AIRFINANCE JOURNAL EVENTS

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Air Canada aims for 2018 EETC issuance

Air Canada plans to use an enhanced equipment trust certificate (EETC) issuance to finance some of its 2018 deliveries, according its senior director of financing Helen Kotsovos.

Speaking at the 37th Annual North America Airfinance Conference in New York, Kotsovos said the Canadian carrier likes the structure because it allows it to arrange financing for multiple incoming new aircraft in one deal.

Air Canada first tapped the EETC market in 2013. In 2015 it revisited the market to finance nine new Boeing 787-9 deliveries. Later in that year, it also priced another EETC to refinance three 787-9s that delivered in the first half of 2016, along with two 777-300ERs.

The airline chose not to issue an EETC in 2017 because it wanted to diversify its sources of financing, said Kotsovos.

So far this year, the Canadian-based carrier has financed its 787 deliveries through the Japanese operating lease with call option (Jolco) market and operating leases.

Earlier this month Air Canada completed a Jolco transaction of a new Boeing 787-9 aircraft that delivered in February. The equity portion was arranged by Financial Products Group (FPG) AIM and underwritten by FPG in Japan. DVB Bank and Mega Bank arranged and underwrote the senior loan in the transaction.

The aircraft followed another Jolco financing in January with Sumitomo Mitsui Finance and Leasing underwriting the equity investment and Sumitomo Mitsui Banking Corporation providing the debt portion of the financing.

Air Canada also entered long-term lease agreements with Air Lease Corporation (ALC) for two new 787-9s in the first quarter.

The first unit which was delivered in January was allocated to Blackbird Capital. The second aircraft was delivered on 24 March, and leased from ALC. "In 2018, assuming the markets are open and efficient, we will want to go again" for an EETC, said Kotsovos.

Widebody capacity to **shift out of Middle East**

Demand for widebody aircraft is going to decline in the Middle East but be picked up by Chinese carriers, according to the chief executive officer of Air Lease (ALC), John Plueger.

"I do think that we are going to see some further widebodies shift out of the Middle Eastern market, because there's just too much capacity", he said at the 37th Annual North America Airfinance Conference.

However, he believes that the excess demand from the Middle East will be picked up by airlines from China and by low-cost long-haul airlines.

"Both Airbus and Boeing are very aggressively marketing those aircraft to the Republic of China specifically," he says.

"I just came back from a week-long trip in China," he adds, "and most of my conversations with the major Chinese carriers [...] did revolve around widebodies."

According to him some of the excess Middle Eastern capacity will also be picked up by long-haul low-cost carriers.

"We are seeing continued growth in terms of the low-haul long cost carriers", he notes, pointing towards low-cost carrier Norwegian operating the Boeing 787 on its long-haul routes.

"I do think this trend of low-cost carriers widebody, long-haul is going to continue", he adds.

Speaking about the shift in demand for widebody aircraft, Plueger says that ALC is "not pushing the panic button", but predicts a "recalibration" that will have an impact on the market place.

Higher fuel prices **benefit WestJet**

Unlike the majority of airlines, higher fuel prices are a good thing for Canadian carrier WestJet, according to its director of treasury.

Speaking to *Airfinance Journal* at the 37th Annual North America Airline Conference, Jennifer Bue said: "Canada is very different to the North American market. I'd recognise that the North American players are doing really well financially right now. WestJet has been in a unique position where we have been impacted by the oil-based economy in parts of Canada than other airlines out there."

She adds: "While it may seem like the end of the cycle for some, I am optimistic that we are seeing a rebound in yields. We're having a contrarian cycle with WestJet. WestJet is probably one of the only airlines that like higher oil prices."

WestJet is based in Alberta, a city whose economy heavily relies on oil and gas revenues.

Along with the tailwinds of low oil prices, Bue adds that there are a lot of changes happening in the Canadian aviation industry, including a change in foreign ownership rules of Canadian airlines and the growth of ultra low-cost carriers (ULCCs) and that can create uncertainty.

S&P sees lessors opportunities in the unsecured market

The unsecured debt market for lessors has potential to grow over the coming years, according to Betsy Synder, director, S&P Ratings Services.

Speaking at the 37th Annual North America Airfinance Conference, she said: "We think there are still growth opportunities there. There are some potential concerns with widebody aircraft and there's also some concerns about some of the returns that are being pressured by some of the sale and leasebacks."

"Those are affecting lease yields. We think the cash flow generation is still strong, and we don't really see many – with the exception of Aircastle – rating movements in the aircraft leasing industry."

On 15 May, S&P Ratings affirmed the "BB+" local currency LT credit rating of Aircastle and revised its outlook for the lessor to positive from stable.

US carriers better prepared for next downturn

The improved financial health of US carriers means that they are better prepared for the next industry downturn than they before the last one, according to Justine Fisher, senior vice president of credit research at Goldman Sachs.

Speaking at the 37th Annual North America Airfinance Conference, Fisher noted that although there is disparity in how leveraged the big four airlines are, their financial position collectively is stronger than in previous years. "We think you're going to see stress, not distress," she said.

Predicting the precise date of the next downturn is tricky, she adds, as it will most likely be prompted by an external demand shock rather than just by supply and demand dynamics at the major manufacturers.

Alitalia's weakness was factored into Kroll ABS deals

Kroll Bond Rating Agency (KBRA) factored the weakness of Alitalia into asset-backed securities (ABS) transactions in which aircraft on lease to the airline were featured in the collateral pool, according to Anthony Nocera, senior managing director, ABS, at KBRA.

The airline decided to enter extraordinary administration earlier this month. The process is similar to the US Chapter 11 bankruptcy process and will decide whether the airline will enter a restructuring or be liquidated for the benefit of creditors.

For lessors who are exposed to the Italian carrier, the process raises the prospect of having to remarket aircraft.

"The message is: it's way too soon to see what the impact might be," said Nocera at the 37th Annual North America Airfinance Conference in New York. But he adds: "When we rated these deals, the weakness of Alitalia was not unknown before the filing itself".

Several aircraft ABS deals have exposure to Alitalia, according to a report issued by Kroll earlier this month (see table).

"At this time, KBRA does not view Alitalia's extraordinary administration filing as having an impact on the ratings of the securities related to KBRA-rated aircraft ABS transactions," writes KBRA.

It adds: "However, KBRA will continue its active dialogue with aircraft lessors and industry participants as the events relating to Alitalia's possible reorganization continue to develop."

Transaction	Aircraft type and number of aircraft
Apollo Aviation Securitisation Equity trust 2016-2 (AASET 2016-2)	A330-200 (1)
ATLAS Series 2014-1	E175 (2)
Blackbird Capital Aircraft Lease Securitisation Limited 2016-1	E175 (1)
Castlelake Aircraft Securitisation Trust 2015-1	A319-100 (2), A320-200 (3), A321-100 (3)
Castlelake Aircraft Securitisation Trust 2016-1	A319-100 (4), A320-200 (3), A330-200 (1)
DCAL Aviation Finance Limited	A330-200 (2)
Diamond Head Aviation 2015 Limited	A321-100 (4)
Eagle I Limited, Series 2014-1	E175 (3)
Emerald Aviation Finance Limited, Series 2013-1	A320-200 (2)

Source: *KBRA*

CALC says Jolcos are cheapest form of financing

Japanese operating leases with call options (Jolco) are still the cheapest form of financing, according to Christian McCormick, managing director finance, China Aircraft Leasing Company (CALC).

Speaking at the 37th Annual North America Airfinance Conference, he said: "You need to be flexible with your financing so you can sell aircraft in your portfolio later on." He adds: "We signed a deal yesterday with CIC in France – this is a debt deal combined with a Jolco. The initial reaction is that's not flexible and secured but it's the cheapest money we find. It's the cheapest money because we have tailorised the Jolco to become a very flexible structure. So through these deals, we've found the lowest capital financing."

He notes that CALC has also tapped the unsecured markets and export credit agencies (ECA), closing a deal with Chexim, the Chinese ECA, in September 2016.

Asked whether he sees it as a disadvantage not to have a rating when it comes to raising unsecured debt, McCormick says: "We don't see it as a disadvantage to not be rated at the moment."

"We are thinking about all of the other products out there whether that's warehouse or sidecars. And obviously for that sort of thing you do need a rating. And you do need one to raise the funds in the US market – we're not convinced that's necessary in Asia.

"I guess we'll find out in the next 10-12 months when CALC is in the process of experimenting with these products – we will find the process of doing that, whether we will have to go for a rating or not, but the inclination is to avoid a rating."

Lack of ECAs means more private placements

The fact that some of the biggest export credit agencies (ECA) for aircraft are closed for business will mean that the private placement market will grow for aviation companies, according to the executive managing director, Burnham Sterling & Company.

Speaking on a private placement panel at the 37th Annual North America Conference in New York, Michael Dickey Morgan said: "The fact the ECAs are closed for Boeing and Airbus is creating an interest in the manufacturers to push the alternative sources of funding. For example, private placements that can be explored with potentially new issuers and create new volume with them.

"I don't know what will happen with the ECAs in 2017, but if they stay closed, it will likely create a higher volume of private placements than it would do if they were open again."

Michael Dickson, managing director at Citi, who was also on the panel, notes that there are more innovative structures being brought to the private placement market now, such as Class C EETCs and different types of deals that more traditional insurance companies in the US have a "difficult time doing."

"Traditionally, we saw 50-60 insurance companies doing these deals but now we're seeing a lot more interest from investors that didn't traditionally invest in the private placement space. As we roll out some more of these deals, the market will bring more and more unorthodox investors," he adds.

From left to right: **Andrew Kleerman**, managing director, Barings; **Michael Dickson**, managing director, Citi; **Rafael Kuhn**, director, Deutsche Bank; **Michael Dickey Morgan**, executive managing director, Burnham Sterling; **Marjan Riggi**, managing director, Kroll Bond Ratings Agency

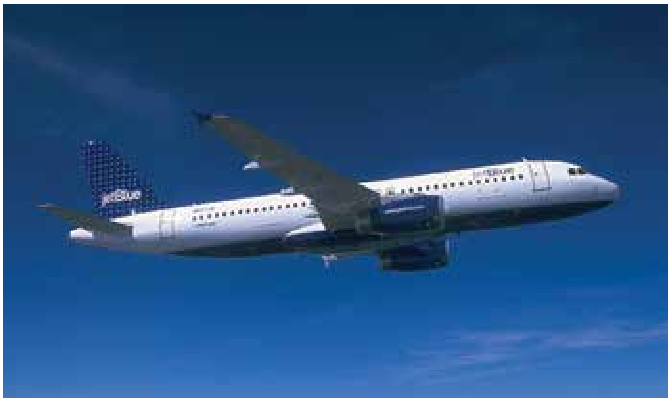
Fighting old battles

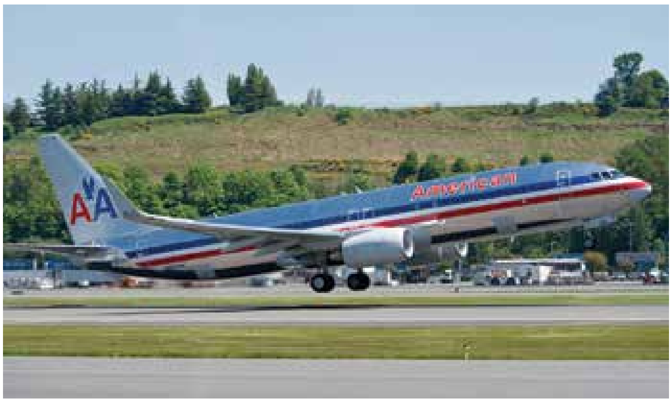
The success of the A320neo and 737 Max families will determine the positions of Airbus and Boeing in the narrowbody market, but the relative merits of the manufacturers' previous-generation single-aisle models will be of interest to owners and operators for years to come. **Geoff Hearn** looks at how the A320 and 737-800 match up.

It might have been anticipated that by the beginning of 2017 a comparison between the Airbus A320 and the Boeing 737-800 would be about two out-of-production aircraft, but as the year gets underway it is clear that the two models remain very much part of their respective manufacturers' current offerings. Exactly how long both models will continue to roll out of the production hangars is not completely clear from the manufacturers' announcements, but it looks certain that current-generation models will be built alongside their respective A320neo and 737 Max replacements until at least 2019.

Airbus has indicated that A320 production will continue beyond this year, but has not specified an exact date for discontinuing the current engine option (Ceo) model.

At a press briefing in January, Fabrice Brégier, Airbus Commercial Aircraft president and Airbus chief operating officer, admitted that there had been problems with early A320neo production. "The transition between the A320ceo and A320neo is less sharp than what we expected three or four years ago, so we will continue to deliver substantial numbers of A320ceos beyond 2017," he said.





The A321ceo is likely to remain in production even longer because it has a larger backlog than the baseline A320 model.

The timing of an end to 737-800 production is even less certain because any hitch in 737 Max flight testing and early production could delay its phasing out. In any case, Boeing is unlikely to be in a position to switch from its current model earlier than Airbus.

Thanks in part to its additional seating capacity, the 737-800 has significantly outsold the A320, which is its most direct competitor in the Airbus stable. This is a significant achievement given the aircraft was launched, as part of Boeing's next-generation (NG) family, nearly a decade later than its Airbus rival. However, this does not take into account that the fastest-selling model in the Airbus family is now the larger A321, which has significantly outsold its most direct competitor – the 737-900ER.

Looking at total sales for the two families gives Airbus a clear lead. However, there is an argument that some sales of the 737 Classic generation should be counted in any direct comparison. Backlogs of the two current families are broadly similar.

Values and lease rates

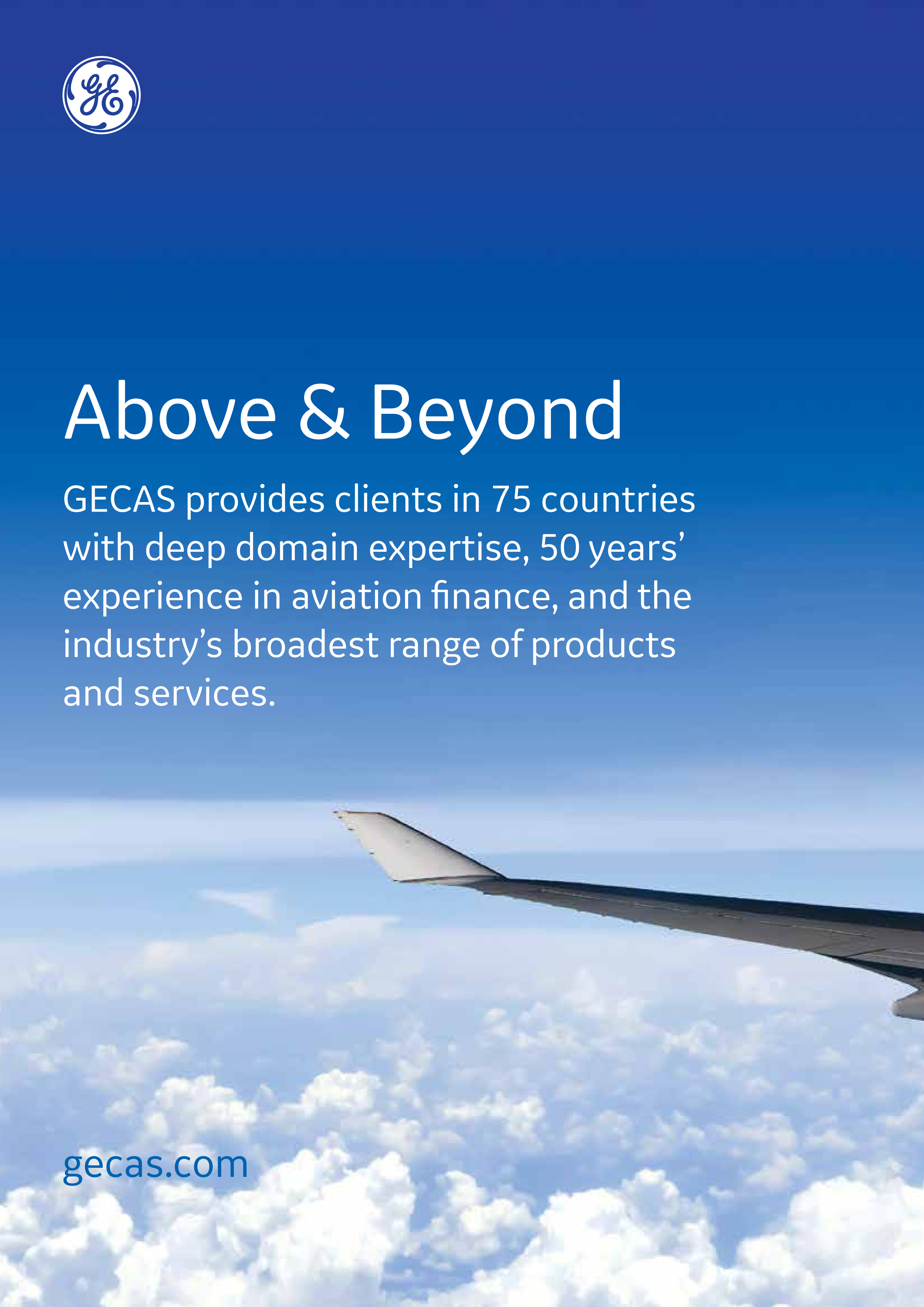
Inputs from appraisers (see tables) suggest that the 737-800 has a slightly higher current market value (CMV) than the A320 for models of the same build year and the Boeing aircraft typically attracts higher lease rates. The differences are, however, largely explained by the differences in seating capacity.

Angus Mackay, principal, ICF, points out the 737-800 has achieved excellent market penetration with a large in-service fleet and a broad operator base. However, he adds the A320 is a formidable

Leading characteristics of narrowbody competitors

Model	Entry into service	MTOW (tonnes)	Engines	Maximum pax	Typical pax	Range (nm)	In service	On order	Customers
737-800	1998	79	CFM56-7C	189	162	3,115	4,195	696	200
A320	1988	73.5/78	CFM56-5B or V2500	180	150	3,300	3,945	361	268
A321	1996	89/93.5	CFM56-5B or V2500	236	185	3,200	1,312	446	110
737-900ER	2001	85.1	CFM56-7C	215	180	3,200	409	102	21

Source: *Airfinance Journal Fleet Tracker and research*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Indicative relative direct cash operating costs for new single-aisle aircraft

	737-800	A320	A320neo	737 Max 8
Relative trip cost	1.5%	Base	-5.5%	-3.4%
Relative seat cost	-3.4%	Base	-5.5%	-8.0%

Assumptions: figures are based on *Airfinance Journal*'s interpretation of manufacturer claims and published data. Additional assumptions: 500-nautical mile sector, typical seating layouts.

adversary, also with a large in-service fleet and operator base.

Mackay points out the latest standard A320ceos can offer an increase in range over the 737-800 of about 200 nautical miles, albeit with slightly lower capacity. This advantage stems largely from improved specific fuel consumption after the introduction, in December 2012, of sharklets (winglets) as an option for A320ceo models.

The consensus among appraisers is that both 737-800 and A320 values will remain stable in the short term, particularly for newer aircraft.

Olga Razzhivina, senior Istat appraiser, Oriel, says that 737-800 lease rates and market values have weakened in the past 12 months, but this owes much to the high rates the Boeing aircraft has been achieving recently. Oriel expects 737-800 values to remain stable.

Gueric Dechavanne, vice-president, Collateral Verifications, says market demand for the A320 has remained stable in the past six months, especially for newer aircraft. He adds that availability remains low, which has helped stabilise values and lease rates. He warns that increases in the production rate by Airbus may have a negative impact in the longer term. Delays in the delivery of early A320neos have played a positive role in the values of A320ceos. While this may be a short-lived phenomenon, it is likely to have an effect into 2017.

Most commentators agree that current fuel prices significantly erode the cash operating cost advantages of A320neos and 737 Maxs, which is likely to prop up demand for current-generation 737 and A320 models, which, in turn, should bolster values and lease rates.

Investor view

In *Airfinance Journal*'s 2016 Investors' Poll, the 737-800 was the highest-rated aircraft, with investors emphasising its suitability for the leasing market. The Boeing aircraft was one of the few models to increase its score from the previous year's poll.

The A320ceo came only fourth in the poll, behind the Boeing model and the A320 and A321 Neo models, with its score marginally down from the previous year. However, the differences in scores between the popular single-aisle aircraft are small and the A320 also is very highly rated by investors. Its lower poll position is in part explained by its successor A320neo model having entered service, whereas the 737-800 replacement – the 737 Max 8 – is not scheduled to enter service until the third quarter of this year.

Operating cost

Direct cost comparisons between the Boeing and Airbus single-aisle models are difficult because the two product ranges are not aligned in terms of seat count. The 737-800 typically accommodates between 5% and 10% more seats than the A320, which gives the Boeing aircraft an obvious advantage in seat-mile costs.

Airfinance Journal has carried out its own analysis (see table) based on an interpretation of the respective manufacturers' claims and published data. This analysis suggests the 737-800 trip cost on a 500-nautical mile (nm) sector is between 1% and 2% higher than that for the A320. This translates to an advantage over the A320 in terms of seat-mile cost of between 3% and 4%.

These figures show a smaller difference in seat-mile costs than in previous *Airfinance Journal* analyses of these two aircraft, largely because of the reduced fuel burn offered by equipping the A320 with the optional sharklets. Industry sources suggest that the fuel burn advantage from the Airbus sharklets is eroded significantly on sectors shorter than the 500nm used in the *Airfinance Journal* analysis. The addition of sharklets would normally increase acquisition costs and impact on the total direct operating cost of the aircraft.

The relatively small percentage differences in cash operating costs are very sensitive to assumptions and are likely to vary depending on an airline's operation. Maintenance costs are particularly difficult to estimate for a generalised case study. The differentials are so small that *Airfinance Journal* believes cash-operating cost is unlikely to be a key factor in an airline's choice between the two rivals. Fleet commonality, availability and acquisition cost are all more likely to influence which aircraft is selected.

Perhaps of more significance to investors is the decreased advantage in cash operating costs of both the 737 Max 8 and the A320neo over their current-generation counterparts, brought about by lower fuel prices.

Everyone's a winner

The market view and *Airfinance Journal*'s analysis would suggest that the 737-800 and A320 are difficult to separate in terms of investor appeal. Newer models, in particular, remain in demand and the outlook for values of both the Boeing and Airbus aircraft is positive.

The testament to this is that even with the successor aircraft either close to entering or already in service, the combined backlog of the two models is in excess of 1,000 aircraft. That is certainly a first in commercial aviation.

Current market value ($m)

Build year	2000	2004	2008	2012	2016
A320	12.7	17.6	24.0	31.3	43.4
737-800	15.4	19.5	26.0	33.1	46.3

Based on average of inputs from appraisal firms (Collateral Verifications, ICF and Oriel).

Indicative lease rates ($'000s/month)

Build year	2000	2004	2008	2012	2016
A320	155-170	175-220	215-270	250-300	300-380
737-800	165-210	185-250	225-280	265-350	330-400

Based on spread of inputs from appraisal firms (Collateral Verifications, ICF and Oriel).

Zeevo taps IT leasing gap

A gap in the market for outsourced IT solutions and enterprise software development prompted ex-ILFC veterans to launch Zeevo as a solution to meet the growing needs of the leasing community.

"We love aviation. Most of us were lucky enough to work for a globally-recognised aircraft leasing company for more than a decade," says Karen Curtis, a founding member of Zeevo. "Combining aircraft leasing expertise and 'big four' consulting experience allows Zeevo to focus on specific needs and processes that are unique to lessors."

Curtis and the founding members of Zeevo saw a special requirement in the market when it comes to consultancies that "specifically support" complex, global aircraft-related leasing operations.

"With the right strategy, clients can transform data from various disparate sources into usable formats that provide accurate, timely knowledge of business critical information, including lessee relations, markets, original equipment manufacturers, MROs, suppliers, emerging trends and internal operations. We know how to bring this together for them."

Curtis notes that the industry is moving toward paperless record-keeping for aircraft maintenance records, so "it makes sense to boost technology and data mining and to connect with customers and vendors."

Zeevo's goal is to be the world's "best technology partner" to aircraft leasing companies.

"We know leasing. We work with a number of aviation-related leasing companies. Our level of involvement within the industry allows us to provide clients with knowledge of the latest trends, technology and effective practices. We endeavour to help our clients enable their people and teams to realise the clients' visions.

Curtis maintains that Zeevo's clients recognise that the key to their success is building a competitive advantage through the appropriate use of technology.

"This helps lessors outpace peers."

However, she stresses that "no one solution fits every approach".

While other consultancies can provide "independent pieces of the puzzle" that lessors face in day-to-day business, Zeevo has specific technical, finance, IT, operations, internal control, and industry experience across its teams.

"No single competitor offers the same unified approach with the overall experience that Zeevo offers its clients," Curtis says.

The launch of Zeevo allowed the founding partners to build on their experience in the aircraft leasing industry for more than two decades.

"We know the challenges leasing companies face in their operations and we are uniquely positioned to use our management consulting, information technology, operations and internal control expertise to help leasing companies effectively leverage leading technology to drive tangible business results."

Zeevo aims to achieve superior financial and operating results by engaging with an increasing number of lessors.

It also aims to be a single point of contact for clients when they seek outside perspectives and resources.

"Our clients tell us that they see us as a trusted advisor and partner the in the long run. They know that if we don't have the specific expertise they need – we know who does and this saves them time and effort."

Zeevo is issue-led, not product-driven as its "strength" lies within bridging aviation business needs with technology capabilities.

Curtis acknowledges that 2016 showed increased merger and acquisition activity within the leasing industry – a trend she expects will continue and one that Zeevo hopes to capitalise on.

"It appears that there will be more consolidation and new players in the market. Our team has experience with pre-IPO planning and each of the Zeevo principals and many our team members have first-hand experience planning for and managing post-merger integration projects."

Curtis maintains that utilising industry experts is "key" to maintaining competitive market positions and profitability in the leasing industry, as competition continues to increase among operators domestically and abroad.

With the continued growth of the global fleet, today's operators have even more focus on scalable processes, says Curtis.

However, she stresses the systems and processes lessors set up to manage dozens or a few hundred aircraft, in most cases, are not ready for their fleet size to double.

"By reviewing and revising current processes and enhancing or replacing their current technologies operators will ready themselves for their growing fleet and that's where we come in," she says, adding: "From project management to automating workflows, designing and developing web-based portals to creating custom reports and business intelligence solutions, internal controls design and implementation to business process and operations optimisation; we have the team and experience to enable our clients' visions.".

Issuers:
Thunderbolt Aircraft Lease Limited and Thunderbolt Aircraft Lease US

Structure:
Senior loan, junior notes and subordinated equity notes in respect of aircraft one; senior loan, first priority notes, second priority notes and subordinated equity notes in respect of aircraft two, senior loan, first priority notes, second priority notes and subordinated equity notes in respect of Aircraft three, with, in each case, sale and leaseback arrangements with Emirates. The notes were issued into the capital markets as private placements to many different (principally Korean) investors but also included the establishment of an aircraft investment fund in Korea

Currency/amount:
$344.7 million

Assets:
Seven 737-800s, five 737-700s, two A319s, two A321s, two A320s, one A330-200

Portfolio servicers:
Air Lease Corp and its Irish affiliate, Air Lease Corp Aircraft

Lawyers:
Hughes Hubbard & Reed advised Air Lease and the issuers, and Milbank, Tweed, Hadley & McCloy acted as counsel to the joint lead structuring agents

Banks (and role):
Bank of America Merrill Lynch and Mizuho Securities as joint lead structuring agents and joint lead bookrunners. BNP Paribas and Citigroup also acted as a joint lead bookrunners. BofA Merrill Lynch acted as global coordinator. Citibank as liquidity facility provider. Phoenix American Financial Services as managing agent and Deutsche Bank as trustee

ALC closes $344m Thunderbolt ABS

Air Lease Corporation (ALC) closed a $344.7 million fixed rate notes offering via Thunderbolt Aircraft Lease Limited and Thunderbolt Aircraft Lease US earlier this month.

The offering is comprised of $253.4 million of 4.212% series 2017 A fixed rate notes, $69.3 million of 5.75% series 2017 B fixed rate notes and $22 million of 4.5% series 2017 C fixed rate notes.

The A, B and C notes were seven, five and four times oversubscribed respectively, according to Vinodh Srinivasan, managing director and co-head of structured credit group, Mizuho Securities USA.

The issuers also offered series E notes, which were purchased by third parties, representing the equity interest in Thunderbolt Aircraft Lease.

The series A notes, series B notes and series C notes were rated A/A, BBB-/BBB and BB/BB-, respectively, by Standard & Poor's and by Kroll Bond Rating Agency (KBRA).

The notes are backed by a portfolio of 19 aircraft, which will be acquired by the issuers.

The aircraft comprise a mix of narrowbody and widebody jet aircraft that, as of 28 February 2017, had an average age of 12.46 years and were leased to 17 lessees based in 13 countries.

Air Lease and its Irish affiliate, ALC Aircraft, act as servicers of the 19 aircraft portfolio.

Proceeds from the issuance of the notes and the series E notes will be used by the issuers to acquire the aircraft, fund certain accounts for the notes and pay certain amounts to the holders of the series E notes.

BofA Merrill Lynch acted as global coordinator and BofA Merrill Lynch and Mizuho Securities acted as joint lead structuring agents and joint lead bookrunners of the transaction. BNP Paribas and Citigroup also acted as a joint lead bookrunners.

Hughes Hubbard & Reed advised Air Lease and the issuers, and Milbank, Tweed, Hadley & McCloy acted as counsel to the joint lead structuring agents.

> *With the closing of this transaction, Air Lease launched the Thunderbolt platform, which provides a strategic tool and capital solution for ALC to maintain our existing airline customer relationships into the midlife aircraft space.*
>
> **Ryan McKenna**, *head of strategic planning, ALC*

Srinivasan says: "This deal was made up of all traditional ABS investors, but they couldn't get comfortable with the re-lease risk in mid-life portfolios. With the average lease term being three years and the debt maturity being seven years, you expect the assets to get re-leased."

"But the way ALC presented this transaction in a way which made those investors feel comfortable."

He adds that there were 40 investors on the deal and at peak, there were 105 different investors looking at it, some of which had never bought ABS paper before.

"With the closing of this transaction, Air Lease launched the Thunderbolt platform, which provides a strategic tool and capital solution for ALC to maintain our existing airline customer relationships into the midlife aircraft space. We developed an innovative earnout structure that aligns us with both the equity and bond investors to facilitate the sale and subsequent management of aircraft from ALC's fleet in a repeatable structure," says Ryan McKenna, head of strategic planning of ALC.

"The credit structure used for the issuance of the notes was consistent with the Blackbird issuance and is a continuation of a new benchmark standard for this market. The reception from the market was overwhelming and the A bonds were issued at the tightest spread ever for a post crisis aircraft ABS."

The transaction marked the third ABS transaction this year after Dubai Aerospace Enterprise's Falcon Aerospace $410 million transaction and Elix Aviation Capital's $411 million Prop 2017-1 Limited, an all turboprop's securitisation, in January.

Key feature

Thunderbolt Aircraft Lease Limited featured a maintenance reserve account funded on the closing date with $30 million, with an initial floor of $32 million that decreases to a minimum of $3 million over the life of the transaction. The maintenance reserve account floor is higher relative to other recent mid-life aircraft ABS transactions.

The liquidity facility was sized to 17 months of interest due on the Series A Notes and Series B Notes. The liquidity facility covers more months of interest relative to other recent mid-life aircraft ABS transactions (typically nine months).

The debt-service coverage ratio (DSCR) cash trap event is triggered if it is less than 1.20 times. Upon a debt-service coverage ratio cash trap event, all excess cash remaining after the distribution of all senior ranking payments is trapped into an account, so long as no early amortisation event or rapid amortisation event is occurring.

Early amortisation event is

Thunderbolt Aircraft Lease Limited	Initial principal amount	Interest rate	LTV	Amortization Profile
Series A	$253.4m	4.212	58.10%	14 (5)/ 10-year of anticipated repayment date
Series B	$69.3m	5.75	73.90%	14 (5)/ 10-year of anticipated repayment date
Series C	$22m	4.5	79.00%	7-year

Blackbird Capital Aircraft Lease Securitization 2016-1	Initial principal amount	Interest rate	LTV	Amortization Profile
Series AA	$200m	4.212	19.10%	8-year
Series A	$540m	5.75	70.50%	16-year
Series B	$60m	4.5	76.30%	16-year

Source: *Kroll Bond Rating Agency*

triggered if the DSCR is less than 1.15 times, or the utilisation rate of the portfolio is less than 75%. Excess cash will be used to pay down the Series A notes, then the Series B notes.

Thunderbolt was ALC's second issuance in six months.

Blackbird Capital 1, the its joint venture established by ALC and Napier Park Global Capital in 2014, closed an ABS transaction via special purpose vehicles Blackbird Capital Aircraft Lease Securitisation Limited 2016-1 and Blackbird Capital Aircraft Lease Securitisation US LLC 2016-1.

The $800 million transaction achieved the lowest ever coupon for an aircraft ABS deal with its debut issuance.

The deal achieved the lowest ever coupon for an aircraft ABS tranche, and the tightest ever pricing on an A-rated tranche. The deal achieved a coupon of 2.48% on the $200 million AA tranche, 4.21% on the $540 million A tranche and 5.68% on the $60 million B tranche.

Blackbird was the first aircraft ABS since 2012 to feature a AA-rated tranche.

With a weighted average age of 3.3 years, the aircraft in the portfolio was substantially younger than recent ABS transactions.

The LTV was 19.1% on the AA tranche, 70.5% on the A tranche and 76.3% on the B tranche.

Kroll and Standard & Poor's gave ratings to the three tranches of AA, A and BBB.

The proceeds are used to purchase a fleet of 19 aircraft on lease to 16 airlines. The weighted average remaining lease term was 7.3 years.

The issuers used the same banks and lawyers as in Thunderbolt transaction.

The Blackbird ABS transaction had AA notes amortising on an eight-year straight-line schedule. The A and B notes amortised on a 16-year straight-line schedule.

The maintenance reserve account was funded on the closing date with $6 million. The liquidity facility was sized to nine months of interest due on the AA notes, A notes and B notes.

The DSCR cash trap event is triggered if it is less than 1.20 times.

On that transaction early amortisation event is triggered if the DSCR is less than 1.15 times, or the utilisation rate of the portfolio is less than 75%. Excess cash will be used to pay down the AA notes, then the A notes and then B notes.

The next phase at **Embraer**

AFJ speaks to Embraer Commercial Aviation's president and chief executive officer **John Slattery** about lease rates, values, market consolidation and the competition.

For most OEMs, Asia is the prize. But for regional aircraft, Asia appears to be a tale of woe. Why?

It used to be said in Asia the Boeing 767 or the Airbus A330 are the regional jets of the region, given the distances involved in the trunk routes. However, as the middle classes have now grown and are widely dispersed, we now see the network carriers and low-cost carriers (LCC) desire to grow their footprints of service to smaller markets where lower trip cost will be crucial. It's proven that in these smaller markets the yields tend to be higher.

Thanks to the low operating cost per seat and per trip of the E195-E2 and its enlarged size (three extra rows), I believe we now have a competitive proposition to present to the operators in Asia, and around the world for that matter.

In a high density configuration this aircraft will be certified for 146 passengers. With the E195-E2, which we have nicknamed the profit hunter, we have changed the paradigm of operating costs that exists and coupled with the extended range (2,450 nautical miles) and operating performance of the aircraft. Therefore, I believe we now have a very attractive offering for the LCCs.

What is next? After Embraer has completed the E2 what will be the next new programme?

The E3 and then the E4! What I mean, of course, is we are continuously listening to the market in order to understand the requirements and the solutions we can provide, on a sustainable and profitable basis. We want to continuously evolve and grow at Embraer.

As we monitor the disruptive technologies being developed, the shared economy mindset being adopted and the advent of big data; it's important we keep our antennae up.

Our product development ninjas are always coming up with some great new concepts!

That said; our focus right now is to deliver to the market the most efficient single-aisle aircraft in the E-Jets E2 family. This is a significant challenge in it owns right and we have many other competitors working to get a piece of the market. One point we are clear on; we don't want to compete with our friends in Seattle or Toulouse; we want to find new blue oceans to swim in - or fly over.

Why is the E2 different?

The E2 is the most efficient new generation aircraft family in the single aisle market. The E2s are a combination of newest technologies with the efficiency of the most modern design in a low-risk, proven platform.

Innovative wing design (E195-E2 has the highest aspect ratio of any narrow-body aircraft in production today), smarter use of materials and optimised performance for maximised efficiency are the features of the E2. I expect this new family of aircraft will open up new network carriers, hybrid carriers and LCCs than are not in our customer roster today.

Also, a number of turboprop operators will naturally mature now up to the E2; Wideroe in Norway is an early example of this.

Where are values and lease rates of the E190 in the secondary market? Are market values under pressure to clear aircraft for the next operator or for part-out?

As we passed the 10-year mark of entry into service of the E190 there is now an increasing number of transactions in the secondary market and this has proven to be a unique competitive advantage for Embraer and it gave us the opportunity to expand the customer base. In the recent past, we added S7 (Russia), Airlink (South Africa), TAP (Portugal) and Eastern Airways (UK) to our customer base.

Lease rates are the best indicator of the supply and demand balance. The fact the E190 values are stable proves the market did not believe in any sustained glut of the aircraft in the market. Today, I understand the percentage of the fleet of pre-owned available is somewhere between 2% and 3% which in my opinion is healthy. We had a brief spike in availability mid-last year, but with the remarketing expertise of GECAS and, especially NAC, this inventory was efficiently placed around the world.

Air Lease and other lessors are moving out of E-Jets and Nordic is consolidating the market. Are you concerned about that at all?

Opportunistic trading is a feature of all businesses; it's not a leading indicator of anything in particular. Trading of larger fleets or individual assets is a characteristic of successful lessors and I believe it demonstrates robust liquidity in the asset supporting robust residual values. Steve and John at ALC ordered E-Jets speculatively, placed them all quickly and also completed multiple sale and leaseback deals as they grew their fleet and in the process opened many new customers for us and we remain grateful for their support. I hope in due course we will again see ALC having E-Jets in their portfolio as the E2 footprint gets established.

What do you make of the CSeries - was it the right aircraft for Bombardier to bring to market to solidify its position in the regional market?

It's not my place to comment or advise on the strategy of any of our competitors. We respect them all and are always grateful for fair competition - it forces us to be better every day. Subsidised competition I'm not at all grateful for - but that's a subject for another day.

Our focus today is squarely directed to the E2 family which is the most efficient single aisle aircraft available in the market. Prior to positioning the E2, we spent a lot of time with many airlines and lessors partners through our advisory board meetings discussing the product positioning gap.

The key to long-term success, we believe, is getting the product positioning right and producing your product at competitive and sustainable prices. Get that right and compliment with superior customer support and services and you have a winning combination.

The E2s offer the most competitive family of aircraft and beats the direct competitors on the key metrics airlines care about. Did you know each member of the E2 family has its own unique wing to optimise efficiencies?

This new family is built on the experience of 18 million hours flight time accumulated on the current generation E-Jet family, which today offers 35% higher residual values than other aircraft in the segment and have the lowest operational costs in the segment — either measured in fuel per trip or fuel per seat.

MRJ: a success in the market?

As mentioned earlier, we respect all new competitors and generally it's in our DNA to take all competition seriously.

However, in the end, the main drivers for success for an airframer are smart resource allocation; product positioning; and excellence in development and production.

We have learned a lot over the past 48 years building approximately 8,000 aircraft and supporting customers around the globe. That tacit knowledge is not something you can easily replicated, it has to be earned with the passage of time.

Where to **find us**

Airfinance Journal #AFJNYC

New York Marriott Marquis, USA • Tuesday 16th - Wednesday 17th May

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The 37th Annual **North American Airfinance Conference**

Wednesday 17th May 2017, New York Marriott Marquis, USA

Day Two **Airline & Lessor Financing Day**

8:30 Registration and refreshments

8:50 Chairperson's opening remarks

Donald Gray, Partner, Blake, Cassels & Graydon LLP

9:00 How will the new US administration affect aviation?

- What impact do promises to prevent the export of U.S jobs stand to have on the aviation industry?
- How will the Trump administration's relationship with China affect aviation?
- Impact of the new US administrations' views on open skies

***Adam Pilarski**, Senior Vice President, Avitas*

9:30 On-stage interview: Canadian LCCs get a boost

- What does the increase in foreign ownership in the Canadian market mean for LCCs?
- Can 49% foreign ownership increase competition enough to drive down fares?
- What will be the implications for existing carriers?

***Jim Scott**, Chief Executive Officer, Jetlines*

***Moderated by: Jason McIntyre**, Partner, Blakes, Cassels & Graydon LLP*

10:00 Networking and morning refreshments

10.40 An update from Latin American airlines

- With the macro economy picking up, what does this mean for growth in the sector in the region?
- What sources of funding will airlines in the region tap into?
- What impact is increased stability in local economies having on airlines' fleet planning strategy?

***Jose Dougnac**, Chief Financial Officer, Sky Airline*

***John Rogerson**, Chief Financial Officer, Azul Brazilian Airlines*

***Moderated by: Doug Brennan**, Chief Executive Officer, Stellwagen Group*

11:20 Trends in North America LCC issuance

- What structures have we seen in the last 12 months?
- Will North America LCCs look more towards the capital markets or banking markets in 2017?
- How is an imminent rise in fuel and labour costs impacting financing strategies of LCCs

***Simon Gore**, Treasurer, Spirit Airlines*

***Jennifer Bue**, Director, Treasury, Westjet*

***Moderated by: Radha Tilton**, Managing Director, Goldman, Sachs & Co.*

12:00 Impact on new engine demand given current/near-term market dynamics

- Are rising interest rates and other macro factors likely to impact engine demand this year?
- Engine production forecast for the Americas
- Latest product developments

***Evan Harding**, Marketing Director, LEAP/CFM*

12:15 Lunch and networking

13:45 US airlines' 2017 financing outlook

- What sources of funding will airlines tap into in 2017?
- With a decline in operating leases in the region US carrier now own more of their fleet, does this make them less flexible?
- What new structures can we expect to see?

***Amelia Anderson**, Managing Director and Assistant Treasurer, American Airlines Group*

***Andy Nelson**, Managing Director and Assistant Treasurer, Delta*

***Jude Bricker**, Vice President and Treasurer, Allegiant Air*

***Moderated by: Patrick Kaufer**, Managing Director, Deutsche Bank*

14:30 What challenges do lessors face in an increasingly competitive leasing environment?

- What opportunities do lessors see in the North American market?
- Despite increasing profitability and younger average fleet age investors are still not convinced by lessors, why?
- How do newer entrants differentiate themselves from the competition and what can they offer to North American airlines?

***Ryan McKenna**, Vice President, Head of Strategic Planning, Air Lease Corporation*

***Steven Townend**, Chief Commercial Officer, BOC Aviation*

***Khanh Tran**, Chief Executive Officer, Aviation Capital Group*

***Moulay Omar Alaoui**, President & Chief Executive Officer, International Airfinance Corporation (IAFC)*

***Paul Rofe**, Group Treasurer, Aercap*

***Moderated by: Bertrand Dehouck**, Head of aviation EMEA, BNP Paribas*

15:15 Aviation continues to attract investors

- Who are the new investors in aviation and what are they investing in?
- Given the high risk between airlines and lessors, what would investors choose for a comparably rated security issue: lessors' or airlines'; ABS or EETCs.
- Should buyers of equity have input into management decisions such as new leases and servicing agreements?

***Keith Allman**, Vice President, Senior Securitized Asset Analyst, Loomis, Sayles & Company, L.P.*

***John Beekman**, Analyst, Fixed Incodme Division, Fidelity Investments*

***Matthew Hoesley**, Head of Finance, Altavair AirFinance*

***Bob Peart**, Portfolio Manager, Magnetar Capital*

***Trevor Ricards**, Senior Vice President & Manager – Capital Markets , GECAS*

***James Raff**, Chairman & Chief Executive Officer, RPK Capital*

***Moderated by: Jim Scott**, Chief Executive Officer, Jetlines*

16:00 Chairperson's closing remarks

16:10 Close of conference