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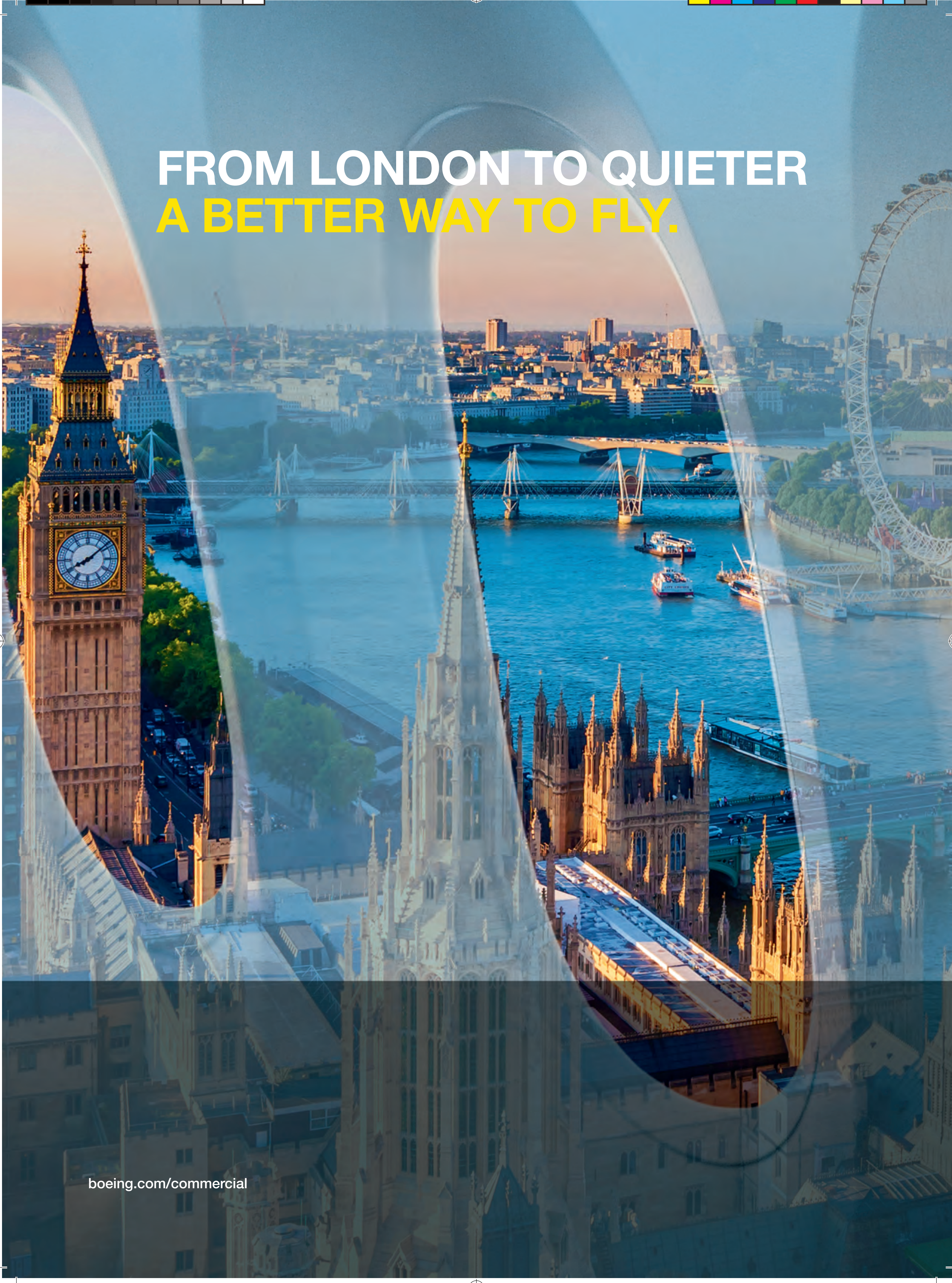
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BOEING

EDITOR'S LETTER

Dollar fears outweigh rate rise

The recent US interest rate increase should not be too hard on airfinance, although a rise in the value of the dollar could be a problem.

The US Federal Reserve announcement on December 16 that it was raising interest rates by 0.25 percentage points has resulted in ripples in financial markets. This was the first increase since 2006 and remarkably US rates have been at virtually zero since 2008, as part of an attempt to keep the US (and possibly the world) economy afloat after the crash of that year.

What appears to the casual observer to be an insignificant rise has been the source of intense scrutiny by economists. The consensus is that it will result in higher borrowing costs for developing economies, many of which are already experiencing slow growth.

Any rise in interest rates will have an impact on the aircraft finance business, but such a small rise may not be particularly significant.

Bankers sounded out by *Airfinance Journal* after the rate rise were generally of the opinion that the 25 basis points increase would not make a huge difference to the aviation finance industry.

The prevailing view was that, unless there is a significant further rise in rates, it was doubtful there would be a big change in prices of assets. Interest rates affect lease rentals but the relationship is complex and subject to other economic pressures.

The industry had $12 billion of annual interest expense in 2014 (some fixed, some floating) at an average debt cost of 4.1%. By comparison, annual rent cost (some fixed, some floating) was $27 billion. So an increase at the short-end of the yield curve of 0.25% a year is unlikely to have a significant direct effect.

However, the wider commercial aircraft industry is a dollar-based business and the indirect impact of the rate rise and the consequent rise in the value of the dollar may prove more damaging to the industry than any direct impact of aircraft financing. A significant concern is a dampening of traffic growth because of the reduction of disposable income. A strengthening of the dollar could have an adverse effect on the cost base of non-US airlines, particularly in the areas of fuel and maintenance materials, which are priced in dollars.

At the September Airfinance conference in Brazil, the plight of local currencies, which have devalued dramatically against the dollar, was already high on the agenda. The Brazilian real, for example, has already dropped to its lowest value against the dollar since late 2002. The rate rise compounds the problems faced by airlines already suffering from exchange rate problems.

While most observers contacted by *Airfinance Journal* are unconcerned by the short-term impact of a relatively small interest rate rise, there is an acknowledgement that there are threats associated with any upward trend.

A view from the appraiser community is that if there are significant further rises, it will favour used equipment over new and, while that may be good news for some lessors, it makes obtaining a lease rate premium more challenging for A320neos and 737 Maxs, which is already looking more difficult in an environment where fuel prices have dropped from their peak levels. In addition, lessors with fixed-rate leases at tight margins may come under pressure as funding becomes more expensive.

It is not yet clear whether interest rates will rise to a level that is sufficient to divert some of what some airfinance insiders consider the surfeit of funds that have been funding aircraft assets.

There will no doubt be winners and losers from rate rises, just as there will be from the lower fuel prices that the industry is experiencing. Winners from both trends, however, might be hard to find.

The jury is out for the moment. As one banker put it: "In the past, airlines have made money at high interest rates and lost money at low interest rates. So it's not necessarily a strict correlation."

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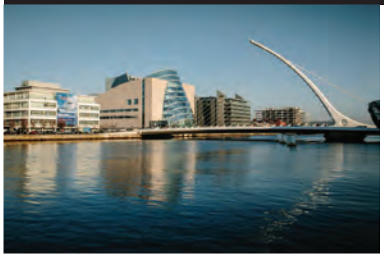

NEWS

ANALYSIS/PROFILES, INTERVIEWS AND FEATURES

REGULARS

NEWS

People

Chamberlain and Springthorpe join Norton

Norton Rose Fulbright has hired two new partners for its London aviation team, both of them joining from Bird & Bird.

Robin Springthorpe has more than 25 years' dispute resolution experience. His practice focuses on domestic and international commercial litigation and arbitration in the aviation sector, including disputes relating to aircraft and engine leasing, financing, repossessions, insurance coverage and regulation.

Simon Chamberlain has more than 30 years' experience representing airlines, including 10 years spent in-house working for British Airways.

New leadership at AirAsia Japan

AirAsia Japan has appointed Takashi Ide as representative director and president. Takashi was the former chairman of Skymark Airlines, Japan's first low-cost carrier.

The airline has also appointed Osamu Hata as chief executive officer and Masakazu Arimori as chief financial officer.

Yoshinori Odagiri, the previous representative director and chief executive officer, will remain with AirAsia Japan in an advisory role.

Alaska Air Group gets new head lawyer

Alaska Air Group has elected Kyle Levine as vice-president of legal and general counsel. He replaces Herman Wacker.

Levine joined Alaska Air Group in 2006 and was deputy general counsel, managing director of legal and assistant corporate secretary.

He previously worked for Nixon Peabody on the aviation products liability litigation team.

Tigerair CFO resigns

Vanessa Lau Man Yee has resigned as chief financial officer (CFO) of Singaporean low-cost carrier Tigerair.

Davy Lee Sian Shin, the director of corporate finance, has taken on Lau's responsibilities.

Lee, who joined Tiger Airways Holdings Limited (Tigerair) in 2005, has been redesignated as finance director, taking charge of the finance, treasury and investor relation functions.

Overgaard moves up at NAC

Søren Overgaard has been promoted to chief executive officer of Nordic Aviation Capital, after the departure of Kim Graven-Nielsen, according to a statement from the lessor.

Overgaard joined NAC in 2013 as chief financial officer. He previously held senior positions with the AP Møller Group, Maersk and Damco Europe.

Tran takes over at ACG

Khanh Tran has been appointed chief executive officer of Aviation Capital Group (ACG), succeeding Denis Kalscheur, who will become vice-chairman of ACG until the end of 2016, when he is scheduled to retire from Pacific Life.

Tran has been the president of Pacific Life Insurance Company, ACG's parent company, since 2012. He has overseen the company's aviation leasing, asset management, corporate development, corporate financial and investment management groups.

He has previously worked at United California Bank, former US cargo carrier Flying Tiger Line and The Vons Companies.

Tran joined Pacific Life in 1990 and has been treasurer, chief financial officer and chief investment officer.

Burger becomes CEO at Gecas

Aircraft lessor Gecas has appointed Alec Burger as its new president and chief executive officer (CEO).

Burger has replaced Norman Liu, who will stay on as chairman of Gecas until late 2016, when he will retire from General Electric (GE). Liu was CEO of Gecas for seven years.

As chairman of Gecas, Liu will provide strategic counsel and long-term planning support to Burger and the GE Capital board of directors.

Malaysia Airlines completes top team

Malaysia Airlines has appointed five new key executives since its new entity Malaysia Airlines Berhad (MAB) started operations on September 1.

The Malaysian flag carrier, which is undergoing a major restructuring, says the appointments complete its leadership team.

Omar Siddiq Amin Noer Rashid joins as chief financial officer, Claudia Cadena as chief human resource officer, Linda Yeow as head of corporate finance, Nik Azli Abu Zahar as executive counsel and Paul Simmons as chief commercial officer.

American appoints two board members

American Airlines has appointed two new directors to its board.

Susan Kronick is an operating partner at Marvin Traub Associates, a New York-based retail business development firm. Before that, she spent 37 years with Macy's, the US department store chain, where she also held various leadership roles.

Martin Nesbitt is co-chief executive officer of The Vistria Group, a Chicago-based investment company focused on the education, healthcare and financial services industries.

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NEWS

Airlines

Virgin issues £220m bond against Heathrow slots

UK-based airline Virgin Atlantic has closed a £220 million ($333.8 million) senior note transaction using the airline's take-off and landing slot portfolio at London Heathrow.

Virgin Atlantic International Limited (VAIL), a wholly owned subsidiary of Virgin Atlantic, issued the notes. VAIL operates flights from London Gatwick to several Caribbean destinations. The senior secured note will fund Virgin Atlantic's long-term investment programme, which includes the purchase of new aircraft, said a statement from the airline.

A Virgin source confirms to *Airfinance Journal* that the tenor of the deal is "upwards of 10 years" and the bond is "secured against the majority of Virgin Atlantic's Heathrow slots".

The deal marks the first transaction in Europe secured against take-off and landing slots. It attracted blue chip investors, including Pension Insurance Corporation, a client of Hastings Funds Management (UK), Standard Life Investments and Edmond de Rothschild Asset Management (UK).

Macquarie Corporate and Asset Finance acted as sole arranger. Moody's provided a private rating for the senior notes.

Herbert Smith Freehills advised Virgin Atlantic. Watson Farley & Williams provided legal advice to investors.

Fitch upgrades American Airlines

Fitch Ratings has upgraded American Airlines Group's credit rating from B+ to BB-.

The ratings agency says the upgrade is because of strong financial results, fading integration risk after a successful merger with US Airways and the airline's sizeable liquidity balance.

Fitch notes a 550-basis point improvement in the carrier's earnings before interest, taxes, depreciation, amortization, and restructuring or rent cost (Ebitdar) margins to 27.5% in the first nine months of the year. It also said that the airline has reduced its adjusted debt/Ebitdar to 3.8 times at the end of the third quarter, down from more than 5.3 times at the end of 2013.

However, Fitch notes the risk of American Airlines' significant debt balance and its expectation that its leverage will be high for the rating as the carrier takes delivery of new aircraft over 2016 and 2017. It expects American Airlines' leverage to increase to the four times-to-4.5 times range over the next one to two years, as it borrows to fund upcoming aircraft deliveries.

The report states that as American Airlines takes delivery of almost 120 new mainline aircraft, the average annual capital expenditure of $5.5 billion in 2016 and 2017 will put heavy pressure on free cash flow. However, it also says the new aircraft will likely result in improved unit costs.

Malaysia Airlines lease negotiations enter 2016

Malaysia Airlines' renegotiations of its aircraft leasing contracts will continue into 2016, according to a statement from the company.

In November, *Airfinance Journal* reported that the airline had asked its creditors for concessions on lease rentals and loan repayments as part of its extensive restructuring process led by chief executive officer Christoph Mueller.

Earlier in 2015, the carrier delayed a plan to sublease all of its aircraft to a newly created company, Malaysian Airlines Berhad (MAB).

"Most aircraft leasing contracts are still in the hands of Malaysia Airline System Berhad which is in administration," MAB said in its first quarterly update since starting operations on September 1.

It added: "The new airline will only permit leasing agreements at competitive market rates. This process of contract renegotiation will continue into 2016."

FAA downgrades Thailand's safety rating

The United States Federal Aviation Administration (FAA) has assigned Thailand a Category 2 rating, saying the country does not comply with International Civil Aviation Organization (Icao) safety standards.

A Category 2 International Aviation Safety Assessment (Iasa) rating means the country either lacks laws or regulations necessary to oversee air carriers in accordance with minimum international standards, or its civil aviation authority is deficient in one or more areas, such as technical expertise, trained personnel, record-keeping or inspection procedures.

With a Category 2 rating, Thailand's carriers can continue with existing services to the US, but will not be allowed to establish new routes to the US.

Brussels Airlines to replace Avros with Airbus jets

Brussels Airlines intends phasing out its fleet of 12 Avro RJ100s, replacing them with a mixture of A319s and A320s by the end of 2017, according to the carrier's chief executive officer.

Bernard Gustin tells *Airfinance Journal* the new aircraft will all be on operating lease and the carrier will take three or four aircraft next year.

Gustin says: "The Avros are coming to the end of life and because of this their trip costs are almost comparable to an A319's. We want to bring our average capacity from 125 seats to 155 seats. Over the next three years we intend to get 12 aircraft to replace the Avros, made up of A319s and A320s."

When asked about the specific numbers of A319s and A320s, Gustin says: "The mix depends on the market. At the moment, we are looking at two-thirds A320s and one-third A319s." He adds that the carrier is looking to take A319s on leases of between six and nine years.

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NEWS

Airlines

Brussels Airlines has a fleet of 39 aircraft, including eight A330s and 31 narrowbodies.

The airline took one A319 and two A320s on operating lease in 2015.

Volaris investors cash in $158m of shares

Major shareholders in Mexican low-cost carrier Volaris sold almost $158 million of their stake in the airline in November.

According to the carrier, the selling shareholders have sold about 25% of their equity interest in the airline.

The offering consisted of 99 million American Depositary Shares at $16 each.

The sale might boost average daily trading volumes and open up the carrier to new investors, says Stephen Trent, director of Latin America aerospace and transportation at Citi Research.

Speaking about average daily trading volumes, Trent says: "Prior to this deal, year-to-date [Volaris] was trading at $2.5 million a day, which is not very much, and then the local share was trading $1.6 million a day.

"Largely speaking, there are big classes of investors that are absolutely not going to consider investing in a company that doesn't have bigger volume. So let's see what happens with this move."

He adds: "An improvement in average daily trading volumes is something that could potentially open the company to a brand new class of investors."

The major selling shareholders are Blue Sky Investments, Discovery Air, and other funds managed by Discovery Americas, and Harry Krensky, who has been a director at the airline since its foundation. Krensky is also a managing partner at Discovery Americas and Discovery Air.

Morgan Stanley, Deutsche Bank, Citi, Evercore Group and UBS acted as underwriters for the share sale.

Delta plans larger Aeromexico stake

Delta Air Lines plans to buy an additional 32% stake in Grupo Aeromexico in a bid to strengthen its alliance with the Mexican flag carrier.

Delta is making a cash tender offer for Ps43.59 ($2.62) a share, a premium of almost 50% over the stock's value at the close of trading on the day it was announced.

The US airline already holds a 4.1% stake and, including its pension trust, also has an option to buy an additional 12.7%. If it completes the offer, Delta and its pension trust would own or have an option to own up to 49% of the airline's outstanding shares.

Before the deal goes ahead, it must be approved by the boards of directors of both airlines and by Mexican and US regulators.

In 2015, Delta bought a 3.55% stake in China Eastern for $450 million. It also made an equity investment in Brazilian carrier Gol.

Korean Air reveals net loss

Korean Air has posted a net loss of W493 billion ($421.3 million) for the third quarter of 2015. This compares to a net loss of W116 billion in the same period last year.

However, the South Korean airline reported an operating profit of W290 billion and revenues of W2.9 trillion.

Pal reports $5.25m profit

Philippine Airlines (Pal) has reported a net profit of about $5.25m for the third quarter of 2015.

The Filipino flag carrier said it made P247.9 million, compared to a loss of P322.2 million in the same period the previous year.

As of September 30, the airline had 85 aircraft, including Airbus and Boeing jets and Bombardier turboprops.

Gol to delay 737 deliveries

Brazilian carrier Gol will delay the delivery of some 737-800s on order with Boeing, as it plans to restrict its capacity increase over the next two years because of the slowdown in the Brazilian economy.

Having posted a net loss of R2.1 billion ($565 million) for the third quarter, the airline is taking steps to protect itself from tough economic conditions.

The measures include taking just four 737-800s from Boeing in 2016 and 2017, compared to the 15 originally planned for the period. The airline will also sublease 12 aircraft to foreign carriers in 2016 during its low season, compared to seven aircraft sub-leased in 2015.

Other measures included the issuance of a $300 million term loan, underwritten by US carrier Delta, as well as a capital increase.

In a third-quarter earnings statement, chief executive officer Paulo Sérgio Kakinoff said: "Brazil's current economic climate – with an increase in inflation, credit restriction and, above all, strong devaluation of the [Brazilian] real – has had a direct impact on the commercial aviation sector and on our company.

"Despite maintaining a positive operating income [Ebit] in the quarter, we have recorded an accounting loss of R2,133.6 million due to the depreciation of the real and the resulting exchange rate variation of liabilities in US dollars."

He added: "Therefore, we are working with all of our focus on mitigating the consequences of this macro-scenario on our activities. There are three major areas of action: exercising strong control over costs and expenses; seeking continuous evolution of our operational efficiency; and adjusting capacity with discipline, in order to reach maximum productivity and utilization of our aircraft. In addition, we are taking all measures to ensure a solid cash position."

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NEWS

Airlines

Fitch upgrades Southwest

Fitch Ratings has upgraded Southwest Airlines from BBB to BBB+. The agency cited the airline's credit profile and financial performance as the key reasons for the rating improvement.

In a statement, it wrote: "Going forward, Fitch expects Southwest to continue to generate solid free cash flow, exhibit stable or modestly declining leverage and maintain its substantial financial flexibility. Southwest's investment-grade credit ratings are also supported by its competitive position in the US domestic market, its strong brand and its sizeable base of high-quality unencumbered assets."

Fitch upgraded US carriers United and Delta in September, from B+ to BB- and from BB to BB+ respectively.

Southwest recently closed a $500 million offering of senior unsecured notes.

The five-year notes carry a coupon of 2.650% with a spread to US Treasury of 112.5 basis points.

The joint bookrunning managers are Citigroup Global Markets, Merrill Lynch and Barclays Capital. The co-managers are BNP Paribas Securities and Wells Fargo Securities.

The airline says it will use the proceeds for general corporate purposes.

Safi seeks narrowbodies

Afghan airline Safi Airways plans "an aggressive expansion" of its fleet over the next three years and will approach Boeing and Airbus about buying narrowbody aircraft.

"We're going to speak to Airbus and Boeing to determine what's available but we do plan an aggressive expansion," the airline's chief commercial officer Joshua Bustos said at a conference in Dubai.

Bustos added that his airline was looking for 10 to 20 narrowbodies that will fly within a three-hour radius of Safi's hub in Kabul. Assets the airline was considering include A319s, A320s and 737s.

Bustos said Iran was "top of the list to go to", along with Kuwait. He added that Safi was working with the civil aviation regulator in Afghanistan to get the airline's banning by the European authorities revoked.

Safi Airways has a fleet of five aircraft, according to the AeroTransport Data Bank.

Skynet Asia Airways in name change

Japanese airline company Skynet Asia Airways has changed its name to Solaseed Air.

The move brings the holding company's name into line with its airline-operating brand. The company's airline, also formerly known as Skynet Asia Airways, has been operating as Solaseed Air since July 1 2011.

An airline source told *Airfinance Journal* earlier this year that the name change would prevent confusion on the part of customers and investors.

Solaseed Air has been active recently in the Japanese operating leases with call option (Jolco) market. In July, the airline bought one of its aircraft back from its lessor Gecas and refinanced it in a Jolco structure.

IndiGo raises $464m through IPO

Indian budget airline IndiGo raised Rs30.2 billion ($464 million) through an initial public offering (IPO) in November.

InterGlobe, IndiGo's parent company, received orders for about 183.5 million shares or 6.1 times the number of shares on offer, according to data from India's National Stock Exchange.

Qatar considers Royal Air Maroc stake

Qatar Airways is evaluating the case for buying a stake in Moroccan carrier Royal Air Maroc.

"We'll evaluate if we can be a partner, a stakeholder, in Royal Air Maroc in the future," Qatar Airways chief executive officer Akbar Al Baker told reporters at a press conference in Doha.

"Qatar Airways is always open to investing in airlines with strong synergy," he added.

The Doha-based airline's consideration of acquiring a stake is to help extend its reach into some of the untapped markets of West Africa and the Sahara.

Qatar Airways has been in talks to acquire a 49% stake in Indian airline IndiGo. The Qatari carrier also owns a 9.9% stake in airline conglomerate International Airlines Group (IAG).

Asiana to launch new low-cost carrier

Asiana Airlines has requested permission from the South Korean government to launch a new budget airline, according to the country's Yonhap News Agency.

The airline will be called Air Seoul, and will use Incheon International Airport as its main hub.

Asiana already operates one budget airline, Air Busan, based out of Gimhae International Airport.

China Southern to issue almost $3bn of bonds

China Southern Airlines is issuing corporate bonds worth Rmb19 billion ($2.99 billion).

The Chinese airline will use the proceeds to repay debt and for general working capital. The maturity of the bonds will be no longer than 10 years and the coupon rate will be determined based on market conditions.

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NEWS

Airlines

Air China and China Southern deny merger reports

Air China and China Southern Airlines have both issued statements denying recent media reports that the companies are planning to merge.

Shanghai Securities News had reported that the two airlines would merge as part of the Chinese government's drive to consolidate state-run conglomerates.

However, both carriers issued statements saying they have not received any written or verbal information in relation to the "press speculation" from any government authorities.

EU 'approves' FedEx takeover of TNT

The European Commission will not resist FedEx's takeover of TNT Express, the companies have announced.

In a joint statement, the companies said the commission has informed them that it will not issue any statements of objections over the proposed acquisition, clearing the way for a buyout in the first half of 2016.

US cargo giant FedEx made an offer to buy its Dutch rival in August. The offer for 100% of the shares values TNT Express at €4.4 billion ($4.8 billion).

FedEx Express, the US company's cargo airline, operates a fleet of 650 aircraft.

TNT Express's fleet, including its subsidiaries and wet-lease agreements, consists of about 45 aircraft, including Boeing 737, 757, 777, 747 and BAe 146 types.

NEWS

Manufacturers

Boeing Capital forecasts $127bn new financing in 2016

Boeing Capital Corporation expects the industry to finance $127 billion of new aircraft deliveries in 2016.

In its Current Aircraft Finance Market Outlook 2016, the company also said the capital markets are expected to support their largest-ever share of new aircraft.

Airlines and lessors took delivery of about $122 billion of new deliveries in 2015, the report said (referring to both Boeing and non-Boeing aircraft). In 2016, Boeing expects this figure to increase by about $5 billion.

It also expects commercial bank activity to "remain strong" and for export credit usage to "drop to historic lows".

The company also noted some market concern about oversupply of new aircraft. It wrote: "We acknowledge these views and remain vigilant in ensuring that our production plans reflect market realities. All objective measures show that we are currently in a tight aircraft supply market, and our planned delivery rates as a share of the installed fleet are in line with historical norms."

First 737 Max rolled out

Boeing has completed the final assembly of the first 737 Max 8 and revealed its new livery. The US manufacturer says the aircraft is on schedule for a first flight in early 2016.

The second and third 737 Max 8 flight test aircraft are in final assembly and the fourth (and final) is at the sub-assembly stage.

Boeing says the 737 Max remains on track for first delivery to launch customer Southwest Airlines in the third quarter of 2017.

The manufacturer is targeting a 20% lower fuel burn than the first next-generation 737s, although the gains will be less compared to current 737 models.

High-density ATR 72 receives Easa certification

The high-density seating configuration option for the ATR 72-600 aircraft has received its certification from the European Aviation Safety Agency (Easa).

Using the existing airframe, a new 78-seat configuration option is achieved by decreasing the seat-pitch and adjusting the forward cargo compartment. The option will be available on new production aircraft and as a retrofit.

Cebu Pacific was the first airline to choose the high-density seating, in a deal for 16 new ATR 72-600s announced at the 2015 Paris Airshow. The first aircraft in the 78-seat layout will enter commercial service next August.

ATR says there is particularly strong demand for the configuration in the South-East Asia region.

There has been speculation that ATR would add a stretched 90-seat version to its product line, but the company has dampened expectations that it will launch such an aircraft.

MRJ delayed by one year

Mitsubishi Aircraft Corporation has announced its regional jet (MRJ) will suffer a further one-year delay to its test programme. The most recent delivery target for the MRJ had been Q2 2017, but the company says this will be pushed back by around a year.

A company statement, released following a press conference in Nagoya, said: "The first flight and the subsequent flight tests have confirmed the basic characteristics to be satisfactory. However, we also have recognized several issues as we attempt to accelerate our development."

Airbus to boost A320 production

Airbus says it is to increase further the production rate of its A320 family to 60 aircraft a month in mid-2019. To enable the ramp-up, Airbus will expand the capacity at its Hamburg facility with the creation of an additional production line for the A320 new engine option (neo) variants. Airbus says it has more than 4,300 orders for neo models, the first of which is due to enter service at the end of this year.

Boeing issues $900m-worth of notes

Boeing has issued $900 million of unsecured senior notes, according to an SEC filing by the manufacturer.

The notes are split between $350 million maturing in 2020 carrying a coupon of 1.65%, $250 million maturing in 2022 with a coupon of 2.20% and $300 million maturing in 2025 with a coupon of 2.60%.

The $350 million five-year notes have a spread of 55 basis points over equivalent US Treasury and priced at 98.789%. The joint bookrunning managers are Goldman Sachs, Merrill Lynch, Morgan Stanley, BBVA Securities, Mitsubishi UFJ Securities and RBC Capital Markets.

The $250 million seven-year notes have a spread of 70 basis points over equivalent US Treasury and priced at 98.495%. The joint bookrunning managers are Goldman Sachs, Citigroup Global Markets, Deutsche Bank Securities, BNP Paribas Securities, Crédit

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Manufacturers

Agricole Securities and Santander Investment Securities.

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Interest payments for all the notes are due semi-annually in arrears on April 30 and October 30 of each year, beginning on April 30 2016.

Legal firm Kirkland & Ellis advised on the deal.

Quebec makes $1bn CSeries investment

The government of Quebec is investing $1 billion in Bombardier's CSeries programme, according to an announcement from the company.

According to a memorandum of understanding signed by the manufacturer and the provincial government, Quebec will take a 49.5% equity stake in a newly created limited partnership that owns the CSeries aircraft programme. Bombardier retains a 50.5% stake.

The $1 billion total will be paid in two equal instalments, on April 1 2016 and June 30 2016.

The company's third-quarter results showed a net loss of $4.9 billion, due mainly to "impairment charges on CSeries and Learjet 85 programme tooling", compared to a net income of $74 million for the same period last year. The company also used $816 million of free cash flow in the quarter.

CityJet opts for Sukhoi

CityJet has signed an agreement with Russian manufacturer Sukhoi for 25 aircraft, according to a statement from the manufacturer.

Under the agreement, CityJet will take delivery of 15 SSJ100 aircraft with options for a further 10. The first deliveries are scheduled for the first quarter of 2016.

CityJet will use the aircraft to replace its fleet of Avro RJ85s, which it operates across Europe.

Sukhoi has also agreed to provide after-sale support for the fleet for 12 years, under its SuperCare agreement.

"This is a very versatile new-generation jet which will fulfil our requirements with a capability to operate at smaller airports such as our hub at London City Airport and offer significant advantages in fuel efficiency, emissions ratings and noise reduction," says CityJet's executive chairman Pat Byrne.

He adds: "We intend introducing the SSJ100 on charter activity in 2016 and we will place it on our London City route network in 2017."

Belgian charter airline VLM Airlines was the first European carrier to agree to lease the Russian aircraft. It signed a letter of intent with Ilyushin Finance Company in October 2014 for the 12-year leases of two aircraft.

MRO NEWS

ACG orders AEI 737-800SF freighter

US leasing company Aviation Capital Group (ACG) has placed an order with Aeronautical Engineers (AEI) for the company's Boeing 737-800SF converted freighter.

The deal includes 15 aircraft with options for an additional 15. AEI will commence the passenger-to-freighter modification in 2016 and expects to receive FAA Supplemental Type Certification for the model in 2017. AEI indicates that it has orders and options for 50 of the type, which is the latest offering from the conversion specialist.

ACG's chief executive officer Denis Kalscheur says: "ACG has enjoyed a very successful partnership with AEI, converting six 737-400 aircraft from passenger to freighter."

The conversion specialist previously told *Airfinance Journal* that it sees great potential for 737-800 conversions, not least because of the plentiful supply of passenger (feedstock) aircraft. More than 3,500 passenger versions of the Boeing model have been built.

Airfinance Journal understands that AEI's list price for a 737-800 conversion is $3.5 million – $750,000 higher than the equivalent figure for its 737-400 model.

HNA Group signs $2.4bn engine deal

Chinese conglomerate HNA Group has signed a $2.4 billion agreement for engines and services with Rolls-Royce.

The agreement was signed during the state visit by President Xi Jinping to the UK, where Rolls-Royce is based.

The engines in the agreement will power 44 aircraft that have already been ordered with Airbus.

The agreement covers Trent 700 engines and TotalCare service support for 20 A330s, TotalCare service support for Trent XWB engines that will power 15 A350-900s and TotalCare service support for Trent 700 engines that power five A330 freighters and four A330s.

HNA Group is a conglomerate with interests in aviation, financial services, tourism and hospitality, logistics, real estate and retail. HNA Aviation operates and manages, among others, Hainan Airlines, Tianjin Airlines and Capital Airlines, flies to more than 250 cities and serves 72 million passengers annually. HNA Group operates 33 Trent 700-powered A330 aircraft.

Manufacturers

Boeing Capital forecasts $127bn new financing in 2016

Boeing Capital Corporation expects the industry to finance $127 billion of new aircraft deliveries in 2016.

In its Current Aircraft Finance Market Outlook 2016, the company also said the capital markets are expected to support their largest-ever share of new aircraft.

Airlines and lessors took delivery of about $122 billion of new deliveries in 2015, the report said (referring to both Boeing and non-Boeing aircraft). In 2016, Boeing expects this figure to increase by about $5 billion.

It also expects commercial bank activity to “remain strong” and for export credit usage to “drop to historic lows”.

The company also noted some market concern about oversupply of new aircraft. It wrote: “We acknowledge these views and remain vigilant in ensuring that our production plans reflect market realities. All objective measures show that we are currently in a tight aircraft supply market, and our planned delivery rates as a share of the installed fleet are in line with historical norms.”

First 737 Max rolled out

Boeing has completed the final assembly of the first 737 Max 8 and revealed its new livery. The US manufacturer says the aircraft is on schedule for a first flight in early 2016.

The second and third 737 Max 8 flight test aircraft are in final assembly and the fourth (and final) is at the sub-assembly stage.

Boeing says the 737 Max remains on track for first delivery to launch customer Southwest Airlines in the third quarter of 2017.

The manufacturer is targeting a 20% lower fuel burn than the first next-generation 737s, although the gains will be less compared to current 737 models.

High-density ATR 72 receives Easa certification

The high-density seating configuration option for the ATR 72-600 aircraft has received its certification from the European Aviation Safety Agency (Easa).

Using the existing airframe, a new 78-seat configuration option is achieved by decreasing the seat-pitch and adjusting the forward cargo compartment. The option will be available on new production aircraft and as a retrofit.

Cebu Pacific was the first airline to choose the high-density seating, in a deal for 16 new ATR 72-600s announced at the 2015 Paris Airshow. The first aircraft in the 78-seat layout will enter commercial service next August.

ATR says there is particularly strong demand for the configuration in the South-East Asia region.

There has been speculation that ATR would add a stretched 90-seat version to its product line, but the company has dampened expectations that it will launch such an aircraft.

MRJ delayed by one year

Mitsubishi Aircraft Corporation has announced its regional jet (MRJ) will suffer a further one-year delay to its test programme. The most recent delivery target for the MRJ had been Q2 2017, but the company says this will be pushed back by around a year.

A company statement, released following a press conference in Nagoya, said: “The first flight and the subsequent flight tests have confirmed the basic characteristics to be satisfactory. However, we also have recognized several issues as we attempt to accelerate our development.”

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Financiers

AerCap closes $1.3bn of credit facilities

Dutch lessor AerCap has closed $1.3 billion of new credit facilities, according to a statement from the lessor.

The proceeds from the facilities will be used to acquire new narrowbody and widebody aircraft delivering through to the end of 2016.

An $800 million facility was signed to finance a portfolio of 13 aircraft over a nine-year term.

It was coordinated by Commonwealth Bank of Australia and Crédit Agricole Corporate and Investment Bank (CA-CIB), and was co-arranged by Bank of America, Crédit Industriel et Commercial, DekaBank Deutsche Girozentrale, ING Bank, KfW Ipex, Helaba, National Australia and Santander. CA-CIB acted as facility agent.

An additional $500 million limited recourse facility was arranged by Wells Fargo, and will finance a portfolio of nine aircraft over a five-year term.

AerCap's total amount of financing transactions completed in 2015 is $6.7 billion.

Jolco safe for another year

The Japanese operating lease (Jol) and Japanese operating lease with call option (Jolco) tax lease structures have avoided tax reforms that would have impacted negatively their attractiveness to investors, according to sources.

The Liberal Democratic Party and its coalition partner Komeito announced its tax reform plan for the fiscal year beginning April 1 2016. The plan includes a reduction in corporation tax from 32.11% to 29.97%.

Airfinance Journal understands that, while the use of the declining balance method for certain assets will be abolished, aircraft will not be among them.

In a Jolco structure, the Japanese lessor – usually a small- to medium-sized Japanese company – will own aircraft and lease them to operators. Airlines are fond of Jolcos because, unlike most structures, they offer 100% financing through their combination of debt and equity.

The news will come as a relief to debt and equity investors in Jols/Jolcos, as well as the (usually top-tier) airlines that take advantage of the cheap financing these structures offer.

Airfinance Journal understands that Mitsubishi Aircraft Corporation, the manufacturer of the Mitsubishi Regional Jet, has been lobbying in favour of retaining the tax benefits of the structures.

Ex-Im reauthorized through 2019

US Export-Import Bank (Ex-Im) has begun accepting new applications after it was reauthorized by the US Senate and President Obama in December.

The reauthorization means that Ex-Im's mandate lasts until September 30 2019.

Ex-Im Bank's mandate has been the subject of fierce political debate since it expired in the >>>

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Financiers

summer, which meant it was unable to process new applications or agree on new deals. However, the bank is now accepting applications for new deals. A statement by Ex-Im clarified that deals totalling more than $10 million need approval from its board of directors.

Liu: lessors foolish to buy directly from OEMs

Lessors would have to be "pretty foolish" to buy more aircraft directly from original equipment manufacturers (OEMs) in today's market, according to Norman Liu, the outgoing chief executive officer of Gecas.

"You'd be pretty foolish to be buying more in this type of environment. You're best off placing what you've got," he said at the 16th Annual Asia-Pacific Airfinance Conference in Hong Kong.

Liu also commented on some of the new entrants to the leasing market, as well as where the existing lessors are sourcing their capital.

"There's tons of liquidity, everybody is trying to find a home for their money," he said. "There's also a lot of new entrants in the market. Everyone thinks that if you just Google stuff you can become an expert in anything these days. Existing players are tapping the bond markets. The bank market is back and spreads are tighter. That's not good for purchase/leasebacks; it's not good for returns. It's great if you're a seller and not great if you're a buyer."

He also noted that a lot of orders were made in about 2006, and airlines' seat counts and traffic levels now show "an excess supply" of aircraft.

Liu will be succeeded as chief executive officer by Alec Burger, who has worked at GE for 25 years, but he will stay on as chairman until late 2016.

S&P upgrades ACG outlook

Standard & Poor's Ratings (S&P) has revised its outlook on Aviation Capital Group (ACG) from stable to positive.

The agency also affirmed all of ACG's ratings, including its BBB- corporate credit rating.

In a statement, S&P wrote: "Our outlook revision on ACG reflects the company's improved credit metrics, which we expect the company to maintain through 2017. For the 12 months ended September 30 2015, ACG's Ebitda [earnings before interest, tax, depreciation and amortization] interest coverage was around 3x and its FFO [funds from operation]-to-debt ratio was around 11%."

S&P credit analyst Tatiana Kleiman says: "These metrics have been improving over the last two years as the company's earnings and cash flow have increased and debt levels have remained relatively stable. Over the next few years, ACG will be taking a relatively small number of committed new aircraft; however, we expect the company to continue to take advantage of opportunistic acquisitions. Despite the incremental debt to fund these purchases, we expect the company's earnings and cash flow to benefit, resulting in relatively stable credit metrics through 2017."

Fitch Ratings also upgraded its outlook on ACG to positive in August. The ratings agency affirmed the long-term issuer default rating and senior unsecured debt ratings of ACG at BBB-.

Veling eyes A330s and 777s with $1bn investment

Mauritian lessor Veling is aiming to purchase 777-300ERs and A330-300s with the $1 billion it secured in a deal with a US private equity firm, the company's chief executive officer tells *Airfinance Journal*.

The widebody specialist has signed an agreement with Flexpoint Ford. The resulting partnership will provide Veling with equity capital to support the purchase/leaseback of more than $1 billion of commercial aircraft to airlines over the next two years, according to a statement from the company.

Hitesh Patel, Veling's chief executive officer, tells *Airfinance Journal* in an interview that his company is in "cash-burn mode" and that the end of this year and all of next year is going to be "extremely active".

Veling's current portfolio consists of six aircraft: five 777-200ERs on lease to Emirates and one A340-300 on lease to SriLankan Airlines.

Over the past 12 months, Veling's fleet has been "quickly dwindling down" as it sold nine aircraft from Emirates and SriLankan as they came off lease.

With the $1 billion at its disposal, the lessor is aiming to acquire more widebody aircraft, with a preference for 777-300ERs and A330-300s, though it has not ruled out other asset classes.

"It's mainly widebodies because our niche of the business is mid-life to end-of-life and widebody aircraft," says Patel.

He adds: "We are really excited to get going and we have got quite a few airlines in our pipeline and we hope to capitalize on this relationship and build up our portfolio in the coming years."

Veling, which is based in London and Mauritius, is led by its co-founders Uday Nayak and Nirvan Veerasamy.

CIT to explore leasing sale or spin-off

CIT Group is exploring the sale or spin-off of its aircraft-leasing subsidiary, chief executive officer John Thain has told investors.

The US banking group had previously announced it would "explore strategic alternatives" for its aircraft leasing platform CIT Aerospace.

During a third-quarter earnings call, Thain told analysts that the group decided to explore new options for several reasons.

He mentioned that a growing order book of new aircraft was leading to restrictive capital charges. He said: "Our order book now is much bigger versus our aircraft that we own than it was five years ago, and so we're just taking capital charges on that order book – and many of those aircraft we're not going to get delivered for three, four, five years. And that bigger order book and longer timeframe of those capital charges was really constraining our ability to grow the business."

He also said that CIT Aerospace is undervalued in the group's share price. "We're not getting the correct valuation for that business in our share price, and so separating it out, allowing it to be a pure play so you can see its value, and then making CIT itself simpler, I hope will improve the valuation of both pieces."

Expanding on the likely completion date of the sale or spin-off, Thain said: "We're at the early stage of working out what the structure will be. [It will require] at least a 12-month timeframe to get done."

Asked whether a sale or a spin-off was more likely, Thain said: "We will be sure to include alternatives that are totally within our control. We will be able to execute a transaction whatever the level of interest."

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Deals

China Southern issues 21-aircraft RFP

China Southern Airlines has issued a request for proposal (RFP) to Chinese leasing companies for the financing of 21 aircraft, according to a source.

The airline is seeking financing for three A330s, five A320s, three 777-300s and 10 A321s. The aircraft are due to deliver from January 2016 at a rate of one aircraft a month.

China Southern is seeking first round bids from the leasing companies.

Elix launches $350m turboprop facility

Dublin-based lessor Elix Aviation Capital has launched a $350 million all-turboprop warehouse facility, *Airfinance Journal* learns.

The tenor of the facility is four years and the facility is expected to grow over time to $450 million.

BNP Paribas, Citi and Deutsche Bank were the mandated lead arrangers and structuring agents on the deal. Nomura Babcock & Brown came in as a lender just before the closing of the deal.

Emmanuel Carousos, Elix's chief investment officer, confirms that the lessor is looking for more lenders to join the deal.

The facility will refinance the lessor's legacy portfolio from its $316 million warehouse facility carried out in 2014, as well as additional aircraft. Carousos tells *Airfinance Journal* that Elix will include "over 60 turboprops" it has acquired in the facility.

When asked how many more aircraft Elix looks to add to the facility, Carousos says: "With $450 million, even assuming we don't use the revolving feature – which we will – it's a lot of aircraft. We could effectively double the fleet with this sort of facility."

Elix has a fleet of 57 turboprop aircraft. That will increase to 60 by the end of 2016, with the arrival of three Q400s expected in the final quarter of next year.

Milbank acted for Elix. Clifford Chance acted for the lenders.

Norwegian issues debut unsecured eurobond

Norwegian Air Shuttle has issued an €125 million ($132.1 million) unsecured eurobond.

The bond, which has a four-year tenor, has a coupon of 7.25%, payable semi-annually.

Danske Bank Markets, DNB Markets and SEB acted as joint lead managers for the placement of the new bond issue, which will list on the Oslo Stock Exchange.

"We are very pleased to have completed our first bond issue in euros," the carrier's chief financial officer Frode Foss said in a statement. "With this transaction we have broadened our base of bondholders from the Scandinavian market to the international market. Norwegian continues to attract financing and utilizing different sources of funding of the group and future growth."

Norwegian issued a similar sized three-year bond denominated in Norwegian krone earlier in 2015. The proceeds from both bonds will be used for corporate purposes and airline growth.

In October, Norwegian signed an order with Boeing to buy 19 787-9 Dreamliners, scheduled for delivery between 2017 and 2020.

Norwegian has a fleet of 102 aircraft: eight 787-8s and 94 737-800 NGs. *Airfinance Journal* understands that 30 of the airline's aircraft are on sale/leaseback and 10 are on operating lease. The rest of the fleet is owned.

Intrepid finances two A330s

Intrepid Aviation has closed the financing of two new A330-300s.

The first aircraft is financed with a secured commercial loan provided by DVB Bank. Vedder Price advised Intrepid on the deal. The aircraft is on a long-term operating lease to Taiwanese carrier Eva Airways.

The second aircraft is financed with a secured commercial loan provided by Erste Bank. Norton Rose's London office advised Intrepid on the deal. The lessor has not yet placed the aircraft with a lessee.

Airfinance Journal understands that the second A330 was originally intended for lease to Skymark Airlines. After signing A330 lease agreements with Intrepid Aviation and CIT Aerospace, the struggling Japanese carrier cancelled the leases last February, in a drastic attempt to cut costs. Skymark had agreed a total of seven A330-300 leases with Intrepid.

Air Canada prices $537m EETC

Air Canada has priced a $537 million enhanced equipment trust certificate (EETC) secured against five widebodies delivering in 2016.

The offering will be used to finance the purchase of three new 787-9s and two 777-300ERs, which are scheduled for delivery in April and May 2016.

The deal is the first international EETC issuance in 2015 to include class-AA certificates.

Sources with knowledge of the deal said that Morgan Stanley acted as sole structuring agent and lead left bookrunner. Credit Suisse also acted as lead bookrunner. Citi and Deutsche Bank acted as active bookrunners. TD Securities, Barclays and JP Morgan were passive bookrunners.

Natixis acted as manager, while TD Bank provided the liquidity facility. The two depositary banks on the deal are Citibank for the AA tranche and Natixis for the A and B tranches.

Airfinance Journal understands that the class-AA tranche was oversubscribed more than 4.3 times, and the class-A tranche was more than 3.7 times oversubscribed. This led to tighter pricing on the deal than the initial whispers.

Vedder Price advised Air Canada on US law, while Stikeman Elliott advised on Canadian law. Milbank advised the underwriters on US law; Blakes advised on Canadian law.

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Deals

Liquidity facility provider TD Bank was advised by Milbank on US law and Blakes on Canadian law.

The deal is split between three tranches. The AA tranche will be sized at $295.02 million with a 12-year tenor and a coupon of 3.75%. The initial loan-to-value is 39%.

The A tranche will be sized at $121.04 million with a 12-year tenor and a coupon of 4.125%. The initial loan-to-value is 55%.

The B tranche will be sized at $121.04 million with an eight-year tenor and a coupon of 5%. The initial loan-to-value is 71%.

Moody's has rated the three tranches at A1, A3 and Ba1, respectively. Standard & Poor's has rated the tranches AA, A and BBB-.

The deal was the second EETC Air Canada issued in 2015. The first was a $1.03 billion offering secured against nine 787s that issued in March.

VivaAerobus receives A320-200

Mexican low-cost carrier VivaAerobus has taken delivery of a new A320-200 from a sale/leaseback deal with Avolon Capital Partners.

The new aircraft comes from VivaAerobus's order book with Airbus, *Airfinance Journal* understands.

Avolon Capital Partners is a joint-venture aircraft lessor formed by Avolon and Wells Fargo. The company is building its portfolio through sale/leaseback transactions with new aircraft. It was established in 2013 with an initial target portfolio size of $500 million.

This latest delivery is the ninth aircraft to enter the joint venture's fleet.

BOC Aviation signs $500m five-year facility

Singapore-based lessor BOC Aviation has signed a $500 million five-year unsecured term loan facility with 13 banks.

Australia and New Zealand Banking Group, Commonwealth Bank of Australia, DBS Bank and Westpac Banking Corporation are the mandated lead arrangers and bookrunners of the facility.

The Bank of East Asia, Bank of Communications, BPI Capital Corporation, Credit Suisse and United Overseas Bank are acting as mandated lead arrangers.

Kookmin Bank Hong Kong and OCBC Bank are acting as lead arrangers. Apple Bank of Savings and Hua Nan Commercial Bank Offshore Banking Branch are acting as arrangers.

The facility is syndicated via BOC Aviation's wholly owned subsidiary BOC Aviation (Cayman) Limited as borrower and is guaranteed by BOC Aviation, which will use the proceeds for general corporate purposes.

The facility is the largest syndicated loan closed by the lessor, with the loan amount having increased to $500 million from the launch amount of $300 million.

Emirates closes Jolco for 777-300ER

Emirates has closed a Japanese operating lease with call option (Jolco) transaction for one 777-300ER, according to a source.

BRED Banque Populaire, Natixis and Société Générale were the lenders on the deal. Société Générale acted as facility agent and security trustee.

The equity providers on the deal were Century Tokyo Leasing Corporation, IBJ Leasing and Mitsubishi UFJ Lease & Finance. IBJ Leasing acted as lead arranger.

CDB Leasing closes A330 refinancing

CDB Leasing closed a US dollar-denominated refinancing for two A330-300 aircraft, *Airfinance Journal* learns.

NordLB acted as lead arranger and facility agent. Crédit Agricole Corporate and Investment Banking, Korea Development Bank and Sumitomo Mitsui Trust Bank acted as co-arrangers.

The aircraft have been on sale/leaseback to Singapore Airlines since 2013.

Airfinance Journal understands that CDB Leasing purchased the aircraft in 2013 from a western lessor. AeroTransport Data Bank and Atlas Data both indicate that AerCap previously owned the aircraft.

Stephenson Harwood acted for CDB Leasing. Vedder Price acted for the lenders.

Lion Air takes second A330 from Vermillion

Lion Air took delivery of an A330-300 from Vermillion Aviation on December 16, according to a source.

The aircraft is the second of a two-aircraft sale/leaseback agreement between Vermillion Aviation and Lion Air. *Airfinance Journal* understands the deal is structured through Lion Group's Singapore-based leasing affiliate Transportation Partners.

The first aircraft delivered on November 16.

Vermillion Aviation was established last March as a joint-venture company between Cheung Kong (Holdings), with a 50% stake, Li Ka Shing (Overseas) Foundation (10%) and MC Aviation Partners (40%) with a portfolio of 15 aircraft.

A spokesman for MC Aviation Partners confirms the deal has closed and that no additional aircraft have been added.

Vueling finalizing request for A320ceos

Spanish low-cost carrier Vueling is in the process of finalizing a request for proposal (RFP) for its remaining order of three A320ceos, according to a source at the airline.

The source says the carrier is looking for sale/leasebacks and intends issuing the RFP in early 2016. Vueling is also, according to the source, considering adding one A320neo to the request for proposal.

NEWS

Deals

Wizz Air to take 11 A321ceos

Wizz Air has signed a sale/leaseback agreement for 11 A321ceos with CCB Financial Leasing. The aircraft are from the carrier's order book. Wizz has 27 A321ceos on order.

The deal is structured through CCB Leasing's Irish platform. The aircraft will be on lease for nine years.

Berwin Leighton Paisner acted for CCB Leasing. Dentons acted for Wizz Air.

Flydubai closes sale/leaseback for two 737-800s

Flydubai has closed a sale/leaseback for two 737-800 aircraft with Pembroke, the leasing arm of Standard Chartered Bank. The length of the lease is for six years, according to a source with knowledge of the deal.

The source added that the aircraft are 2013 vintage and originally delivered in 2013, when they were financed through commercial debt provided by Standard Chartered. The lease will end on the eighth anniversary of each of the delivery dates for the aircraft.

Airfinance Journal understands that flydubai was advised by Dentons, and Hogan Lovells advised Standard Chartered.

ICBC FL agrees French tax lease deal

Three French banks are working together to provide US dollar-denominated French tax leases for eight 737-800s for ICBC Financial Leasing (ICBC FL), *Airfinance Journal* learns.

The Chinese lessor mandated BNP Paribas, Crédit Industriel et Commercial and Natixis in the second quarter of 2015 to finance the narrowbody jets. The deal is being struc-

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NEWS

Deals

tured through China's Tianjin Free Trade Zone.

Having financed the aircraft with the banks, ICBC FL is distributing the aircraft on operating leases to two of its domestic customers, with five going to Air China and three to Xiamen Airlines. *Airfinance Journal* understands that the Air China aircraft will be on longer leases than the Xiamen Airlines aircraft.

BNP Paribas is financing two aircraft, while Crédit Industriel et Commercial and Natixis are financing three each.

Five of the aircraft have already delivered: Xiamen Airlines took delivery of one aircraft in September (from Crédit Industriel et Commercial) and one in October (from Natixis). The airline expects its third aircraft in the first quarter of 2016 (from Natixis).

Air China took delivery of an aircraft in May (BNP Paribas), as well as two aircraft in October (both from Crédit Industriel et Commercial). It expects to take two more aircraft in the first quarter of 2016 (one from BNP Paribas and one from Natixis).

A source close to the deal said that the approximate amount of debt for each aircraft is $37 million.

Qatar Airways signs French tax lease for A380-800

Qatar Airways has signed a French tax lease to finance a new A380-800.

Crédit Agricole Corporate and Investment Bank (CA-CIB) acted as the arranger, equity provider, security trustee and facility agent. HSBC acted as debt arranger alongside CA-CIB and provided a commercial loan.

The widebody jet delivered on October 9 and is the airline's sixth A380. The deal marks the fourth French lease arranged by CA-CIB for Qatar Airways' A380 fleet.

The banks were advised by Norton Rose Fulbright Paris; Qatar Airways was advised by Dentons in London.

Juneyao finances A320 through subsidiary

Juneyao Airlines has closed an operating lease transaction for one A320-200 structured through its 100% owned special purpose vehicle subsidiary in the Shanghai Free Trade Zone.

Chinese lessor CCB provided a mortgaged loan to finance the aircraft, which will be operated by Juneyao for 12 years. The loan-to-value ratio is about 85%. There was no predelivery payment financing.

Juneyao Airlines set up Harvest International Financial Lease in early 2015 and aims to have a registered capital of Rmb550 million ($86.8 million) by the end of the year. Harvest provides operating and financial leases to Juneyao Airlines and 9 Air.

Being set up in the Shanghai Free Trade Zone means Harvest can reduce its withholding tax obligations. The company is headed up by general manager Mo Baohong and has a staff of more than 20 people.

SECONDARY MARKET NEWS

Emirates to retire 26 aircraft

UAE airline Emirates will retire 26 aircraft in 2016: 12 A330-300s, four A340-300s, one A340-500, six 777-200ERs, two 777-300s and one 777-300ER.

In addition, 13 more aircraft will be retired in 2017 and another 13 will be retired in 2018, according to a statement released by the airline.

Delta purchases KAL 747s

Delta Air Lines has received its first former Korean Air 747-400 from a deal for two aircraft.

Airfinance Journal understands that Delta has bought the aircraft so it can tear them down to support its fleet of 747s.

A source said the deal was agreed in October, and that Delta received the first of the two aircraft on November 18.

Avic Leasing buys 737 from Avolon

Chinese lessor Avic Leasing has purchased a 737-800 from Irish lessor Avolon, according to sources.

The aircraft is on lease to Indonesian airline Lion Air, and is understood to be Avic Leasing's first non-Chinese customer for a commercial passenger aircraft lease.

Patient on Orbis International's Flying Eye Hospital
photograph by Geoff Oliver Bugbee

ANALYSIS

Castlelake prices $713m ABS

The US investment firm taps the capital markets with its second securitization. Jack Dutton reports.

Castlelake, an alternative investment firm specializing in aircraft, has priced its $713.21 million asset-backed security (ABS).

The deal, Castlelake Aircraft Securitization Trust 2015-1, is backed by 54 aircraft and six aircraft engines with a weighted average age of about 15 years.

The transaction is split between three classes of notes: a $529 million A tranche, a $105.7 million B tranche and a $78.5 million C tranche. The tranches have loan-to-values of 60.2%, 72.2% and 81.2%, respectively.

The class-A notes have a coupon of 4.703%, the class-B notes have a coupon of 5.750% and the class-C notes have a coupon of 9%.

The A tranche priced at 99.99%, just under par. The B tranche priced at 98.53% and the C tranche at 98.72%. The yields are 4.75%, 6.25% and 9.85%, respectively.

Kroll Bond Rating agency has rated the notes A, BBB, and B+, respectively. Standard & Poor's (S&P) rated the A notes A-, the B notes BBB and the C notes B.

Portfolio

The aircraft in the portfolio include 25 narrowbodies, 15 widebodies, six regional jets, five turboprops and three freighters.

The portfolio is on lease to 23 airlines in 18 countries. The largest lessee is Alitalia, which accounts for eight aircraft or 21.9% of the portfolio by value. Condor and Air Canada are the two other largest lessees in the portfolio.

According to Evan Carruthers, managing partner at Castlelake, about three-quarters of the portfolio is located in "developed Europe" and North America. The underlying aircraft have leases that are contracted on day one with about 4.7 years of weighted average lease term remaining.

Deutsche Bank and Goldman Sachs are the lead bookrunners on the transaction. The two banks were joined by Citigroup Global Markets and Crédit Agricole Securities as joint bookrunners.

DVB Capital Markets, Mitsubishi UFJ Securities (USA) and Credit Suisse Securities (USA) are acting as co-managers for the transaction. Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, serves as liquidity facility provider.

Castlelake will act as the servicer on the transaction. Vedder Price acted as legal counsel for Castlelake, while Milbank acted for the lenders.

Fixed-income friendly

In an interview with *Airfinance Journal*, Castlelake's Carruthers says: "One of the things we tried to do with 2015-1 is bring a bit more of a fixed-income friendly transaction into market. A lot of the terms you'll see on the 2015-1 transaction you may not have seen in the last few deals that have been brought to market.

"We have, for example, a slightly aggressive amortization schedule, which de-levers the transaction quicker. We have maintained the coupon step up. We have also added a feature, called excess proceeds event, which takes any cash flow which is not basic rate or a sale of an asset and you essentially de-lever the structure when you receive those cash flows."

Castlelake previously tapped the ABS market in March 2014, with its debut $515.6 million securitization.

Bond over loan

The 2015-1 portfolio is slightly younger than 2014-1: the first deal had a weighted average age of 18 years, while this one has a weighted average age of 15 years. The new portfolio also has more lease terms attached to it than the older portfolio – 4.7 years of weighted average lease to just under 3.5 years.

The 2015-1 notes are issued in the 144A bond structure, unlike 2014-1 notes, which were issued in a loan structure. "I think the market convention is, if you're going to do a 144A bond deal you get it rated by S&P and one bond agency as well," says Carruthers.

Evan Carruthers, managing partner at Castlelake

He adds: "It really opened up the base of buyers. When you think about ABS buyers of debt, a lot of those investors are long-only bond-type investors and many of them cannot participate based on their own corporate charters in loan-format deals that are rated by Kroll and so they usually will wait for 144A bond deals that have more liquidity and are also rated by S&P. It increases the overall liquidity of the debt once it is issued by the ABS securitization."

The roadshow for the securitization was in North America, but Carruthers says its investors from Europe also got involved.

The 2015-1 portfolio features a coupon step up, which is 200 basis points, starting in year seven.

The firm has retained the e-certificates on both ABS transactions from 2014 and 2015, meaning that Castlelake continues to own the equity in both deals.

"In this market, there are a lot of issuers who sell their e-certificates to a third party; we're retaining the e-certificates here," says Carruthers.

He adds: "We wanted to lead with structure, and made some structural tweaks to really try and drive more cash flow to the debt and make sure that this structure is going to de-lever appropriately."

ANALYSIS

BOC Aviation launches first Asian aircraft ABS

The leasing arm of Bank of China opened up an untapped market in Asian aviation with its recent securitization. Jack Dutton explores the deal's structure what it means for Asian lessors in the capital markets.

"This is not a funding exercise for us, as we have our own investment-grade credit ratings and we can issue our own unsecured corporate bonds for a much cheaper rate," says Steven Townend, chief commercial officer (Europe, Americas, Africa) of BOC Aviation (BOCA), speaking on the lessor's recent aircraft securitization.

Bank of China-owned BOC Aviation made history on October 16 by issuing the first aircraft-backed securitization done in Asia. The company signed an agreement to sell 24 aircraft to Shenton Aircraft Investment I Ltd (Sail) and affiliates (SHNTN 2015-1), taking advantage of an untapped market in Asia.

"Firstly, it is a way for us to manage our balance sheet," says Townend. "We're typically taking delivery of 50 to 60 new aircraft each year and we're now selling 30 to 40 each year." Instead, the asset-backed security (ABS) acts as a funding for the equity holder, a first time E-note-buying institutional investor based in the US.

"One of the key things the ABS gives to us is efficiency and scale – being able to do in this case 24 aircraft in a single transaction is far more efficient than trying to sell them individually to 24 different investors," adds Townend. "The other big advantage for us is that it allows us to grow our assets under management and grow our aircraft management business."

Deal structure

To finance a portion of the portfolio, SHNTN 2015-1 issued two tranches of notes, comprising $747.4 million of 4.75% series-A notes (rated A by Standard & Poor's/ Fitch Ratings) and $60.5 million of 5.75% series-B notes (BBB, Standard & Poor's/Fitch Ratings). The tranches both have a weighted average life of 5.8 years, according to documents seen by *Airfinance Journal*.

The class-A tranche has an initial loan-to-value ratio (LTV) of about 71% and an expected tenor of 12.1 years. The class-B tranche has an LTV of about 76.8% and a tenor of 11.7 years.

The source of repayment for the notes will be limited to the aircraft portfolio, the leases and related collateral. A third-party institutional investor from the US acquired 100% of the equity interest via a private placement.

The notes are backed by the 24 aircraft to be acquired from BOC Aviation, which are on lease to 21 airlines in 18 countries. The portfolio comprises 11 Airbus A320-family aircraft, seven Boeing 737 NGs, two Embraer E190s, two A330s and two 777s. The portfolio has an average age of 4.6 years and average remaining lease term of 5.7 years. The portfolio has an original appraised value of $1.05 billion.

Citibank acted as the sole structuring agent, global coordinator and sole placement agent of the E-note. Bank of China International and Goldman Sachs acted as the joint bookrunners on the transaction. Deutsche Bank, BNP Paribas and Morgan Stanley acted as co-managers of the deal. Clifford Chance acted for BOC Aviation, while Milbank acted for the underwriters.

A reflective portfolio

"This deal reintroduced some of the traditional features of aircraft portfolio securitizations and, at the same time, incorporated several new structural features that were well received by the market," says Thomas Bliemel, managing director and head of global structured debt at Citi, who led the transaction.

He adds: "One of the differences between this deal and other recent precedents is that this deal has a 12-year full payout debt structure without a coupon step up or assumed refinancing date half-way through the deal. We also made several improvements to the operational flexibility of the issuing vehicle that were viewed positively. The level of diversification in this portfolio was very good."

The aircraft-to-lessee ratio of the portfolio was 1.1, meaning there was roughly one aircraft for each lessee, resulting in a wide exposure. The portfolio includes 24 aircraft on lease to 21 lessees, 10 of which are flag carriers.

The portfolio featured lessees from Spain, China, Canada, the Middle East and South-East Asia. The top three airlines were Iberia, Air Canada and Beijing Capital, a source who worked on the deal tells *Airfinance Journal*.

"The portfolio itself is more or less a reflection of the overall portfolio of BOCA," says Bliemel. "The characteristics are very similar, and that ended up being viewed favourably by the market.

"This was BOCA's first transaction of this nature and it was important to them to set the right benchmark. This is certainly a transaction structure that can be replicated by BOCA in the future to facilitate aircraft portfolio sales."

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> “This deal reintroduced some of the traditional features of aircraft portfolio securitizations and, at the same time, incorporated several new structural features that were well received by the market.”

Thomas Bliemel, managing director and head of global structured debt, Citi.

The reflective characteristic of the Sail portfolio ended up being one of its major marketing points. Bliemel adds that he has not seen a portfolio deal which so closely mimics the overall portfolio of the lessor as this one.

Following tradition

Asset-backed securities from Castlelake, Aldus and ECAF, had coupon step-ups in years five or seven. Sail is similar to some of the ABS deals carried out in 2008-09, when they were more long-term self-liquidating financing structures.

The deal also has a higher loan-to-value ratio on the class-A tranche than typical ABS transactions while not sacrificing the rating of the notes. The deal had no utilization test and it has a lower debt service coverage ratio than some of the deals seen in the market before.

Drew Fine, a partner at Milbank’s New York office, who advised on the transaction, tells *Airfinance Journal*: “The Sail ABS was structured to deliver more quickly than other ABSs, but also provides sufficient cash flow to make the transaction attractive to equity investors.” In other words, it means the structure amortizes quicker than many other ABS deals.

Selling of the E-note

BOC Aviation’s Townend tells *Airfinance Journal*: “It was important that we sold 100% of the equity, as most ABS transactions do not do that – the seller will retain a stake in some form, and we didn’t. I think a lot of the reasons we were able to do that were because of the portfolio we were offering. It stacked up very well against other deals in the market as it had a very broad diversification, young assets, long leases and a strong mix of airline lessee. That strengthening of the portfolio enabled us to break down a few barriers.”

He adds: “We kept the portfolio as close as possible to our own. It wasn’t that we were just selling the older aircraft and assets that we didn’t want. In the majority of cases, the assets would continue to own sister-ships that were leased to the same airlines.”

The structure also allows BOC Aviation the flexibility to sell aircraft.

“This structural capability is important to us as in our broader business: we are regular sellers of aircraft and we want to be able to manage this portfolio in a similar way to the way in which we manage our own portfolio alongside it. What was important for us was having that capability within the structure and also having investors who liked having that as a facet of it,” says Townend.

The lessor originally wanted to issue earlier in the year, but the deal took longer than expected, with preparation for the deal beginning 12 months ago.

“One of the biggest challenges when doing these transactions is that you spend a lot of time working on them and doing all the preparation but then it very much depends upon the market and when you are ready to issue. You just have to make sure that you maintain the flexibility in order to get that market timing right and not be forced to issue into an impossible market,” adds Townend.

A more Asian structure

The ABS market is still predominantly funded by US-based investors. With BOC Aviation being the first Asia-based lessor to complete an aircraft asset-backed security, a broadened network of Asian ABS investors is forming in the aviation industry. Milbank’s Drew Fine hailed the ABS as “terrific news for the region”.

Townend tells *Airfinance Journal*: “Asian investors are the biggest investors in our corporate bonds, and we will look to grow Asian investment in ABS deals over time.”

He adds that, although the number of Asian investors in the ABS still makes up “a relatively small proportion of the deal”, he hopes by the lessor’s second or third ABS deal, the proportion will start to grow as Asian investors become better educated about the product.

With BOC Aviation’s deal setting the benchmark, it looks likely the aviation industry will see more ABS issuance from Asian lessors in 2016.

Fine says: “As Asia-based aircraft leasing companies continue to build their portfolios, they will have a need to manage their aircraft portfolios by selling off aircraft. An ABS provides a mechanism to efficiently sell an aircraft portfolio at attractive prices.”

Townend agrees. “I think we will, for two reasons. Firstly, you are seeing more Asian lessors but also I think the combination of that along with the combination of greater investor awareness and acceptance of the structure, you will, over time, see more deals.”

IRELAND PROFILE

Double tax treaties to be extended

Jack Dutton examines the new aviation policy of the world's most attractive jurisdiction for lessors and aircraft financers.

Ireland has been a leading jurisdiction for aircraft financing and leasing aircraft for years and, with the recent proposals brought in by the Irish government, that is unlikely to change any time soon.

In August, Paschal Donohoe, the Irish minister for transport, tourism and sport, vowed to keep Ireland an attractive jurisdiction for leasing in a new national aviation policy.

When launching the policy, Donohoe said: "Aviation matters. It matters to the Irish economy, it matters to consumers and it matters to this government. The aviation sector contributes significantly to the Irish economy, it contributes over €4 billion [$4.4 billion] directly to Ireland's GDP, supporting 26,000 jobs with a further 16,000 jobs indirectly. The tourism industry is also heavily reliant on aviation and accounts for a further €5.3 billion in GDP and 180,000 jobs."

It is clear that aviation does matter in Ireland. The top 10 largest leasing companies in the world all have offices in the country. About 32,700 people are directly employed in the Irish financial industry and 50% of the world's commercial aircraft fleet is managed from Ireland, according to a report released by PricewaterhouseCoopers (PwC).

Major selling points of setting up a leasing or aviation finance company in Ireland are the corporate and personal tax benefits. For one, it has a corporation tax rate of 12.5%, much lower than countries such as the US (35%), UK (21%), India (30%), Hong Kong (16.5%) and Singapore (17%) and, being an onshore jurisdiction, has not got the same reputation as some of the tax havens, such as Bermuda and the Cayman Islands. These lower rates, coupled with easy access to the country, make Ireland an attractive region for aircraft financiers and lessors.

Lessors often choose to set up in Ireland because the jurisdiction demands no withholding taxes on lease rental payments and no withholding tax on interest rates paid to an EU member state (because Ireland is also an EU member) or a double tax agreement jurisdiction. Ireland's established and stable legal system and its attractive geographical location are other favourable aspects.

An easy place to be

Ireland's rich history in aviation finance means that a lot of the bigger aircraft lessors are set up there. It is an English-speaking jurisdiction with a well-educated workforce with many years' experience in the industry. Guinness Peat Aviation (GPA), a pioneer of the aviation-leasing sector, was set up in Shannon in the 1970s, before parts of it were sold off into what later became Gecas and AerCap.

"Aviation finance is possibly unique in having the apex of the industry in Ireland. CEOs and other C-level executives in the aviation world are very often based in Ireland," says Michael Stapleton, vice-president, financial services, IDA Ireland, the agency responsible for foreign investment in the country.

"That is generally not the case across the rest of the foreign direct investment landscape in Ireland. We have very senior officers in the IT and biotech world, for example, but they will typically have a regional mandate in something like the COO [chief operating officer] or equivalent roles for EMEA [Europe, the Middle East and Africa] region, say. Typically, other sectors are not going have one of the senior officers of the corporation based in Ireland, but aviation is different."

Stapleton meets the senior executives in the new companies investing or setting up in Ireland, a large portion consisting of aircraft lessors and financiers. Regardless of which country a lessor or aircraft financier is from, it needs to have a presence in a location where it is able to partner with other players in the industry that can help it succeed.

It also helps to have people on the ground who speak the same language and are in the same time zone as those in Ireland if a company wishes to build relationships there.

"It is an easy place to be," says Stapleton. "Ireland doesn't really have an industrial-type heritage, so most of the businesses you see in Ireland today are relatively new. The IDA, the law firms and other professional service providers are very much outward looking and geared towards receiving investment from outside of Ireland and outside of Europe, very often setting up here for the first time."

The new policy

Discussing Ireland's new aviation policy, a spokesman from the Irish Department of Transport tells *Airfinance Journal*: "The policy acknowledges the growing challenges, and opportunities, from other regions in the world and accordingly the precise manner in which Ireland's attractiveness and competitive advantage can be sustained will require on-going analysis and attention.

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Michael Stapleton, vice-president, financial services

“Aviation matters. It matters to the Irish economy, it matters to consumers and it matters to this government.”

Paschal Donohoe, Irish minister for transport, tourism and sport

“In that context, the role to be played by the National Aviation Development Forum is considered to be crucially important, where the financing and leasing sector will be represented as a core member and can advance its particular expertise and insights of possible new initiatives in that arena.”

Quality, not quantity
Pieter Burger, tax partner at Deloitte Ireland, tells *Airfinance Journal*: “A key focus of the government as part of its commitment to maintain Ireland’s position as the leading global centre for aircraft leasing is to continue and further develop Ireland’s excellent double tax treaty network with a focus not just on quantity of double tax treaties, but the quality of the treaties for aircraft leasing.”

Ireland is looking to extend the current tax treaty network, with a particular focus on emerging markets, to help maintain this. The country has signed 72 double tax treaties, 68 of which are now in force. Recent countries to have signed treaties include Ukraine, Thailand, Botswana, Uzbekistan, Ukraine, Kuwait, Qatar, Bahrain, Saudi Arabia, Armenia and Egypt.

Almost 80% of Ireland’s double tax treaties deliver a favourable withholding tax for aviation finance companies, according to PwC data. The main benefit of having a double tax treaty is that it facilitates trade between the two countries involved. If two countries have signed a double tax treaty, it allows lessors and aircraft financiers to avoid double taxation.

When negotiating double tax treaties, countries look to achieve a clear allocation of taxing rights between the jurisdiction of the lessor and the lessee. As well as this, they look to reduce or eliminate barriers to cross-border leasing – for example, by reducing withholding taxes on lease payments to zero in the country paying the lease payments.

“Ireland has historically been successful in negotiating treaties that have been favourable for aircraft leasing but the main area the government is focusing on into the future is to expand Ireland’s treaty network with emerging markets,” says Burger.

The government has chosen to focus on the emerging markets because they are where the growth is in passenger numbers, which drives the aviation industry. Burger believes such markets include those in South-East Asia and China. The Irish government has not revealed publicly which jurisdictions it is targeting with the double tax treaties.

He says: “Some double tax treaties will have clauses in them which give the country of residence – for example, Ireland if an Irish tax resident company is leasing out the aircraft – the sole right to tax the lease income. This means the source country out of which the lease payments are paid is generally not allowed to operate withholding or other income taxes on such income.”

Burger adds: “But other tax treaties will give that country the right to operate a withholding tax but at a reduced rate, and that differs from treaty to treaty. Many of the tax treaties that Ireland has concluded are favourable for aircraft leasing because they give Ireland the sole right to tax the leasing income. That is a desired outcome and provides certainty to taxpayers regarding their potential foreign income tax liabilities in the jurisdiction of the lessee.

“On closer inspection you will actually see that Singapore has more ratified double tax treaties than Ireland but (subject to some exceptions) they don’t generally give the favourable result that the Irish double tax treaties provide, namely the sole right for Ireland to tax lease rental income with the result that the source country is not allowed to levy withholding taxes on the lease income,” says Burger.

“Almost 80% of Ireland’s double tax treaties deliver a favourable withholding tax for aviation finance companies, according to PwC data.”

Adopting Alternative A
If a borrower and mortgagor are located in Ireland, the lenders will get the benefit of the Cape Town Convention and Aircraft

> "Ireland needs to be mindful towards the threat Singapore and Hong Kong poses from an aircraft leasing perspective."

Pieter Burger, tax partner, Deloitte Ireland.

Protocol. Another key tenet of Ireland's new aviation policy states that the jurisdiction will "fully adopt the Cape Town Alternative A insolvency arrangements and promote it for the benefit of aviation finance" to help maintain its attractiveness as a leasing base.

Cape Town Alternative A is an insolvency regime that has proved very effective in dealing with aircraft repossessions and airline reorganizations. With the Irish government pledging to adopt Cape Town Alternative A insolvency arrangements fully, it will offer lessors and aircraft financiers certainty, speed and cost savings in repossessing aircraft from partner lessees that have gone bankrupt.

"Alternative A is more attractive than Alternative B from a creditor perspective," says David Maughan, a partner at Irish law firm William Fry. "It introduces two specific criteria which give creditors additional benefits under the Irish Cape Town Act."

Cape Town Alternative A will be implemented when a debtor insolvency event occurs – for example, when an airline goes bankrupt and its aircraft needs to be repossessed by the lessor. A lessee or financial institution will have a more immediate right of recourse when recovering its debt and repossessing aircraft. The insolvency arrangement gives a 60-day time period in which the insolvent debtor must return the aircraft or repay all of the obligations due.

"There are different remedies under the Irish Cape Town Act, but adopting A will put Ireland on a par with many other Cape Town jurisdictions. It gives greater comfort and certainty to those on the finance and leasing side of the aviation transactions," says Maughan.

Adopting Alternative A will also facilitate Ireland as a jurisdiction to issue enhanced equipment trust certificates (EETCs).

"EETCs were originally issued out of the US which were subject to a specific bankruptcy code which has a similar effect to Alternative A," he says.

"Alternative A is similar to the US bankruptcy code in that there is a defined period within which you have to repay and return the aircraft, which gave greater certainty to investors, particularly in North America. So by replicating the US bankruptcy code in Cape Town jurisdictions, it is going to facilitate an increase in issuance of EETCs to access the capital markets."

More specifically, it will mean more airlines will be using more Irish vehicles to issue EETCs. According to Maughan, the documents to adopt Alternative A fully are with the Irish minister to be signed "in the next couple of months".

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> "In Ireland, you can write off an aircraft for tax purposes over a period of eight years, which is relatively fast – and much faster than the useful life of the aircraft. "

Asian competition

Despite the positive developments of the recent aviation policy, other jurisdictions are trying to catch up with Ireland as being the ideal place to lease and finance aircraft.

"Ireland needs to be mindful towards the threat Singapore and Hong Kong poses from an aircraft leasing perspective," says Deloitte's Burger. "It needs to continue to up its game and address those aspects of the Irish tax system that makes it less favourable than Hong Kong and Singapore."

Many industry players share the view that Hong Kong and Singapore are too far behind to overtake Ireland as a hub in the near future, but both Asian countries have increased their presence in the aircraft-leasing business and are increasingly seen as places to be for aircraft leasing. Although it may not pose an immediate threat, it is a threat Ireland needs to be aware of.

"Hong Kong renegotiated its double tax treaty with China, and the Hong Kong treaty now has the lowest withholding tax rate on lease payments out of China. Previously, Ireland and Singapore had the lowest withholding tax rates with China of 6%. Hong Kong had a 7% rate but that's now gone down to 5%. But withholding taxes is just one aspect from a tax perspective, other factors can be of greater importance," adds Burger.

But he maintains there are a number of factors Hong Kong has to fix in its domestic tax regime before it realistically can be an attractive jurisdiction for aircraft leasing.

"Something that is very important from an aircraft-leasing perspective is the ability to claim tax depreciation on the aircraft and effectively write it off for tax purposes," he says. Otherwise, the taxable profits from an operating lease over the life of the lease may not match the economic profit.

In Ireland, you can write off an aircraft for tax purposes over a period of eight years, which is relatively fast – and much faster than the useful life of the aircraft, which is generally 15 to 25 years. Singapore has a favourable regime as well, where, subject to meeting certain conditions, an aircraft can be written off for tax purposes between five and 20 years at the option of the taxpayer.

Conversely, if Hong Kong-based lessors lease aircraft to airlines outside of Hong Kong they cannot claim tax depreciation – an aspect to the legislation Burger believes has to be fixed if Hong Kong is to be a realistic threat to Ireland and Singapore as an aircraft financing hub. However, as previously reported (see Hong Kong's aviation future, *Airfinance Journal* November 2015, page 31), the Hong Kong government is committed to making the changes needed for it to be a serious global competitor in aircraft leasing.

There are some aspects of Ireland's taxation regime that put it at a disadvantage compared to its Asian competitors. The main issue is Ireland's high personal income tax. To combat this and encourage executives to work in Ireland instead of in an Asian jurisdiction with lower income tax, Ireland has a Special Assignee Relief Programme (Sarp), in which executives earning between €75,000 and €500,000 can have their personal income tax reduced to 30%. The new aviation policy is trying to make Sarp more accessible, to attract more foreign executives in the aircraft financing industry to Ireland.

Another potential threat to Ireland is Singapore's aircraft-leasing and incentive scheme, which was introduced by the Singaporean government in 2007. The corporation tax rate is lower in Ireland than Singapore and Hong Kong – 12.5% compared to 17% and 16.5%, respectively – but under Singapore's scheme, aircraft lessors can agree lower corporation tax rates with the government. Although companies can negotiate tax rates, which are sometimes as low as 5% or 10%, it does require them to meet requirements.

"Under the Irish securitization regime it is further possible – depending on the type of aircraft-leasing arrangement that has been implemented – to achieve a lower effective tax rate than 12.5%. Ireland also has a number of domestic exemptions that facilitate the payment of interest by an Irish tax resident company free from Irish withholding taxes," says Burger.

He adds: "And because Ireland is in the EU, we apply the EU VAT rules, under which the leasing of aircraft ultimately used by an airline that operates chiefly on international routes generally qualify for the zero rate of VAT, as well as the sale of such aircraft. There's also no stamp duty in Ireland on the acquisition or sale of aircraft."

Ireland's future

If Ireland maintains its status as the world's main leasing and aviation finance hub, the jurisdiction will see more lessors and aviation financing companies setting up shop there. Recently, Bohai Leasing, a subsidiary of Chinese conglomerate HNA Group, signed a merger agreement with Irish lessor Avolon. Chinese lessors Ping An Leasing, China Aircraft Leasing Company and Bank of Communications Financial Leasing have also recently set up offices in Ireland.

"I think it's important that Ireland continues to focus on expanding its treaty network, especially with jurisdictions where passenger growth is forecasted to be more significant, such as in Asia-Pacific, the Middle East and certain emerging markets. It is key that Ireland continues to attract the majority share of new and future leasing companies," says Burger, when asked what his thoughts were for the future of the region.

"And whereas the Irish government has focused on lowering personal taxation and improving personal taxation initiatives and incentives, more would need to be done if Ireland is to continue to be able to attract key personnel in the industry to Ireland."

If Ireland fails to expand, then countries such as Singapore and Hong Kong – which are geographically closer to emerging markets in Asia – could gain a bigger market share of the leasing activity over the next five to 10 years.

"Ireland will continue to be the leading jurisdiction as it is far ahead in terms of the commercial infrastructure and support network that exists for aircraft leasing, but we want to make sure that we continue to attract the greater market share of new activity," says Burger.

"Ireland needs to up its game because it is geographically far away from the fastest-growing aircraft market in the world," he adds.

"Ireland should focus on being the number one location of choice to lease into those key markets for the future, which are mainly in Asia. The fact that companies such as China Construction Bank, one of the biggest companies in the world, has announced recently that it will set up the international headquarters of its aircraft-leasing arm in Ireland is testament to the success of the government's strategy but we cannot afford to be complacent."

ANALYSIS

Chinese lessors choose Ireland

Chinese aircraft lessors have been setting up subsidiary companies in the Republic of Ireland since 2010 to tap into the tax and marketing benefits available there. Michael Allen examines the state of Chinese lessors in Ireland.

"If you were to come to me on Thursday and say I wanted to set up a leasing company in Ireland, I could have you set up by the Thursday after," says Caroline Devlin, head of law firm Arthur Cox's Asia-Pacific group.

The ease of establishing a company in Ireland is just one of several factors that, since 2010, have influenced Chinese aircraft leasing companies to set up subsidiary companies in Ireland. The first Chinese lessor on the scene was ICBC Financial Leasing, which set up ICBC International Leasing Company Limited in 2010.

ICBC was later joined by Sinoaero – established by Shenzhen-based CDB Leasing – which was followed by JY Aviation Leasing Ireland Company, set up by Shanghai-based Bank of Communications Financial Leasing (Bocomm Leasing).

There are now at least seven Chinese leasing companies in Ireland, all of which benefit from the country's tax-friendly policies, its pool of global aviation talent and its location on the edge of the European Union. The most recent addition *Airfinance Journal* is aware of is Ping An Aircraft Leasing, which opened an office in late October.

The Irish government has been courting Chinese lessors as part of its wider promotion of foreign direct investment into the country, which has helped Ireland become the world's premiere aircraft leasing hub, as well as a serious force in other non-aviation-related industries.

Lessors benefit from the very favourable tax environment, including a low 12.5% rate of corporation tax on trading profits, coupled with beneficial tax depreciation and interest deductibility rules and access to an extensive network of treaties that can eliminate foreign tax on lease rentals, according to a report by law firm Maples & Calder.

"This ability to eliminate or reduce foreign withholding tax on lease rentals is critical to the commercial success of a lessor leasing to multiple jurisdictions," states the report.

But Arthur Cox's Devlin is quick to mention that, although the tax advantages are important, the rationale for Chinese

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CASE STUDY: JY AVIATION LEASING IRELAND COMPANY

JY Aviation Leasing Ireland Company started business in 2012/13, providing finance leases to China Southern Airlines. At that time the company only had one special purpose vehicle in Dublin and no staff. After a year, it sent Luo Le, then a Bocomm Leasing employee, now director of JY Aviation, to Ireland.

The company now has four people in its team, and will add another person "very soon".

Since its founding, the company's fleet has grown to between 40 and 50 aircraft, though this number fluctuates because it tends to move aircraft from the Dublin platform to special purpose vehicles in the Tianjin and Shanghai free trade zones so that Chinese lessors can reap the withholding tax benefits.

When it was first formed as JY Aviation Leasing Ireland Company there were limitations for Bocomm to set up direct subsidiaries, so the company was set up under the ownership of Bank of Communication's Hong Kong subsidiary.

But when the company received approval from the Chinese banking authorities, it set up the similarly named JYH Aviation Leasing Company in March 2015. Unlike JY, JYH is owned directly by Bocomm with its subsidiary in the Shanghai Free Trade Zone.

The company is likely eventually to transfer all its aircraft from JY to JYH, but it may take some time because the company "doesn't want to disturb its existing customers".

Luo Le says: "With the parent company as Bocomm Leasing, I think we can take advantage of Bocomm Leasing's credit rating in terms of finance."

He adds that the benefits of having a platform in Dublin are not just tax related, but that the marketing potential is great. His team in Dublin covers all the regions in the world outside of Asia-Pacific.

"At least," he says, "it means we are playing on the same ground as the other leasing companies, which itself is a benefit for us."

> "There are now at least seven Chinese leasing companies in Ireland, all of which benefit from the country's tax-friendly policies, its pool of global aviation talent and its location on the edge of the European Union. "

lessors setting up business in Ireland is not "purely for tax at all". Rather, it is because Ireland offers a stable and experienced common law legal regime.

"Because so many people are [already] in Ireland, it's a regime people are used to," she says. "It's an experienced, common law regime and people know what to expect. It's fair and it's open to all. If you come from anywhere in the world you'll get equal treatment in front of the law.

"It's also a safe place for a bank to lend into or for a lessor to be located. Even to compare our system with a lot of mainland Europe's systems, those would be a nightmare to enforce lessors' and bankers' rights in China."

Devlin's views are echoed by Kevin Young, a partner at Allen & Overy, who says that while the country's tax regime is "fairly attractive" to Irish lessors, it is not the only pull factor.

"It's certainly true that, out of the European jurisdictions, Ireland is beneficial in terms of both corporation tax and the range of double-tax treaties Ireland has," he says. "There's also the centre of excellence-type ideas, because so many leasing companies are based in Dublin or Shannon."

Young adds that, even though the world is now a "smaller place" with the introduction of the internet, it still helps to "knock on someone's door and press the flesh".

He says: "If you have someone who has strong English language skills but can also speak Mandarin or Cantonese and can be the face between that monster Chinese leasing company and the customer, their ability to do business is going to be enhanced."

Luo Le, director of JY Aviation Leasing Ireland Company, which set up in Ireland in 2012, says the attraction of having a platform in Dublin is not just the low tax, but that the potential for the company to broaden the geographic spread of its client base is great. His team in Dublin, which is linked to Bocomm Leasing in Shanghai, covers all the regions of the world outside of Asia-Pacific.

"If you have a platform in Dublin and are trying to reach customers in Europe, it's maybe a two-hour flight, but if it's from China you have to fly at least 12 hours," he says. "At least it means we are playing on the same ground as the other leasing companies – which itself is a benefit for us."

FINDING THE RIGHT TALENT

Chinese lessors have different expectations of their staffing requirements than Irish lessors because of cultural differences in business practices between the two countries. This can lead to challenges when they try to recruit the right talent for their new enterprises. Emily Brady, head of recruitment firm Mason Alexander's aircraft leasing desk, says one struggle is finding an employee with the requisite expertise to manage mid- to end-of-lease aircraft.

"A lot of Chinese companies seem to be purchasing a lot of new aircraft and in five to six years' time they move into mid-life, and a lot of the staff they have hired wouldn't be as experienced in dealing with mid- to end-of-lease aircraft," says Brady.

"Something I would advise would be to have someone who has a mix of both mid- to end-of-lease experience. Someone coming from a company that works with all ranges of aircraft would be highly desirable." However, the main issue for non-Chinese employees looking to enter a Chinese leasing company is "cultural awareness". Once a candidate has navigated a recruitment process that can last up to six months and include face-to-face or Skype meetings with a top company director in China, the new employee will come up against a hierarchical structure unlike what they might be used to in Ireland.

"Going above your superiors is a massive no-no," says Brady. Networking with clients and developing relationships also works differently.

"The Chinese culture is all based on trust. With a new airline client, the Chinese lessor initially wouldn't even talk shop. They want to get to know the person," she adds. Nonetheless, there has been some non-Chinese staff hired in Dublin. Gareth Delany, former director, asset management at Orix, joined Ping An Aircraft Leasing in Dublin as chief technical officer in 2015. Although Chinese leasing companies do need to tap the local talent pool for some new recruits, the transfer of existing staff from China can satisfy a lot of their needs.

"My experience is they're sending people there from China and they're sending people that, as far as possible, have the language skills and have the experience doing international business," says Kevin Young, a partner at Allen & Overy.

He adds: "I think they'd be mad not to bring some of the local expertise in, but with the Far Eastern corporate structures you often see the basis laid through those who know the corporation."

No comment

Besides JY Aviation, the Dublin-based Chinese leasing industry, perhaps somewhat surprisingly, does not seem particularly keen to speak publicly about its activities in Ireland.

A CCB Leasing source says: "Our Irish company is still developing. People are travelling back and forth between China and Ireland. Maybe we can talk about it at [a] later stage."

A Ping An Aircraft Leasing source confirms that its Dublin office had started operations in late October, but declines to comment further at this time.

CALC Ireland says it has a policy not to speak with the media, while HKAC Ireland also declines to comment. SinoAero and ICBC International Leasing Company did not respond to requests for comment and Goshawk Aviation could not be reached.

Despite this reluctance to publicize their presence in Ireland, it looks likely that Chinese companies will be contributing significantly to keeping the country at the forefront of commercial aircraft financing.

AIRLINE CFO INTERVIEW

Southwest has that positive look

After a bumper 2015, the US low-cost carrier's chief financial officer Tammy Romo discusses the airline's strategy with Joe Kavanagh.

Fitch Ratings upgraded Southwest Airline's outlook from stable to positive in October. The news was an endorsement of the carrier's recent successes.

As well as earning an upgrade from Fitch, the airline generated its highest third-quarter profit and tapped the capital markets with a $500 million unsecured bond carrying the low coupon of 2.650%.

Southwest's strong cash position and stable leverage has set it up well for 2016. The airline has taken advantage of low interest rates and strong financial results to decrease gradually its leverage and refinance existing debt.

Tammy Romo, chief financial officer at the carrier, was understandably upbeat about the airline's achievements when she spoke with *Airfinance Journal* to discuss Southwest's strategy. "This quarter was a record performance on almost every front. So we couldn't be more delighted," she says.

Tapping the unsecured market

In November, Southwest closed a $500 million offering of five-year senior unsecured notes. The deal was especially notable for achieving a 2.650% coupon, which is competitive in the unsecured bond markets.

Unsecured debt is an option only available to a select few airlines because most could only issue paper at prohibitively high margins. Instead, many opt for commercial loans and aircraft securitizations to achieve tighter pricing.

The list of airlines that can choose unsecured debt consists largely of investment-grade carriers. According to *Airfinance Journal*'s Deals Database, the 2015 group includes just a handful of legacy carriers such as Etihad, American Airlines and Latam. One of Southwest's European counterparts, Ryanair, also opted for unsecured debt, in March 2015. The Irish airline priced its €850 million ($882.3 million) eight-year eurobond at the lowest coupon for an aviation issuance: 1.125%.

Southwest's November issuance should be thought of as a refinancing, says Romo. The airline has substantial debt maturities – totalling about $600 million – due in 2016, including about $300 million in a single bullet payment. November's issuance will refinance those debt payments at tighter spreads.

The carrier was helped in this regard by its October upgrade from Fitch ratings. In its analysis of Southwest's credit rating, Fitch drew attention to its strong financials. It expects the airline to continue performing strongly.

In a statement, it wrote: "Going forward, Fitch expects Southwest to continue to generate solid free cash flow, exhibit stable or modestly declining leverage, and maintain its substantial financial flexibility. Southwest's investment-grade credit ratings are also supported by its competitive position in the US domestic market, its strong brand, and its sizeable base of high-quality unencumbered assets."

Speaking about the bond, Romo notes: "The market was favourable and the coupon rate was 2.65%, and we were delighted with that. That was actually below the debt that we issued last year, which was 2.75%."

She adds: "We were more than five times oversubscribed pretty much instantly. The morning went fast and furious, and there was obviously a healthy appetite for our notes."

> "Romo expects Southwest to continue tapping the bond markets for unsecured debt in the coming year. "

Romo expects Southwest to continue tapping the bond markets for unsecured debt in the coming year. She points out that commercial debt and aircraft securitizations are a good option for many carriers, but if an airline can tap unsecured debt at low rates then it should do so.

Speaking about these other sources of financing, Romo says: "All of those are good opportunities in this low interest rate environment. For carriers who don't have the good fortune to have the strong credit rating that we do, I think EETCs [enhanced equipment trust certificates] continue to be a nice opportunity. But obviously for us, at the rates we're getting unsecured [debt], it just doesn't make sense in our situation."

She adds: "To the extent we decide to do additional refinancing next year, I would suspect that unsecured would be high on our list, obviously if the interest rate environment continues to be favourable."

Since Romo spoke with *Airfinance Journal*, the Federal Reserve lifted interest rates for the first time since 2006. In December last year, the Fed finally announced plans to hike interest rates, pushing them up by 25 bps to 0.5%.

Although the increase is relatively small, it will have an impact on the industry. For carriers like Southwest, the immediate effect will be a higher cost of borrowing. However, historically speaking there is no definitive link between interest rates and profitability. Airlines have succeeded and failed in higher interest rate environments. What matters more is the traffic growth driven by higher levels of disposable income.

According to its third-quarter 2015 results, Southwest has an additional $310 million of 5.125% notes due 2017, so it may choose to do another refinancing in 2016. There are other factors at play, but if the airline continues to post strong numbers and is still looked on favourably by the ratings agencies, then another unsecured issuance should not come as a surprise.

Snapping up 737-700s

Southwest has a large order book with Boeing for 737 Max aircraft. It became the launch customer for the Max variant when, in May 2013, it converted 30 existing orders for current models to the latest generation of Boeing's narrowbody family.

As of September, the airline's fleet consisted of almost 700 aircraft, including 119 -300s, 12 -500s, 463 -700s and 98 -800s.

The carrier's unfilled orders with Boeing total 200 737 Max aircraft, 34 737-800s and 25 737-700s, according to the latest numbers from the manufacturer.

Although the airline is set to take a large number of new aircraft, it has also been very busy in the used market.

Southwest has plans to take delivery of almost 60 737-700s in the next few years. When discussing the carrier's activity in the secondary market for these aircraft, Romo says, with some understatement: "It's definitely true that we've been active in that market."

Airfinance Journal has heard some operators, active in the market for used -700s, speak about Southwest's buying spree with something bordering on irritation. The carrier has bought so many, one executive confided, that the aircraft are now quite difficult to come by.

Romo outlines the scale Southwest's aircraft purchases. "We have been very active in that market for a bit now, and we are at a point where there's not as many -700s that there were a year or two ago," she says. "For instance, in 2015 what we last reported was 24 additional -700 aircraft and 15 for 2016, and we've got 14 coming in 2017 and four in 2018. Including all of 2015, that's 57 pre-owned -700s."

As Romo explains, these deliveries are replacing the 717s Southwest acquired during its merger with Air Tran in 2011. Southwest has been sub-leasing its 717s to Delta, helping it to keep the uniform fleet that is central to its low-cost business model.

She adds: "The pre-owned market came together very nicely. As we were replacing the 717s, the pre-owned market was quite favourable, and we jumped in and took advantage of that.

"We have been very focused on our fleet planning here for the last several years, and the benefits from our fleet-modernization efforts. We're right on track with what we were expecting, which is a $700 million Ebit [earnings before interest and tax] contribution just from a result of our fleet-modernization efforts."

In the absence of external shocks, 2016 looks promising for Southwest.

The airline continues to post record profits during a fleet modernization programme. On the back of a very successful year, the carrier has also continued to issue enviably cheap debt - and it looks set to continue doing so, even in a higher interest rate environment.

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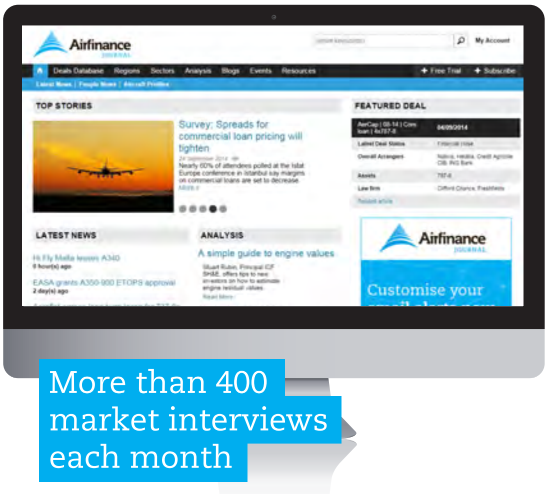

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Airfinance JOURNAL

ANALYSIS

EU probes the MRO market

The EU has been looking into the engine maintenance, repair and overhaul (MRO) market to determine whether it is competitive enough, after complaints from high-profile industry figures. Joe Kavanagh reports.

Some European original equipment manufacturers (OEMs) and airlines received an unusual request in October. The EU Commission wrote to them asking for information about the maintenance, repair and overhaul (MRO) market for aircraft engines. The request was part of a probe into the industry's competitiveness, which was begun after high-profile figures had complained about rising costs. The MRO market is worth more than $62 billion, according to data from ICF International.

The MRO market is crucial to everyone in the airline industry, from operators to investors. Not only is maintenance one of every airline's largest costs, but the MRO market also affects engine values. By the time an aircraft reaches the end of its life, more than 60% of its value will be contained in its engines. This has enormous significance for aircraft remarketers, lessors and financiers – not just engine specialists.

In short, a healthy and competitive MRO market could not be more important for commercial aviation. So it is unsurprising that the EU's probe has caused a few ripples.

What is the EU doing?

The point of the EU's probe is to help it decide whether it should launch a formal investigation in the future. At this point it is unclear whether it intends to do so.

Airfinance Journal understands that Rolls-Royce, CFM and a number of MROs and some airlines have been contacted by the EU Commission. Rumour has it the asset types it is investigating include the popular CFM56 engine variants, which power the 737 and A320 families of aircraft. This has puzzled some observers, who note that the MRO market for this engine is one of the most competitive, with a deep, liquid market and a wide range of independent MRO shops.

A commission spokesman did not comment on the probe when contacted by *Airfinance Journal*, but confirmed there will be a statement if the EU decides to launch a formal investigation.

Yumiko Takahashi, a solicitor with Fieldfisher who specializes in EU competition, says that if the EU launches a formal investigation, its scope could be wider than

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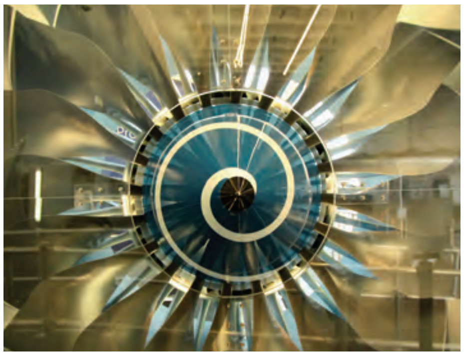
AIRFINANCE JOURNAL ENGINE SURVEY 2015: THE TOP 10

rank	Investor appeal (out of 7)		Remarketing potencial (out of 7)		Residual value (out of 7)	
1	CFM56-7B (737NG)	6.38	CFM56-7B (737NG)	6.50	CFM56-7B (737NG)	6.13
2	CFM56-5B (A320)	6.00	CFM56-5B (A320)	6.00	CFM Leap-1A	5.67
3	CFM Leap-1A	5.71	CFM Leap-1A	5.67	CFM56-5B (A320)	5.63
4	GEnX (787)	5.14	PW1100G (A320neo)	5.50	PW1100G (A320neo)	5.17
5	PW1100G (A320neo)	5.14	GEnX (787)	5.29	GEnX (787)	4.86
6	GE90 (777)	5.13	GE90 (777)	5.13	GE90 (777)	4.75
7	Trent 700 (A330)	4.57	Trent XWB	4.60	Trent XWB	4.60
8	Trent1000 (787)	4.43	V2500-A5 (A320)	4.50	V2500-A5 (A320)	4.25
9	V2500-A5 (A320)	4.38	Trent 700 (A330)	4.29	Trent1000 (787)	4.14
10	CF34-10 (E-Jets)	4.29	Trent1000 (787)	4.29	CF34-10 (E-Jets)	3.86

"The bottom line is that, especially for engines in the widebody market, there is not a lot of choice for maintenance support."

David Stewart, vice-president, ICF International



that of the initial probe. She adds that there is another potential outcome. Before the commission decides one way or another, the parties involved in a formal investigation can reach what is called a "commitment decision". In this instance, the companies under investigation can reach a private agreement with the EU, in which they promise to reform some of their practices.

At this point, however, there is no indication either way about whether the probe will progress any further.

Is there a problem?

"The bottom line is that, especially for engines in the widebody market, there is not a lot of choice for maintenance support," says David Stewart, vice-president of ICF International.

The issue comes down to the support packages with which most new engines are now sold. Under these deals, often termed "power-by-the-hour" arrangements, the engine operator pays a fixed rate for maintenance while the OEM agrees to cover the cost of engine overhauls as and when they are needed.

Maintenance agreements allow the manufacturers to recoup extensive development costs for new engines. In response to fierce competition, OEMs often sell engines at cost price or even below, which places even more importance on power-by-the-hour arrangements for OEMs.

Fixed-cost maintenance agreements are very widespread on certain engine types. For Rolls-Royce's Trent engines, for example, the manufacturer controls more than 90% of the engine maintenance.

But engine investors have long been raising concerns about how residual values of some assets are affected by OEM behaviour. By locking down so much of the market for maintenance and repair, these arrangements can take business away from independent MRO providers, by making it difficult for them to compete.

This reduces the number of independent MRO shops, and because MRO shops have traditionally accounted for a large part of the demand for spare engines, the result is fewer buyers of spare engines and dampened or at least unpredictable residual values.

The results of *Airfinance Journal*'s most recent engine value poll tell a similar story (see table).

For several engine types, the residual value scores are noticeably lower than the corresponding scores for operational success. Investors seem to be worried that they cannot achieve the value they want from some end-of-life assets.

Paolo Lironi, chief executive officer, SGI Aviation, says that aftermarket dominance creates a monopoly, leading to uncertainty over residual values.

He says: "If we look at the aftermarket model right now, only Rolls shops are capable of repairing the Trent 700, which means that only Rolls is buying used parts for Trent engines. This means that leasing companies and airlines, whenever they need to sell or to part out an engine, can only talk to Rolls. You are in a complete monopoly situation at that time, which basically doesn't allow the operator or the airlines to put a price against the engine. We've been asked many times, 'What is the value of a Trent 700?' And the only answer we can give is: 'Ask Rolls-Royce'."

Most market players point to the same asset types when asked to name engines. They say the Trent family and GE90 variants are examples of engines where there is a lack of choice in the MRO market.

Olga Razzhivina, senior Istat appraiser with UK firm Oriel, says: "Most of the Trent engines are covered [by flight-hour agreements]. GE90-100s are pretty much in the same ball park."

There is clearly a lack of independent MRO coverage for certain engine types (see Engine shop availability table), with some types offering no independent option at all.

Market forces

Different market forces affect each engine variant. For some variants, there are fewer assets in circulation, which makes it harder

ENGINE SHOP AVAILABILITY

Engine	Trent 700	GE90-115	Trent XWB	Trent 1000	GEnx-1B	GEnx-2B	GP 7000	Trent 900	CF6-80E
Total shops	5	4	3	2	6	5	3	2	2
OEM owned	1		1	1	2	2	1		
OEM JV	3	1	1	1	2	3		2	
Other OEM network	1		TBD		2		1		1
OEM-only material		1					1		1
Independents		1	1	1					

Source: Rolls-Royce

> "For some variants, there are fewer assets in circulation, which makes it harder for independent MROs to enter the market, particularly if the engines are relatively young or feature the very latest technology."

for independent MROs to enter the market, particularly if the engines are relatively young or feature the very latest technology. So it is not always helpful to compare, for example, the MRO market for engines powering the 737 against that of the engine powering a much smaller number of widebodies.

Richard Goodhead, senior vice-president customer strategy and marketing, Rolls-Royce, says comparing data on the narrowbody market with that of the widebody market is not useful.

He says: "Quite a lot of the rhetoric and analysis that is out there tends to oversimplify what is actually a relatively complex situation. Not only is the widebody MRO landscape inherently complex itself, but also it is fundamentally different from the narrowbody MRO landscape. Often the two get either deliberately or unconsciously mixed.

"The more engines there are, the more attractive it is for parties other than the OEM to get involved. And secondly, it relates to the age of that fleet. Because the younger that fleet is, the more likely it is that the customer's requirements are for the risk transfer that the OEM offers."

The manufacturer also says it expects more independent MRO shops to enter the Trent family market in the future, as more and more engines reach retirement age.

Goodhead points to the RB211-535. Retirements of this engine, which began about the year 2000, prompted the beginning of MRO trading for the type. In 2013, Rolls-Royce and its joint ventures accounted for 62% of shop visits, with the remainder split between two independent MROs.

AIRLINES KICK BACK AGAINST RISING COSTS

The EU's probe began after months of criticism from high-profile airline chiefs.

Power-by-the-hour arrangements can be attractive to airlines because they offer predictable maintenance costs. However, airline leaders have criticized what they say are unfair price hikes for maintenance agreements.

The kickback from airlines has been strong. Speaking in September, Tony Tyler, chief executive of the International Air Transport Association, said: "Unfortunately, certain OEM business practices drive up costs by blocking new entry into the market for maintenance, repair and overhaul services. As a result, airlines often have little alternative but to sign on to long-term OEM maintenance and parts agreements containing pricing escalations that are often above the inflation rate."

Willie Walsh, chief executive officer of airline group IAG, struck a similar note in June when he stated: "We really have to start pushing back as airlines on our costs where they're driven by a limited number of suppliers and the choice available to us is very limited."

Goodhead adds: "For the first 18 years of service of that engine, only Rolls-Royce overhauled it. It then got to the point where not only were there enough aircraft in service that there was still a demand to keep the aircraft flying, but there was enough of a supply of aircraft coming down from shop visits. You started to see independents start to come in and compete against Rolls-Royce. We've now got a market where there are three very well established players on -535 overhaul.

"That's what we expect to happen, for example, to the Trent 700."

Rolls-Royce points to the steps it has taken to address market concerns about its MRO activity for the Trent engine. In October, for example, it announced that Delta Tech Ops is to become an independent MRO shop for the Trent XWB and Trent 7000. The manufacturer says that this will contribute to a more competitive network for these engine types. It also hinted that more announcements would follow.

EU deliberations

For the time being, investors still say they want to see a more competitive MRO network for certain asset types. OEMs seem to have taken the market's complaints seriously and are taking steps to address them. However, some sources are sceptical about how much difference these steps will make, at least in the short term.

In the meantime, the EU's competition team is gathering information about the aftermarket. Whether it decides to launch a formal investigation or not, its conclusions will only increase the debate.

PW 4000 100	Trent 500	Trent 800	GE90-94	PW 4000	CF6 -80C	PW 4000 94"	RB211-524	RB211-535	PW 2000	CFM 56
2	3	4	3	2	14	7	3	4	5	46
		1	1		2			1	1	8
1	2	3	1	1		1	1	1		1
	1				1					3
			1		1					2
1				1	10	6	2	2	4	32

AIRLINE INTERVIEW

Spring diversifies its funding

Chen Ke, chief financial officer, and Tian Chao, deputy manager, finance department, tell Michael Allen that Spring Airlines is looking at diversifying its financing to support a rapidly expanding all-A320 fleet.

If you went looking for Spring Airlines' chief financial officer (CFO) Chen Ke in the company's offices without knowing what he looks like, you might struggle to find him.

"Everybody uses the same chair, the same table – you just can't tell who is the CFO from looking," explains Tian Chao, deputy manager, finance department.

Chao and Ke were interviewed in a meeting room at the Homeyu Hotel in Shanghai, a three-building hotel-cum-office complex situated next to Terminal 1 of Hongqiao Airport. Spring Airlines has converted the hotel into offices, so that the hotel rooms are occupied by desks and computers instead of beds.

Before meeting Chao and Ke, *Airfinance Journal* was offered a simple plastic cup of warm water rather than the hot coffee from an expensive coffee machine that has been the staple fare at the Chinese lessors and law firms ensconced in the city's well-to-do Pudong district on the other side of the river that we visited earlier in the day.

The meeting room is furnished with simple chairs; a blue wastepaper basket under the desk is home to a discarded mineral water bottle and a can of coconut milk drink. The rest of the office is similarly spartan, with employees packed closely together in an open-plan style, each department marked by an unassuming banner hanging from the ceiling.

In February 2005, Spring Airlines had only about 40 staff – including the chief executive officer and chairman – sharing one big office on the second floor of building two. Now, the company has grown to nearly 5,000 staff spread across the complex. Shanghai is the airline's main base, but it also has a presence in the cities of Shenyang, Shijiazhuang and Shenzhen.

"We've just maintained this kind of working style since the beginning," says Chao.

At the time of the interview in late October, Spring Airlines' fleet stood at 52 aircraft – all A320-200s. Twenty-two of the aircraft are on the company's balance sheet and 30 are on operating lease from various lessors, including international lessors Gecas and Awas, and domestic lessors ICBC Financial Leasing, CDB Leasing and CMB Leasing.

The airline signed an order for 30 A320s at the end of 2013. These aircraft started delivering in February 2015, with 10 arriving in 2015, 15 in 2016 and five in 2017. In early December, the airline announced an order for 60 additional A320neo-family jets, comprising 45 A320neos and 15 A321neos, delivering from 2019 to 2023.

In January 2015, Spring Airlines listed its shares on the Shanghai Stock Exchange, through an initial public offering (IPO), and raised proceeds of Rmb1.8 billion ($290 million) from the sale of 100 million shares at price of Rmb18.2 ($3) a share, representing 25% of the enlarged share capital, according to The Airline Analyst, a sister product of *Airfinance Journal*.

The airline intends using the proceeds for the acquisition of aircraft and to repay debt. Since listing, its shares have increased more than six times to Rmb111 and, as of October 9, the airline had a market capitalization of Rmb44 billion.

Ke describes the day of the IPO as his best memory at the company, having worked on making it happen for five years.

Diversification of financing

Spring Airlines used to finance its aircraft mostly with commercial loans from domestic banks, but now it tends to do more finance leases because of the establishment of its own leasing platform. Spring Leasing, established in the Shanghai Free Trade Zone (FTZ) last year and 100% owned by the airline, allows Spring Airlines to reap withholding tax benefits.

Most recently, the 100% owned leasing entity issued a request for proposal for the Japanese yen- and Chinese renminbi-denominated financing of eight A320-200 aircraft.

"Currently we don't lease to other airlines, but in the future we might look at some other opportunities," says Chao.

The trend of setting up captive leasing companies in China's free trade zones is a growing one. Fellow Shanghai carrier Juneyao Airlines has set up Harvest International Financial Lease through which to lease some of its aircraft. But whereas Harvest has its own in-house staff, Spring Leasing is still run by the airline's finance team.

"We set up separate SPVs [special purpose vehicles] in the Shanghai FTZ and also in the Tianjin FTZ as the direct borrower for the finance lease structure," says Chao.

"Everybody used to set up SPVs in Ireland or the Cayman Islands, but now more Chinese airlines and lessors are likely to set up SPVs in Tianjin. The last time we used a Cayman SPV was 2012. Since then we've been doing it domestically."

Now that it is active in the FTZs, Spring Airlines is trying to diversify out of finance leases by introducing foreign banks to the market and convincing them to accept domestic SPVs as their borrower in finance lease deals. Indeed, just before the interview with *Airfinance Journal* Chao had a meeting with a German bank on this very subject.

Chao says some of the foreign banks will not accept domestic SPVs for various reasons, including legal and tax reasons.

"This year, we got just one successful deal with Standard Chartered Bank," adds Ke. "They just give the loan directly to the domestic SPV in Tianjin. They are one of the few foreign banks that are willing to give the commercial loan to domestic SPVs."

Sale/leasebacks are also one financing option that Spring Airlines is studying. Although the airline has not done any yet, it hopes to do some in future in order to reduce its asset risk.

"We really have to think about the residual value risk of our aircraft," says Chao. "Our average age is about 4.2 years. Not too bad for the time being, but maybe in five or six years' time we will think of something."

Chao adds that operating a young fleet is very important not only to Spring Airlines but to

> "The airline is in the process of getting a domestic rating so that it can issue both onshore bonds in Shanghai and offshore bonds in the Hong Kong market."

Chen Ke (left) and Tian Chao (right)

Chinese airlines as a whole, because travellers in the region generally have a preference to fly on newer aircraft.

"Some of the Chinese start-ups last year were quite willing to lease or even buy brand new aircraft," he remarks.

Bond issuances

The airline is also in the process of getting a domestic rating so that it can issue both onshore bonds in Shanghai and offshore bonds in the Hong Kong market.

Chao says the airline is hoping for an AA+ rating from Shanghai New Century Credit Rating & Investment Services, a local ratings agency.

"There is the offshore bond in Hong Kong but also the corporate bond in the Shanghai market," says Chao. "We'll just see on which side the costs will make more sense to us."

This is not the first time the airline has tried to issue a bond.

"We tried to do it by the end of last year and we got approval to issue a domestic bond, but finally we just gave it up because the cost at the time was a little bit high for us and we had cheaper capital funds from a lot of domestic banks," says Chao. "That's why we've hoped for almost a year to do this again."

According to regulations, the biggest bond Spring Airlines could issue would be $2.5 billion.

Pilots

In order to keep Spring's fast-growing fleet flying, the company needs a steady stream of well-trained pilots, but recruiting flight crew in China's buoyant airline market can be a struggle.

"That's why for the past decade we've kept trying to find enough pilots," says Chao. "This year, we've been hiring some foreign pilots from the US and Europe. Actually, the pay is pretty much the same with the local pilots that we hire here in China."

He adds: "In China, for these years the fleet size has grown rapidly, but for training the pilots it always takes a lot of years, and that's where the shortage comes from. Since 2005 and 2006, we've been hiring pilots from other countries and even then we've been sending students every year to training schools in the US to make sure we have enough pilots in the coming years. That's part of the reason why Spring can maintain quite a steady fleet growing rate for all these years."

SPRING FINANCIALS SHOW GOOD SIGNS

Michael Duff, managing director, *The Airline Analyst*, looks at Spring's financials and compares them with their peers.

Spring Airlines' financials are showing a favourable trend. Revenues are up at a compound annual rate of 17.5% over the past three years and in the third quarter of 2015 were up 10.9% on the same period in 2014. Profits in the nine months ending September 30 were up 83%, at $186.5 million, on the previous year. The equity market certainly likes their performance, with the airline trading on a price/equity ratio of 29.4 times and price/book ratio of about 14 times.

Is this sustainable? Margins have improved significantly but have not yet reached the levels achieved by some of the low-cost carriers of Europe and North America. While Spring's earnings before interest, depreciation, amortization and rent (Ebitdar) margin improved from 17.9% in 2012 to 22.9% in 2014, by comparison Ryanair achieved 27.1% in its financial year ending March 31 2015. In the US, the ultra-low-cost carriers Spirit and Frontier achieved Ebitdar margins of 31.3% and 24.4%, respectively.

Despite significant capital expenditure, leverage measured by adjusted net debt/Ebitdar has remained relatively flat over the past three years but on the high side at just less than five times. Fixed charge cover (Ebitdar/net interest plus aircraft rent) was, however, comfortable at 2.4 times in 2014.

These are good signs but Spring will need to deploy its new aircraft deliveries scheduled in 2016 profitably to keep these financial indicators in check.

AIRCRAFT PROFILE

ATR 72-600 – lower fuel prices cause concern

The market for ATR's fuel efficient turboprop has softened in today's lower fuel price environment, but the consensus among appraisers is that the aircraft has a good future.

The ATR 72 is a twin-engined turboprop developed from the ATR 42 to provide capacity for 70-plus passengers, by stretching the fuselage, increasing the wingspan and adding more powerful engines. The original ATR 72-100 variant entered service in October 1989, but was soon superseded by the -200 model. The aircraft was developed with a series of upgrades to maximum take-off weight and engine power, culminating in the ATR 72-212.

The ATR 72-500 (certificated as the ATR 72-212A) is a major development of the aircraft, which incorporates six-bladed propellers in place of the original four-bladed configuration.

The ATR 72-600 model replaces the -500 and is the current production standard. It offers further performance improvements and includes a redesigned cabin.

Developments

The latest development of the ATR 72-600 is a high-density seating configuration that has just received certification from the European Aviation Safety Agency (See High-density ATR 72 receives Easa certification, page 12).

There has been a lot of industry speculation surrounding a new 100-seat model from ATR, but the company has downplayed the possibility of such a programme launch in the near future.

ISTAT APPRAISERS' VIEWS

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

In the past 12 months, CV has seen values and lease rentals become soft for the type. Values declined by about 5% while lease rates have dropped by about 15%. CV believes this is in part because of aggressive pricing by ATR in trying to secure new aircraft orders, which has also put additional pressure on operating lessors trying to place their new deliveries. The abundance of used ATR 72-500s has also added to the decline in values and lease rates of the new variant.

Current availability and aircraft in storage account for 7% to 8% of the ATR 72-500 fleet, which CV considers high for such an aircraft type. For operators not looking for the additional efficiencies that the ATR 72-600 offers, the -500 has become an attractive option given the current market offerings. However, with a healthy order backlog and only a small number of aircraft listed

AIRCRAFT CHARACTERISTICS	
Seating/range	
Max seating	78 at 30-inch pitch
Typical seating	70 at 30-inch pitch
Max range	825nm (1,520km)
Technical characteristics	
MTOW	23 tonnes
OEW	14 tonnes
MZFW	21 tonnes
Fuel capacity	6,350 litres
Engines	PW127M
Thrust	2,475 shp
Fuels and times	
Block fuel 200 nautical miles	610kg
Block fuel 500 nautical miles	1,310kg
Bock time 200 nautical miles	58 minutes
Block time 500 nautical miles	125 minutes
Fleet data	
Entry into service	2011
In service	250
Operators (current and planned)	58
In storage	8
On order	278
Built peak year (2014)	108
Planned 2015	96
Average age	1.9 years
*Source: AeroTransport database/*Airfinance Journal *research*	
Indicative maintenance reserves	
C-check reserve	\$35-\$40 per flight hour
Higher checks reserve	\$25-\$30/flight hour
Engine overhaul	\$100-\$105/engine flight hour
Engine LLP	\$30-\$35/engine cycle
Landing gear refurbishment	\$20-\$25/cycle
Wheels, brakes and tyres	\$35-\$40/cycle
Propeller	\$15-\$20/per hour
Component overhaul	\$125-\$130/flight hour

"The relative absence of competitor aircraft suggests that strong residual value performance will continue in the medium term"

Angus Mackay, principal, ICF International

as stored, the ATR 72-600 has performed well in recent years. CV's view is that the softening in the market may be temporary as the available used aircraft find new homes.

Overall, CV feels that with the continued support and improvements that ATR is incorporating in the ATR 72-600, this aircraft will continue to have a viable long-term future.

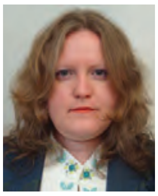
ICF International
Angus Mackay, principal

The ATR 72-600 entered service in 2011 and was designed to maintain family continuity with the ATR 72-500. Developments include increased payload capability, uprated PW127M engines and a new Thales avionics suite which, combined with a new multi-purpose computer, provides enhanced operational capability. Cabin improvements include a completely redesigned interior.

Demand has proved strong to date for the type given its blend of good in-service reliability and compelling operating economics. These factors have driven orders not only from numerous operators but also from lessors, including Air Lease Corporation, Avation, Gecas and Nordic Aviation Capital.

The operator base is likely to increase as developing countries, which constitute 55% of ATR's market base, progressively adopt air travel and operators look to the optimized operating economics in the low-fare, short-haul environment that large turboprops such as the ATR 72-600 provide. The relative absence of competitor aircraft suggests that strong residual value performance will continue in the medium term.

Current competition stems primarily from the 78-seat Bombardier Q400 and from the 70-seat regional jet products from Bombardier and Embraer. Future competition in Asian markets can be expected from the Chinese Avic MA700. Some softening of values and lease rates is expected in a sustained low fuel environment in favour of regional jet aircraft.



Oriel
Olga Razzhivina, senior Istat appraiser

The ATR 72-600 is the latest version of the 70-seater turboprop, which originally entered service in 1989 with the ATR 72-201 variant.

While earlier variant changes involved engine, propellers and cabin comfort upgrades, the -600's main difference from its -500 predecessor is in the cockpit. The ATR 72-600 features the LCD-based avionics that make it comparable to modern jet aircraft. Operational differences between the -600 variant and the previous generation -500 models, which dominate the fleets of current operators, mean that regulatory requirements for pilots may affect their ability to fly mixed fleets.

In general, ATR 72 values have remained very strong through the post-downturn period, aided by high oil prices and low production rates. However, oil prices have collapsed and no significant rises are expected. At the same time, ATR has been increasing its production, which is planned to reach about 90 units in 2015. Furthermore, more than 30% of the backlog comprises speculative orders from lessors.

All these developments have contributed to a notable softness in the market. While new sale/leaseback prices are still high, aided by the buoyancy of the financial markets, lease rates and used aircraft trading are suffering. The placement of speculative orders with airlines results in competition and downward pressure on the lease rates. Used ATR 72-600s that come on to the market are at most five years old and struggle to compete with newly built examples.

We expect that the ATR 72-600 will have a prominent role in the market for decades to come, in part because there is a significant replacement opportunity for ageing and smaller aircraft. Nonetheless, growing participation from lessors in the sector is likely to be manifested in increased competitiveness with value and lease rate influences similar to the jet single-aisle market. In the longer term, it is likely that variant will also find a role as a freighter.

VALUES ATR 72-600

Current market value ($m)

Build year	2011	2012	2013	2014	2015
CV view	14.5	15.2	16.1	17.5	20.0
ICF view	14.5	15.9	17.3	18.8	20.2
Oriel view	14.5	15.1	16.0	17.6	19.8

Assuming standard Istat criteria.

Indicative lease rates ($'000s/month)

Build year	2011	2012	2013	2014	2015
CV view	140	147	155	162	170
ICF view	135-155	145-160	155-170	165-180	180-190
Oriel view	130	140	150	160	170

ANALYSIS

What matters most for Global Aviation Inc – profit, cash flow or balance sheet?

Mike Duff, managing director of *The Airline Analyst*, looks at the airline industry's financial performance.

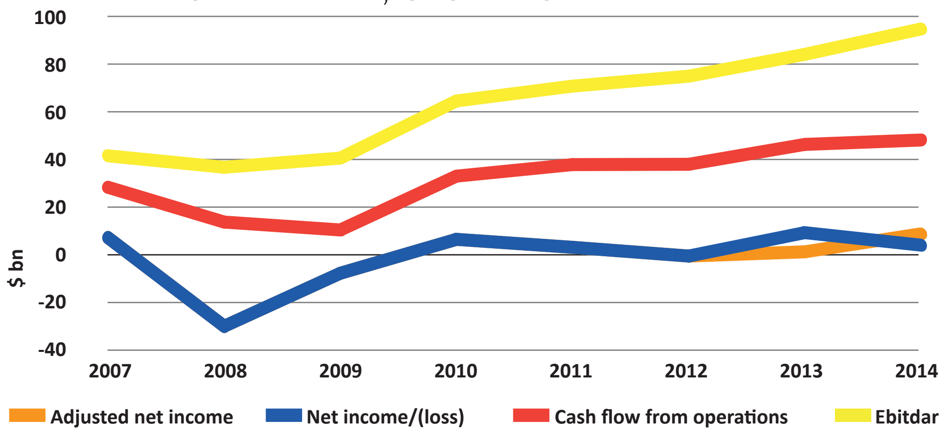
Against the backdrop of the latest forecast from the International Air Transport Association (Iata), which projects aggregate industry profitability to reach an all-time high of $29.3 billion in 2016, we look at the industry's financial performance since the last peak in 2007 and ask the question: "What counts for more – profit, cash flow or balance sheet?"

The analysis is based on data from The Airline Analyst. For this overview, we have only looked at the aggregate values for the industry as a whole; the widely dispersed and often volatile individual airline performances are another story.

Profitability compared to cash flow and Ebitdar

Figure 1 shows net income, cash flow from operations and earnings before interest, depreciation and rents (Ebitdar) from 2007-14. While there is much focus among analysts and the media on profitability, growth in net profitability since 2010 has been anaemic by comparison with the strong growth in cash flow from operations and Ebitdar over the period, as can be seen in the chart.

FIGURE 1 - GLOBAL AIRLINE INDUSTRY PROFITABILITY, CASH FLOW AND EBITDAR



Source: *The Airline Analyst*

The Airline Analyst's profitability numbers vary from Iata's, because the latter's have a different convention for mapping net income into calendar years and the trade association's figures exclude bankruptcy reorganization and large non-cash costs.

Figure 1 also shows the net income figure adjusted for several large non-cash items for 2013 and 2014 relating to Delta Air Lines and Qantas Airways, which brings the numbers closer to Iata's.

Evaluated statistically, as shown in Figure 2, cash flow has a similar standard deviation to net income but a much higher mean and lower co-efficient of variation (mean divided by standard deviation), telling us that cash flow is much higher and has much lower volatility than net income.

FIGURE 2 - GLOBAL AIRLINE INDUSTRY

Measurement of Variation of Net Income, Cash Flow and Ebitdar 2007-2014			
	Mean ($ bn)	Standard Deviation	Coefficient of variation
Net income/(loss) adjusted for Delta and Qantas in 2013 and 2014	3.5	11.8	333%
Net income/(loss)	3.9	11.9	303%
Cash flow from operations	36.7	12.9	35%
Ebitdar	68.1	20.2	30%

Source: *The Airline Analyst*

"During the period, cash flow from operations covered on average 78% of capital expenditure, which we suspect is higher than many industry participants realize"

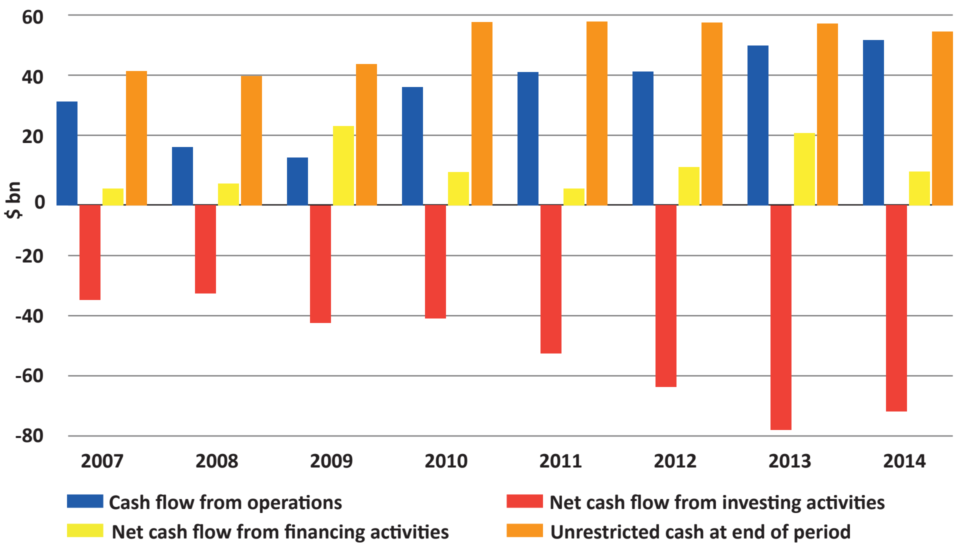
More on cash flow

Critics of this analysis will say, "But what about free cash flow [cash flow minus capital expenditure]?" And, indeed, they have a point because annual capital expenditure is also running at record levels.

Figure 3 shows four elements of aggregate industry cash flow – cash flow from operations, net cash flow from investing activities, net cash flow from financing activities and cash at the end of the period.

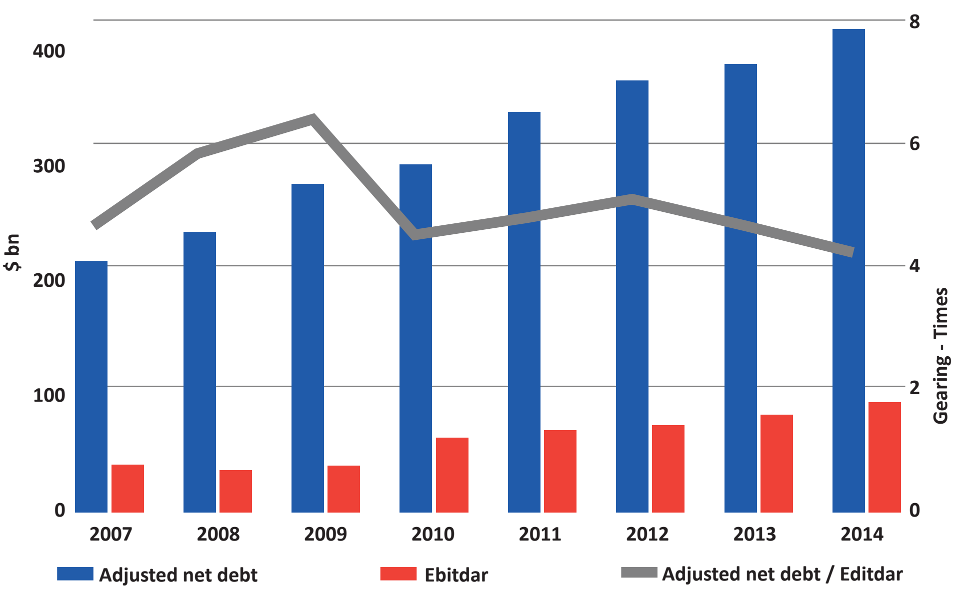
During the period, cash flow from operations covered on average 78% of capital expenditure, which we suspect is higher than many industry participants realize. While adjusted net debt has grown by $130 billion since 2007, leverage measured as adjusted net debt/Ebitdar declined from a peak of 6.3 times in 2009 in the depth of the global financial crisis to 4.2 in 2014, as shown in Figure 4.

FIGURE 3 - GLOBAL AIRLINE INDUSTRY CASH FLOW STATEMENT



Source: *The Airline Analyst*

FIGURE 4 - GLOBAL AIRLINE INDUSTRY LEVERAGE



Source: *The Airline Analyst*

Meeting commitments

Analysis of the airline industry's performance can place too much emphasis on profitability to the exclusion of cash-flow measures. And it can be too heavily focused on the cyclicality of net income rather than on cash flow and the degree of balance sheet leverage.

This short analysis has shown that, over the period 2007-14, cash flow from operations and Ebitdar were, on average, much less volatile than net profitability, and operating cash flow covered 78% of capital expenditure.

Also, that despite the huge level of capital expenditures and an increase in adjusted net debt, aggregate industry leverage has been within a range of 4.2 to 4.7 times since 2010 and is on a further downward trend.

Although still higher than many other sectors, this supports the view that the airline industry has the financial capacity to meet its capital expenditure commitments over the next few years.

Q3 DELIVERIES REPORT

Boeing delivers more, but sells less than Airbus.

Boeing looks likely to deliver more aircraft in 2015 than it did in 2014. The Airfinance Deals Database shows that the US manufacturer delivered close to 200 aircraft in the third quarter compared to just over 140 managed by Airbus. Boeing looks set to comfortably exceed its target of 750-755 for the year.

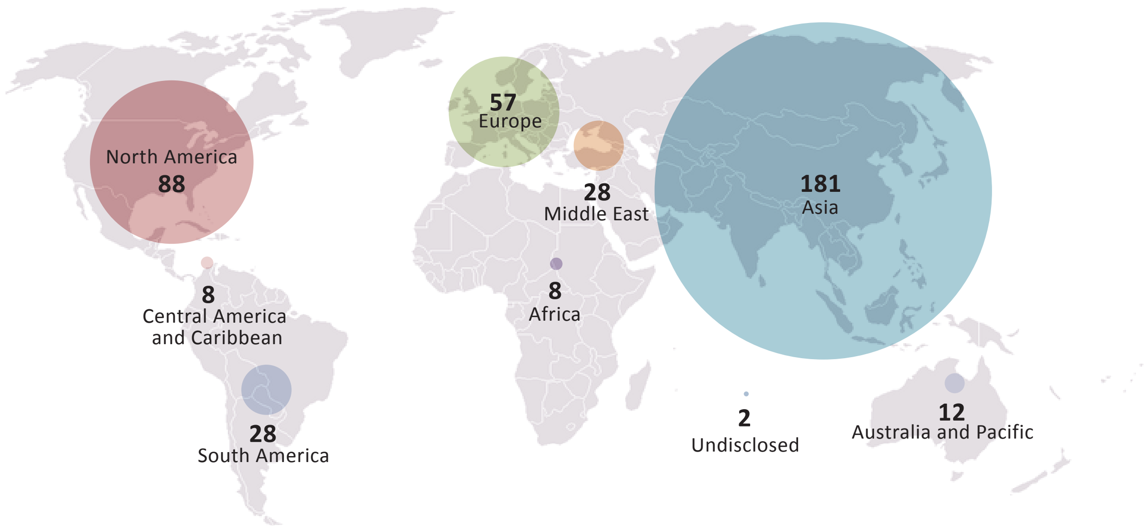
Boeing has increased deliveries significantly in recent years, thanks largely to increased 737 production rates and 787 rates ramping up to anticipated levels now that the model is established in service.

Airbus A350 deliveries should follow the same pattern as the 787 and, combined with a higher A320 production rate (see Airbus to boost A320 production, page 12), this means the gap in the deliveries race looks likely to narrow.

However, both companies face hurdles in keeping up overall production rates as they phase out current models for new generation single-aisle and twin aisle models.

Boeing's advantage in deliveries is reversed in favour of its European rival in the case of 2015 orders. Based on company announcements, Airbus's net order total is more than double that of Boeing for the year.

DELIVERIES BY GEOGRAPHIC DISTRIBUTION



AIRCRAFT DELIVERIES BY MANUFACTURER AND REGION

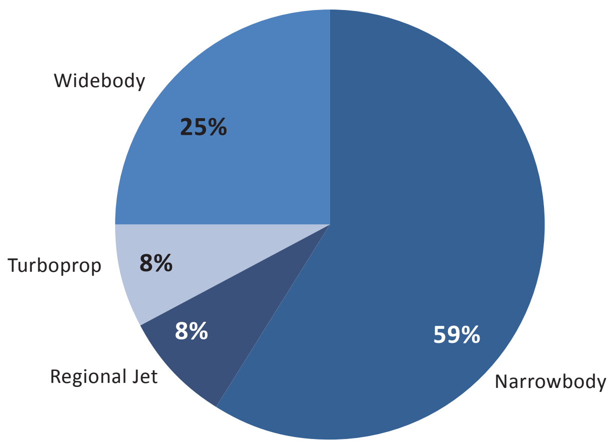
	Airbus	ATR	Boeing	Bombardier	Embraer	Sukhoi	Total
Africa	2	2	4	-	-	-	8
Asia	68	10	94	8	1	-	181
Australia and Pacific	3	1	7	1	-	-	12
Central America and Caribbean	3	-	5	-	-	-	8
Europe	23	7	24	-	-	3	57
Middle East	14	-	14	-	-	-	28
North America	16	-	44	9	19	-	88
South America	13	2	7	-	1	-	23
Undisclosed		-	-	-	2	-	2
Total	142	22	199	18	23	3	407

DELIVERIES BY CUSTOMER TYPE

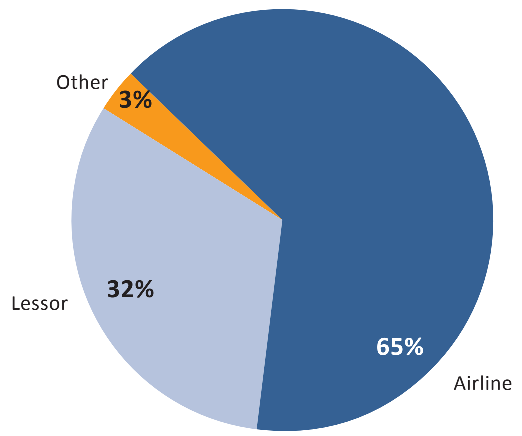
Owner	Airbus	ATR	Boeing	Bombardier	Embraer	Sukhoi	Total
Airline	86	11	133	13	19	2	264
Lessor	53	11	60	4	1	1	130
Other	3		6	1	3		13
Total	142	22	199	18	23	3	407

> "Both companies face hurdles in keeping up overall production rates as they phase out current models for new genera-tion single-aisle and twin aisle models."

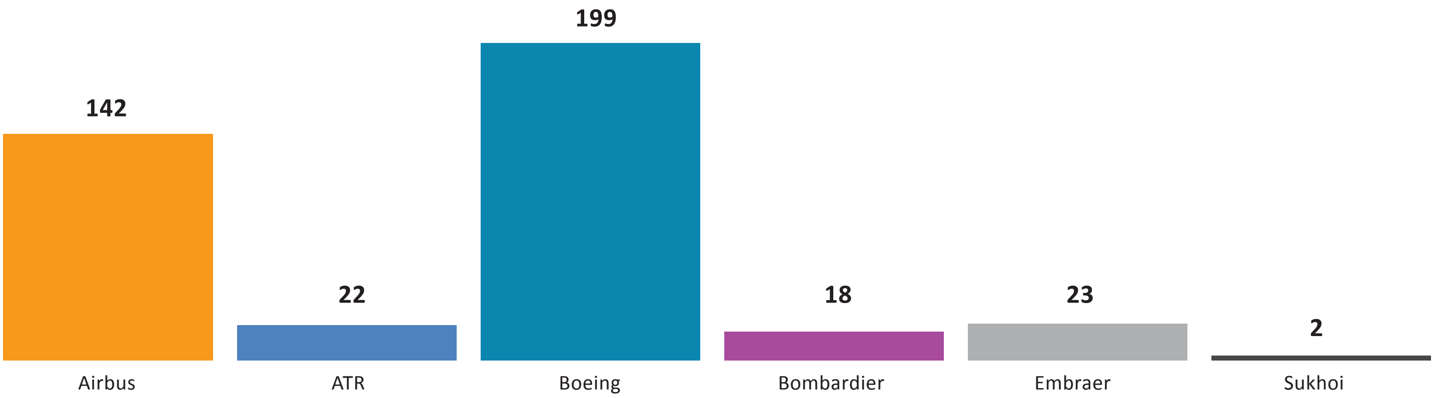
DELIVERIES BY ASSET CLASS



DELIVERIES BY CUSTOMER TYPE



DELIVERIES BY MANUFACTURER



DEAL WATCH

LOANS/FINANCE LEASES

Borrower	Country	Asset	Amount	Structure	Arranger	Debt
December 2015						
Intrepid	US	1xA330-300	$105.6m (CMV*)	Secured commercial loan	Erste Bank	
Intrepid	US	1xA330-300	$105.6m (CMV*)	Secured commercial loan	DVB	
November 2015						
Emirates	Dubai	2x777-300ER	$334m (CMV*)	Jolco	BRED Banque Populaire, Natixis and Société Générale	
ICBC FL	China	8x737-800	$380m (CMV*)	French tax lease	BNPP, CIC, Natixis	
Qatar Airways	Qatar	1xA380	$428m/$222m (List/CMV*)	French tax lease	CA-CIB, HSBC	CA-CIB, HSBC
Harvest International (Juneyao Airlines)	China	1xA320	$97m/$44m (List/CMV*)	Mortgage	CCB	
October 2015						
Cathay Paciffic	Hong Kong	1x777-300ER (third of three)	$340m/$168m (List/CMV*)	Commercial loan	ANZ, ING, Natixis	
Thai Airways	Thailand	1xA320-200	$97m/$44m (List/CMV*)	Commercial loan	CA-CIB, Korea Development Bank	
Jetscape	US	5xE190	Undisclosed	Commercial loan	DVB	

EXPORT CREDIT DEALS

Borrower	Country	Asset	Amount	Structure/ECA	Arranger	Debt
November 2015						
Air India	India	A320 (fifth of five)	$97m/$44m (List/CMV*)	ECA-guaranteed loan/UK Export Finance	Crédit Agricole CIB, TD Securities, ING, Wilmington Trust	Bank of Tokyo-Mitsubishi UFJ, Sumitomo Mitsui Trust
October 2015						
Tunisair	Tunis	2xA330-300, 1xA320	€200m	ECA-guaranteed loan/Coface	BayernLB , Citi, Wells Fargo	
September 2015						
CMB Financial Leasing	China	1xA330-300, 1x737-800, 1xA320-200	$136m	Senior loan facility	DVB, Morgan Stanley	Bank of Tokyo-Mitsubishi UFJ, Sumitomo Mitsui Trust

CAPITAL MARKETS

Borrower	Country	Asset/Security	Amount	Structure/Term	Arranger	Coupon/Rating
December 2015						
Norwegian Air Shuttle	Norway	Unsecured	€125m	Eurobond	Danske Bank Markets, DNB Markets and SEB	7.25%
Air Canada	Canada	5 Boeing widebodies	$537m (AA:$295m, A:$121m, B:$121m)	EETC	Morgan Stanley, Credit Suisse	AA:3.75%, A:4.25%, C:5.0%/AA:A1, A:A3, C:B+ (Moody's)
November 2015						
Castlelake	US	54 aircraft	$713.21m (A:$529, B:$105.7m,C:$78.5m)	ABS	Goldman Sachs, Wells Fargo Bank, Crédit Agricole	A:A, B:BBB, C:B+ (Krull)
October 2015						
BOC	Singapore	24 aircraft	$807.9m (A:$747.4, B:$60.5m)	ABS	Citibank, Bank of China International, Goldman Sachs, Deutsche Bank, BNP Paribas, Morgan Stanley	4.75%/A (Fitch, S&P), 5.75%/ BBB (Fitch, S&P)

* Current market value - see page 50

DEAL WATCH

SALE/LEASEBACKS

Borrower	Country	Asset	Lessor/Arranger	Amount
December2015				
Aegean	Greece	1xA320	Awas	$44m (CMV*)
November 2015				
Wizz Air	Hungary	11xA321ceo	CCB Financial	$481m (CMV*)
Flydubai	Dubai	2x737-800	Standard Chartered	$192m/95m (at list/CMV*)
Oman Air	Oman	1x737-900ER	Obam	$102m/51m (at list/CMV*)
Lion Air	Indonesia	6x737-900ER	Stellar	$611m/305m (at list/CMV*)
October 2015				
Finnair	Finland	1xA350-900	Gecas	$305m (list)
Nok Air	Thailand	2xQ400	Gecas	$60m/42m (at list/CMV*)
EVA Air	Taiwan	2xA330-300	Standard Chartered	$507m/211m (at list/CMV*)

For more extensive deal coverage and lawyers details go to http://www.airfinancejournal.com/dealsdatabase

DEAL PIPELINE (MANDATES)

Borrower	Country	Asset	Structure	Amount	Arranger/Advisor	Status
October to December 2015						
Latam	Chile	3xA350-900, 2xA32neo	ECA- supported	$1.13 bn (at list)		Shortlist imminent
Lufthansa	Germany	1xA380	Jolco	$428m/222m (at list/CMV*)		RFP issued
flydubai	Dubai	11x737-800, 5x737Max8	To be decided	$1.6 bn (at list)		RFP issued
Air China	China	24 aircraft	To be decided	Undisclosed		RFP issued
ICBC	China	2x737-800	Commercial financing	$192m/958m (at list/CMV*)	Natixis	Mandated
Thai Airways	Thailand	5x737-800	Ex-Im backed	$467m/238m (at list/CMV*)	BNP Paribas	Mandated
SunExpress	Turkey	5x737-800	Ex-Im backed	$467m/238m (at list/CMV*)	BNP Paribas	Mandated
Xiamen Airlines	China	5x737-800	Operating leases	$467m/238m (at list/CMV*)	ICBC	Mandated

* Current market value - see page 50

RATINGS

AIRLINE FINANCIAL RATINGS

Airline	Fitch	Moody's	S&P
Aeroflot	B+(neg)	-	-
Air Canada	B+(stable)	B1(stable)	B+(stable)
Air New Zealand	-	Baa2(stable)	-
Alaska Air Group	BBB-(stable)	-	BBB-(stable)
Allegiant Travel Company	-	Ba3(stable)	BB(stable)
American Airlines Group	BB-(stable)	Ba3(stable)	BB-(stable)
Avianca Holdings - IFRS	BB-(neg)	-	B+(stable)
British Airways	BB+(pos)	Ba2(pos)	BB(pos)
Delta Air Lines	BB+(pos)	Ba2(pos)	BB+(stable)
Etihad Airways	A(stable)	-	-
GOL	B-(stable)	B3(neg)	B-(stable)
Hawaiian Airlines	B(pos)	B2(stable)	B+(stable)
jetBlue	B+(stable)	Ba3(stable)	BB-(stable)
LATAM Airlines Group	BB-(stable)	Ba2(stable)	BB(neg)
Lufthansa Group	-	Ba1(pos)	BBB-(stable)
Qantas Airways	-	Ba1(pos)	BBB-(stable)
Ryanair	BBB+(stable)	-	BBB+(stable)
SAS	-	B3(stable)	B-(stable)
Southwest Airlines	BBB+(stable)	Baa1(pos)	BBB(stable)
Spirit Airlines	BB+(stable)	-	BB-(stable)
Turkish Airlines	-	Ba1(stable)	BB(stable)
United Continental Holdings	BB-(pos)	Ba3(pos)	BB-(pos)
US Airways Group	BB-(stable)	B1(stable)	-
Virgin Australia	-	B2(Stable)	B+(stable)
WestJet	-	-	BBB-(stable)

Source: Ratings Agencies - 15th December 2015

LESSOR CREDIT RATINGS

Lessor	Fitch	Moody's	S&P
AerCap	BB+(pos)	Ba2(pos)	BB+(pos)
Air Lease Corp	-	-	BBB-(pos)
Aircastle	-	Ba2(pos)	BB+(stable)
Avation PLC	B+(stable)		B(stable)
Aviation Capital Group	BBB-(pos)	-	BBB-(pos)
AWAS Aviation Capital Limited	-	Ba3(stable)	BB+(neg)
BOC Aviation	A-(stable)	-	A-(stable)
CIT Group Inc	BB+(stable)	B1(pos)	BB+(stable)
DAE Aviation Holdings	-	-	B-(stable)
Fly Leasing	-	B1(pos)	BB(stable)
ILFC (Part of AerCap)	-	Ba2(pos)	-
SMBC Aviation Capital	BBB+(stable)	-	BBB+(stable)

Source: Ratings Agencies - 15th December 2015

AVIATION COMPANY RATINGS

Company	Fitch	Moody's	S&P
Airbus Group	A-(stable)	A2(stable)	A(pos)
Boeing	A(stable)	A2(stable)	A(stable)
Bombardier	B(neg)	B2(neg)	B(neg)
Embraer	-	Baa3(stable)	BBB(stable)
Rolls-Royce	A(stable)	A3(stable)	A(stable)
United Technologies	A-(stable)	A3(stable)	A-(stable)

Source: Ratings Agencies - 15th December 2015

AIRCRAFT ORDERS

COMMERCIAL AIRCRAFT ORDERS BY MANUFACTURER

	Gross orders 2015*	Cancellations 2015*	Net orders 2015*	Net orders 2014
Airbus	1139	72	1067	1,456
Boeing	666	91	575	1,432
Bombardier	23	0	23	93
Embraer	165	0	165	122
ATR	54	0	54	160

*Based on manufacturer announcements of firm orders as of December 15

COMMERCIAL AIRCRAFT ORDERS BY CUSTOMER

Customer	Country	Quantity/Type
October to December 2015		
Braathens	Sweden	5xATR72-600
Spring Airlines	China	60xA320neo
AirBridgeCargo	Russia	2x747-8
Easyjet	UK	6xA320ceo, 30zxA320neo
ACG	US	1xA320neo
TAP	Portugal	14xA330-900 neo, 39 A320 neos
VietJet	Vietnam	30xA321
CAS	China	30xA330, 100xA320
El Al	Israel	3x 787-9
Oman Air	Oman	20x737Max

CURRENT PRODUCTION AIRCRAFT PRICES AND VALUES ($ MILLIONS)

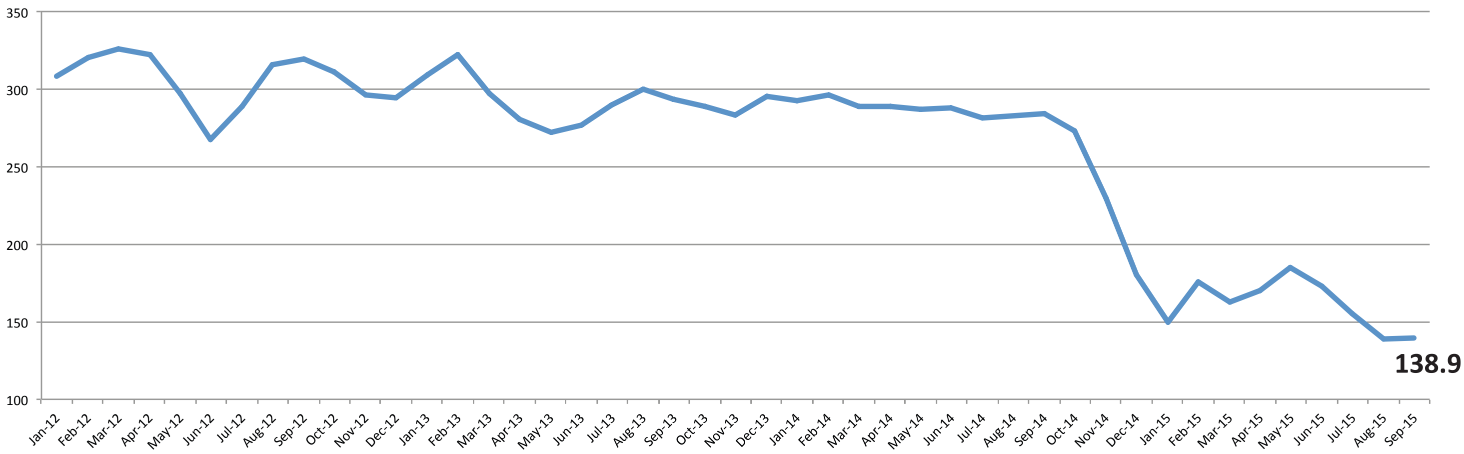
Model	List price	Current market value*
Airbus (2015 price)		
A319	88.6	37.6
A320	97.0	43.8
A321	113.7	52.1
A330-200	229.0	93.9
A330-300	253.7	105.6
A350-900	304.8	TBD
A380	428.0	222.2
ATR (2015)		
ATR42-600	20.1	15.5
ATR72-600	24.7	20.2
Boeing (2015)		
737-700	80.6	38.0
737-800	96.0	47.6
737-900ER	101.9	50.6
747-8 (passenger)	378.5	167.2
777-200LR	313.8	147.0
777-300ER	339.6	167.7
787-8	224.6	117.8
787-9	264.6	136.1
Bombardier (2014)		
CRJ700	39.9	23.9
CRJ900	45.8	26.0
CRJ1000	48.9	27.7
Q400	30.0	21.2
Embraer (2014)		
E170	40.0	27.0
E175	43.1	29.2
E190	47.7	33.0
E195	50.5	34.9

*Based on Istat appraiser inputs for Air Investor 2015

AIRCRAFT LIST PRICES - NEW MODELS

Model	$ millions
Airbus (2015 prices)	
A319neo	97.5
A320neo	106.2
A321neo	124.4
A330-800neo	249.6
A330-900neo	284.6
A350-800	269.5
A350-1000	351.9
Boeing (2015)	
737 Max7	90.2
737 Max8	110
737 Max9	116.6
777-8X	371.0
777-9X	400.0
787-10	306.1
Bombardier (2014)	
CS100	67.1
CS300	75.3
Embraer (2014)	
E175-E2	48.3
E190-E2	55.3
E195-E2	62.4

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	370	300
A320	280	410	345
A321	360	490	425
A330-200	690	950	820
A330-300	730	1,100	915
A380	1,650	2,110	1,880
ATR			
ATR42-600	120	180	150
ATR72-600	160	210	185
Boeing			
737-700	230	380	305
737-800	330	450	390
737-900ER	370	470	420
747-8 (passenger)	1,200	1,770	1,485
767-300ER	400	590	495
777-200ER	800	1,250	1,025
777-200LR	950	1,420	1,185
777-300ER	1,050	1,550	1,300
787-8	850	1,110	980
787-9	1,190	1,340	1,265
Bombardier			
CRJ700	160	210	185
CRJ900	190	225	208
CRJ1000	210	280	245
Q400	150	225	188
Embraer			
E170(AR)	180	230	205
E175(AR)	200	250	225
E190 (AR)	260	300	280
E195 (AR)	230	320	275

Based on Istat appraiser inputs for Air Investor 2015

PILARSKI SAYS…

Can dismal science lead us to optimism?

Increasing capacity does not have to be bad news, just follow economics, writes Adam Pilarski, senior vice-president at Avitas.

Airlines are finally making real money, just like businesses should. In the US, majors made record profits. Often this is linked in headlines to the price of oil: "Cheap fuel helped Delta set record profits." Ticket prices coming down and traffic going up are related to increased airline profitability. We hear the same sentiments worldwide. Even Lufthansa and Air France, which have not been doing so well recently, recorded significant profits.

The International Air Transport Association, commenting on the sudden surge of airline profits, summarized the situation in the following way: "[There is] softening in global economic growth but there is no sign of adverse impact on RPKs [revenue passenger-kilometres]."

Similar sentiments can be heard globally. For example: "The Canadian economy is technically in recession, but Air Canada reports strong demand." All this does not imply that the traditional strong link between a country's economy and traffic is broken. In Brazil, for example, airlines are losing money because of the deep economic recession. To understand what is happening, we have to tie a number of factors together: traffic, state of the economy and oil prices.

Mathematically, the relationships are straightforward. Profit is revenue minus cost, with revenue being the product of traffic and yield (ticket prices). Lower oil prices automatically lower costs. The revenue side is more complicated. Traffic is tied positively to the economy and negatively to yields. Assuming lower oil prices stimulate the world economy, they should lead to higher traffic growth. They also should lead to lower yields, further stimulating traffic. The product of lower yields and higher traffic cannot be theoretically forecast.

Lower costs lead airlines to increase capacity and lower ticket prices. Interestingly, this message is misunderstood, misinterpreted and irrationally feared. Let us start with straightforward economics. Price is a function of demand and supply, which together determine an equilibrium price and quantity produced. Even if demand is the same as oil prices fall, the supply curve shifts right because airlines can now produce the same quantity of ASMs (capacity) at a lower price. This results, theoretically, in higher quantity produced at a lower price (more traffic at a lower ticket price), exactly what is happening around the world right now. Following simple economics, this is the only rational outcome that should have been predicted as oil prices fell last year.

So why do some people believe, or want to believe, that this will not happen (lower oil prices leading to increased capacity and lower fares)? One group does not believe oil prices will stay low. As a matter of fact, when oil prices started to fall the industry waited to act until the lower oil prices became a fact. Most chief executive officers of major airlines expressed doubt, as stated by Doug Parker of American Airlines, in February 2015: "Oil has been over $100 for four years and it has been under $100 for four months… we are going to operate American as though we are still operating with $100 oil."

Michael O'Leary of Ryanair, on the other hand, quickly understood what was happening and acted. The reality of lower oil prices is sinking in and most airlines accept this fact now.

The second element is highly related to the peculiar thinking of some Wall Street analysts. Their almost religious belief is that airlines historically did not make money because they sinned by increasing capacity, causing a decline in fares and monumental losses. Hence, to them any suggestion of an increase in capacity, no matter what reason, is almost sacrilegious and produces violent condemnation. My view is that when oil prices went permanently down, it was a rational development for airlines to increase capacity and lower fares. Yes, it brings back memories of past airline industry mistakes.

Many analysts pine for "capacity discipline" and take suggestions that airlines behave rationally in light of oil price declines as an invitation for disaster. The future, though, can be much brighter. Lower oil prices must lead to higher worldwide traffic benefiting manufacturers and airlines, assuming they do not repeat past mistakes. Terrorism and other external events notwithstanding, lower oil prices can be a boon for aviation.

So, what will happen? Must lower ticket prices and higher capacity necessarily lead to airline losses? Does increasing capacity equal abandoning discipline, leading us towards the abyss? Not inevitably in my view. Previous capacity increases led to price wars and disaster. This does not need to happen. True, airlines behave very differently in good versus bad times. When times were tough – such as when oil prices were sky high – airlines behaved more rationally. When things were good, they often engaged in destructive and unwise behaviour.

It does not need to happen now when capacity increases are not an irrational prelude to price wars but a rational response to a changing demand-and-supply relationship. Economic principles are not the enemy – bad airline practices are. Increasing capacity may lead to very good times if airlines follow economics.

TAA Financial Rating Scores - LTM					Overall Rating Scores		
Avg. Fleet Age	EBITDAR Margin	FCC	Liquidity	Leverage	LTM-2	LTM-1	LTM
5	2	2	1	3	1.4		2.2
				6	2.4		5.6
							6.2
							3.6
						2.9	2.0
						6.6	6.4
						3.9	3.7
7	2	1	1	1	1.9	1.9	1.7
4	2	4	4	5	3.6	3.8	3.8
6	3	5	4	3	5.1	4.6	3.9
5	1	4	2	4	2.5	2.5	2.9
5	2	4	3	4	2.7	2.9	3.4

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