopharmaceutical company Amgen, has been appointed as a new member of Boeing's board of directors.

Bradway joined the biotechnology company in 2006 and has served in senior finance and strategy roles, including chief financial officer and chief operating officer. He became CEO in 2012 and chairman in 2013.

He joined Amgen from Morgan Stanley, where he was responsible for the firm's banking and corporate finance activities in Europe.

He will serve on the audit and finance committees of Boeing's board.

Mounir replaces Wojick

Boeing Commercial Airplanes has named Ihssane Mounir as its new vice-president of sales and marketing.

Mounir succeeds John Wojick, who is retiring after 36 years at the manufacturer, effective in early 2017.

In his new role, Mounir is responsible for the sales and marketing of all commercial aircraft and related services, to airlines and leasing customers around the world.

He was most recently vice-president of sales for northeast Asia. He has held sales leadership roles in Europe, Russia, Central Asia and Africa.

Mounir joined Boeing as a senior aerodynamics engineer in 1997. He earned degrees in aerospace engineering from Wichita State University.

Boeing has not yet named Mounir's replacement as leader of sales in northeast Asia

Liu becomes CEO at TransAsia

TransAsia Airways has appointed Liu Dongming as chief executive officer (CEO).

Liu previously held the position of president at the company. President of operations Lin Lei has been promoted to deputy CEO, effective immediately.

Airfinance Journal reported on 11 August that TransAsia Airways would appoint a new CEO after the integration of its wholly owned subsidiary, V Air. Peter Chen, who was CEO at the time, was "relieved of his position".

Scherer 'perfect choice' for ATR job

ATR has appointed Christian Scherer as chief executive officer.

Scherer succeeds Patrick de Castelbajac, who will become company secretary, chief of staff and a member of Airbus' executive committee.

Scherer will run the company for a four-year term in order to ensure continuity, adds the statement. His appointment will be effective on 1 November.

Scherer is executive vice-president and head of Airbus Group International. Previously, he was head of marketing and sales at Airbus Defence and Space. He began his career at Airbus in 1984.

Airbus Group and Leonardo-Finmeccanica are both 50% shareholders in ATR.

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Tom Enders, chief executive officer of Airbus Group, says: "Christian Scherer demonstrates a tremendous amount of commercial expertise, strategic vision and management skills. He is the perfect choice to succeed Patrick de Castelbajac, whom I'd like to thank for a job well done at the helm of ATR. Christian's appointment for four years underscores the commitment of Airbus Group to the success of our joint venture with Leonardo."

Anderson retires from Delta board

Richard Anderson, the executive chairman of Delta Air Lines' board of directors and a former chief executive officer at the airline, has announced his retirement with immediate effect.

Anderson has served on Delta's board for nearly a decade. He was appointed CEO in August 2007 and held the position until he stepped down to become executive chairman in May.

He is replaced by Francis Blake, who has been lead director since May. Blake, the former chairman and CEO of The Home Depot, the US home improvement supplies store, joined the airline's board in July 2014.

Intrepid appoints SVP corporate finance

Intrepid Aviation has promoted Oliver Geldner to senior vice-president of corporate finance.

He joined Intrepid in 2013 as vice-president of corporate finance.

Geldner spent 12 years working in aircraft finance before joining Intrepid. Between 2012 and 2013, he was corporate finance director at Awas, and between 2003 and 2012 he was a senior relationship manager, aviation finance, at HSH Nordbank.

"Oliver's knowledge and expertise has been invaluable to our growing business. He is an ambassador of Intrepid to the industry community and a respected member of our management team. We look forward to his continued success here at Intrepid," says the leasing company's chief financial officer, Mike Lungariello.

Pillsbury hires partner

Pillsbury has hired Vanessa Gage as a partner in the transportation finance team at its San Francisco office.

Gage was previously a partner at Reed Smith, in the firm's financial services industry group, between 2014 and September 2016, according to her LinkedIn profile.

Pillsbury has been expanding its aviation finance practice with several new appointments in Hong Kong and the US.

In March, the firm hired Paul Jebely, the former global head of aviation finance for Clyde & Co, to lead its transportation finance group in Asia. The firm also recently brought in Richard Evans as counsel in its Los Angeles office.

Alafco to hire more staff for Dublin

Alafco is looking to hire more staff to work in its Dublin office, after Jane O'Callaghan was appointed to head the office, according to a source.

O'Callaghan joined the Kuwait-based lessor as chief commercial officer. She was previously managing director at Aircastle, based in the US lessor's office in Dublin.

Alafco purchased a portfolio of nine aircraft from US lessor GECAS in August.

AirAsia's leasing arm has new CFO

Asia Aviation Capital (AAC), the leasing unit of Malaysian airline AirAsia, has appointed Simon Perkins as its deputy chief executive officer and chief financial officer.

Perkins previously worked at Standard Chartered in Singapore. His role at the bank was head of Asia-Pacific aviation finance. Before that, he was the bank's chief operating officer of corporate finance.

AAC recently announced the appointment of Stephane Daillencourt as its chief executive officer.

Daintith is Rolls-Royce's chief financial officer

Rolls-Royce has appointed Stephen Daintith as its new chief financial officer and as an executive director of Rolls-Royce Holdings.

Daintith will take up his new role in 2017, succeeding David Smith, who is to leave Rolls-Royce after three years to pursue other business interests.

Smith will remain in his post into the new year to ensure an effective transition.

Daintith is chief financial officer of Daily Mail & General Trust. He was employed previously by News International as chief financial officer and chief operations officer of Dow Jones.

Airstream International appoints managing director

UK remarketing agent Airstream International has appointed Alex Vandeleur as its new managing director.

He succeeds Peter Crutchfield, who has been appointed chairman of the group.

Vandeleur joined the company in 2004, after working at Cabot Aviation and Fortis Aviation.

David Skeldon has also been appointed as head of marketing, in his seventh year with Airstream and having been a director since 2014.

Founded by Crutchfield and Peter Graham in 1989, Airstream specialises in remarketing regional aircraft, including Bombardier Q400s, ATRs, Embraer ERJs and CRJs.

Airstream was appointed to remarket 15 Saudia Embraer E170 aircraft in May. It expects to have completed the sale by the end of the year.

United taps German banks for 787-9

United Airlines has financed a Boeing 787-9 (MSN 60143) with a loan from KfW Ipex-Bank and Commerzbank.

The aircraft delivered on 24 June but the loan was closed in mid-October, state the banks.

The financing was structured as a direct loan, with KfW Ipex-Bank acting as arranger and facility agent and Commerzbank acting as co-lead arranger.

United is also taking delivery of two more 787-9s (MSNs 60141 and 60142) in January and February 2017, financed under its recently closed enhanced equipment trust certificate (EETC).

The airline's second EETC issuance this year, after a $1.05 billion issuance in June, consists of two classes of notes: a $637 million AA tranche and a $283 million A tranche. The AA tranche carries a coupon of 2.875% and the A tranche carries a coupon of 3.100%.

CA-CIB closes $65m spares deal for Asia Aviation Capital

Crédit Agricole Corporate and Investment Bank (CA-CIB) closed a $65 million commercial financing transaction for a portfolio of 14 CFM International CFM56-5B spare engines to Asia Aviation Capital, the leasing arm of AirAsia.

Asia Aviation Capital is expected to lease the 14 spare engines throughout the AirAsia Group.

CA-CIB acted as mandated lead arranger, security trustee and facility agent and the Korea Development Bank acted as arranger. CA-CIB, the Korea Development Bank and NTT Finance acted as lenders.

Holman Fenwick Willan advised the finance parties, Mourant Ozannes acted as Cayman law counsel and Holland & Knight acted as New York law counsel.

Tay & Partners acted as Malaysian law counsel, Clifford Chance acted as Thai law counsel, Oasis Counsel and Advisory acted as Indian law counsel and Siregar & Djojonegoro acted as Indonesian law counsel. SyCip Salazar Hernandez & Gatmaitan acted as Philippines law counsel and Squire Gaikokuho Kyodo Jigyo Horitsu Jimusho acted as Japanese law counsel.

Asia Aviation Capital was advised by Milbank, Tweed, Hadley & McCloy.

JIA increases stake in Vallair

Vallair, a French-Luxembourg aviation end-of-life specialist, has received a second capital injection from Japan Investment Adviser (JIA).

After the completion of the transaction on 30 September, JIA now owns 20% of Vallair.

JIA is a Tokyo Stock Exchange-listed Japanese company, founded in 2006, that specialises in financial solutions for the aviation leasing market.

Vallair, formed in 2003, specialises in the acquisition of end-of-life Airbus A320, Boeing 737 and ATR aircraft.

To date, the company has acquired more than 25 A320s, 20 737s, four ATRs and 40 CFM56-3/-5s and V2500 powerplants.

It provides solutions for aircraft and engine trading and leasing, spare parts sales and inventory management, cargo conversions and commercial aircraft disassembly and recycling.

Greybull invests £165m into Monarch

Greybull Capital has invested a further £165 million ($202 million) into Monarch, marking the airline's single largest investment in its 48-year history.

The private equity firm already has a 90% stake in the UK-based carrier.

As a result of this investment, Monarch has renewed its air travel organisers' license – a scheme in the UK to protect people who have purchased package holidays and flights from a member tour operator – from the Civil Aviation Authority for the next 12 months. The money will also help to fund growth plans for the carrier.

Seabury Group and Seabury Securities served as financial advisers for the recapitalisation.

In October 2014, Monarch announced an order for 30 Boeing 737 Max 8 aircraft, with options for a further 15. The first of these aircraft is due to deliver in 2018.

Ethiopian Airlines to shortlist lessors for RFP

Ethiopian Airlines is in the process of shortlisting lessors for its request for proposals (RFP) for Airbus A350 aircraft, according to a source.

The African airline is looking to close sale and leaseback deals for four A350 aircraft, which deliver to the airline in the first half of next year.

Ethiopian has a fleet of 80 aircraft, including Boeing 787-8s, 737-800s, Bombardier Q400s and 767-300ERs, according to *Airfinance Journal*'s Fleets. The airline has 37 aircraft on order, comprising eight 737 Max 8s, 12 A350s, three 787-8s and two Q400s, according to Fleets.

Stellwagen closes Spanish deal for Emirates

Stellwagen Finance (SFC) has tapped the Spanish market to close a structured sale and leaseback deal for an Emirates Boeing 777-300ER (MSN 42338), *Airfinance Journal* understands.

Spanish banks Bankinter, Banco Popular and Caixabank are providing the senior tranche of a commercial loan used to fund the acquisition of the aircraft. UAE-based Noorbank is providing the junior debt through a Murabaha loan, according to the source. The person adds that the aircraft is on lease to Emirates for 12 years.

The equity was provided through a private placement note arranged by Stellwagen Group. The source adds that there were three different equity investors that contributed to the note.

Stellwagen Group arranged the overall transaction.

Allen & Overy London acted for the equity investors and arranger. Clifford Chance Abu Dhabi acted for the lenders. Pillsbury acted for Emirates and Walkers advised on the Irish law.

Airfinance Journal previously reported on the deal in August before it had closed.

Easyjet achieves better pricing on new bond issuance

Easyjet has tapped the bond market with a €500 million ($551 million) issuance with a seven-year term.

The transaction was priced at 1.125%, confirms the carrier.

Moody's rated the bonds at Baa1, while Standard & Poor's assigned a BBB+ (stable) rating.

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The deal is part of a £3 billion euro medium term programme established in January, in which Barclays, Société Générale-CIB and Bank of America Merrill Lynch acted as mandated lead arrangers.

The UK carrier issued a €500 million bond issuance with a seven-year term, pricing at 1.75% on 2 February 2016. That bond priced at 147 basis points over mid-swaps.

Avation raises $5.6m

The board of Avation has raised £4.56 million ($5.61 million) by placing 2,943,709 new ordinary shares in the capital of the company through WH Ireland.

The placing shares, which will represent 5.3% of the enlarged issued share capital of the company, will rank pari-passu in all respects with the existing ordinary shares.

The admission became effective on 11 October. After admission and including the shares allotted on 29 September for which admission took place concurrently with the placing shares, there will be a total of 58,928,936 ordinary shares in issue, of those 600 remain in treasury.

Middle East faces lower liquidity on cheap oil

Prolonged low oil prices have caused a reduction in regional liquidity in the Middle East, according to a panel of financiers speaking at the 14th Annual Middle East Airfinance Conference in Dubai.

Speaking on the panel, Marc Bourgade, chief executive officer of Stellwagen Finance (SFC) said: "Because of the drop in oil price, we have seen a slight reduction in the liquidity in the Middle East or maybe a pricing readjustment. It's still available because we closed some Emirates transactions recently with local liquidity."

Bourgade highlights that liquidity has been available from the rest of the world for Middle Eastern airlines. He points to a recent deal with SFC and Spanish and Asian banks for Emirates widebody financing.

"So money is available on the debt side. On the equity side, it's also available, because we often see equity fighting against each other to win transactions and drive lease rates down," he says.

He adds that some of the investors he had worked with had concerns about macroeconomic and geopolitical influences in the region.

Anas Bennani, chief executive officer of Palma Capital, felt less optimistic about local liquidity being widely available to airlines in the Middle East.

He says: "I think Marc is being optimistic about liquidity. We saw a shaking on the equity and debt side because of public spending. It's now just a matter of yield. Less liquidity and less appetite on the equity."

Flydubai signs commercial loan for two 737-800s

Flydubai has signed a commercial loan to fund two Boeing 737-800 deliveries, according to the carrier's chief financial officer, Mukesh Sodani.

German bank NordLB is acting as the mandated lead arranger and initial lender. Sodani tells *Airfinance Journal* that the aircraft are due to deliver in November and December.

The carrier will take delivery of eight aircraft in total this year. It will take seven aircraft in 2017, comprising two 737-800s and five 737 Maxs. The two 737-800 aircraft will deliver in February and April 2017, and will be on lease from Jackson Square and Bocom Leasing under sale and leaseback deals with an eight-year tenor.

Flydubai has a total of 75 737 Max aircraft on order.

Qantas issues unsecured notes

Qantas is set to issue A$425 million ($322 million) of unsecured fixed-rate notes, which it will use to pay down shorter-term securities, the airline has announced.

The carrier will issue A$250 million of 4.40% notes maturing in October 2023 and A$175 million of 4.75% notes maturing in October 2026.

Qantas states it will use the proceeds of the notes to repay its outstanding, shorter-term debt maturities.

The transactions are the first unsecured medium term notes that the airline has issued since it regained its investment-grade credit ratings from Moody's and Standard & Poor's, it adds.

Qantas had expected to close the transactions by 12 October.

ALC to launch 'next-generation' ABS deals

Air Lease hopes to bring to market a "streamlined" asset-backed security model, which is less dependent on aircraft appraisals and better reflects the liquidity of the aviation market.

The lessor says it is in talks with ratings agencies and banks about taking the "complexity" out of the asset-backed securities (ABS) market to create a next generation of ABS deals that are more "user-friendly" financing tools.

"We looked at the credit card space and the auto industry, where there are fewer restrictions and bells and whistles, and said, 'we can streamline the ABS'. I think we are coming up with a really great solution," says Steven Udvar-Hazy executive chairman of Air Lease in an interview with *Airfinance Journal*.

He notes the current ABS deals have "chains and restrictions" that limit the ability to optimise the cash generation and long-term performance through "complex waterfalls and an over-reliance on appraisals that look more at bare metal values rather than positive long-term cash revenue streams".

Air Lease is looking to launch its next-generation ABS deal soon with aircraft that are seven to 10 years old, comprising primarily Boeing 737- and Airbus A320-family units, as well as a "few" small widebodies.

Udvar-Hazy says the need for a new product comes from investors underestimating the liquidity of the aviation market.

"People over-worry the liquidity of aircraft, so we are trying to come up with a simplified version and we need to re-educate a lot of constituents, including banks and the institutional investors," he says.

Udvar-Hazy adds: "I am not making promises or predictions, but we want to reinvigorate ABS space, make it more state of the art and bring it into the 21st century," he says, adding: "We want to make it more liquid and have a more up-to-date product, but we still need to persuade the ratings agencies and Wall Street."

Udvar-Hazy would not be drawn on further details of the proposed new offering as "it is still being designed".

But, he says: "We are trying to throw away the chains and say, 'look we know what we are doing – our reputation is on the line, we are going to manage these assets as if they were our own, so just let us do our thing and let the investors benefit from that'."

Emirates extends 777 lease by six years

Emirates Airline has extended the lease on a Boeing 777-200LR unit by six years, according to Dr. Peters Group's asset manager, DS Aviation.

The leasing contract was extended by two years in March, to November 2019. The extension will now keep the aircraft at Emirates through November 2025.

Emirates is paying a $1.1 million monthly lease rate through November 2019. For the next six years, the lease rate will drop to $684,000 a month, or 38% down.

The aircraft is owned by DS-Rendite-Fonds 122.

The 777-200LR was part of a multiple aircraft extension lease deal with the UAE-based carrier in March. The other units, both 777-300ER models, were extended by two years to a term of 12 years.

DS Aviation also manages three 777-300ERs on lease to Emirates for Dr. Peters Group through DS-Rendite-Fonds 124, DS-Rendite-Fonds 133 and DS-Rendite-Fonds 134.

The other two 777-300ER aircraft that were extended earlier this year will be at a monthly leasing rate of about $1.21 million until the end of December 2019.

Air China's seven for September

Air China boosted its fleet by seven widebody and narrowbody aircraft in September.

The Beijing-based carrier added two Airbus A320s, one Boeing 787-9 and four 737s, the carrier said in a filing to the Hong Kong Stock Exchange. It also retired one Boeing 777-200.

As at the end of September, the company operated a fleet of 613 aircraft.

In August, Air China added two aircraft, a 787-9 and an A320 to its fleet.

China Southern adds three aircraft

China Southern Airlines brought three aircraft into its fleet in September, the carrier said in a filing to the Hong Kong Stock Exchange.

The Guangzhou-based carrier added two Boeing 737-800s and one Airbus A321. It also disposed of two Boeing 757-200s.

As of the end of September, the group operated a fleet of 698 aircraft.

Airfinance Journal previously reported that in the first half of this year, China Southern introduced 25 aircraft to its fleet.

Avolon delivers 737-800 to Aerolineas

Aerolineas Argentinas has taken delivery of one new Boeing 737-800 on lease from Avolon.

The aircraft is the first under a sale and leaseback arrangement for three 737-800s with the lessor, *Airfinance Journal* understands. The second two are scheduled for delivery in November and December.

The second group of three aircraft from the airline's orderbook will be leased from Aircastle, the airline's chief financial officer Pablo Miedziak told *Airfinance Journal*.

The airline has also tapped banks to finance future deliveries. In August, the airline agreed a $280.1 million facility to refinance two Airbus A330s and fund the delivery of five aircraft delivering through 2018.

Arranged by PK AirFinance, the facility refinances two A330s that delivered in 2015 and were originally funded with backstop financing from Airbus.

It will also finance the delivery of one A330 that delivered in August, as well as another A330 that will deliver in October 2017. The structure will also finance the delivery of three Boeing 737-800s, which Aerolineas will receive in 2018.

PAL signs Q400 LoI

Philippine Airlines (PAL) has signed a letter of intent (LoI) to acquire up to 12 Bombardier Q400 aircraft.

The Philippines flag carrier said it is the first airline to launch service with the two-class, 86-seat Q400.

LOT Polish agrees 737 Max leases

LOT Polish Airlines has signed a lease agreement with Air Lease (ALC) for the lease of up to 11 Boeing 737 Max aircraft.

The agreement includes six leased aircraft with options for a further five, to be confirmed by early 2017.

All the aircraft are from ALC's own orderbook with the lessor, states the company.

Delivery of the first two firmly contracted aircraft will take place in the fourth quarter of 2017. The next two will deliver in 2018, one will deliver in 2019 and the sixth in the first quarter of 2020 or before. The aircraft under options are expected to deliver in 2019 and 2020.

Spectre Air Capital signs 737 freighter deals

Spectre Air Capital announced an order with Israel Aerospace Industries (IAI) for 15 passenger-to-freighter Boeing 737 conversions.

The order, which covers -700 and -800 variants, also includes options.

Spectre also announced the lease of three 737-800 freighters to Korean airline Air Incheon, beginning in 2017.

Jordan Jaffe, chief executive officer and co-founder of Spectre, says: "Demand for express freighters is at an all-time high, with hundreds more required in the coming years to meet the demand created by rapid growth in e-commerce and expansion of the global middle class. The classic freighter feedstock is becoming increasingly scarce and overly expensive for their age."

He adds that the aircraft will be available from the beginning of the first quarter of 2017 for the -700s and the third quarter of 2017 for the -800 variants.

Kevin Casey, president at Spectre, confirms his company is acquiring the mid-life passenger aircraft for conversion from major carriers.

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NAC sells ATR 42-300

Nordic Aviation Capital (NAC) has sold one ATR 42-300 (MSN 226) to AeroVision.

The aircraft was manufactured in 1991, according to *Airfinance Journal* Fleets.

NAC also sold a 2000-vintage, former Azul ATR 42-500 in October.

AeroVision is a seller of regional aircraft, aircraft components, engines and engine components.

Binter firms up order for ATR 72-600s

Spanish carrier Binter has firmed up an order for six additional ATR 72-600s.

With the latest six aircraft, the airline has now ordered 18 ATR 72-600s. It will use the aircraft to renew its existing fleet.

Binter has already received the first four ATR 72-600s and has 14 aircraft remaining for replacement, all of which are the 72-500 variant.

ATR has announced the appointment of Christian Scherer as its new chief executive officer, effective on 1 November. He will lead the company for a four-year term.

T'way Airlines signs LoI for 737-900ERs

T'way Airlines has signed a letter of intent (LoI) for three Boeing 737-900ER aircraft with GECAS, sources indicate.

The South Korean low-cost carrier operates a fleet of all 737-800 aircraft, but, because of slot constraints at Incheon International Airport, it is keen on introducing aircraft with higher seat configurations, *Airfinance Journal* understands.

Sources say the airline intends introducing the aircraft from 2018.

Spirit Airlines leases first Neo

Spirit Airlines has taken delivery of its first Airbus A320neo on lease from AerCap.

With the delivery, the low-cost carrier becomes the first US airline to operate the new-engine variety of the A320.

Airfinance Journal understands the MSN is 6833.

This aircraft is the first of five A320neos that Spirit Airlines will lease from AerCap. The four remaining aircraft are expected to deliver through 2016.

Atlas Air orders nine 767 passenger conversions

Atlas Air has ordered the conversion of nine Boeing 767s from passenger-to-freighter aircraft.

Four of the orders were announced at the Farnborough Air Show in July and were attributed to an unidentified customer.

Atlas Air operates an all-Boeing fleet of primarily freighter aircraft.

In August, the airline signed an agreement with FedEx to provide 747-400 Freighters over the next five years.

It also agreed in May to lease 20 Boeing 767-300s to Amazon, the online retailer. The 10-year agreement states that Atlas will operate the aircraft on a CMI (crew, maintenance and insurance) basis and will also dry lease some aircraft.

Royal Jordanian to mandate bank financing on 787-8s

Royal Jordanian is looking to secure funding for two Boeing 787-8s, sources indicate.

AFC, the advisory arm of DVB Bank, is advising the airline on the request for proposal.

A Middle Eastern bank will likely provide financing for the aircraft, according to a banking source.

In June, the Jordanian carrier appointed Said Daewazah as chairman of its board of directors.

The airline has a fleet of 25 aircraft, including Airbus A320s, 787-8s, A319s and Embraer R175s, according to *Airfinance Journal*'s Fleets.

Shenzhen Airlines leases two aircraft

Shenzhen Airlines took delivery of two leased aircraft in September, an airline source tells *Airfinance Journal*.

The airline received a Boeing 737-800 (MSN 61120) and an Airbus A320 (MSN 7190).

MSN 61120 is on lease from Xingchuan Leasing, which is owned by ICBC. MSN 7190 is on lease from Chinese lessor Kunlun Financial Leasing.

The airline has been taking a steady stream of deliveries over the past few months, having stated that it intends to add 92 aircraft to its fleet by 2020, comprising 86 narrowbodies and six widebodies.

In July, Shenzhen Airlines took delivery of an A320 (MSN 7232) under a finance lease structure from Kunlun Financial Leasing. The carrier took delivery of another A320 (MSN 7197) on finance lease from CCB Leasing, the same month.

Bocom Leasing delivers four aircraft

Bocom Leasing delivered four aircraft to airline customers in September, a company source tells *Airfinance Journal*.

The Shanghai-based lessor delivered one Boeing 737-800 to FlyDubai, its first placement with the UAE-based airline.

Bocom Leasing also delivered one 737-800 to Hainan Airlines. The aircraft is the first of five from the lessor's own orderbook that the Haikou-based carrier has agreed to lease.

The lessor also delivered one Airbus A320 to Russian flag carrier Aeroflot. It is the first of two aircraft.

Finally, Bocom Leasing delivered one A320 to Indonesian flag carrier Garuda Indonesia. This is part of a four-aircraft deal.

The source was unable to provide the MSNs of the aircraft or further details on the lease terms.

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THY reschedules 167 deliveries

Turkish Airlines (THY) has rescheduled the deliveries of 167 narrowbody aircraft that it planned to receive between 2018 and 2022, according to a filing with the Borsa Istanbul stock exchange.

The aircraft being rescheduled include 92 Airbus A321neos, 65 Boeing 737-8 Maxs and 10 Boeing 737-9 Maxs, states the airline.

Specifically, it will reduce the number of aircraft delivering in 2018 from 34 to 10; in 2019 from 40 to 35; and in 2020 from 52 to 42. It will receive the same number of aircraft in 2021.

THY will now receive 30 aircraft in 2022 and 15 aircraft in 2023.

The airline is struggling with reduced passenger demand after an attempted coup in July and a spike in terrorist violence over the past year.

In September, rating agency Moody's cited the airline's operating environment as a reason for downgrading its corporate family rating to Ba3 from Ba2, with a negative outlook. Load factor for the first half of 2016 declined to 73.7% compared with 78% in the first half of 2015.

Air India Express seeks 737s

Air India Express, the low-cost subsidiary of Air India, is looking to dry lease two new Boeing 737-800 aircraft with winglets, according to a tender posted on its website.

The airline wants to induct the aircraft into service by December 2017 "at the latest".

The request for proposals closes on 4 November.

Air India operates a variety of Boeing aircraft, including 747-400s, 777-200LRs, 777-300ERs and 787s. It also operates Airbus A320 units.

Air India Express' fleet consists solely of 17-owned 737-800s.

Air India Express, as Air India Charters (its former trade name), previously entered into an agreement with GECAS for the dry lease of six new 737-800s for a term of eight years, with an option to extend the lease by four years.

Three 737-800s have already been inducted and three aircraft will join the carrier in September, October and November.

Iran Aseman Airlines seeks aircraft

Iran Aseman Airlines is looking to lease narrowbody and regional aircraft, after the lifting of sanctions earlier this year, said the airline's vice-president of fleet planning.

Speaking on an Iran panel at the 14th Annual Middle East Airfinance Conference in Dubai, Mohammed Gorji said: "At the moment, we fly Airbus A320s, Boeing 737-400s, Fokker 100s, ATR 72s and 727s. The Aseman backbone is designed to fly domestic routes. Based on that, we are looking to replace our Fokker 100s with a new 100-seater aircraft. We also want to acquire some 737-800s and A320s to assist some regional destinations of our neighbouring countries."

Iran Aseman flies to 36 airports in Iran. Gorji says that the airline still needs to go through successful negotiations with Rolls-Royce before the British manufacturer can provide it with engines for its grounded aircraft.

Gorji adds: "Subject to what ACMI and dry lease deals are on offer, we would prefer first to be sure about the aircraft performance in Iran – I'm talking about the aircraft that have never flown in Iran, like Bombardier, Embraer, Mitsubishi. The other aircraft are flying in Iran and everyone knows them. Before we accept aircraft, we have to be sure that aircraft engine performance and operating system will meet our requirements."

He adds that Iran Aseman will prefer to wet lease aircraft before dry leasing them. After this, he wants to purchase aircraft, but acknowledges that this is still likely to take some time.

He says: "We have been working with some OEMs [original equipment manufacturers] and have signed some letters of intent and we hope they can get the OFAC license and proceed to the next stage."

Also speaking on the panel, Firoz Tarapore, chief executive officer of lessor Dubai Aerospace Enterprise, commented on wet leasing aircraft to Iran. "There are a few wet lease operators who would be happy to do that and I'm pleased to hear that it will be much less complicated on the wet lease side.

"We've heard that there might be a hurdle or two to go through on the wet leasing side. Wet leases will provide a temporary solution but Iran needs to become a fully functional aviation industry."

Zafar Asghar, senior aviation finance and leasing attorney at Kaye Scholer, adds: "They certainly have the option of wet leasing aircraft. Arguably that's not subject to OFAC considering they're not transferring technology overseas, but I can't imagine that's the first option Iran would want."

Latam leases A321s from Jackson Square Aviation

Latam has taken delivery of two new Airbus A321-200s on lease from Jackson Square Aviation (JSA.)

The aircraft are the final two from a commitment between the airline and lessor for four aircraft delivering in 2016.

An airline spokesman confirmed that the MSNs are 7379 and 7433.

In August, Latam took delivery of its first Airbus A320neo under a sale/ and leaseback agreement with JSA.

"We hope to continue supporting the airline's fleet development by offering competitive sale and leaseback financing," says Alfredo Sarria, JSA's senior vice-president of marketing.

Qatar Airways orders 40 Boeing widebodies

Qatar Airways has announced an order for 100 Boeing aircraft, valued at $18.6 billion based on list prices.

The order includes 30 787-9s and 10 777-300ERs, valued at $11.7 billion, as well as a letter of intent for 60 737 Max aircraft, valued at $6.9 billion.

The latest order boosts the carrier's firm order backlog with Boeing to 105 aircraft. It has unfilled orders for five 777Fs and 60 777Xs, according to the latest data from the manufacturer.

The airline already operates 84 Boeing aircraft, including 787s and 777s, all of which have delivered over the past nine years. According to *Airfinance Journal* Fleets, Qatar Airways operates a fleet of 184 aircraft, including single- and twin-aisle aircraft from Airbus and twin-aisle aircraft from Boeing. At present, it does not operate Boeing narrowbodies.

In September, lessor GECAS revealed its plan to lease five Airbus A350-900s to the airline.

Intrepid revises Boeing order

US lessor Intrepid Aviation has revised its order commitments with Boeing for six 777-300ERs, the lessor has announced.

The first two aircraft will still be delivered to Philippine Airlines in October and December 2016, as previously announced.

However, the second two aircraft orders have been cancelled. Instead, Intrepid will buy two Boeing 747-8Fs and place them on long-term leases with an Airbridge Cargo.

The final two aircraft, originally scheduled for delivery in late 2017, have been delayed until early 2018 and the first half of 2019.

Speaking about the conversion of two orders into 747-8Fs, president and chief commercial officer Doug Winter says Intrepid is "confident in the long-term value proposition of the 777-300ER".

Air France-KLM issues bond at 3.75%

Air France-KLM has placed a new €400 million ($440 million) bond with a six-year term.

The bonds have an annual coupon of 3.75%.

The issue price was fixed at 100% of the nominal value. The bonds are redeemable at par in October 2022.

The issue was led by HSBC Bank and Société Générale as global coordinators and joint lead managers and Citigroup Global Markets, Commerzbank Aktiengesellschaft, Crédit Industriel et Commercial and Goldman Sachs International as joint lead managers.

The group says the issuance allows it to lengthen its debt profile.

Miami Air leases 737

Miami Air International has taken delivery of a 2008-vintage Boeing 737-800 (MSN 36434).

According to *Airfinance Journal*'s Fleets, the aircraft is on lease from Aviation Capital Group (ACG).

The airline is a charter operator that operates a fleet of 737-800s and 737-400s. According to Fleets, it operates two 737-400s on lease from AerCap and six 737-800s (two from AerCap, two from CIT Aerospace and one from ACG).

The airline recently stated its plan to remove the -400s from its fleet, adding that by the end of 2017 it will only operate the 737-800s.

VivaAerobus receives first A320neo

Mexican low-cost carrier VivaAerobus has taken delivery of its first Airbus A320neo (MSN 7060) under a sale and leaseback arrangement with an undisclosed lessor.

The aircraft is the first of two Neos the airline is scheduled to receive in 2016.

VivaAerobus has a further 39 unfilled orders for the A320neo, according to the latest data from the manufacturer.

Airfinance Journal understands that the first four A320neos that the airline will receive are all under sale and leaseback arrangements with the same lessor.

The airline's chief financial officer, Alan Bird, said earlier this year that VivaAerobus would consider owning some of the A320neos it has on order from 2018 onwards. The airline has used the sale and leaseback market to finance a good portion of its fleet.

VivaAerobus is the third Latin American airline to receive the A320neo. In August, Latam became the first carrier from the region to receive the aircraft, when it took delivery of MSN 7126 under a sale and leaseback agreement with Jackson Square Aviation. In September, Volaris received MSN 7051 on lease from AerCap.

NAC sells former Azul ATR

Nordic Aviation Capital (NAC) has sold one ATR 42-500 (MSN 579) to Canadian Airline First Air.

The aircraft was manufactured in 2000, according to *Airfinance Journal* Fleets.

Its previous operator was Brazilian low-cost carrier Azul. *Airfinance Journal* understands that the aircraft was returned to NAC at the end of its lease. The aircraft was one of 34 that the airline sold, sub-leased or returned to lessors as it reduces capacity in response to weak domestic demand in Brazil.

In addition, Azul returned three E190s at the end of their leases (MSNs 163, 178 and 189) and six ATR 72-500s ahead of their scheduled return date (MSNs 666, 785, 846, 891, 911 and 918).

Palma-Ibdar in talks for Emirates 777s

Palma-Ibdar Bank, a joint leasing venture set up by Dubai-based Palma and the Bahrain-based Ibdar Bank, is in talks with Emirates regarding sale and leaseback transactions covering two Boeing 777-300ERs, according to a source.

It is understood that the terms of the deal have not been finalised yet.

The aircraft are scheduled to deliver in the first half of 2017.

Palma-Ibdar Bank previously signed Islamic leases guaranteed by Export Development Canada for Bombardier Q400 aircraft leased to Ethiopian Airlines and UAE-based Falcon Aviation Services.

Emirates to close three structured lease deals

Emirates is due to close three structured sale and leaseback deals with EMP Structured Assets later this year, according to a source.

Two of the deals are for Boeing 777-300ERs and one deal is for an Airbus A380 aircraft.

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The 777 deals will close in November and December and the A380 deal will close in December.

All three aircraft are new and the deals will close on aircraft delivery.

It is understood that the deals will be structured in a similar way to previous EMP and Emirates deals, where the German asset manager takes ownership of the aircraft from Ireland-based Stellwagen Finance and leases the aircraft back to Emirates.

Dekabank is providing the senior loans on all three deals.

The deals will feature junior loans from Asian and German equity.

United closes $919.6m EETC

United Airlines has closed a $919.6 million issuance of enhanced equipment trust certificates (EETCs), according to a filing with the Securities and Exchange Commission.

United's second EETC issuance this year, after a $1.05 billion issuance in June, consists of two classes of notes: a $637 million AA tranche and a $283 million A tranche.

The AA tranche carries a coupon of 2.875% and the A tranche carries a coupon of 3.100%.

The proceeds from the offering will be used to finance 13 Boeing aircraft delivering in 2016 and 2017.

These comprise one 737-800 delivering in December 2016, three 737-900ERs delivering in December 2016, two 787-9s delivering in January and February next year and seven 777-300ERs delivering between March and June 2017.

The MSNs of the aircraft are 63694, 62817, 62815, 62816 for the 737s; 60141 and 60142 for the 787-9s; and 62647, 62651, 62650, 63721, 63722, 63723 and 63724 for the 777-300ERs.

The initial loan-to-value (LTV) is 38.7% for the AA tranche and 55.8% for the A tranche.

Rating agency Fitch expects to assign an AA rating to the AA tranche and an A rating to the A tranche.

The lead bookrunners are Credit Suisse (lead left), Morgan Stanley and Goldman Sachs. The bookrunners are Citi, Deutsche, Merrill Lynch, BNP Paribas and Crédit Agricole.

Commonwealth Bank of Australia is the liquidity provider. Wilmington Trust is the subordination agent, trustee, paying agent and loan trustee.

Hughes Hubbard is representing the airline, Milbank is representing the underwriters and Morris James is representing Wilmington Trust.

Lessor brings ABS to market

An operating lessor is in the market with an asset-backed securitisation (ABS) transaction, sources indicate.

The lessor has exposure to new aircraft and mid-life aircraft and would use the debt transaction to refinance a large part of its portfolio, sources indicate.

The deal is expected to launch in the first half of November.

Another source says the big ticket transaction has a $600 million asset value.

Airfinance Journal understands that two more ABS transactions are in the pipeline for the final quarter.

The volume of aircraft asset-backed securitisations is expected to continue growing in popularity as more leasing entities look to deleverage on the debt and equity side. So far, deals worth $1.75 billion have been issued this year, according to *Airfinance Journal* market research.

Asset manager Apollo Aviation issued a $510 million ABS transaction in March. The deal was backed by 32 aircraft with a weighted average age of about 14.8 years. The collateral pool represents almost 36% of Apollo's managed fleet by number of aircraft.

US lessor AerGen also tapped the ABS market for the first time, in June, with a $325 million issuance, backed by 19 in-production narrowbody aircraft.

In July, Castlelake launched a $916 million ABS deal. The notes were used to purchase a fleet of 52 aircraft and one engine. The weighted average age of the collateral was 12.1 years, younger than recent ABS deals such as those issued by AerGen (12.7 years) or Apollo (14.8 years).

Air Arabia leases six A321neos from ALC

Air Arabia will lease six new Airbus A321neos from Air Lease (ALC) for a period of eight years each.

The aircraft are all from ALC's own orderbook with Airbus, and are scheduled for delivery between January and October 2019.

Publicly listed Air Arabia began operations in October 2003 and operates a fleet of 45 Airbus A320 aircraft.

It has six remaining A320 aircraft on order – one will deliver this year and two next year. The three next aircraft to deliver will all be financed commercially, says Adel Ali, the chief executive officer of the UAE-based airline.

Both parties were represented by in-house lawyers.

Latam leases A350-900 from AerCap

Latam has taken delivery of a new Airbus A350-900 on lease from Aercap.

The airline received its first A350-900 in December 2015, followed by deliveries in March, May and August 2016. *Airfinance Journal* understands the MSN of the most recent aircraft is 48.

Latam will take delivery of a further two A350-900s in 2017, the airline revealed in a recent presentation. Both will be financed under sale and leaseback agreements.

AerCap is also heavily invested in the widebody, owning seven A350-900s on lease to airlines around the world, with a further 22 aircraft on order.

Avtrade purchases A320 for part out

Avtrade completed the acquisition of an Airbus A320 aircraft with CFM56-5A engines that was last operated by Air France.

The 1992-vintage unit, MSN 285, was disassembled to support the company's inventory.

Components will be fully serviceable and certified to both EASA and FAA release, and parts will be available for immediate shipment on sale, loan or exchange basis, says the company.

The transaction comes after the acquisition of a pair of two serviceable Boeing 737-700 aircraft in March. Both 1998-built units, MSNs 28088 and MSN 28089, were parted out to increase inventory and support of Avtrade's global services.

Clinton and Trump come in to land

We can still only guess the US election's impact on commercial aviation, writes New York-based Joe Kavanagh.

Godwin's Law, coined in 1990 by US attorney and author Mike Godwin, asserts that the longer an online discussion continues, the probability of a contributor mentioning the Nazi Party approaches one. In other words, certain topics will inevitably come up in certain conversations.

The 2016 US Presidential election is just such a topic. As the 8 November election date approaches, the two candidates are featuring more and more often in every kind of conversation. At the time of writing, Donald Trump is lagging behind Hillary Clinton by eight points, meaning that a third successive Democratic term seems increasingly likely. But, given how few people have predicted events so far, such as Trump defeating all the other GOP candidates to become the Republican nominee, it would be unwise to rule anything out.

Neither candidate has detailed how their presidency would affect commercial aviation. It is hard to extract industry-specific policy from the broad commitments they have made about the defining issues of this election cycle, including trade, immigration and security. But we can make an informed guess based on certain comments so far, particularly those that surround free trade.

Both candidates are breaking with recent Washington tradition when it comes to free trade. Trump, though inconsistent on most themes, is perfectly clear on this one. He articulates the anxieties felt by many Americans, especially those from declining manufacturing bases, who feel that the benefits of globalisation have passed them by. Trump wants to break up the North American Free Trade Agreement, withdraw from the Trans-Pacific Partnership (TPP) and slap a 45% tariff on all Chinese imports. Clinton, too, has promised to oppose TPP.

This collective anti-free trade stance has obvious implications for the open-skies agreements that govern US carriers. These bilateral agreements between the US and other countries allow airlines unrestricted landing rights on each other's runways, free from government interference. American Airlines, United and Delta have long argued that state-owned Gulf carriers are receiving subsidies that give them an unfair advantage. Given what both candidates have said so far on globalisation, it seems likely that the new administration will be sympathetic to this argument.

The candidates also disagree on the US Export-Import Bank. Clinton supported the bank when she was secretary of state and has not reversed her position. She previously said that reauthorising the bank was a "no-brainer". Trump, on the other hand, believes the bank serves no purpose. Last year, he said it was "unnecessary" and described it as "featherbedding for politicians and others, and a few companies". But given US Ex-Im's importance for Boeing exports, many in the industry, and more than a few outside it, would prefer a hands-off approach from the billionaire if he gets elected.

> "Both candidates are breaking with recent Washington tradition when it comes to free trade."

Personally, Trump does have more aviation experience than one might expect. As well as operating his own private jet through a subsidiary – a 1991-vintage 757-200, MSN 25155, according to *Airfinance Journal* Fleets – he has also owned an airline before. In 1988, he bought Eastern Air Shuttle's fleet of Boeing 727s for about $365 million. But soon after rebranding as a luxury airline, the company defaulted on its loans and was handed over to creditors.

No more hot air?

In early October, at the 39th Assembly in Montréal, the International Civil Aviation Organisation reached a landmark CO2 emissions agreement. The UN body agreed a deal, the Carbon Offsetting and Reduction Scheme for International Aviation (Corsia), which aims to guarantee carbon-neutral growth past 2020. In short, any carbon increase must be paid for in carbon credits and allowances, which can be bought and sold as a commodity. This will certainly mean additional costs for airlines in just a few years' time.

The International Air Transport Association praised the deal for its market-friendly framework. It contains provisions, for example, which make considerations for fast-growing airlines and those which have already made "significant investments" to lessen their environmental impact.

But the deal lacks bite. Although it will begin in 2021, it remains voluntary until 2026, with only 65 countries signed up to volunteer for the earliest phase. EU lawmakers have already criticised the deal for not doing enough to reduce emissions from flights. The agreement will depend on the carbon-offset markets, which have been criticised as opaque and structurally flawed. Most crucially, Corsia applies only to international flights.

Environmentalists will not be dancing for joy over the terms of the agreement. But emission reduction schemes are notoriously difficult to organise, and Corsia is an important first step to ensuring the future of commercial aviation.

Air Arabia banks on commercial financing

The Sharjah-based airline continues to be in a strong financial position, having increased its liquidity over the past four years. Adel Ali, its chief executive officer, tells Jack Dutton about the evolution of Middle Eastern aviation and why overly cheap oil is bad for the region.

Adel Ali in his office in Sharjah, UAE.

Adel Ali, the chief executive officer of Sharjah-based low-cost carrier (LCC) Air Arabia, thinks the price of oil is a bit like blood pressure. "Like a balanced blood pressure, a balanced oil price is a good thing," he says. "But a low blood pressure is bad and a high blood pressure is bad. This is the same with the oil price."

Although most airlines are enjoying low oil prices right now, Middle Eastern carriers such as Air Arabia are not, because they reside in economies that are heavily reliant on the oil industry.

Speaking to *Airfinance Journal* in Dubai, a half an hour's drive from the carrier's headquarters, Ali continues: "Oil prices continue to be uncertain, Opec [Organisation of the Petroleum Exporting Countries] is coming up again – there doesn't seem to be a sign of any oil price growth to a desirable level. Technically, it should be good for airlines with low oil prices, but the reality is that low oil prices create bad economies, and bad economies mean less people travel."

Ali has been chief executive officer of Air Arabia since 2003, when the airline started operating, and a lot has changed for aviation in the Middle East since then.

"Thirteen years ago, people were talking about a bubble bursting but we've since seen progress – airports are getting better and more people are travelling. Financiers and banks 13 years ago probably wouldn't have looked at financing things such as aircraft, and now they're quite okay with it."

Turning to banks

Air Arabia is riding off the wave of cheap and widely available financing, choosing to finance its three-year-old fleet of 45 A320s mainly through the banks.

Ali adds that despite the tougher economic conditions for airlines in the Middle East, his airline has not had any major challenges in securing bank financing for its aircraft. It has strengthened its liquidity position over the past four years, having $257.8 million in unrestricted cash in 2015 compared with $191.8 million in 2011, according to data from *The Airline Analyst*. Air Arabia scored a maximum financial rating of eight on fixed charge cover, liquidity and average fleet age in *The Airline Analyst* Financial Ratings, ranking it third among the global top 50 airlines.

Air Arabia has a further three A320 aircraft on order and will be taking six Airbus A321s from US lessor Air Lease from 2019. The A321s, which begin delivering in 2019, will be eight-year leases.

One A320 will arrive this year and two more will come next year – those aircraft will be financed through the banking market. Banking sources in the Middle East say the airline is likely to release a request for proposals in November, seeking commercial financing to fund the acquisition of two A320s that deliver next year.

Being located in Sharjah, rather than in Abu Dhabi or Dubai, where Emirates and Etihad are based, has been key to Air Arabia's growth. Despite there being a number of new low-cost carriers – such as Saudi Arabia's flyadeal and Oman's Fly Salaam – coming into the region over the past few years, Ali says the market is not overcrowded.

"The question we want to ask is, are there too many airplanes in the region? Whether they are LCC or not, everybody wants to put the best load and the best yield on their aircraft. The LCC will continue to grow in this region in the same way it has dominated other regions."

Fully-owned fleet

According to Ali, the carrier will own all of its aircraft by next year, so it came into the leasing market with the A321s to try to balance its fleet composition. "It's important to balance it because leasing gives you some flexibility but ownership gives you a better value for money," says Ali.

The airline chooses not to use cash to fund its aircraft. "I think the financing at the moment is very attractive; it has been for a few years now," says Ali. "It's good to use money to finance and cash is always good to have in the airline industry. If the market changes, and we find that financing is too expensive, then we may use the cash, but so far, it has been working in our favour."

Different cycle

Ali believes the aviation business is now less cyclical. "This industry used to be very cyclic and seasonal, but now things have changed. There is a cycle for business travel if the economy is good or bad, but the general public tends to travel regardless, as people tend to travel now for multiple reasons."

He adds: "It's become part of the culture to travel and visit each other, to live in different cities, and so on. There's travelling for study and for medical reasons. Some of it has become so personal that it's not impacted… if the markets are up or down, people just keep travelling."

Regardless of economic uncertainty and the price of oil, Ali thinks the demand for travel will continue to grow.

United EETC shows 5% differential on 777-300ERs

Appraisers were not too far apart in their appraised values on 13 Boeing aircraft

United Airlines' latest enhanced equipment trust certificates (EETC), 2016-2 offering showed more than a 5% discrepancy amoung appraisers in their appraised values for Boeing 777-300ER aircraft.

The Chicago-based carrier closed its dual-tranche $919.6 million transaction in October. Net proceeds will finance 13 Boeing aircraft that are scheduled for delivery between December 2016 and June 2017. These include one 737-800 and three 737-900ERs, delivering in December.

The notes will also finance two 787-9s, delivering in January and February, as well as seven 777-300ERs, delivering between March and June 2017.

The MSNs of the aircraft are 63694, 62817, 62815, 62816 for the 737NGs; 60141 and 60142 for the 787-9s; and 62647, 62651, 62650, 63721, 63722, 63723 and 63724 for the 777-300ERs.

United retained the services of AISI, BK Associates and MBA as appraisers on the transaction.

The 777-300ER model was the focus of the collateral, representing more than 50% of the total fleet in terms of number of aircraft.

A March delivery was valued at $164.7 million by AISI, or $9 million lower than the highest of the three appraisers, BK Associates. MBA had a $167.9 million valuation on the delivery.

Interestingly, all three appraisers valued a March 2016 delivery, on the $1.05 billion American Airlines 2016-2 offering.

AISI and BK Associates had wider valuations with $150.3 million and $165.3 million, respectively. MBA's valuation was $161.5 million.

Another 777-300ER aircraft which delivered in February this year, as part of the American Airlines 2016-2 transaction, also showed valuations ranging by as much as 10%.

Again, BK Associates came in with the highest valuation of $165.1 million, while MBA's valuation was $161.3 million. AISI was the lowest of the three appraisers with $149.9 million.

Valuations for a United 777-300ER model delivering in April and June next year range from $165 million to $174.5 million between the highest and lowest appraiser, giving a 5.5% discrepancy.

AISI, BK Associates and MBA also had different opinions on new 787-9 deliveries.

A January 2017 delivery would be appraised at $137.75 million by MBA, which was the lowest of the three firms.

BK Associates values a new delivery at $148.5 million, or $11 million higher. AISI's valuation is $144.42 million.

In September's American Airlines, Series 2016-3AA and Series 2016-3A offering, a 787-9 delivering in January 2017 showed a 4.3% differential between the same three appraisers.

MBA valued an American Airlines 787-9 delivery at $137.31 million, or $440,000 less than a United aircraft delivering in the same month. BK Associates' valuation was $143.2 million, $5.3 million less than the United aircraft. AISI valued the delivery at $143.14 million.

Appraisers' opinions were more in line on the 737-900ER model. A December delivery has a $52.48 million valuation for MBA. AISI values the delivery at $53.54 million, while BK Associates valuation is the highest of the three appraisers with $54.4 million. A 737-800 delivering in December would have a valuation of about $49.09 million for MBA. BK Associates values the delivery at $50.75 million, or about $3.7 million less than a 737-900ER. AISI values the aircraft at $52.43 million, just over $1 million less than a 737-900ER.

"AISI, BK Associates and MBA had different opinions on the new 787-9 deliveries."

APPRAISER'S VALUATIONS

Aircraft type	MSN	Delivery date	AISI ($m)	BK Associates ($m)	MBA ($m)
Boeing 737-823	63694	Dec 2016	52.43	50.75	49.09
Boeing 737-924ER	62815	Dec 2016	53.54	54.4	52.48
Boeing 737-924ER	62816	Dec 2016	53.54	54.4	52.48
Boeing 737-924ER	62817	Dec 2016	53.54	54.4	52.48

Source: United Airlines, October 2016

APPRAISER'S VALUATIONS

Aircraft type	MSN	Delivery date	AISI ($m)	BK Associates ($m)	MBA ($m)
Boeing 787-9	60141	Jan 2017	144.42	148.5	137.75
Boeing 787-9	60142	Feb 2017	144.65	148.5	137.87
Source: United Airlines, October 2016					
Boeing 787-9	40643	Jan 2017	143.14	143.2	137.31

Source: American Airlines, September 2016

APPRAISER'S VALUATIONS

Aircraft type	MSN	Delivery date	AISI ($m)	BK Associates ($m)	MBA ($m)
Boeing 777-322ER	62647	Mar 2017	164.73	173.7	167.85
Boeing 777-322ER	62651	Apr 2017	165	174.5	167.99
Boeing 777-322ER	62650	Apr 2017	165	174.5	167.99
Boeing 777-322ER	63721	May 2017	165.28	174.5	168.13
Boeing 777-322ER	63722	May 2017	165.28	174.5	168.13
Boeing 777-322ER	63723	Jun 2017	165.55	174.5	168.27
Boeing 777-322ER	63724	Jun 2017	165.55	174.5	168.27
Source: United Airlines, October 2016					
Boeing 777-323ER	32439	Feb 2016	149.9	165.15	161.32
Boeing 777-323ER	33538	Mar 2016	150.32	165.3	161.46

Source: American Airlines, May 2016

Appraisers vary on Embraer E175 models

Valuations have fluctuated on American Airlines' 2016 EETCs, never more so than with the E175.

Appraisers' Embraer E175 opinions varied by 6.3%, on average, in American Airlines' latest enhanced equipment trust certificates (ETTC) transaction.

American retained the services of AISI, BK Associates and MBA in its 2016-3AA and 2016-3A offering.

The issuance consists of a $557.65 million AA tranche and a $256.14 million A tranche. The AA tranche carries an interest rate of 3% and the class A tranche has a 3.25% interest rate.

The notes are secured against 25 aircraft that have already delivered to the airline or are scheduled to deliver through January 2017.

Both tranches fully amortise over 12 years, with an average life of 8.8 years. The AA tranche carriers an initial loan-to-value (LTV) of 38.7%, while the A tranche carries an LTV of 56.4%.

The deal was the airline's third EETC issuance in 2016, after a $1.2 billion issuance in March and an $829 million issuance in May.

The collateral pool includes five Airbus A321s (MSNs 7188, 7418, 7301, 7310 and 7515); eight Boeing 737-800s (31237, 33250, 31250, 33341, 31253, 31255, 33342 and 33342); four 787-9s (40640, 40642, 40641 and 40643); and eight Embraer E175LRs (17000594, 17000595, 17000601, 17000604, 17000609, 17000614, 17000618 and 17000619)

The eight new E175s are scheduled for delivery between September and December this year, according to the prospectus.

AISI was the highest of the three appraisers with a $30.29 million quote for a September delivery and $30.44 million quote for a delivery due in December. MBA's opinion ranged from $30.14 million and $30.22 million for the aircraft. BK Associates' base value was between $28.5 million and $28.6 million, giving a 6.1% to 6.4% discrepancy with AISI.

The appraiser firms were more in line on Airbus A321 valuations. On the five new units, scheduled to deliver between November this year and January 2017, opinions varied by a mere 0.3% on average.

BK Associates was the highest with $55.1 million on most deliveries while MBA's valuation was slightly less than $55 million.

There were more variations in valuations for A321 models in American's $828 million 2016-2 transaction in May.

AISI's valuation, for deliveries scheduled between May and August, ranged between $55.2 million and $55.5 million. BK Associates' opinion ranged from $54.8 million to $56 million. MBA's view of a new A321 delivery ranged from $54.6 million to $54.8 million.

On the 737-800 model, the appraiser's discrepancies reached almost 5% on a March 2016 delivery. MBA's base value was $45.82 million. AISI and BK Associates had $47.98 million and $47.62 million, respectively.

But a September delivery is estimated at $49.32 million by AISI and $47.63 million by MBA, giving a 3.5% difference between the two appraisers or $1.7 million lower. BK Associates' base value is $48.5 million.

A delivery in October is valued at $49.41 million says AISI, $48.75 million according to opines, BK Associates and $47.67 million for MBA.

BK Associates has a $48.75 million valuation for all deliveries in the final quarter of this year. MBA's valuations are $1 million lower, while AISI's opinion is $49.57 million.

APPRAISER'S VALUATIONS

Aircraft type	MSN	Delivery date	AISI ($m)	BK Associates ($m)	MBA ($m)
Airbus A321-231S	7188	Nov 2016	54.91	55.1	54.91
Airbus A321-231S	7418	Dec 2016	55	55.1	54.96
Airbus A321-231S	7301	Dec 2016	55	55.1	54.96
Airbus A321-231S	7310	Dec 2016	55	55.1	54.96
Airbus A321-231S	7515	Jan 2017	55.09	55.2	55
Boeing 737-823	31237	Mar 2016	47.98	47.62	45.82
Boeing 737-823	33250	Sep 2016	49.32	48.5	47.63
Boeing 737-823	31250	Sep 2016	49.32	48.5	47.63
Boeing 737-823	33341	Oct 2016	49.41	48.75	47.67
Boeing 737-823	31253	Nov 2016	49.49	48.75	47.71
Boeing 737-823	31255	Nov 2016	49.49	48.75	47.71
Boeing 737-823	33342	Dec 2016	49.57	48.75	47.75
Boeing 737-823	33343	Dec 2016	49.57	48.75	47.75
Boeing 787-9	40640	Oct 2016	142.44	142.75	136.97
Boeing 787-9	40642	Oct 2016	142.44	142.75	136.97
Boeing 787-9	40641	Dec 2016	142.91	142.75	137.2
Boeing 787-9	40643	Jan 2017	143.14	143.2	137.31
Embraer ERJ 175 LR	17000594	Sep 2016	30.29	28.5	30.14
Embraer ERJ 175 LR	17000595	Sep 2016	30.29	28.5	30.14
Embraer ERJ 175 LR	17000601	Oct 2016	30.34	28.6	30.17
Embraer ERJ 175 LR	17000604	Oct 2016	30.34	28.6	30.17
Embraer ERJ 175 LR	17000609	Nov 2016	30.39	28.6	30.19
Embraer ERJ 175 LR	17000614	Nov 2016	30.39	28.6	30.19
Embraer ERJ 175 LR	17000618	Dec 2016	30.44	28.6	30.22
Embraer ERJ 175 LR	17000619	Dec 2016	30.44	28.6	30.22

Source: American Airlines, September 2016

Avolon buys CIT Aerospace

In early October, Avolon confirmed market rumours by announcing its planned purchase of CIT Group's leasing platform. Joe Kavanagh takes a look at the fleet of the future third-largest lessor.

When Avolon, a subsidiary of Bohai Leasing, agreed to buy CIT Group's aircraft leasing platform, CIT Aerospace, for $10 billion last month, it committed to become the world's third-largest commercial aircraft lessor by number of aircraft. For a company founded only in 2010, this is quite an achievement.

As Avolon announced when it disclosed the agreement, its combined in-service portfolio will total 561 owned and managed aircraft with an average age of 4.6 years. The new entity will also have orders and commitments for 349 aircraft, of which 282 are new-technology models. These include 195 Airbus aircraft (A320neos, A330neos and A350s), 59 Boeing 737 Max and 28 Boeing 787s.

The purchase price of $10 billion includes a premium of 6.7% over the net asset value of CIT's leasing platform, which totals $9.4 billion.

The deal was widely anticipated by the market, because HNA Group, which owns a majority stake in Bohai Leasing, is an acquisitive parent company with the financial firepower to act on such a large transaction.

Market sources signalled to *Airfinance Journal* weeks beforehand that the Chinese conglomerate was in pole position to close the deal ahead of several other bidders. The company has clearly shown its intention to grow its presence in aviation. A string of recent deals includes the purchase of equity stakes in Azul and Virgin Australia.

A cursory glance tells us that the new company will be substantially larger. But how else will it change the dynamics of Avolon's portfolio? An analysis of the portfolio data from *Airfinance Journal* Fleets reveals some useful facts about the combined leasing company's new fleet.

More widebodies

The first relates to CIT Aerospace's widebody-heavy portfolio. When Avolon completes the purchase, it will have absorbed a portfolio that is notably concentrated in twin-aisle aircraft.

CIT Aerospace is more invested in widebodies than most other lessors. Twin-aisle aircraft account for 34% of the value of its fleet, with 40 Airbus A330s, two A350s, eight Boeing 757s, six 767s and four 787s on its balance sheet.

CIT Aerospace's orderbook also features widebodies. It was one of the first companies to place an order for the A330neo, when, in December 2014, it firmed up an order for 15 A330-900neos, as well as five A321s. It also has orders for 12 A350-900s and 16 787-9s.

These twin-aisle aircraft will join Avolon's own widebody fleet, which

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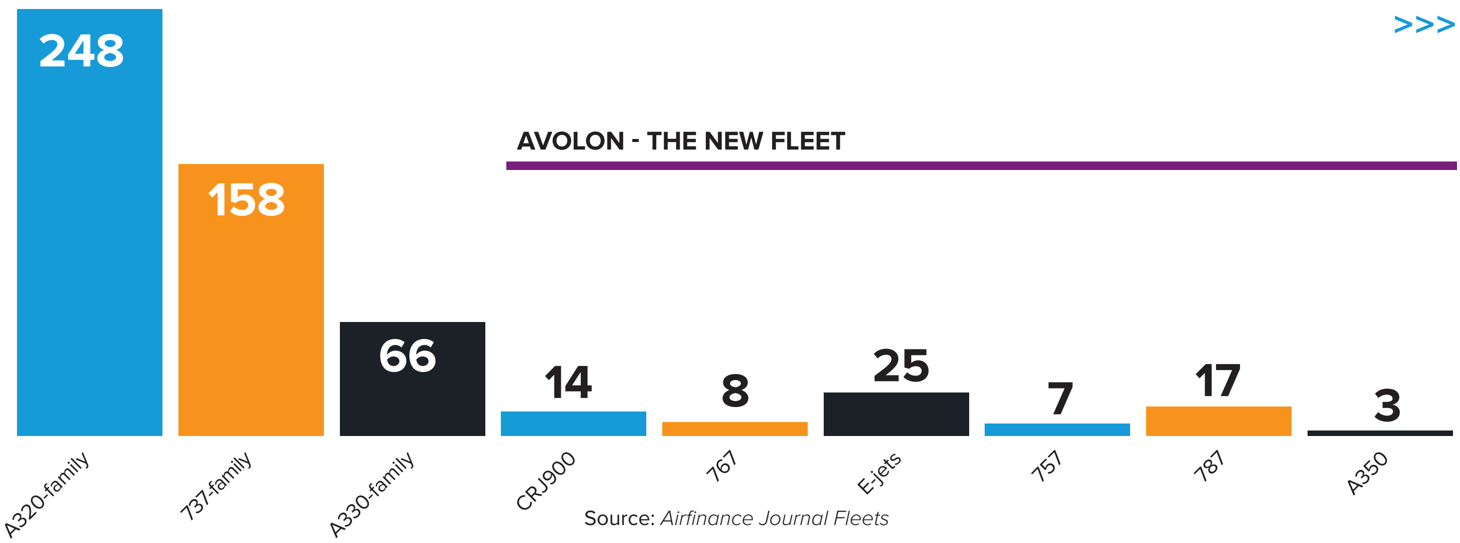

Source: *Airfinance Journal Fleets*

AVOLON - THE TOP FIVE LESSEES

Lessee	Number of aircraft	Estimated current market value ($m)	Country
American Airlines	29	1,060	USA
Indigo	26	680	India
Delta	15	610	USA
Endeavor Air	14	324	USA (operates regional flights for Delta)
Vueling	10	368	Spain

Source: *Airfinance Journal Fleets*

"The combined in-service portfolio will total 561 owned and managed aircraft with an average age of 4.6 years."

consists of 24 A330s, three 777-300ERs, 10 787s and one 747-400F, according to *Airfinance Journal* Fleets.

Exposure

The second point of interest is how exposed Avolon will become to its largest leasing customer, American Airlines. After the deal has concluded, the carrier will become the largest lessee for Avolon by a considerable margin.

The airline is Avolon's second most concentrated lessee already, with 11 aircraft according to the data. It is also CIT Aerospace's top airline customer, with 18 aircraft on lease.

But the acquisition will push the value of Avolon's exposure to the airline up to $1.06 billion by current market value of the 29 aircraft, according to *Airfinance Journal* Fleets. This is 55% higher than the $681 million-worth of aircraft on lease to Indian low-cost carrier IndiGo, which will be the second lessee by value.

This concentration might prompt a portfolio sale by Avolon, if the lessor decides to reduce its exposure to the carrier at some point after the acquisition. This is a common strategic move for aircraft lessors which want to manage their risk by spreading it more evenly across a range of airlines. It would also represent a chance for a smaller lessor – perhaps one hungry for growth – to acquire aircraft already on lease to a good credit.

However, given the excellent financial metrics of American Airlines, Avolon may be comfortable with this risk. It has successfully completed one of the largest airline mergers in recent history, and has generated record profits in recent years. Its rating outlooks from the three major agencies reveal their belief in its future financial strength: with an issuer rating of Ba1 from Moody's and BB- from Standard & Poor's and Fitch, all three agencies have given a "stable" outlook to the carrier.

Avolon declined to discuss the deal when contacted by *Airfinance Journal*, citing regulatory restrictions linked with the upcoming closure of the purchase. The lessor expects to close the deal by the first quarter of next year.

Six busy years: Avolon's ascent

2010: Seven senior managers at RBS Aviation Capital resign to start their own aircraft lessor. The founders include Domhnal Slattery, John Higgins, Tom Ashe, Andy Cronin, Ed Riley, Dick Forsberg and Pat Hannigan. Completes a $1.4 billion equity and debt capital raise.

2011: Completes a $350 million portfolio purchase from Gecas.

2012: Signs order for 15 A320neos; firms up order for 15 737 Max and 10 737-800s.

2013: Prices first ABS deal – a $636.2 million transaction secured by a portfolio of 20 aircraft.

2014: Prices a $273 million partial IPO, at $20 per share. The deal priced below the $21-$23 guidance but was still the largest ever IPO on the New York Stock Exchange of an Irish-founded company and the largest capital raise by an Irish company since 2007.

2015: Bohai Leasing agrees to take 20% stake of Avolon in July; in September the two companies sign an agreement granting Bohai exclusive rights to negotiate a takeover; merger receives shareholder approval in October.

2016: Agrees to buy CIT Group's aircraft leasing platform for $10 billion.

New solutions for a new age

GECAS' recent asset sales have not dimmed its ambition of remaining the world's largest leasing company by fleet size. It will soon join parent GE's digital revolution which could help transform the business, writes Laura Mueller.

General Electric (GE) will close the doors of its headquarters in Fairfield, Connecticut, by the end of the October, after occupying the 68-acre site since 1974. The leafy suburban campus is up for sale.

The move comes amid a radical overhaul of GE that was brought about by the 2008 financial crisis, which led to the US government insuring $139 billion in debt for its GE Capital unit and the selloff of $126 billion in assets.

The GE Capital sales are in response to GE being deemed "too big to fail" or a systemically important financial institution under the Dodd-Frank Act – a status it successfully shed in June.

The relocation to Boston reflects its nearly decade long about-face in business. Financial services are out, while businesses formed through a collision of the industrial sector and the digital world are in under GE chief executive officer (CEO) Jeffrey Immelt's "new chapter" for the conglomerate.

Top down

Although GE Capital's leasing arm, GECAS, will stay put in its Norwalk, Connecticut, offices where it quietly moved a few years ago, the lessor, too, has been undergoing a reshaping, starting from the top.

GECAS' former CEO Norm Liu passed the torch to Alec Burger, who took charge in January, after heading up GE's real estate division.

Liu, a 30-year General Electric veteran, will remain with the aircraft leasing company until later this year as chairman.

Burger was charged with selling off GE's real estate division during his reign, a task that market observers have speculated could be indicative of future events at GECAS – a suggestion the lessor has always denied.

However, there is no refuting that GECAS has been an active seller of aircraft with several recent headline transactions, including the $2 billion disposal of 45 units to Avolon.

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> "We have obviously had an elevated level of asset sales over the past couple of years… GECAS will be a little less than 50% of GE Capital's total going forward."

This came after a spate of sales to Aviation Capital Group, Goshawk and China Construction Bank Leasing.

"We have obviously had an elevated level of asset sales over the past couple of years and part of that is the target for GE Capital, which as of 2Q, had approximately $121 billion in total assets in the verticals. GECAS will be a little less than 50% of GE Capital's total going forward," says Burger, speaking to *Airfinance Journal* from the lessor's offices in Shannon.

Burger says GECAS is taking advantage of market conditions and strong investor appetite for aircraft, after selling $3 billion of assets in 2015.

GECAS' portfolio peaked at about $49 billion-worth of assets in 2010 and the "go-forward strategy" is to be about $43 billion.

During the past couple of years, the lessor has been selling about $4 billion worth of aircraft, he says, while originating $5-6 billion-worth of transactions, which is down slightly from the $6-7 billion a year it had previously typically invested.

Even with increased sales, GECAS is still the world's biggest leasing company by fleet size, with a total of 1,450 aircraft – a position it wants to retain, says Burger. It has 270 aircraft on order – including the Airbus A320neo, Boeing 737 Max 8, A321neo and 787-10 models.

The focus will continue to be on the more "commodity-type planes" that are relatively new.

"We continue to see strong demand for our narrowbody aircraft that offer airlines more fuel efficiency with lower operating costs, and our orders placed for the Neo and Max aircraft ensure we have supply to meet this demand."

While Burger admits low fuel costs are prompting customers to fly older aircraft longer, the move is not having a significant impact on new-technology customers, he says.

"There is so much passenger growth out there, so there is consequently very strong take up for the new-technology aircraft. Yes, there are airlines that are willing to fly the older planes longer because fuel costs are so low, but I don't see this changing demand for new ones."

Rivals Air Lease and AerCap both exited the regional aircraft markets this year, but Burger is unfazed by the moves.

"We have looked at the regional portfolio and it is good for us, we are not in any rush to move out of it. But the core element for us is to be mostly a narrowbody owner, and that shows up in the statistics in our overall fleet which is approximately 60% of this type."

Revised focus

GECAS aims to approach the market as a solutions provider. Part of GECAS' new strategy, under Burger, is to have an even sharper focus on providing services to its customer base.

"We aren't just going to be money," he says. "I really believe strongly that our value proposition is being able to provide solutions. I had a large airline CEO tell me recently that they don't need our money, but they need us to help manage their fleets, transition aircraft and provide new equipment when needed. We can do all of those and that is a benefit we have because of scale."

Similar to real estate, aviation is "truly" a relationship business, he observes. "Perhaps that will be my legacy, to drive the focus on the customer, while strategically positioning GECAS to remain a market leader."

Though Burger aims to be "more than money" to its customers, there is no denying that PK Aifinance, GECAS' lending arm, is a valuable service for many GECAS customers as it provides an alternative to leasing for financing. Many of GECAS customers like to have a mix of leasing and debt products on their balance sheets. The GECAS team has assisted many of its customers through the years with restructurings in tough times. PK has a book of loans collaterialised by about 400 aircraft.

The most recent example of GECAS providing a customer solution can be seen in the case of Milestone Aviation Group and CHC Group.

Last year, a dearth of attractive sale and leaseback opportunities led former CEO Liu to expand into the helicopter sector with the $1.775 billion, plus the assumption of debt, purchase of Milestone Aviation and its helicopter leasing company, which was founded in 2010 by Richard Santulli and other members of the former NetJets executive management team. Its fleet includes 215 helicopters worth $3.7 billion and 121 firm and option aircraft with an estimated purchase price of $3.2 billion with a variety of helicopter manufacturers.

The purchase, unfortunately, coincided with the slump in the oil and gas industry.

Under pressure from the dramatic fall in oil prices, as well as a fatal accident in Norway involving one of its aircraft, one of Milestone's largest lessees, CHC Group and its 230-unit fleet, filed for Chapter 11 bankruptcy protection on 5 May.

"Nobody saw the price of oil going from a peak of $150 to a low of $35 and that sector has been under fire, but we really have inherited a tremendously strong team and the capital to weather the storm," says Burger.

In October, CHC Group entered into a $450 million agreement to recapitalise the operator, which was led by existing creditors and Milestone.

The agreement calls for $300 million in new capital from its existing creditors, as well as terms for restructured aircraft leases and additional asset-backed financing commitments of $150 million from Milestone and its affiliates.

Under the lease restructuring term sheet, Milestone will serve as the lead lessor for CHC's go-forward fleet of helicopters. Milestone will also provide CHC with modified lease terms on their existing leases and additional helicopters at market lease rates.

Capital alternatives

In addition to providing more solutions for its customers, GECAS is also looking at expanding its sources of capital to take advantage of the wall of liquidity that is eagerly looking to invest in aviation.

Burger adds: "The $43 billion-worth of GE investment is nothing to be embarrassed about, but we have a very good brand and track record, so to the extent there is money out there that wants to invest in leasing, we are going to take a look."

Although GE is a large conglomerate with access to multi avenues of capital, it too felt the pinch from the retreat of the US Export-Import Bank in June 2015 when congressional Republicans failed to reauthorise the bank's charter.

GE was the second-largest beneficiary of Ex-Im in terms of loan values, behind Boeing, before the bank's closure.

The move has become particularly difficult for GE and its exports because of a strong US dollar and weaker global economic growth.

David Joyce, chief executive of GE Aviation, said in 2015 after the closure: "The uncertainty around the Ex-Im Bank requires that companies like GE create alternatives in order to compete internationally."

As a result, earlier this year, GE Aviation announced plans to build its new turboprop development, test and engine production headquarters in the Czech Republic, creating more than 500 new jobs. The new "centre of excellence" for turboprop aircraft engines is aimed at benefiting from government-backed finance trade in the absence of Ex-Im.

GE also struck a deal for up to $12 billion in financing from Britain's export credit agency (ECA), the UKEF.

The export deal is due to create as many as 1,000 jobs in the UK to provide support for a number of GE's industries, including aviation. In the UK, GE Aviation already makes the wing components for the Airbus A380 and A350 aircraft.

Further complicating the matters on the export credit front is an ongoing investigation by the UK's Serious Fraud Office into Airbus. This has prevented UKEF, and the other European ECAs, from underwriting any new deals involving Airbus aircraft since April.

However, Burger notes this fallout in guarantees from the ECAs for Airbus and Boeing aircraft has not led to an uptick in customers looking to lease aircraft.

"It is hard to measure, but I would say no, we have not really seen an increased uptake, but that is because those customers were unlikely ever to be leasing customers and also there is a lot of cheap money out there."

Bigger competitors

In addition to a digital and industrial transformation at the parent level, GECAS is facing an ever-evolving competitive environment.

Building on a series of acquisitions made in recent years, Chinese aviation and shipping conglomerate HNA Group, which owns Avolon, agreed to buy the aircraft leasing business of CIT Group for $10 billion to create the world's third-largest aircraft leasing company, as *Airfinance Journal* went to press.

Avolon says it will pay $10 billion for the $9.4 billion adjusted net asset value of CIT Group's leasing unit, as of June, representing a premium of 6.7%.

The move is hardly surprising, says Burger.

"And it makes sense that the Chinese would want to increase their exposure, so I expected this," he adds.

When asked whether the Chinese expansion into the aviation market represents a sector play or currency hedge, he replies: "Definitely a sector play. I saw this in the real estate market too, but what will be interesting is to see how quickly they can build up their capabilities," he says.

"I think the challenge is that while the capital is there, the human resource side is an even bigger challenge – how do you build up the domain to manage the portfolio, the technical support? That will be a big challenge to growth."

> "We aren't trying to boil the ocean, but we are using the digital world to make our business better. It is really important for us. I think the most obvious is giving our customers greater analytics and transparency into their portfolios."
>
> Alec Burger, GECAS CEO

Digital revolution

The other side of GECAS' new strategy, under Burger, is to have a "keener focus" on supporting its industrial sister companies and their use of software and analytics.

No doubt GE's digital revolution is changing the way the industrial giant does business and soon that transformation will be seen at GECAS.

In 2015, GE Digital was launched bringing together all of the digital capabilities from across the company into one organisation. It aims to be a leading software company by 2020.

As part of that transformation, Immelt, whose father used to run GE's aviation division, launched an app store last year to help manufacturers and companies to understand the machines they use.

Burger wouldn't be drawn on what this digital transformation will look like at GECAS but indicates in "12-18 months a couple of things should be real".

He adds: "We aren't trying to boil the ocean, but we are using the digital world to make our business better. It is really important for us. I think the most obvious is giving our customers greater analytics and transparency in to their portfolios – being predictive in terms of servicing engine repairs is an obvious commonality between us and engines...We want to build digital solutions to help our customers be more productive."

The move to becoming a pioneer in what is called the "industrial internet" is GE's strategic response to the recognition that many of its industrial products -- such as locomotives, turbines and jet engines – were generating millions of points of operational data that – if analysed and packaged – could be used to give customers efficiency improvements worth billions of dollars in savings.

The opportunity was significant enough for GE to go "all in", says Burger, on becoming an industrial company, and focus its remaining GE Capital business units, such as GECAS, on supporting the financing of its industrial products.

And with the global economic outlook thick with cloud and short of a silver lining, GE's return to its industrial roots and away from this risky world of finance looks all the smarter.

The International Monetary Fund has cut its forecasts for global economic growth this year and next as the UK vote to leave the European Union creates "a wave of uncertainty amid already-fragile business and consumer confidence".

Burger acknowledges this "too low for too long" growth epidemic in advanced economies is worrisome, but maintains GECAS is prepared for the uncertain times.

"Look, this is not easy; we are not in an easy environment.

There is volatility and real risk, but we are well positioned to deal with that – we have not overextended our orderbook. We have a low-cost of capital and with our digital aim, I feel very confident about where we are heading."

Not out of the woods yet

Airlines have responded intelligently to the crisis gripping Brazil by protecting their margins with capacity reductions. But structural problems and a tough operating environment mean they are a long way from safety. Joe Kavanagh reports.

Having predicted Armageddon for months, the world's media were surprised to find that the 2016 Olympics in Rio de Janeiro ran smoothly. In fact, the worst headline to come from the event involved the actions of an American swimmer, whose antics on a celebratory night out were less exemplary than his team's performance in the pool.

Happily, Ryan Lochte's experience of Brazil is not the one shared by the millions of tourists who swarmed the city this summer to enjoy the world's greatest sporting event. Brazil pulled off a logistical feat that few thought was possible, and even bagged a few medals in the process.

As many commentators have pointed out since, the success of the Games also symbolised the reversal of Brazil's economic fortunes in the past 12 months.

The real has strengthened nearly 23% against the dollar since the start of 2016, having fallen to its lowest level against the US currency in September 2015. Meanwhile, its benchmark equities index, Ibovespa, has improved more than 41% after the impeachment of former president, Dilma Rousseff. Investors are optimistic about the prospects of Brazil's current and more market-friendly president, Michel Temer.

But what does this mean for the country's airlines? As data provided by The Airline Analyst shows, the airlines with the most exposure to Brazil – either with headquarters in the country or generating a substantial amount of revenue within it – are still struggling to generate enough cash to fund their operations. Despite slashing their capacity in response to falling demand, they still face fundamental problems that are restraining their potential.

The Brazilian operating environment is very tough for local carriers. Poor infrastructure, high fuel costs, expensive labour and low passenger demand have all combined to make life difficult for airlines. Although the economy seems to have entered an upswing, Brazil's airlines are not out of trouble just yet.

> “Prospective investors in Brazilian airlines will be encouraged by their mature response to the problem of falling demand.”

Supply and demand

The past year has been very difficult because of a drastic drop in passenger demand. But prospective investors in Brazilian airlines will be encouraged by their mature response to the problem.

The severity of the issue can hardly be overstated. In January, for example, the International Air Transport Association released domestic traffic statistics that showed a drop in revenue passenger kilometres (RPKs) for Brazil of 4.1%. Even Russia, which is suffering because of international sanctions, a decline in the ruble and falling revenue from its main export, petroleum, saw a decrease of just 2%. By contrast, Chinese airlines enjoyed growth of 11.9% and Indian carriers saw a boost of 22.9%.

However, Brazilian airlines responded quickly and decisively to this threat. As passengers stopped buying tickets for domestic flights in particular, Brazilian airlines slashed their capacity in response, sometimes substantially (see Azul's redeliveries).

Most airlines already adapt their capacity to match periods of peak demand. During the Hajj, for example, the annual pilgrimage to Mecca undertaken by millions of Muslims, airlines with Middle Eastern routes lease in aircraft on short-term contracts to match the extra demand. But the scale of the undertaking in Brazil was impressive to industry observers.

The four airline companies with the largest share of the Brazilian market – Latam, Gol, Azul and Avianca Holdings – have collectively reduced the number of available seats to below 2013 levels in response to shrinking demand (see Supply and demand graph). According to data collected by The Airline Analyst, the available seat kilometres (ASKs) for these airlines at the end of the second quarter of 2016 shrank to 54 billion, down 9.2% on the same period last year. Airlines have achieved this reduction through a combination of delivery deferrals, aircraft sales and returning aircraft to lessors at the end of their leases or even before.

Their actions have earned them the praise of leasing partners, who recognise the difficulties they are facing. At *Airfinance Journal*'s 12th Annual Latin America Conference in Rio de Janeiro in September, GECAS' head of Latin America, Gilberto Peralta, praised the fleet-reduction efforts that Brazilian airlines have carried out.

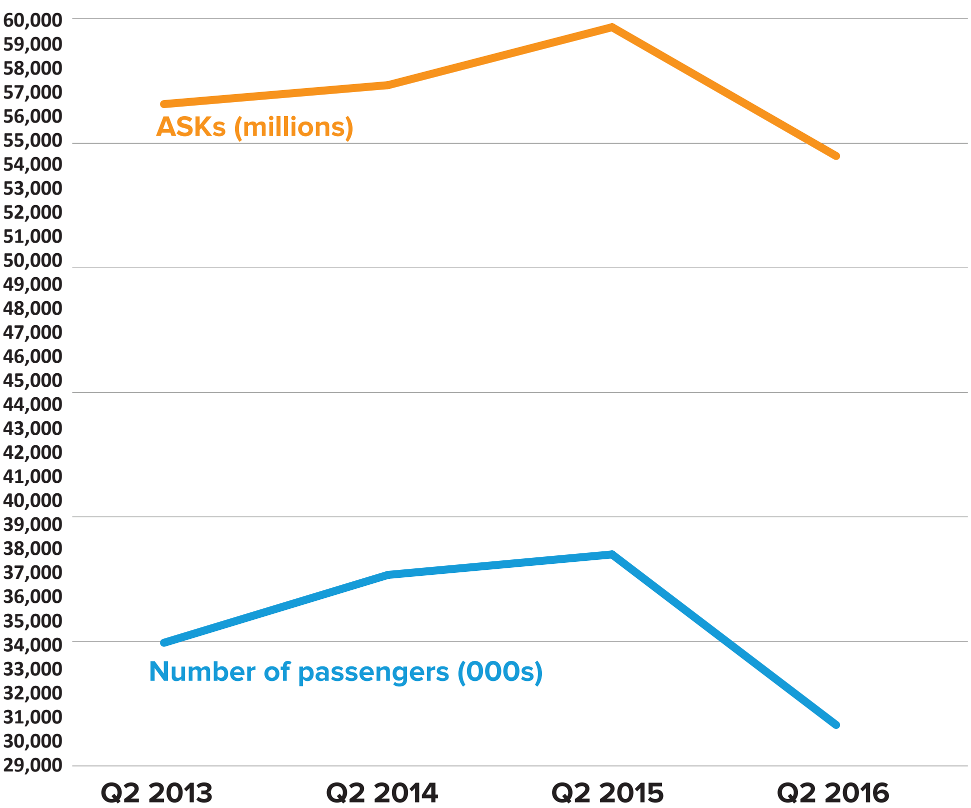
"The airlines are doing the right things, and they have the right people managing them," he said, stressing his confidence in their executive teams.

> **"The airlines are doing the right things, and they have the right people managing them."**
>
> Gilberto Peralta,
> head of Latin America, GECAS

By slashing capacity, Latin American airlines have protected their margins and controlled their losses. Limiting their ASKs has allowed them to lessen the damage done by falling demand. In fact, the four largest Brazilian airlines managed to boost their Ebitdar margin (earnings before interest, tax, depreciation and amortization/total revenue) from 13.4% to 16.6% year-on-year for the second quarter in 2016.

Another key metric that shows the operating efficiency of airlines, the passenger load factor, demonstrates the success that these four carriers have had responding to falling demand. The measure, which represents the percentage of available seats that an airline has filled with paying passengers, is a good indication of how well a carrier is managing its capacity. What it shows in the case of Brazilian airlines is that despite falling demand, airlines have held steady the percentage of seats filled on all their flights. The average load factor for the airlines was 80.2% during the second quarter of 2016, which was up 10 basis points from the same quarter in 2015.

SUPPLY AND DEMAND (FOUR MOST ACTIVE AIRLINES IN BRAZIL)
Latam, Gol, Azul, Avianca Holdings



Source: *The Airline Analyst.*

Capacity adjustments have helped Brazilian airlines to limit their losses

Helping hands

There is also strong demand for international partnerships, whether as codeshares or equity stakes, which has given Brazilian airlines a chance to boost their cash positions. As local currencies decline in value against the dollar, local airline equity prices become more attractive to foreign buyers who generate revenue in stronger currencies.

In August, for example, Hainan Airlines completed a $450 million investment in Azul, buying up a 23.7% stake in the Brazilian carrier. The deal makes the Chinese airline, which is a subsidiary of HNA Group, the largest shareholder in the carrier and allows it to appoint three members to Azul's board of directors.

Similarly, in September last year, Delta Air Lines stepped in to help Gol by underwriting a $300 million, five-year term loan. The US airline is heavily invested in its Brazilian equity partner, owning 16.19% of the airline's preferred shares.

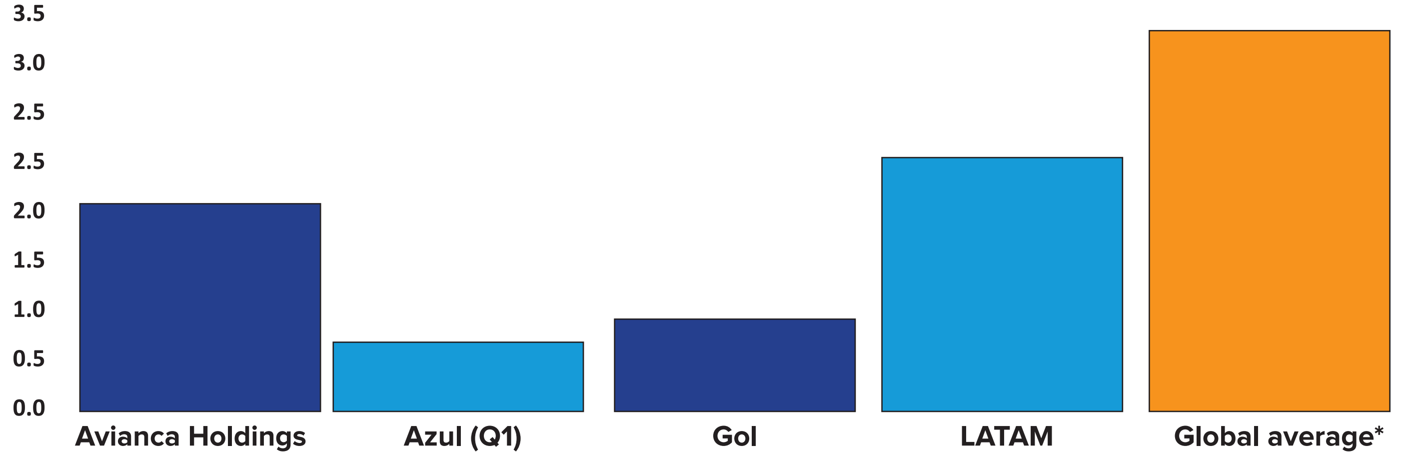
Both cases demonstrate the strength of Brazilian carriers' international partnerships, which have proven useful in the past 12 months. Such relationships prove the beliefs of international airline partners in the long-term viability of Brazilian carriers.

Avianca Holdings is also in the process of seeking a "strategic partner", but has not commented on the process. The company has vigorously denied that it has made any deals so far, and has not commented on which prospective partners it has spoken to already.

Although there has been plenty of activity, the Brazilian government could do more to help its airlines make the most of international support by selling equity

>>>

FIXED CHARGE COVER (EBITDAR/NET FIXED CHARGES) Q2 2016



*of the 150 airlines whose financial results are collected by The Airline Analyst

Brazilian carriers need to build up their cash flows to protect themselves from further shocks

stakes. At present, Brazilian airlines are prevented by law from selling more than 20%. In June, however, the government came close to making things easier for Brazil's airlines. The country's House of Representatives passed a bill that allowed foreign companies to own up to 100% of the stock of Brazilian airlines. However, in July, the bill was vetoed by President Temer, who wanted more time for the bill to be debated. In particular, some in the Senate were concerned about the impact on local jobs.

A long way to go

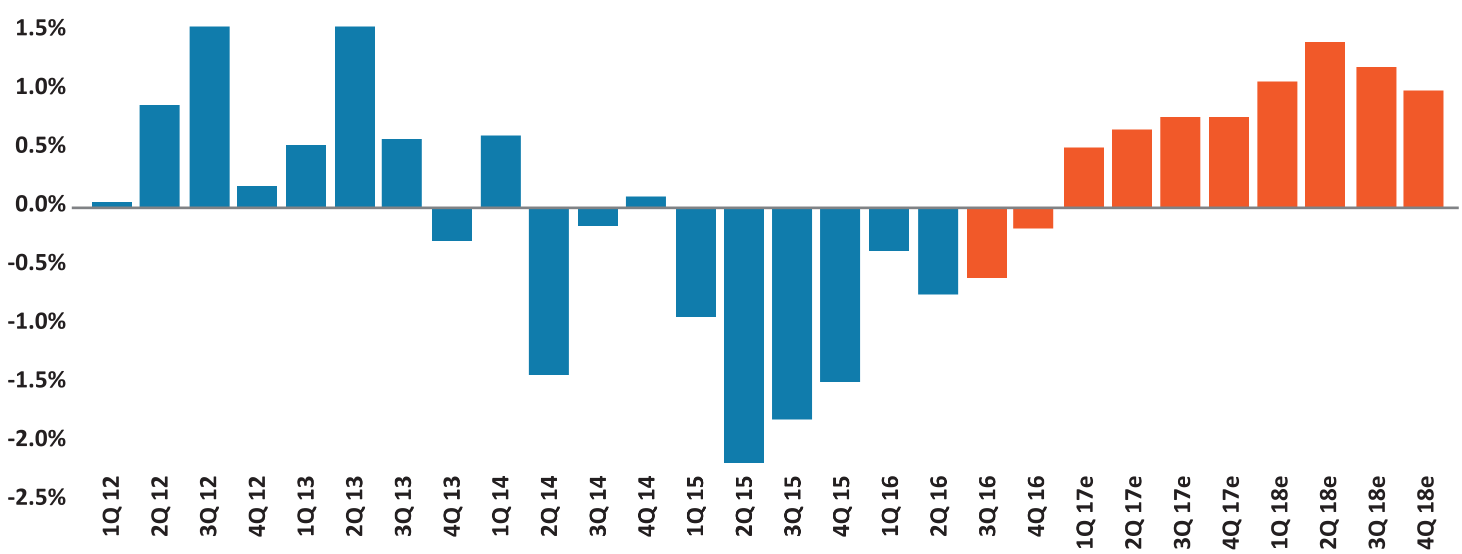
If Brazil's economy is on an upswing, as forecasters are predicting, the nation's carriers will emerge having shown that they can handle severe economic shocks. But there is little to write home about just yet, as data from The Airline Analyst shows.

In particular, airline cash flows are not strong enough to support their financial obligations. Despite the good work they have done to protect their margins, Latin American carriers are still in a precarious position. They have little room for manoeuvre if, for example, another sharp devaluation of the real takes place, or if the Brazilian economic recovery fails to materialise. If passenger demand falls lower still, airlines will be under pressure to cut capacity further.

Examining the fixed charge cover of these airlines sheds some light on the problem. This measure (see Fixed charge cover graph) expresses Ebitdar as a multiple of net interest plus rent payments. In other words, it reveals how many times an airline's earnings can cover its financial obligations. A score of 3.0, for example, shows that an airline's adjusted earnings are three times as high as the value of its interest and lease payments – a relatively comfortable position to be in. Lower scores demonstrate that an airline is struggling to meet its financial obligations, perhaps because of a drop in demand, currency exchange pressure, or other factors.

Brazilian airlines Azul and Gol score 0.6 and 0.8, respectively, on this scale. This is far lower than the global average of 3.3. Out of more than 150 airlines ranked by The Airline Analyst Financial Ratings Service, they score 133rd and 148th. Avianca is faring better, with a score of 1.8, and Latam is under less pressure with 2.2. But none of these ratios are strong. By comparison, Lufthansa Group's cover is 10.3 times and Alaska Air Group enjoys a ratio of 20.1.

BRAZILLIAN GDP 2012 - 2016 AND PROJECTED GDP TO 2018



Source: *Itaú BBA*

Brazilian GDP growth is expected to return soon

“Once we get back to a normal world, in which these carriers have to invest in their businesses once again, then we have a problem.”

Stephen Trent, director, Citi Research

Because they have been selling aircraft as they reduce their fleets, Brazilian airlines have enjoyed a temporary cash boost from the proceeds. But improving their own financial positions is only half the battle for Brazilian airlines. Even if they manage to generate more cash, and passenger demand begins to grow again at its pre-crisis rates, infrastructural problems will continue to hamper them. Their weak cash flows will be a problem further down the road once they have to begin investing in their fleets again, as Stephen Trent, a director at Citi Research, points out.

“Once we get back to a normal world, in which these carriers have to invest in their businesses once again, then we have a problem,” he notes. Brazil’s operating environment is still a major challenge, he adds, which will hamper the country’s airlines’ potential if left untreated.

“There are still structural headwinds out there, like the jet fuel kerosene tax on domestic flights that is still in place. [Airline operating] costs are still higher in Brazil than in other markets,” notes Trent.

As he points out, Norwegian Air Shuttle is reportedly planning to launch flights to Argentina, perhaps with the intention of establishing local hubs in Argentina and Chile. It seems to have chosen not to enter the Brazilian market, which may shine some light on the issues facing Brazil.

“Norwegian’s purported lack of interest in entering Brazil highlights that market’s ongoing structural disadvantages versus other Latin American aviation systems, including its high labour costs, fuel taxation and relatively low airport infrastructure per capita,” he adds.

For example, Brazilian airlines pay substantially more fuel tax than the average airline. As they frequently complain, airlines tend to pay nearly 40% compared to the average of nearly 30%, mainly because of the ICMS sales tax applied by individual states. Airlines are working with local authorities to try to reduce these taxes.

One recent development sums the situation up well. In September, the country’s airlines were informed that Ireland had been deemed a tax haven by the Brazilian tax authority, and thus aircraft registered in the country would become subject to about €274 million ($301.35 million) in new taxes.

Airlines were especially shocked because they had not been consulted on the potential impact before the ruling took place. *Airfinance Journal* understands that the measure is being reviewed after pressure from industry groups. But the potential difficulty of this tax is symptomatic of the hostile operating environment in which Brazilian airlines operate.

At the 12th Annual Latin America Airfinance Conference in September, Brazilian conglomerate Itaú BBA forecast the Brazilian economy returning to growth by the first quarter of 2017. It then expects GDP to rise to 1.3% by the first quarter of 2018.

The fall in passenger demand prompted by the recession has been the most severe of the many problems facing Brazilian airlines over the past year. All Brazilian companies, not just those in aviation, will welcome a return to growth.

Case study: Azul’s redeliveries

Brazilian low-cost carrier Azul has completed or arranged the redelivery of 34 aircraft as it grapples with tough economic conditions in Brazil. Its actions show how extensively Brazilian airlines have had to slash their fleets in response to falling demand.

The airline has sold aircraft, returned aircraft to lessors, or sub-leased to other airlines in an attempt to restrict capacity and protect its margins.

Portuguese flag carrier TAP Portugal has sub-leased 17 aircraft from Azul, including two Airbus A330s, six ATR 72-600s and nine Embraer E190s.

Four aircraft (one ATR 42-500 and three E190s) were returned to their lessors at the end of their leases. Their MSNs are 579, 163, 178 and 189.

Azul also returned six ATR 72-500s to lessors ahead of their scheduled return date. These returns have already been completed for MSNs 666, 785, 846, 891, 911 and 918.

By mid-September, Azul expects to have closed the sale of seven aircraft, including five ATR 72-600s (MSNs 1047, 1057, 1060, 1072 and 1076) and two E195s (MSNs 396 and 419).

New entrants test the waters

New lessors and airlines are still piling into the Chinese market and were out in force at the 5th China Air Finance Development Summit. Michael Allen reports from Tianjin.

The aviation industry has made quite the impact on the second-tier Chinese port city of Tianjin. Taxi drivers mention with some pride the Airbus assembly plant that is based in the city.

But perhaps the strongest influence from the industry that has impacted Tianjin – at least from a leasing and financing perspective – is the free trade zone (FTZ) based in the city. The Dongjiang Free Trade Port (DFTP) has completed more than 750 aircraft leases since it founded the Tianjin FTZ in 2015 and has hosted an annual conference in Tianjin for the past five years.

Tianjin's free trade zone is the most popular in China for aircraft leasing and has more aircraft registered than other FTZs in places such as Shanghai, Xiamen, Qianhai and Guangdong. The DFTP is working to attract international lessors to set up vehicles in the free trade zone to get tax breaks that can be shared with their airline clients.

Speakers gather for a panel at the 5th China Air Finance Development Summit.

New lessor entrants

The 5th China Air Finance Development Summit, which ran from 21st to 23rd of September, was held by the DFTP in Tianjin. Perhaps the most remarkable thing about the event was the sheer number of new entrants to the market, particularly on the lessor side of the business. These companies are drawn by the potentially lucrative gains to be had in the Chinese market, but aircraft leasing is not a simple business and requires a high level of expertise, including on the remarketing side.

Some of the companies are previously unheard of in aviation and may just be testing the waters, without committing to any deals at this stage. Guohai Investment Fund Management is one of these companies. It is attracted to the aircraft industry, but has not yet completed any deals, according to a source. The company is newly established and has a head office in Shanghai.

Another source tells *Airfinance Journal* he is working with a Sichuan province-based state-owned enterprise that plans to set up a leasing company, with a joint venture in Ireland and a subsidiary in Hong Kong.

Whether or not these new entrants are a positive sign for the market is something that divides the industry.

One delegate, who declined to be named, believes new lessor entrants are linked with "the general economy of China".

"It's really hard to say whether they are a good thing," she says. "Many new entrants mean a lot of competition. For now, they are very much concentrated on doing marketing, but after a while they might find out they have a lack of sophisticated people to do the after-sale management of the fleet. I think that's the thing for small sized-companies – for small-sized new entrants."

Another delegate, who also declined to be named, says the "sheer number" of new aircraft lessors is the main thing that struck him about the event, adding that he is not aware there are that many companies in China looking to trade leases from the more established players to acquire their first portfolios.

"It's a little bit worrying that with so much demand, the Chinese leasing market – in any case, the domestic leasing market – seems a little bit distorted now, so if you talk to the evaluation guys they say they're seeing lease rate factors at 4%, which is lower than cost of funds, so that may not be a good thing for the leasing industry in China. Irrationally priced competition is not good for the industry, so we will have to see."

Paul Ng, a partner at Milbank Singapore, says the Tianjin conference, has "really come of age" and is not only attended by mostly Chinese aircraft lessors as when it started.

"It has a much more diversified group of attendees, including almost all the airlines in China, plus quite a few service providers like MROs [maintenance, repair and overhaul companies] and consultants," he adds.

"In addition, the Chinese banks didn't just send some juniors but the top management themselves actually went."

Ng says the speakers provided "very instructive and educational" presentations on how the FTZ assess tax, adding that the FTZ has "really come into its own".

He says: "The volume is huge now on top of the fact that there's aircraft manufacturing there as well. Currently, it eclipses Hong Kong as a possible place for leasing and it's not just Chinese lessors setting up in the Tianjin FTZ; it's international lessors, and some have already set up in the FTZ.

"The Dongjiang Free Trade Port (DFTP) has completed more than 750 aircraft leases since it founded the Tianjin FTZ in 2015 and has hosted an annual conference in Tianjin for the past five years."

They have been successful in drawing large international lessors in setting up their offices and using the zone as a conduit into China."

In fact, Ng says the Tianjin FTZ is becoming for some airlines more popular than Dublin as a place through which to structure their leases.

Ng notes the drive towards yuan-denominated financing after the devaluation of the Chinese currency shows signs of continuing, although this is unlikely to have a great impact on whether foreign lessors set up shop in Tianjin.

Along come the airlines

As well as new lessor entrants, there were also new airlines attending the conference looking to establish new contacts to grow their businesses. One of these companies, Guangzhou-based LongHao Airlines, is a new cargo carrier.

A delegate from this company tells *Airfinance Journal* that the most interesting part of the conference is learning about the way airlines and lessors deal with second-hand aircraft and evaluate the salvage value of the aircraft.

"During the conference, information about fleet, financing, and the latest policy can spread very quickly. The scale of the event has become bigger and bigger and it's an opportunity for us to find targeted second-hand aircraft for the new year, and we can also present LongHao Airline to all new cooperative partners," says the delegate.

The delegate adds: "From the latest policy of the Civil Aviation Administration of China [CAAC], we can find an obvious trend of rapid expansion of the aviation industry, and the aviation financing data also turns out to be dramatic. Since the market for lessors is fiercely competitive, it's maybe good news for airlines to lower the cost for financing."

However, setting up an airline in China is more difficult than setting up a leasing company.

Another delegate explains: "You cannot freely set up aviation companies in China. They have very strict qualification requirements and it's still subject to the discretion of the CAAC."

The organiser's view

Chris Li, project manager, aviation department, shipping and finance promotion centre of the Dongjiang Free Trade Port, tells *Airfinance Journal* that growth is good but too much competition could be harmful.

The 5th China Air Finance Development Summit attracted a flock of new aviation entrants.

Dongjiang Free Trade Port welcomes new entrants in the lessing space but wants to see more consolidated growth.

"We see more and more players joining in the industry. The players have different backgrounds, but they become more likely to win the deals because they have strong shareholders. Also, other areas in China like Shanghai, Xiamen, Fujian and Guangdong – even Chongqing – with local government are also considering developing their own aircraft leasing and financing industries." says Chris Li, project manager, aviation department, shipping and finance promotion centre of the DFTP.

But we see a big problem in the industry: more players means more fierce competition and much lower leasing price, which can cause a big problem in the next five to 10 years."

Li adds that while many leasing companies are able to score deals, they may encounter problems when the lease contracts on their aircraft come to an end and they need to remarket the aircraft.

"There will be a problem because not many leasing companies can do this well with their leased aircraft," he says.

Li believes that despite this, lessors will take on the challenge and will increase the level of operating leasing.

While competition is generally seen as a good thing in free markets, Li says that the DFTP does not want to see too much competition, because too much "cut-throat" competition could be detrimental to the aircraft leasing industry as a whole.

"We do hope that the market should grow more consolidated than fragmented in China, because when you have market consolidation in the industry, in Tianjin it can better help us to get more policies from the central government. It also can help the lessors established in Tianjin to trade their assets," says Li.

He adds: "We also hope that the airfinance industry should be an internationalised industry. That means you finance globally and purchase aircraft globally and recruit your staff globally. It also means you remarket and trade your assets globally."

Goshawk finds its feet

Jack Dutton speaks to the Irish lessor's management team about its growth plans and unsecured bond market debut.

Although Dublin-based Goshawk Aviation may appear as a new company to some, its executives have a long history of working together. Ruth Kelly, Goshawk's chief executive officer, Anand Ramachandran, the chief financial officer, and Peter Watson, the chief commercial officer, were part of a team of eight that joined the lessor from Investec Bank in 2013.

Nearly three years later, the company has grown considerably – taking on an extra 32 employees and bringing its committed portfolio up to $4.5 billion by the end of 2016. Goshawk has 71 aircraft in its portfolio and has committed to acquire 20 more over the next 12 months. The majority of these aircraft will all be acquired from airlines via sale and leaseback transactions.

Goshawk has a young fleet of aircraft, with an average age of 2.5 years. To keep the average fleet age young, the lessor is an active trader.

"We've traded aircraft right from the very beginning. We've tended to trade the older aircraft in the portfolio with shorter average remaining lease terms," Watson tells *Airfinance Journal*.

The lessor has traded 10 to 12 aircraft since it began operations. Although Watson is not drawn as to which specific aircraft, he says they are all older narrowbodies that "do not fit the mandate for Goshawk".

He adds: "In terms of our aircraft, 55% of our acquisitions have been through buying portfolios from other lessors and 45% have been from acquiring aircraft from airlines through sale and leasebacks – though recently we have seen more acquisitions come on the sale and leaseback side."

As well as pursuing more sale and leaseback deals, Goshawk also looks to grow its portfolio by about $1 billion a year, according to Kelly. She says that the lessor is open to mergers and acquisitions and "would look at all opportunities" that would facilitate the growth of the business, so long as they would meet our strategic objectives".

Problem solving over pricing

Goshawk focuses on aircraft on long-term leases with its portfolio having an average lease term of 8.5 years. Although the lessor focuses mainly on narrowbody aircraft, it also "has space" for widebody aircraft, according to Kelly. The lessor recently acquired four 787-9s due to deliver in 2017 from Etihad as part of a sale and leaseback deal.

Kelly says the lessor rarely wins transactions based on pricing and insists there are other factors where Goshawk comes out on top.

"We have to find ways of adding value to customers," she says. "We differentiate ourselves by focusing on solving the balance sheet problems of our customers. In the past, we've helped structure PDP [predelivery payment] facilities for airlines like Etihad to help them with their financing requirements.

"We can't always win on pricing, so we figure out what they want from a balance sheet perspective and help solve their problems," she adds.

"We're looking to build our book in a competitive environment. Thirty percent of our funding is an equity contribution from our shareholders. The balance is debt, which is sourced from external parties," says Kelly.

50-50 balance

After obtaining a private rating from Kroll to focus on the unsecured markets, at the end of June, the lessor priced its first unsecured bond – in an offering where it raised $231 million (the equivalent of 10% to 15% of the total debt on its books at that time). The issuance was priced on the Wednesday after the UK's Brexit referendum vote and the final issuance was $231 million, split between five- and seven-year tenors.

"We were all surprised by the Brexit vote, but the overall fixed pricing remained constant on that day. We didn't see as much of a problem, and the investors stayed with us during that time," says Ramachandran.

He adds: "But pricing wasn't the only factor here. What was just as important was the fact that we could issue unsecured debt, as we were a newish company. We were happy with the response we got in the market and the fact that the bond was oversubscribed."

The private placement was launched as a $200 million senior notes issuance.

"The deal is split between a five- and seven-year tenor and $300 million was the ultimate book, but for certain reasons we did not want to raise that much – we wanted to work in small steps and work out the desire from the market first," says Ramachandran.

In early July, the lessor closed a four-year unsecured revolving credit facility with a syndicate of banks, with the initial lenders being Citibank, Natixis,

From left to right: Anand Ramachandran, Peter Watson and Ruth Kelly.

HSBC Bank, Crédit Agricole Corporate and Investment Banking and Mega International Commercial Bank. The facility can be upsized to $750 million and will be used for general corporate purposes and aircraft acquisitions.

Despite Goshawk successful foray into the unsecured market, Ramachandran insists that more work needs to be done to balance the funding of the lessor's fleet – 60% of which is funded through the secured banking market and 40% is funded through unsecured deals. Ramachandran says that he looks to move towards a 50-50 balance.

"We need to reach equilibrium, but right now we're not there. We now have close to 40% of our total debt being unsecured, so we have some more to do, not necessarily in the US market, but generally to raise some more unsecured financing. Once we reach that equilibrium, we will continue to keep the balance between secured and unsecured as we grow the business," says Ramachandran.

Prepared for downturn

Despite Goshawk being initially managed by Investec, the bank sold its 20% in Goshawk the day *Airfinance Journal* went to press. The lessor is now 100% by Hong Kong-based financial conglomerate Chow Tai Fook Group.

Although the business seems to be doing well on its own, Kelly recognises that there are dangers and potential downturns around the corner.

She says: "The world seems like a good place right now. The aviation business is extremely capital-intensive, there's cheap financing available and it's competitive on the one hand. But there's always going to be risks and issues on the horizon."

Kelly adds: "There will be another downturn in our sector, if normal economic trends are to be repeated. When will it be? I don't think I can answer that. I think what's important in that regard is that we're building our business to be prepared for a downturn. If and when a downturn arrives, we will see that as an opportunity for us."

Watson says: "To try to protect ourselves against a downturn, we avoid having too many of our aircraft expiring at one point in time; you have to balance your portfolio. We try to invest in aircraft that see us through the cycles, have long remaining lease terms and as lower value volatility as possible."

That said, Ramachandran stresses that the lessor "does not grow for the sake of growth".

He adds: "We look at every transaction to stand on its own two feet and be more additive to our overall portfolio. We're also not under pressure from our shareholders – we don't have to grow this business on a certain date every year. There's none of that at all. We just look at transactions and we've taken them on when we've felt they'd benefit us.

"That way we've prepared for the downturn. If we don't find the right deals, we'll wait and in the downturn, you will often find better deals. If we see attractive deals during the downturn, our shareholders will continue to support us and help us grow our business at that time."

"Aviation is extremely capital-intensive, there's cheap financing available and it's competitive. But there's always going to be risks and issues on the horizon."

Ruth Kelly, CEO of Goshawk

Skyco grabs airport advantage

The Chinese leasing company is the first from its country to have an airport as its major shareholder. Michael Allen meets Skyco's management team in Guangzhou to find out what makes it different from the wave of other new lessors emerging in China.

The Chinese aircraft leasing market has seen a wide variety of new entrants over the past year or so. To name just a couple, Haite Group formed SinoSinga Aircraft Leasing and insurance giant Ping An Insurance set up Ping An Leasing. But Guangzhou-based lessor Skyco International Financial Leasing, which was incorporated into the Nansha Free Trade Zone in November 2015, has a unique ownership structure in that its major shareholder is the local airport authority.

Guangdong Airport Authority (GAA) holds 35% of the shares, while another undisclosed international company from Hong Kong holds a 25% stake. The lessor has an initial start-up capital of $270 million, but this could be increased to $330 million later this year.

The company is the first aircraft lessor to be set up by an airport authority in China.

Daniel (Minghui) Su, general manager in Skyco's aviation department, is an old leasing hand, having started his aviation career at Guangzhou-based China Southern Airlines, where he managed the company's aircraft leases. It was there that he met Bob (Jingbo) She, now director of Skyco's aviation department. They parted ways when they left China Southern, with Su going to ABC Leasing and She to CMB Leasing, but the two joined forces again when they were hired last year to work for Skyco.

Their boss Eric (Mingfeng) Zhao, who is Skyco's director, chief operating officer and deputy chief executive officer, also has previous leasing experience, having served as executive director of asset management at ICBC Financial Leasing.

> "The shareholders are providing some capital into the company to fund portfolio acquisitions, but, for now, Skyco's main financial resource is from Chinese banks."

This combined experience means that Skyco is not coming to the leasing scene fresh-faced but rather draws on experience from other well-established Chinese lessors.

"I think the general background of GAA establishing a leasing company is that state-owned companies across the whole country are being encouraged to have a new mixed-ownership structural reform. On that background, GAA is planning to do some first steps of this reform, and the Aerocity Holding Company and also the Skyco Leasing Company is their first step," says Su.

In September 2015, China's State Council issued new guidelines urging state-owned enterprises to accept mixed ownership and to modernise.

"From the airport, we have an aviation background so, for our company, leasing is our main business goal, and our shareholders, the airport, will maybe introduce other industries relating to aviation such as second-hand aircraft, spare part leasing and the MRO [maintenance, repair and overhaul] and aircraft dismantling and the second-hand spare parts and the second-hand parts distribution centre," says She.

Fleet

This year Skyco Leasing closed its first aircraft deal for two Boeing 737-800s (MSNs 39202 and 39203) purchased from Hong Kong Aviation Capital, with leases attached to Hainan Airlines. Skyco has also leased one simulator to Guangzhou-based low-cost carrier 9 Air, owned by Shanghai-based Juneyao Airlines.

The shareholders are providing some capital into the company to fund portfolio acquisitions but, for now, Skyco's main financial resource is from Chinese banks having taken out long-term loans for the acquisition of its first two aircraft.

"Right now, these two aircraft are funded by Chinese policy banks, but we have gathered relationships with overseas banks and our platform in Ireland is already available, so some portfolios have overseas assets not in China, so the foreign aircraft portfolio must get the financings overseas from foreign banks," She says.

Skyco wants to expand its fleet to about 15 to 20 aircraft by the end of this year and will focus exclusively on narrowbodies for the time being. The aircraft will likely be financed by Chinese and overseas banks.

The aircraft will be introduced using

two methods. The first – and preferred – option is to purchase an aircraft portfolio from other leasing companies. The second is to do sale and leasebacks with airlines directly. The problem with acquiring aircraft, however, is that all Chinese lessors are in acquisition mode at the moment, leading to fierce competitions for portfolios.

"What I can say is that all the Chinese lessors have the same appetite, so we are all seeking for the same aircraft," says Su.

Once Skyco has these aircraft in its fleet, it wants quickly to lease about half of them to the international market by utilising an Irish platform. The company wants to offer finance leases, operating leases, sale and leasebacks, as well as other types of leases such as joint leasing, where two lessors can share equity in a special purpose vehicle (SPV).

"Because the market is quite firm right now, we are changing our strategy to half and half focusing on international and also domestic. That's why we made a fast decision to open our platform in Ireland in September," says Su.

To help with this expansion, Skyco has established SPVs in the Guangdong Free Trade Zone (FTZ) and the Tianjin FTZ, and set up a Dublin platform on 1 September 2016.

The lessor's choice to do its first aircraft deal through the Guangdong FTZ was influenced by the fact that Skyco is based in Guangdong and affiliated with the Guangdong government through the GAA.

She explains how there are "not too many" aircraft in the Guangdong FTZ and that the free trade zones in Tianjin, Shanghai and Xiamen are more popular.

He says: "Guangdong province and Guangzhou city want to encourage aircraft leasing very much, so recently they introduced some good regulations to encourage these kind of transactions. Our company is the first one – and right now the only – aircraft leasing company in Guangzhou and so we get some benefits from the government. Thus, our first two aircraft are being kept in Guangdong.

"I think we also hope a lot of leasing companies might set up an SPV in Guangdong," adds She. "If that situation happens that means the regulations in Guangdong are very attractive and at that time maybe more leasing companies can chase the government to distribute more attractive regulations to encourage aircraft leasing. I think this is a good thing for the leasing companies."

Financing

The purpose of Skyco's Hong Kong company is to raise funding, because the restrictions on fundraising in mainland China are too onerous.

"In mainland China, the aircraft portfolio is commonly in US dollars and the foreign exchange is controlled strictly, so Hong Kong is more popular and more beneficial to get the funding," says She.

The aircraft assets, however, will be registered in the Irish platform rather than in Hong Kong.

She adds that Skyco aims to become a tier-one leasing company within about five years and to enter the capital markets possibly within the next three to five years.

Standing out from the crowd

Skyco's services may sound just like those offered by any other lessor in China, but Su and She say they can provide additional value to their customers through their company's connection to Guangzhou's airport. If the company's lessee has routes into Guangzhou Baiyun International Airport, Skyco can assist in getting the airline extra benefits from the airport.

She says that other leasing companies, such as those affiliated with banks, can only provide financing support to their airline clients. Skyco, on the other hand, can also provide resources from Guangzhou airport and, since "almost all" the airlines in China have flight routes through Guangzhou, this could be a major competitive advantage for Skyco.

"Guangzhou airport is now the third largest airport in China, so this is our difference: we can work together with our shareholders to provide the deep and wide service to our airlines," says She.

Since conducting this interview, *Airfinance Journal* has learnt of another aircraft leasing company being set up by an airport authority, in Hebei province.

Spanish banks step up financing

Josep Montañes and Monica Serres, from the EMEA asset finance team of Banco Sabadell, tell *Airfinance Journal* editor Jack Dutton why Spanish banks are increasing their exposure to aviation.

Spain's economic forecast looked bleak in 2012, when analysts were worried that it would become the fourth eurozone country to require a full bailout. Having asked for help from its banks, the country spiralled into a deep recession, after a housing bubble, accompanied by unsustainably high gross domestic product growth.

Four years on and the outlook is starting to look more positive. In July, Luis de Guindos, Spain's economy minister, said his country was growing faster than expected and its GDP growth could be more than 3.2% this year.

Monica Serres and Josep Montañes, who work on Banco Sabadell's asset finance team, say that Spanish banks need to invest and diversify their portfolios, and that there is an increased appetite for aircraft.

"Aviation finance is a market that has never been approached significantly by Spanish banks," says Montañes, speaking to *Airfinance Journal* in Barcelona, where the asset finance team is based. "It's a matter of diversification and the role of a bank is to provide loans. With the recession, it's a need for the Spanish banks to not just focus on the Spanish economy and to diversify their international investments."

According to Montañes, aviation gives Spanish banks the chance to diversify in countries where they do not have much exposure. Even as head of the bank's asset finance team for Europe, the Middle East and Africa (EMEA), Montañes has become only especially active in aviation finance over the past 18 months.

"I would say around 10 years ago in the previous cycle, there were some kinds of a structure that had some fiscal benefits for Spanish banks to finance aircraft. But back then there were no Spanish lessors and very few Spanish carriers, so it was a small market and nobody had dedicated teams to carry out the transactions," he says.

> "Aviation finance is a market that has never been significantly approached by Spanish banks."

Up until recently, Spanish banks were more focused on project finance, according to Montañes. He adds that in Spain, project finance is declining because of the Spanish banks chasing higher yields. Local banks such as Banco Santander, Banco Sabadell and Caixabank have a presence in more countries now than before, meaning international customers are within easy reach.

"Emirates is looking for $8 billion in financing. It is a large amount for financing and no other sector can make it. You need to diversify a lot with lessors and other banks, so that's why we are seeing loads of new players in this market," says Montañes.

From leasing to lending

Banco Sabadell had some aviation deals in its portfolio coming from some of the banks it acquired. These were mainly Spanish operating lease deals. The bank is now shifting its focus from lease financing to debt financing.

"It doesn't matter if it's an operating lease or direct lending. We are not interested in equity as a lessor. On the other hand, Santander has a completely different strategy, where it's more interested in being a lessor and not being a lender. I would say Caixabank and Banco Popular are more similar to us," he says.

Sabadell has closed eight aircraft deals this year for airlines, including Delta, American Airlines, Emirates and Iberia. Sabadell's participation has mainly been through club deals for widebody aircraft, but the bank has also provided finance on narrowbody transactions this year.

Some of the structures the bank has taken on are newer and less familiar. According to Montañes, the past 18 months have been "a learning process", in which more experienced aviation finance banks have helped educate them on new structures.

"We have taken some senior debt. It's a process of going step by step," he says. "First, you take some participation in the senior debt, then you have to take some junior debt. Then the next step will be club deals. It's a learning experience. The banks and risk committees create that relationship to help make everyone comfortable with it."

Spainish banks, such as Sabadell have been particularly active in financing widebody aircraft.

In it for the long term

Serres says the bank closed one deal with Emirates in August for an Airbus A380 delivery. She adds that it was a club deal, arranged by an English bank and involved 10 banks from Europe and Asia overall. Banco Sabadell acted as a lender in the transaction. The bank is in discussions with French banks and German banks about funding more widebodies, which make up its pipeline of deals for the rest of the year.

"We have a pipeline of three deals with Emirates. We have become a very active bank and every month we receive new offers," says Serres.

Other Spanish banks have also come back into the fray. Emirates closed a deal for a Boeing 777-300ER in August in which Banco Santander provided the senior debt. At the end of September the UAE-based carrier closed a deal with Aviation Finance for another 777-300ER in which Bankinter, Banco Popular and Caixabank provided the senior tranche of the structure, according to sources familiar with the deal.

"We've started now and we don't want to stop. It's not just a cherry-picking period; it's a market that we intend to stay in. There will be more transactions this year and next year," says Montañes. "The other Spanish banks are also intending to stay in this business in the long term."

A320 – current model values

A panel of appraisers looks at the prospects for Airbus's best-selling narrowbody as the new engine option variant is phased into production.

A320ceos are still being delivered

The A320 was Airbus's second major project in the commercial aircraft market. The European consortium had established a presence with the A300, but the A320 represented its entry into the single-aisle market.

The first variant, the A320-100, was launched in 1984 and entered service in 1988, with the winglet equipped A320-200 taking over production from aircraft serial number 22. Some A320-100s were retrofitted to a -200 specification, excluding winglets. The A320 was the first member of a family. The stretched A321 entered service in 1994, the smaller A319 in 1996 and the smallest model, the A318, in 2003.

The A320 typically seats 150 passengers in a two-class cabin, or up to 180 in a high-density layout. The A320 introduced fly-by-wire flight controls into the commercial market. Although controversial at the outset, the concept is now well established and is a key part of Airbus's family concept. The aircraft is available with either CFM or IAE engines.

Future developments

The A320 has been regularly updated since its introduction into service. The current engine option (Ceo) model equipped with sharklets (wing-tip extensions) offers significantly better fuel efficiency than the original A320 models.

New engine option (Neo) A320 models, which are being phased into production and airline service, offer a further step improvement in fuel efficiency over the A320ceo.

AIRCRAFT CHARACTERISTICS (CEO VERSION)

Seating/range	
Maximum seating (Ceo option)	180
Typical seating	150
Maximum range (with sharklets)	3,300nm (6,100km)
Technical characteristics	
MTOW	73.5 tonnes (option 78)
OEW	42 tonnes
MZFW	61 tonnes (option 62.5)
Fuel capacity	24,210 litres (option 27,200)
Engines	CFM56-5B/V2500
Thrust	25,000lbf (120kn)
Fuels and times	
Block fuel 200 nautical miles (nm)	1,850kg
Block fuel 500nm	3,390kg
Block fuel 1,000nm	6,080kg
Block time 200nm	54 minutes
Block time 500nm	94 minutes
Block time 1,000nm	160 minutes
Fleet data	
Entry into service	1988 (A320-100 variant)
In service	3,935
Operators (current)	235
In storage	88
On order	378
Built peak year (2013)	352
Planned production 2016	280
Average age	8.5 years

Source: *Airfinance Journal* Fleets

Indicative maintenance reserves	
C-check reserve	$60-$65 per flight hour
Higher checks reserve	$55-$60/flight hour
Engine overhaul	$100-$105 /engine flight hour
Engine LLP	$120-$125 /engine cycle
Landing gear refurbishment	$35-$40/cycle
Wheels, brakes and tyres	$120-$130/cycle
APU	$80-$85/APU hour
Component overhaul	$210-$220/flight hour

Source: Air Investor 2016

ISTAT APPRAISERS' VIEWS

Collateral Verifications (CV)
Gueric Dechavanne, vice-president, commercial aviation services

The current market demand for the Airbus A320-200 has remained stable in the past six months, especially for newer aircraft. Availability also remains low, which has helped stabilise values and lease rates. Increases in the production rate by Airbus may have a negative impact on values and lease rates in the longer term, but short-term effects may be less than anticipated because of continued demand for the aircraft.

> **"New aircraft are being leased for about $335,000 a month, which is a drop of about 3% from 12 months ago."**

The entry into service of the A320neo will also impact the existing fleet. However, the delays to early A320neo deliveries and the low fuel-price environment have led to operators taking advantage of the relatively attractive economics of the A320ceo, by keeping used aircraft in their fleet, even where this involves lease extensions.

New aircraft are being leased for about $335,000 a month, which is a drop of about 3% from 12 months ago. The combination of increases in production rate by Airbus and lower fuel prices making used aircraft more attractive has created competition between lessors to place new aircraft they have ordered, which in turn has put pressure on lease rates. The large appetite of Asian banks and lessors for new aircraft has increased this pressure.

CV believes that the A320-200 will continue to be in good demand for the foreseeable future. Our concern continues to be the advent of the A320neo and the associated production rate increases. However, it is still too early to quantify what impact the new type will have on the values of aircraft in the existing fleet.

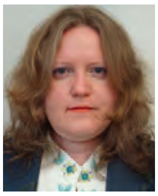
ICF
Angus Mackay, principal

As of September, there were more than 3,900 Airbus A320-200 model aircraft in service with 235 operators across the globe. There are about 90 aircraft parked, but only 27 A320-200s are advertised as available for sale or lease, which represents less than 1% of the existing fleet and suggests there is healthy demand for the type. The backlog of undelivered A320ceos is close to 400 aircraft, and Airbus is expanding production in response to an order backlog for the whole A320ceo/neo family that is in excess of 5,700 aircraft.

Two engine series are offered on new-build Airbus A320ceo aircraft, the IAE V2500-A5 and the CFM56-5B. Both manufacturers offer retrofittable upgrade packages (CFM's Tech Insertion and IAE's SelectOne/Two) for their respective engines that reduce fuel burn and CO_2 emissions and improve on-wing maintenance life.

Marketability of individual A320 aircraft is affected by their build standard, which generally relates to aircraft vintage. During the A320's production run Airbus has consistently improved construction techniques and has introduced major improvements, including increased operating weights, upgraded cockpit avionics and a restyled cabin interior. The A320 has been in production longer than any currently produced single-aisle aircraft and, as such, early build-standard aircraft are more difficult to place, with market preference having moved to post-1996 vintage aircraft.

Over the long term, residual values can be expected to soften after the introduction of the Airbus A320neo, particularly given the mooted increased production rates. Values of A320ceo aircraft that are not fitted with sharklets are also likely to be hit by the introduction of the latest standard of A320ceos. However, a more pronounced value decline, likely to result from the introduction of the Airbus A320neo, is not anticipated to take effect until late in the decade, when the new variant will represent a sizeable portion of the in-service fleet. Later-build examples of the existing Airbus A320ceo are likely to be the hardest hit by the introduction of the new model.



Oriel
Olga Razzhivina, senior Istat appraiser

The A320 programme has accumulated some 7,600 orders across the current family. The A320-200 has been the most popular variant with more than 4,600 orders. The aircraft is offered with CFM and IAE engines, the former accounting for 60% of all orders to date.

Although the aircraft has been in production for more than 25 years, it has undergone continuous improvement, including enhanced payload-range and lowered fuel burn. Sharklets were introduced in 2012 resulting in marked fuel burn savings. The new FlexCabin interior, although developed and fully incorporated in the new-generation A320neo, is partially retrofitable to the A320ceo.

The introduction of the A320neo has given rise to questions about the longevity

VALUES

Current market value ($m)

Build year	2000	2004	2008	2012	2016
CV view	14.8	20.9	27.9	33.7	43.1
ICF view	13.2	17.8	23.9	32.3	43.6
Oriel view	10.1	14.0	20.3	27.9	43.4

Assuming standard Istat criteria.

Indicative lease rates ($'000s/month)

Build year	2000	2004	2008	2012	2016
CV view	155	195	235	275	335
ICF view	130-170	180-220	220-270	250-320	300-380
Oriel view	140	175	215	265	335

and, hence, value retention of the Ceo version. The last-off-the-line effect impacts all aircraft types facing replacement by a more advanced version; however, the severity of the effect depends on a number of factors, most importantly the degree of advancement offered by the successor. The value of such advancement can be sensitive to external economic conditions, as can be seen with the low fuel price environment that is eroding the A320neo's economic advantage over its predecessor.

The A320 is widely spread around the world and is operated by airlines of all business models – from full-service majors to ultra low-cost carriers. Also, it has been a very popular aircraft type with lessors, which has both positive and negative aspects. Having more than half of the fleet in the hands of lessors creates new markets and promotes the type, but too many lessors competing for the same placement opportunities keeps lease rate pricing competitive. A320 values and lease rates are declining at a slightly higher rate than would normally be expected.

Delays in the delivery of early A320neos has played a positive role in the values of A320ceos. While this may be a short-lived phenomenon, it is likely to have an effect into 2017.

In the longer term, value stability may be supported by the large existing fleet and the proposed freighter conversion programmes (see box).

> "Although the aircraft has been in production for more than 25 years, it has undergone continuous improvement, including enhanced payload-range and lowered fuel burn"

Converted A320s on the horizon

Airbus and its partners are offering a passenger-to-freighter programme for the European manufacturer's single-aisle family, but they face competition.

Airbus announced in June 2015 that it had signed an agreement with Singapore-based ST Aerospace to offer passenger-to-freighter (P2F) conversion solutions for its A320/A321 aircraft.

The European manufacturer says it foresees a significant market demand of more than 600 aircraft over the next 20 years for P2F aircraft conversions in the small freighter segment.

The converted aircraft will be marketed and managed by Elbe Flugzeugwerke (EFW). Airbus and ST Aerospace are co-owners of the Dresden-based specialist conversion facility and the June announcement also said that ST Aerospace would acquire an additional 20% of EFW's shares, increasing its stake to 55%.

The announcement came five years after the cancellation of Airbus's previous A320 conversion programme – a joint venture with Russian manufacturer Irkut. At the time, Airbus cited increasing demand for A320 passenger models, with a consequent reduction in the number of suitable aircraft for conversion (feedstock), as a major reason for cancelling the joint venture with Irkut.

Figures from EFW suggest that feedstock supply is unlikely to be a problem because the number of A320/A321s aged between 15 to 20 years is set to grow to more than 2,000 by 2026. David Tokoph, chief operating officer of US consultancy MBA, says that suitable aircraft are available for between $4 million and $5 million.

Airbus has historically been less active in the freighter conversion market than its competitor Boeing and, unlike for the 737 family, there have until recently been no independent programmes. However, there are similarities with the US manufacturer's position on the 737-800, where Boeing's own programme is set to compete with an independent supplier (AEI), which is further down the development path.

In Airbus's case, the competition is coming from PACAVI, a US-German group that specialises in aircraft conversion and related activities. PACAVI says its A321 Freighter Lite will carry about 27 metric tonnes of cargo, flying routes of up to 3,500 nautical miles.

A PACAVI spokesman confirmed to *Airfinance Journal* that "the company wants to have the A320 conversion available by the second quarter of 2018, to hit the marketplace when demand is at a peak". The company has named two firm customers and told *Airfinance Journal* that it has a number of letters of intent in place.

Airbus says its own A320P2F, with 11 main-deck container positions, will be capable of carrying 21 metric tonnes of payload more than 2,100nm, while the A321P2F with 14 main-deck positions will be able to carry up to 27 tonnes over 1,900nm. Airbus is also targeting 2018 for the first delivery.

Tokoph says the A320 has an advantage over the 737-800 in terms of cabin cross-section. He says this is important to freight operators, because they are increasingly coming up against volumetric limits rather than payload weight limitations. Set against this advantage, Boeing and the independent conversion facilities have built up a wealth of technical knowledge on the 737 airframe.

Airbus forsees demand for 600 A320 P2F aircraft

Airbus says the conversion programme boosts the longevity of the respective A320-family members and enhances values for owners and investors. However, many in the industry say this impact can be overestimated. Even if the 600 aircraft in 20 years prediction is correct, which some commentators doubt, the numbers involved are small compared to the current A320/A321 fleet, which exceeds 5,000 aircraft, with retirement rates likely to increase.

AIRLINE FINANCIAL RATINGS

Airline	Fitch	Moody's	S&P
Aeroflot	B+(stable)	-	-
Air Canada	B+(pos)	B1(pos)	BB-(stable)
Air New Zealand	-	Baa2(stable)	-
Alaska Air Group	BBB- (watch neg)	-	BBB- (watch neg)
Allegiant Travel Company	-	Ba3(stable)	BB-(stable)
American Airlines Group	BB-(stable)	Ba3(stable)	BB-(stable)
Avianca Holdings - IFRS	B(neg)	-	B(stable)
British Airways	BB+(pos)	Baa3(stable)	BB(pos)
Delta Air Lines	BBB-(stable)	Baa3(stable)	BB+(pos)
easyJet	-	Baa1(stable)	BBB+(stable)
Etihad Airways	A(stable)	-	-
GOL	CC	Caa3(neg)	CCC(neg)
Hawaiian Airlines	B+(stable)	B1(stable)	BB-(stable)
jetBlue	BB-(stable)	Ba3(stable)	BB-(stable)
LATAM Airlines Group	B+(neg)	B1(stable)	BB-(neg)
Lufthansa Group	-	Ba1(pos)	BBB-(neg)
Qantas Airways	-	Baa3(stable)	BBB-(stable)
Ryanair	BBB+(stable)	-	BBB+(stable)
SAS	-	B2(stable)	B(stable)
Southwest Airlines	BBB+(stable)	Baa1(pos)	BBB(stable)
Spirit Airlines	BB+(stable)	-	BB-(stable)
Turkish Airlines	-	Ba3(neg)	BB-(neg)
United Continental Holdings	BB-(pos)	Ba3(pos)	BB-(pos)
US Airways Group	-	B1(stable)	-
Virgin Australia	-	B2(neg)	B+(neg)
WestJet	-	Baa2(stable)	BBB-(stable)
Virgin Australia	-	B2(Stable)	B+(neg)

Source: Ratings Agencies - 18th October 2016

AVIATION COMPANY RATINGS

	Fitch	Moody's	S&P
Airbus Group	A-(stable)	A2(stable)	A+(stable)
Boeing	A(stable)	A2(stable)	A(stable)
Bombardier	B(neg)	B2(stable)	B-(stable)
Embraer	BBB-(stable)	Ba1(neg)	BBB(neg)
Rolls-Royce	A(neg)	A3(stable)	A-(neg)
United Technologies	A-(stable)	A3(stable)	A-(stable)

Source: Ratings Agencies - 18th October 2016

LESSOR CREDIT RATINGS

	Fitch	Moody's	S&P
AerCap	BBB-(stable)	Ba1(stable)	BBB-(stable)
Air Lease Corp	-	-	BBB(stable)
Aircastle	-	Ba1(stable)	BB+(stable)
Avation PLC	B+(stable)	-	B(stable)
Aviation Capital Group	BBB(stable)	-	A-(stable)
AWAS Aviation Capital Limited	-	Ba3(stable)	BB(stable)
BOC Aviation	A-(stable)	-	A-(stable)
CIT Group Inc	BB+(stable)	Ba3(stable)	BB+(stable)
DAE Aviation Holdings	-	-	B-(stable)
Fly Leasing	-	B1(pos)	BB(stable)
ILFC (Part of AerCap)	-	Ba1(stable)	-
SMBC Aviation Capital	BBB+(neg)	-	BBB+(stable)

Source: Ratings Agencies - 18th October 2016

COMMERCIAL AIRCRAFT ORDERS BY MANUFACTURER

	Gross orders 2016	Cancellations 2016	Net orders 2016	Net orders 2015
Airbus	566	186	380	117
Boeing	512	80	432	183
Bombardier	244	12	232	136
Embraer	47	0	47	30
ATR	40	0	40	40

Based on *Airfinance Journal* research and manufacturer announcements as of 19 October

COMMERCIAL AIRCRAFT ORDERS BY CUSTOMER

Customer	Country	Quantity/Type
June 2016 to 19 October 2016		
Awas	Ireland	12xA320s and three A321
Air Canada	Canada	45 CS300
ALC	USA	1xA321
ALC	USA	3xA350-900
Standard Chartered Bank	UK	10x737-800s
Virgin Atlantic	UK	8xA350-1000s
AirAsia	Malaysia	100xA321neo
Air Cote d'Ivoire	Ivory Coast	1xA320neo
ALC	USA	6x737 Max 8
Arkia Israeli Airlines	Israel	6xE195-E2, 4xA330-900neo
Calc	China	30xARJ21-700
Germania Group	Germany	25xA320neos
Kalstar Aviation	Indonesia	5xE190-E2s
NAC	Denmark	4xE190s
Porter Airlines	Canada	3xQ400s
TUI Group	Germany	10x737 Max 8, 1x787-9
Volga-Dnepr Group	Russia	20x747-8
Wow Air	Iceland	4xA321s
Ruili Airlines	China	6x787-9
Synergy Aerospace	Colombia	62xA320neo
Air Europa	Spain	20x737 Max 8
Egyptair	Egypt	9x737-800
Donghai Airlines	China	25x737 Max 8, 5x787-9
Allegiant Travel Company	USA	12xA320
Xiamen Airlines	China	6x787-9
Malaysia Airlines	Malaysia	50x737Max
Tanzanian Government	Tanazania	2xQ400
Jet Blue	USA	15xA321, 15xA321neo
Cebu Pacific	Phillipines	2xA330
Qatar Airways	Qatar	30x787-9, 10x777-300ER
Atlas Air	USA	9x767-300F
Binter	Spain	6xATR72-600
Iran Air	Iran	80xBoeing aircraft
Iran Air	Iran	17xAirbus aircraft
BOC Aviation	Singapore	5xA321
Colorful Guizhou	China	2xE190
Vietjet	Vietnam	2xA321
Jetstar Pacific	Vietnam	10xA320

Based on *Airfinance Journal* research and manufacturer announcements as of 19 October

CURRENT PRODUCTION AIRCRAFT PRICES AND VALUES ($ MILLIONS)

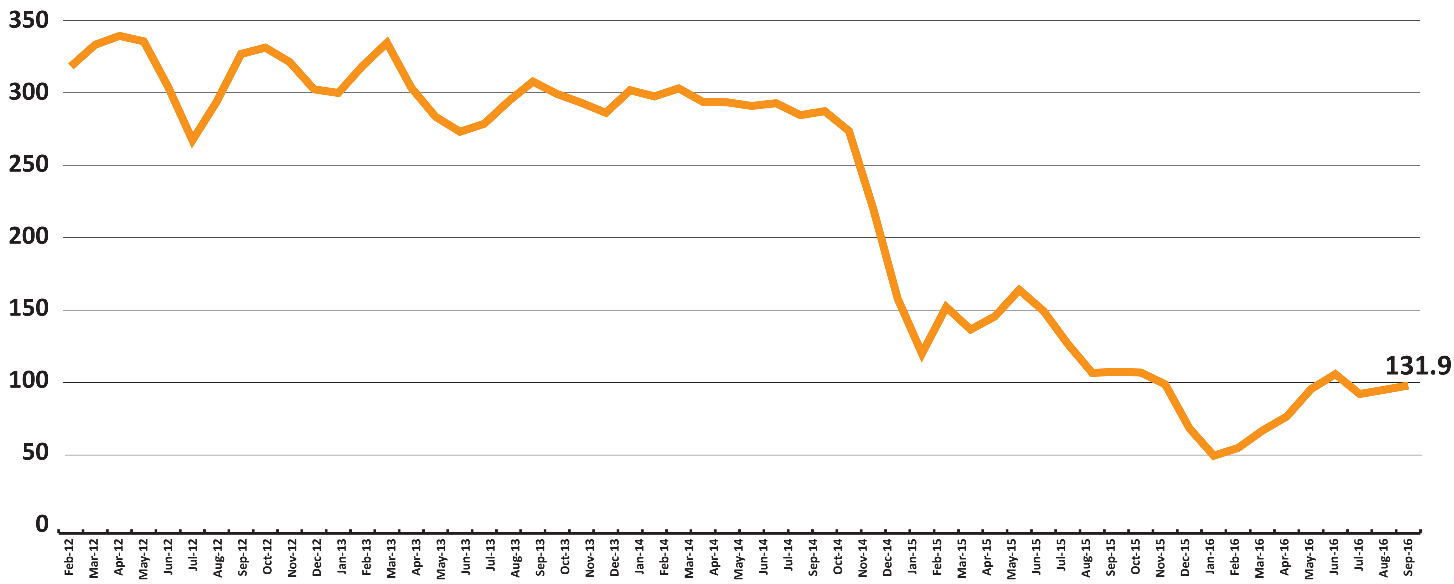
Model	List price	Current market value*
Airbus (2016 price)		
A319	89.6	37.0
A320	98.0	44.2
A321	114.9	52.6
A330-200	231.5	92.3
A330-300	256.4	104.4
A350-900	308.1	144.5
A380	432.6	221.4
ATR (2015)		
ATR42-600	21.6	16.4
ATR72-600	25.9	20.4
Boeing (2015)		
737-700	80.6	36.7
737-800	96.0	47.5
737-900ER	101.9	49.5
747-8 (passenger)	378.5	164.0
777-200LR	313.8	N/A
777-300ER	339.6	163.1
787-8	224.6	118.2
787-9	264.6	136.2
Bombardier (2015 Avitas BlueBook)		
CRJ700	41.0	22.3
CRJ900	46.0	26.3
CRJ1000	49.1	28.1
Q400	30.0	21.8
Embraer (2016)		
E170	41.2	26.9
E175	44.4	29.0
E190	49.1	33.1
E195	52.0	35.1

*Based on Istat appraiser inputs for Air Investor 2016

AIRCRAFT LIST PRICES - NEW MODELS

Model	$ millions
Airbus (2016 prices)	
A319neo	98.5
A320neo	107.3
A321neo	125.7
A330-800neo	252.3
A330-900neo	287.7
A350-800	272.4
A350-1000	355.7
Boeing (2015)	
737 Max 7	90.2
737 Max 8	110.0
737 Max 9	116.6
777-8X	371.0
777-9X	400.0
787-10	306.1
Bombardier (2015)	
CS100	71.8
CS300	82.0
Embraer (2016)	
E175-E2	50.8
E190-E2	58.2
E195-E2	65.6

US GULF COAST KEROSENE-TYPE JET FUEL (CENTS PER US GALLON)



Source: US Energy Information Administration

LEASE RATES ($000S)

Model	Low	High	Average
Airbus			
A319	230	240	235
A320	280	389	335
A321	360	460	410
A330-200	640	859	750
A330-300	900	1,242	1,071
A350-900	1,050	1,300	1,175
A380	1,175	2,028	1,602
ATR			
ATR42-600	135	167	151
ATR72-600	165	216	191
Boeing			
737-700	225	340	283
737-800	315	421	368
737-900ER	355	435	395
747-8 (passenger)	1,150	1,425	1,288
777-300ER	1,150	1,450	1,300
787-8	850	1,100	975
787-9	1,050	1,250	1,150
777-300ER	1,050	1,550	1,300
787-8	850	1,110	980
787-9	1,190	1,340	1,265
Bombardier			
CRJ700	175	214	195
CRJ900	190	240	215
CRJ1000	210	260	235
Q400	180	240	210
Embraer			
E170(AR)	180	210	195
E175(AR)	200	260	230
E190 (AR)	225	290	258
E195 (AR)	230	300	265

Based on Istat appraiser inputs for Air Investor 2016

Is the world moving towards a repeat of the Cultural Revolution?

The times they are a changin', and they seem to be heading back 50 years, writes Adam Pilarski, senior vice-president at Avitas.

How the world is changing. I remember fondly listening to Bob Dylan half a century ago never imagining that he would eventually become a Nobel Prize laureate. This astounding development is nothing compared with what is happening in the world now and could not have been forecasted a mere few years ago.

Mao Zedong launched China's Cultural Revolution in 1966. Most remember it for its wild excesses but fail to acknowledge its stated objective, which was to change dramatically the status quo in China at that time. Chairman Mao was unhappy with existing realities and wanted to redo his country totally – not to be accomplished by incremental changes but by a total cultural revolution.

To achieve this he turned the masses against existing experts and leadership. Educated people were vilified and university personnel were sent to villages to learn from simple peasants the realities of life. Educated doctors were replaced by "barefoot doctors" not polluted by unnecessary college education. Central authorities were attacked and experts were held in disrespect.

There are elements right now in the world that seem to some degree to mirror the developments in China half a century ago. The world is expressing a desire for simple solutions. Intellectuals are seen as being associated with the old and broken, or at least not acceptable to some, realities. They are also seen by some as irrelevant and ineffectual. The term "paralysis by analysis" is used by some to express dismay at unnecessary thinking instead of doing things.

An example from the Philippines may express these sentiments. The government is concerned about a drug and crime problem. The solution selected is to skip the legal process and grant the law enforcement personnel the right to shoot suspects dead. An analytical person might be concerned whether there is enough evidence to execute a suspected criminal, whether police might shoot people whom they do not like for other reasons or even whether this will eventually lead to the police taking over the drug trade. Such concerns are seen as an example of impotent intellectuals, which will not help the existing crime problem faced by the people of the Philippines. Simple and positive moves are preferred over too much thinking and inaction. The wisdom and action of a real leader are seen as necessary to solve existing problems without being encumbered by meaningless inputs from so-called experts.

These trends, though not as bloody, manifest themselves all over the world. Experts told the population of the UK to vote "no" to Brexit. Experts told Donald Trump what not to do to have a chance at winning the Republican Party nomination to be a candidate for the White House. The will of the people, his supporters say, prevailed to prove the experts wrong again. Trump's followers, like the Revolutionary Guard of Mao Zedong, are actively attacking his own political party. Michael Gove, the then UK Lord Chancellor and Secretary of State for justice, said in June: "I think people in this country have had enough of experts." Such trends can be detected all over the world and may signal a potential for new realities.

Why should we care and what is the relevance of all this to aviation? If we are moving away from rational thinking and economic analysis towards the "will of the people" we should expect less globalisation in the future. This could also lead to less trade. The bedrock of our industry is the movement of people and goods. Part of the reason for increased intra-European traffic and the great success of some low-cost carriers in Europe is the movement of workers within the EU. The proverbial Polish plumber often travels back home and these are new sources of traffic. In 2004, there were about 26,000 seats offered between Ireland and Poland and with globalisation that number mushroomed to more than 800,000 by 2007. With some economic retrenchment in Ireland that number has come down a bit but is still in the neighbourhood of 500,000 to 600,000 seats in each of the past eight years.

Let us look at the growth of freight and passenger traffic worldwide. Historically, the rule of thumb was that you forecast the rate of passenger growth and add one percentage point to get the freight growth forecast. Using International Air Transport Association (IATA) statistics, we can see that in the first decade of the century both passenger and freight growth was quite similar. From about 2010, freight grew by only 8% while passenger traffic grew at about 42%. In other words, passenger trends continued their previous trajectory while freight basically stopped growing. This development correlates perfectly with trade statistics provided by IATA that show continuous trade growth from about 1980 with a plateau reached in the past few years. Hence, a worldwide globalisation pause led to a pause in trade that, in turn, led to a pause in freight growth.

You do not need an expert to figure out what such developments mean for aircraft demand (down!). If we abandon reason and have some populists determine new policies restricting the movement of people and goods then a slowdown in our industry might become a reality.