

Aviation Finance Outlook 2017

Lessors Pave the Way for a Soft Landing



Aircraft lessors are helping to mitigate the risk in aviation finance, by preparing a soft landing for the industry once the current benign environment ends. Lessors streamline aircraft allocation amongst airlines across the globe, thus serving as aircraft-market-makers. Nevertheless, lessors are also contributing to aircraft price inflation, which could result in downturn volatility in fire-sale scenarios.

The current credit-risk environment is favourable to the aviation sector, also supported by the airlines' generally good operating performance. Airlines are benefiting from low fuel costs and strong demand for air travel. Further, the current low interest rates are catering for abundant and relatively cheap funding sources, as aviation finance draws more attention from investors.

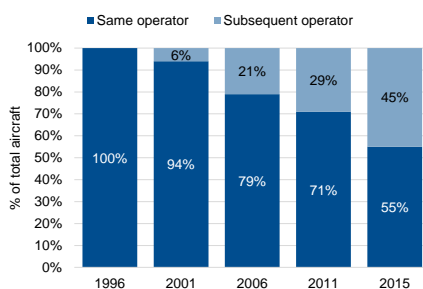
Operating lessors preserve collateral value

Defaults severity is reduced by a lessor's expertise in selecting aircraft with better marginal values after a lease expires. Expertise in generating value for aircraft helps reduce ground times and maximises recovery rates upon default. As the relevance of lessors grows, they effectively become market-makers for aircraft by acting as efficient asset managers.

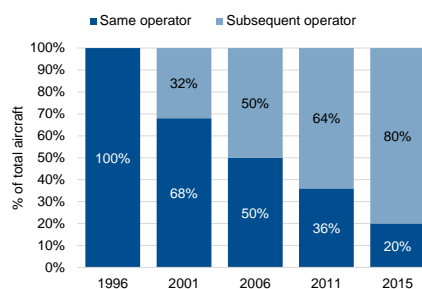
Operating lessors preserve collateral value and contribute to higher recovery rates. Consequently, they will provide a soft landing for the market once the current benign conditions end. Leasing companies are well placed to facilitate and accelerate aircraft re-allocations between airline companies, especially during downturns (see Figure 1). This is because their business models intrinsically rely on preserving the value of the aircraft in their portfolios.

Figure 1: Lessors facilitate aircraft re-allocations between airlines

Owned aircraft as of 1996



Leased aircraft as of 1996



Source: Global Aviation Finance Guide 2016 – Skyworks

The lessor's involvement in the re-marketing of older aircraft will also mitigate credit losses once the cycle changes. When fuel costs increase in the long run, old-generation aircraft will have to be replaced with more efficient aircraft. The intermediary role played by lessors will support the smooth transition to next-generation aircraft, a step some carriers will have to make.

But lessors contribute to aircraft-price inflation and volatility

Lessors and investors often pay more for aircraft with leases attached than the market value of the 'naked' aircraft. This overpricing increases the downturn volatility of the aircraft's liquidation value after default. Also, it reflects the more liquid nature of aircraft with leases attached, and the context of the significant investor demand for transactions.

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Additionally, lessors typically sell aircraft at a predetermined age, reflecting their preference for young fleets.

Growing market share of lessors is a net credit-positive

The growing market share of lessors is a net credit-positive for the aviation industry, despite their contribution to downturn price volatility. Lessors streamline aircraft allocation amongst airlines across the globe, thus serving as aircraft-market-makers, thus reducing the severity of defaults.

Operating lessors currently manage around 39% of the 23,600 commercial jets in service, a result of almost 30 years of constant growth. Lessors have also maximised aircraft values by acting as asset managers.

The top 20 lessors account for 80% of the total leased fleet. These lessors focus on maintaining young fleets (through direct orders with manufacturers), sale-and-leaseback transactions for semi-new aircraft, and the quick turnaround of assets in their portfolios.

For 2017, we expect lessors to buy c. 400 new aircraft based on market share alone, plus an additional 300 units from sale-and-leaseback transactions.

New investor interest comes with increased credit risk

The competition between investors often results in transactions with higher leverage, or in transactions that fund the acquisition of less-liquid aircraft.

Higher leverage in aviation finance represents higher credit risk. New categories of investors have shown a strong interest for aircraft-based financing, bringing abundant liquidity to the industry. The leverage of transactions has increased in the context of highly competitive sale-and-leaseback and ABS transactions. Loan-to-value ratios on the most junior financing of aircraft-secured contracts have also risen in the last 10 years.

This competition between investors and lessors has driven up aircraft-purchase prices in operating leases and decreased lease factors. For some investors, overall risks have increased in the case of a fire sale. Effective leverage is higher due to the slow amortisation (i.e. when affected by balloon payments), and the likelihood of above-market purchase prices for leased aircraft.

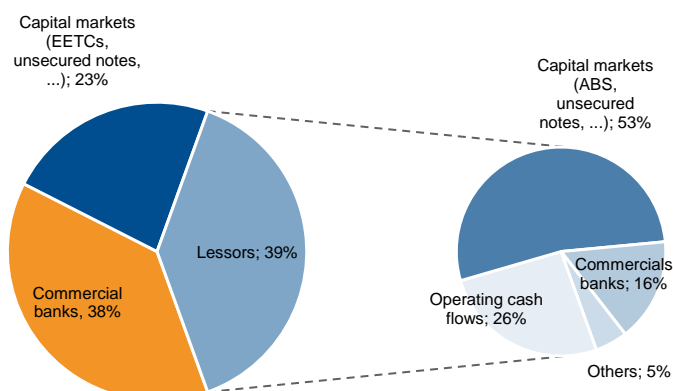
The search for yield drives investors into riskier, less-liquid transactions. Currently, achievable yields are low for transactions with first-tier airlines and first-tier aircraft. Consequently, some investors are seeking to invest in niche aircraft models; in cargo aircraft; or in aircraft leased to second- or third-tier airlines.

The abundance of credit available to the industry has also led to a significant increase of unsecured lending, which likewise generates a higher risk for lenders. Lessors have been more active in unsecured bonds than airlines, and we expect this to continue into 2017.

Evolving funding mix for aviation finance

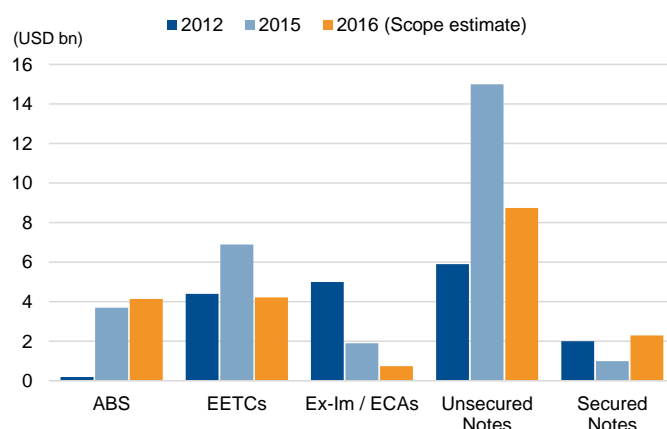
Funding needs in aviation are covered by a diversity of sources (see Figure 2 and Figure 3), balanced well between a direct access to capital markets (23%), commercial bank lending (38%, including ECAs and tax-lease structures), and the growing participation among operating lessors (39%). Lessors, on the other hand, are mainly financed by capital markets (53%), commercial bank lending (16%) or other sources (5%). Notably, lessors obtain approximately 26% of their funding from operating cash flows.

Figure 2: Aviation finance creditors



Source: DVB Airfinance, Annual 2016/2017 and Scope

Figure 3: Aviation finance funding mix



Source: Airline Economics and Scope

Remarkably, the growing size of lessors has enabled some to issue unsecured debt. The mergers of large lessors¹ during the last five years have increased fleet sizes and economies of scale. Airlease, for example, has been very active (two issuances at USD 1.3bn) together with ICBC (one issuance at USD 1.3bn). Other issuers include AerCap (USD 1bn), BOC Aviation (USD 0.7bn), CAL, Air Castle, SMBC, and Goshawk Aviation with a first-time Schuldschein issuance (USD 95m). The tenors of the new bonds range from three to 10 years, with many deals featuring seven-year bullets.

Among the airlines, easyJet and WestJet have issued around USD 0.5bn each, followed by Etihad (USD 0.5bn) and Hong Kong Airlines (USD 0.2bn).

For 2017, we expect aircraft ABS activity to continue at the level in 2016, when more than USD 4bn of ABS debt securities were issued for the purpose of funding and refinancing, given the abundant liquidity. Mid-tier lessors have also tapped the markets for the permanent funding of mid-life aircraft, while large lessors used ABS to fund new aircraft. In addition, lessors are selling relatively young aircraft portfolios and optimising their returns on residual values.

Issuance of enhanced equipment trust certificates (EETC) decreased to an estimated USD 4bn in 2016, from USD 7bn in the preceding year. EETCs typically bear the risk of a single carrier that takes pools of new aircraft. American Airlines and United Airlines both issued transactions for c. USD 2bn each, and Norwegian also issued a significant one.

Higher air-travel demand supports airlines' credit performance

Credit performance in aviation finance is ultimately driven by a carrier's ability to operate aircraft while maintaining sufficient margins over fixed and variable costs. Airlines are benefiting from low fuel costs and strong demand for air travel, further supported by the abundance of credit in the ultra-low interest rate environment created by central banks.

The aviation industry is currently in an up-peak cycle which started around 2010. Since then we have seen strong aviation demand, which has resulted in a more cost-efficient and consolidated industry compared to seven years ago when the cycle began. 2016 was a winning year for the industry, with records for absolute net profit (USD 35.6bn) and net profit margin (5.1%).

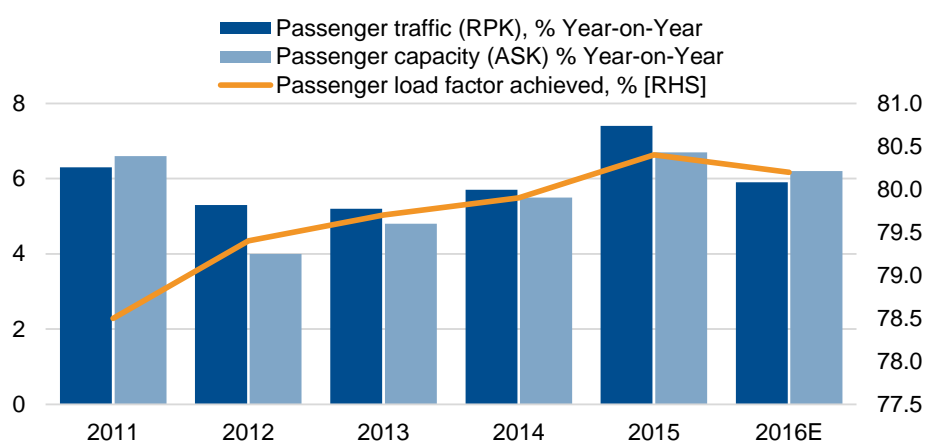
¹ For example, the recent merger of the sixth and seventh largest lessors, CIT and Avolon, in 2016.

Overcapacity is not an issue, for now

Air-travel demand has outpaced the build-up in capacity, and the passenger load factor for the entire industry has been growing since 2005 (see Figure 4). Nevertheless, IATA's estimates for 2016 and 2017 indicate that load factors will stabilise and that capacity will rise slightly higher than the demand for air travel.

A global shock that severely reduces demand for air traffic could result in overcapacity. Rising fuel costs will hit demand because the industry can efficiently pass on this cost, but will not result in overcapacity. Such lower demand would only reduce load factors.

Figure 4: Overcapacity is not an issue, for now



Source: IATA

Air-travel demand will be resilient

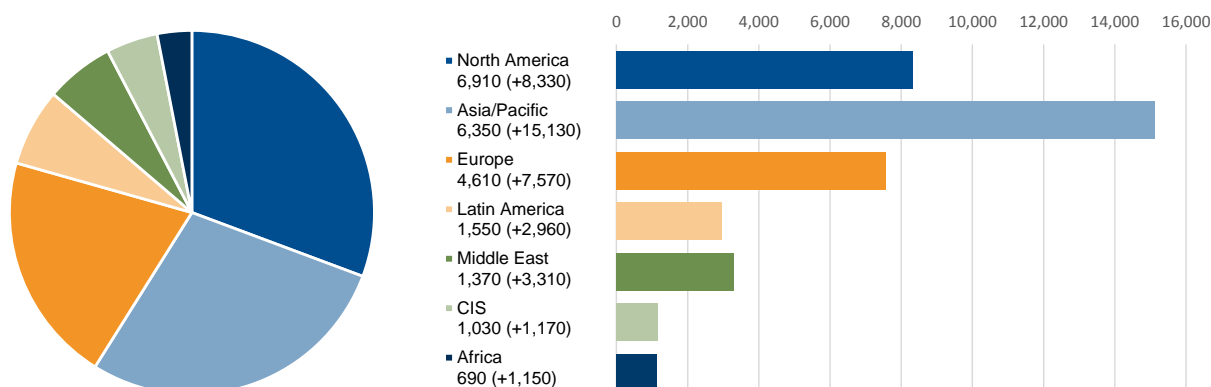
Increased air-travel demand results in more demand for aircraft as well as higher market values. This also applies to second-hand aircraft, reflecting the currently improved credit fundamentals of the aviation industry.

Air-travel demand is supported both on the demand side, by consumers, and on the supply side, by carriers' business models. The increasing middle class in developing countries represents a major addition to the total passenger base. The growth of low-cost carriers, and of medium- to high-fare carriers in OECD countries, has reshaped product offerings and increased demand worldwide. Flag carriers, such as Scandinavian Airlines, are announcing moves similar to those of low-cost carriers, in order to increase competitive position and improve balance sheets.

We expect demand for aircraft will be resilient to current political and economic changes, more so than international trade or certain long-term industrial foreign investments, because of the following:

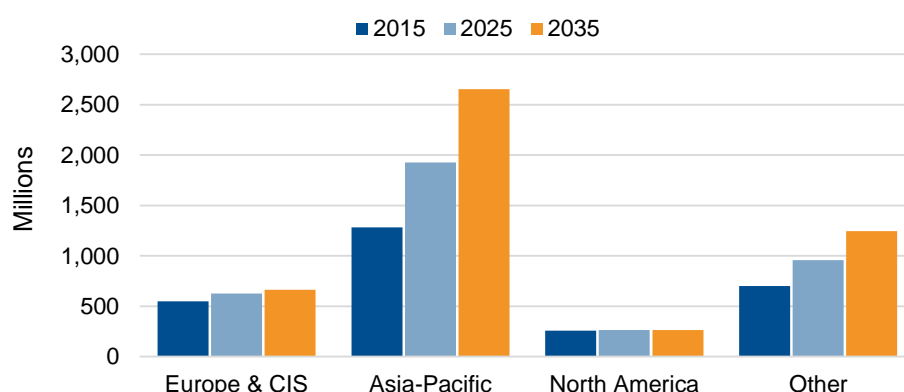
- Strong economic growth in emerging markets over the next decades will increase the appetite for air travel in densely inhabited regions (China, India, Brazil), particularly among emerging middle classes (see Figure 6). Air travel from the Asia Pacific is especially expected to accelerate and will add 1.1 billion of middle-class travellers. Europe and North America will remain almost constant.
- Domestic markets would be less impacted than international routes in a global downturn. This has been apparent during the economic slowdown in China, which has not impacted the domestic air-transport market. In addition, the success of low-cost carriers has driven strong demand for air travel in emerging regions and has made flying more affordable.

Figure 5: Aircraft in service [LHS] and demand [RHS], 2016-2035



Source: Boeing Outlook 2016 - 2035

Figure 6: Middle-class household projections



Source: Airbus Forecasts 2016

- The replacement of old-generation narrow-body aircraft in the US may trigger additional demand. US airlines need to renew their fleets, which have an average age of 18 years versus 11 in Europe. This supports the demand of newer, more efficient, next-generation aircraft.
- The generalisation of creditor-friendly regimes, after several countries ratified the Cape Town Convention (especially Alternative A), has made aircraft more appealing to foreign investors. The improvement to the international legal framework for leasing and export-finance lenders especially benefits the secondary market, as mid-life aircraft are normally placed with second- or third-tier airlines in remote locations during their second-lease term. The legal frameworks and the Cape Town Convention are critical factors for investors when it comes to less-tested jurisdictions.

Less-efficient aircraft benefit from a fortunate life extension

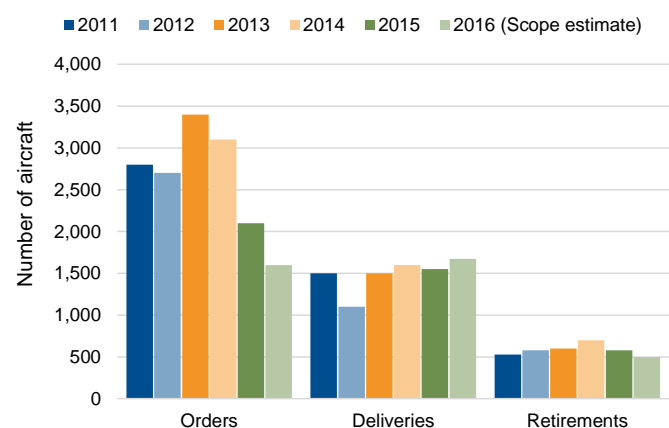
Lower fuel expenses have enabled airlines to delay the retirement of their less-efficient aircraft (see Figure 7). This has impacted orders of new aircraft during the last two years. The amortisation of older aircraft should make it easier to replace aircraft when, and if, fuel costs again increase – if carriers use today's extra profits for building reserves.

The order backlog represents the production of Boeing and Airbus over nine years, and equates to 51% of the fleet in service today (a record for aircraft backlogs). Deliveries remained stable in 2016 at c. 1,650 units (i.e. 6-8% of the global fleet).

Figure 8 shows how the move to newer, more fuel-efficient fleets will be weighted towards short-haul, re-engined narrow-body aircraft. Classic versions of these aircraft

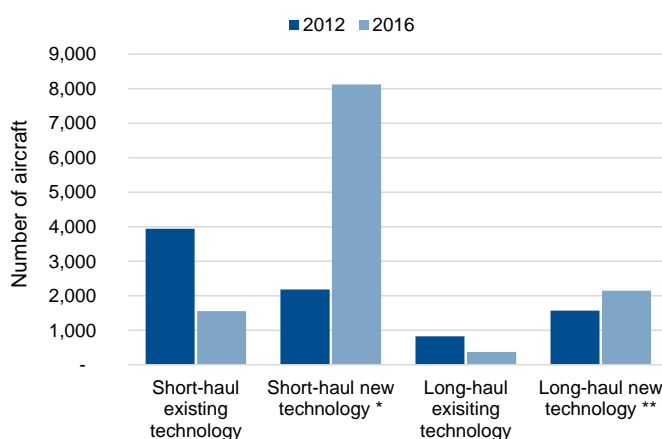
were swapped for next-generation versions in the order backlog of airlines between 2012 and 2016 (i.e. 150 A320 Ceo swapped for the A320 Neo).

Figure 7: Fewer aircraft orders and retirements due to lower fuel prices



Source: Airline Monitor and Scope

Figure 8: Order backlog shift to new-technology aircraft



(*) B 737 Max / A 320 Neo (**) 787 / 747-800 / 777-X / A380 / A350 / A 330 Neo
Source: PwC, Aviation Finance 2013 and Scope

As airlines take new deliveries, their second-hand aircraft will have to find new investors. Some leasing companies focus on this second-hand/part-out market, and their experience and business models support the industry in maximising residual values of aircraft and thus reduce overall credit risk.



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