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Darker clouds gather over the horizon

With another global recession heading over the horizon, demand for leased assets will remain strong. Operating lessors are set to further increase their market share.

The International Air Transport Association (IATA) latest monthly analysis (July 2022) showed that the recovery in air travel is gaining momentum and remains strong. Both passenger and domestic markets were substantially up compared with July 2021, benefitting from the lifting of travel restrictions in most parts of Asia-Pacific.

After two years of lockdowns and border restrictions, passengers have been taking advantage of the freedom to travel, according to IATA's director general Willie Walsh. But headwinds such as rising inflation, fuel and currency fluctuations will challenge travel demand.

Walsh was correct in his prediction that the lifting of travel restrictions would unleash a torrent of pent-up travel demand in the summer months. However, meeting that demand has proved challenging and likely will continue to be so.

According to Walsh, some hub airports were unable to support their capacity even with the current 64% slot threshold and have extended recent passenger caps until the end of October.

Walsh tells *Airfinance Journal* that fuel remains a cost pressure that will continue for the rest of the year.

"The crack spread, between the crude oil price and jet fuel price, is still unusually wide," he says.

"This is at levels I don't recall before. In the first week of September, the crack spread was at 50% and I looked back over a 10-year period and it averaged at 17%. Fuel represents the single biggest cost for airlines and although the Brent oil price eat a little, the jet oil price is still very elevated. That will continue to put pressure on airlines costs for the rest of the year."

Walsh adds that IATA had expected the spread would reduce the supply of jet fuel increases but clearly the recovery in demand is stronger than the recovery in production.

"Higher fuel prices will be reflected in ticket prices as airlines don't have the financial capacity to absorb the significant increase that we have seen in prices," says Walsh.

This challenging operating environment of higher costs and uncertain traffic has supported the growth of aircraft leasing during the pandemic.

Crippled demand meant lessors were forced to work with troubled airlines rather than take aircraft back. This saw lessors agree to deferred aircraft lease rentals or power-by-the-hour arrangements.

Aercap's chief executive officer, Aengus Kelly, admitted during the company's second-quarter results that leasing has grown "much faster" than he had expected before the pandemic.

"The OEMs [original equipment manufacturers] between sale-leasebacks and direct lessor orders, we're probably looking at 65% of all deliveries will end up in the leasing channels. At one point, I did not believe that leasing would surpass 50% of the global market. We're way past that now in terms of value, and it's only going one way."

Now airlines are turning to lessors for a different reason: to source aircraft.

Airlines are keen to build fleets of next-generation aircraft but face restrictions from Airbus and Boeing because of supply chain woes. However, recent lessor deals such as those with Condor and Air Europa are proof that leasing companies hold slots that airlines want.

Furthermore, buying aircraft is becoming more expensive in an increasingly uncertain market.

The world may soon be "teetering on the edge" of a global recession, according to the International Monetary Fund in its latest forecast.

"The outlook has darkened significantly since April," said Pierre-Olivier Gourinchas, IMF economic counsellor and director of research in The World Economic Outlook Update July 2022.

The baseline forecast for global growth is for it to slow from 6.1% last year, to 3.2% in 2022 – 0.4% lower than forecast in the last outlook update in April.

Inflation is surging in the USA and Europe. And Russia's decision to cut off gas supplies to Germany has reduced the likelihood of inflation being brought under control any time soon.

Walsh says the pandemic showed that aviation is not a luxury but a necessity in a globalised and interconnected world.

But it also demonstrated that airlines want flexibility, and with further cost pressures and supply chain challenges ahead, demand for leased assets in a post-pandemic market will remain resilient.

OLIVIER BONNASSIES,
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Airfinance Journal

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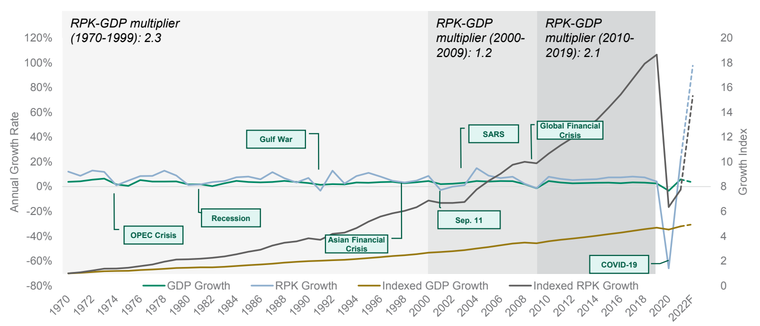
Route to recovery: delayed

Alton Aviation Consultancy's Industry Altimeter looks at the state of commercial aviation and aircraft leasing.

The aviation industry has cautiously turned a corner from the Covid-19 pandemic, with traffic rebounding as the world has largely opened. However, as of this writing in the middle of the third quarter 2022, new challenges are emerging that throw the industry's path forward into uncertainty.

The economic climate is volatile, with inflation and interest rate increases likely to affect market and consumer behaviour. Furthermore, the Russian invasion of Ukraine has continued, while increasing tensions over Taiwan cause further trepidation. As a result, the aviation finance industry and the broader aviation industry face a cloudy outlook as the persistence of these trends may fundamentally change the nature of post-Covid recovery.

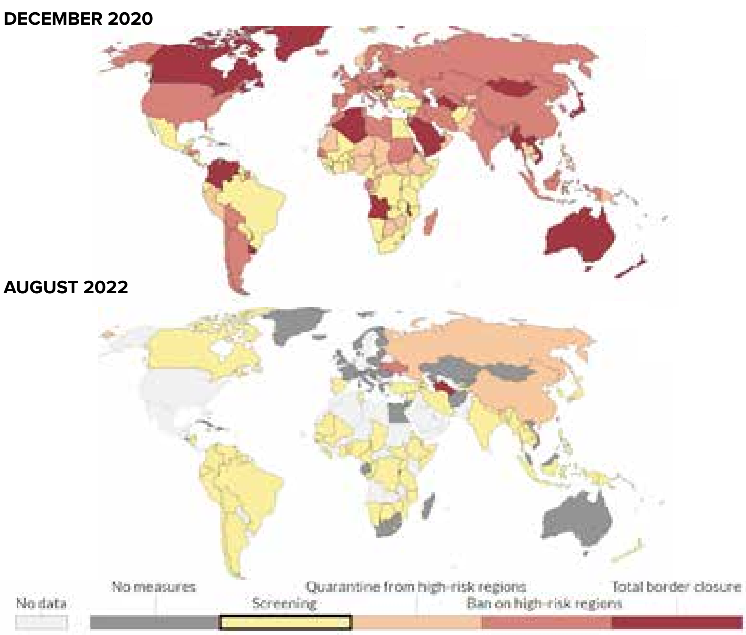
Figure 1: Historical air traffic RPK and GDP growth



Historically, the global environment has engendered industry-wide growth. From 1970 to 1999, air traffic demand rose at an average of 2.3 times GDP. Between 2000 and 2009, the multiplier reduced to 1.2 times following the impacts of 11 September 2001 and the Sars outbreak. The rate of air traffic growth in relation to GDP over the decade 2010-2019 had accelerated compared with the previous 10 years, with the multiplier averaging 2.1 times GDP.

Three key factors drove global air traffic growth: increased tourism spending, global expansion of the middle class and low fare stimulation from low-cost carriers. All of this was upended by Covid-19.

Figure 2: International travel restriction mapping



An uphill climb

The Covid-19 pandemic dramatically impacted the global aviation industry. The International Air Transport Association (IATA) recorded a 66% RPK year-on-year decline in 2020, bringing traffic for the year back to near 1995 levels. IATA estimated a 22% year-on-year increase in passenger air traffic demand in 2021 and forecasted a stronger RPK recovery during 2022 following the relaxation of travel restrictions globally, with a 98% year-on-year growth compared with 2021.

Both air traffic demand and supply rebounded in 2022, while the recovery in the Asia-Pacific region remained sluggish because of travel restrictions. Key international markets such as China maintained stringent entry requirements, including mandatory Covid quarantine periods.

Recovery in both revenue passenger kilometres (RPKs) and available seat miles (ASKs) had been sluggish over the past two years but has recently accelerated in regions with large domestic markets and strong vaccination progress (eg, North America). Although recovery in the Asia-Pacific remains largely stagnant, global load factors have risen from the trough and are edging towards pre-Covid levels.

Load factors have recovered from a low of 37% in April 2020 to 78% in April 2022, reaching 94% of pre-Covid levels globally. Recovery in load factors has remained steady since early 2021, led by the North American region, benefitting from large domestic markets, faster vaccination rollout and lifted travel restrictions.

Since the start of summer 2022, the aviation industry has faced considerable strain ramping up to meet such demand. Labour shortages from staff laid off as part of pandemic cost-reduction initiatives have contributed to operational challenges across the value chain. Cases have included airlines cancelling flights over the summer because of a lack of cabin crew and airports unable to process passenger numbers through security searches and baggage handling. Several incidents have received high-profile media attention, such as London-Heathrow airport ordering airlines to reduce frequencies to ease operational pressure.

From a fleet perspective, recovery in narrowbody capacity has been stronger compared with widebody capacity. Travel restrictions have driven short-haul narrowbody routes flying both in domestic and regional markets to recover faster than long-haul continental widebody routes.

Figure 3: Change in monthly RPK and ASK versus same month in 2019 by region

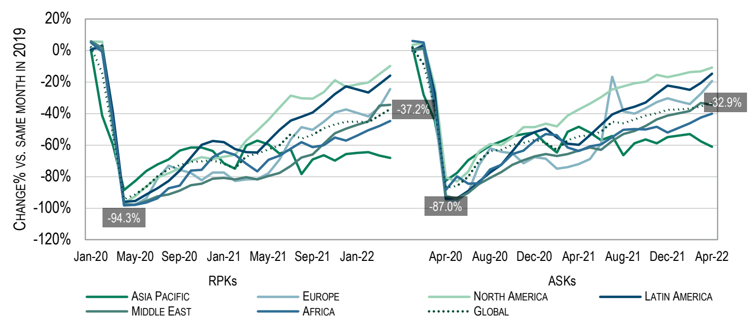


Figure 4: Load factors by region

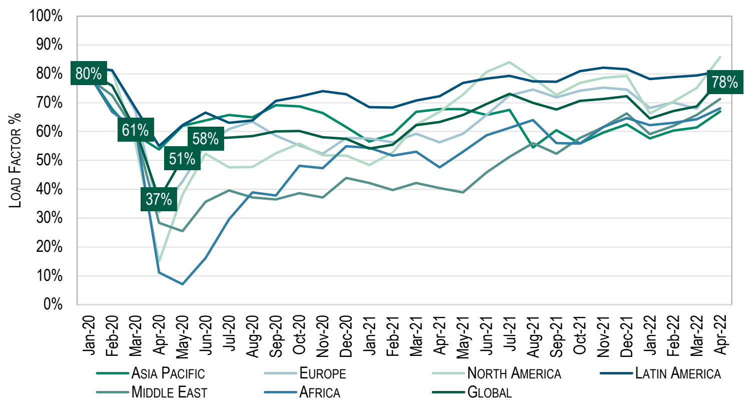
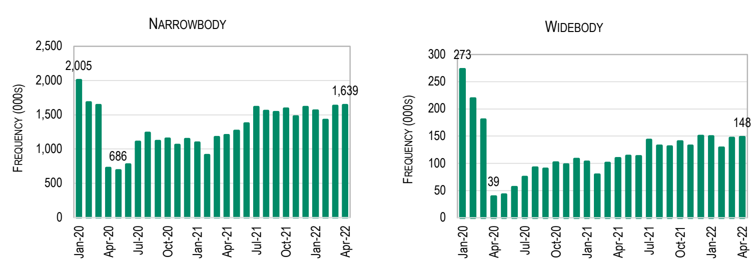


Figure 5: 2019-May 2022 scheduled frequencies by aircraft segment



Attempts at loss reduction and raising liquidity

The Covid-19 pandemic broke a 10-year streak of industry profitability and caused a magnitude of loss unprecedented in aviation history. Despite traffic growth's strong historical correlation to macroeconomic indicators such as GDP, the air travel industry is highly susceptible to sectoral and localised crises, but has shown resilience and recovered quickly from losses. However, the scale of current financial predicaments is massive, and recovery has proven to be slower.

IATA estimates global commercial airline revenue will increase by 55% in 2022 from 2021, reaching $782 billion, similar to 2014. Airline-generated losses in 2021 are estimated to have been $51.8 billion, but net losses are expected to continue to narrow in 2022. IATA projects that total industry losses from 2020 to 2022 will reach $201 billion.

Forced to curtail operations significantly, airlines have been pursuing multiple strategies to reduce cash burn and increase liquidity to weather long-term impacts of the pandemic. A significant proportion of airline costs are fixed (eg, salaries, lease rentals, etc) and depleted revenues have been insufficient to cover both fixed and variable costs, forcing airlines to use cash reserves. Strategies to reduce cash burn have included cutting salaries, laying off staff, deferring lease rentals, etc.

Governments had provided temporary assistance throughout the pandemic through wage support and subsidies, reductions in airport and navigation charges, and the reduction or deferral of tax payments. However, such support has come to an end in many countries.

In the absence of this, airlines have sought to increase the size of their cash reserves to maximise the probability of survival. Their strategies have included raising debt by using owned aircraft, parts inventory, and intangible assets such as airport slots and frequent-flyer programmes, as collateral. Some airlines have also gone to the market to raise cash via equity rights issuances.

Governments have assisted in providing bailout packages to national carriers, typically in the form of loans or loan guarantees – which have added to the recipient airline's debt in the medium term. Realising the value of aircraft and other assets on the balance sheet, both tangible and intangible, has provided additional liquidity for airlines.

Airlines have also increased their incidence of sale and leaseback transactions to help improve their liquidity. While supply and demand market dynamics should have negatively impacted value, available liquidity, particularly for new aircraft sale and leasebacks, have enabled most airlines to maintain high sales prices. Recent sale and leaseback transactions have included Flynas with lessors CDB Aviation, CMB Leasing and Avolon for 14 Airbus A320neos and Easyjet's transaction with Aergo Capital for 10 A319s.

While these short-term liquidity-enhancement methods will help tide these airlines over, they put pressure on medium- and long-term credit metrics, given increased leverage and financial obligations. Following the improvement of their liquidity position,

Figure 6: Aviation net profit and profit margin ($bn)

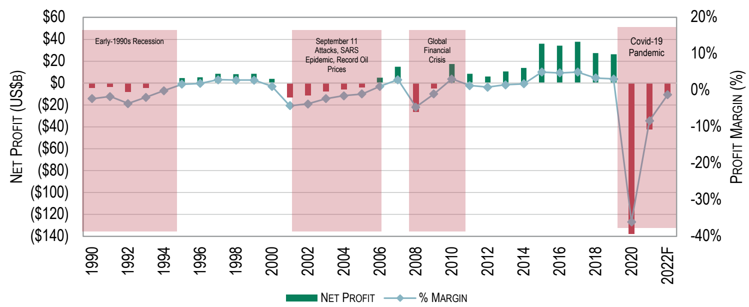
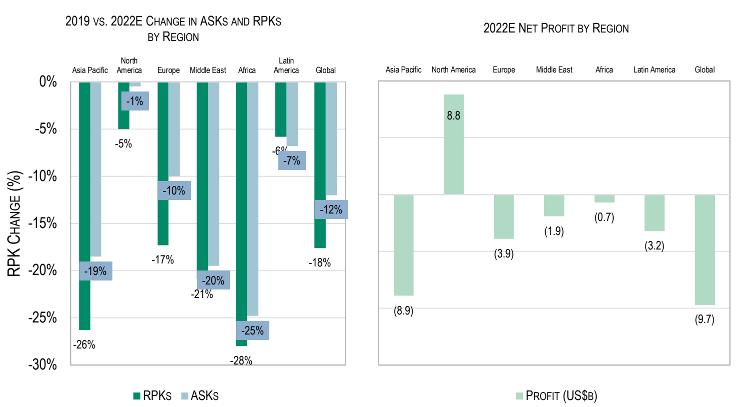


Figure 7: Airline capacity, revenue passenger and net profitability by region



an increasing number of airlines are anticipated to deleverage their balance sheet and pay off debts with higher financial costs.

Despite the general pessimism toward airlines given the climate, some carriers have also managed to raise equity via financial markets. In May 2022, China Eastern Airlines received approval to raise up to $2.2 billion liquidity through non-public issuance of A-shares and Air France-KLM planned to raise $2.4 billion from existing shareholders via the issue of 1.93 billion new shares.

Not all airlines are able to turn to the markets to raise equity or government-backed unsecured debt, because investors are in favour of airlines with a better credit profile and liquidity position. Raising additional equity requires the agreement of shareholders, whose holdings are diluted by new issuances. Shareholder consent may therefore not always be forthcoming. Though effective for raising working capital in the short term, major equity financing moves may burden airlines in the future.

While all these actions may help airlines in the short term, they will not improve profitability. Instead, liquidity-raising efforts to weather the impact of the pandemic may fundamentally change airline cost structures. The debt taken on may increase cost burdens, thereby making a return to pre-Covid profitability more difficult – particularly in a market with high inflation and rising interest rates. How exactly this will affect airlines in the long term remains to be seen.

Improving fleet dynamics

Passenger fleet size has experienced steady growth over the past decade, benefitting from growing air travel market demand. The global fleet (both active and parked) has seen a near 40% increase since 2010, with the fleet count growing from 22,087 to 31,048 in August 2022, supported by the steady growth of air travel market demand. Narrowbody aircraft account for 60% of the passenger fleet, while widebody aircraft represent about 16% of the global passenger fleet.

The parked passenger fleet size had tripled around March 2020 because of the onset of Covid-19; there has been a slow but steadily declining trend in aircraft parking driven by vaccination rollouts and the subsequent return of air travel demand.

The sluggish recovery of international air traffic is still contributing to a high number of parked passenger aircraft, totalling 6,223 units as of August 2022, 2.1 times more than the June 2019 level. It should be noted that the global share of widebody parked aircraft is still disproportionately higher than the share of other fleet types.

Cancellations and deferrals were significant in 2020-2021 as airlines looked to right-size their fleets, with such behaviours continuing into 2022. New orders from airlines and lessors declined in 2020 because of Covid but have begun slowly picking up since the second quarter 2021 as the industry recovers.

Freighter conversions of passenger aircraft have increased because of depressed values and an increase in retirements providing a large quantity of surplus aircraft to complement the continued growth of air cargo demand. Narrowbody aircraft have driven most of the passenger-to-freighter demand over the past decade while widebody conversions grew in 2021.

Aircraft typically become viable as conversion feedstock about 18 to 25 years of age with conversion adding 10 to 15 years to the operational life of an aircraft. Covid-19's impact on values and surplus of aircraft will likely reduce the typical conversion age and increased feedstock availability. Indeed, in the post-Covid recovery period, conversions for younger aircraft types, particularly A330s,

Figure 8: Historical passenger fleet (2010-August 2022)

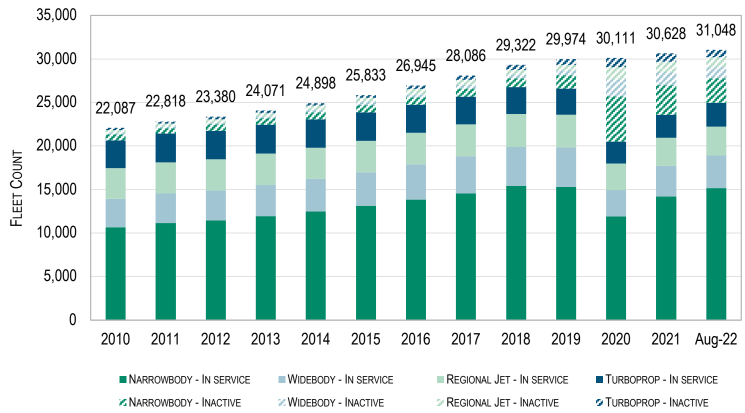


Figure 9: Historical parked passenger fleet (2019-2021) by aircraft segment

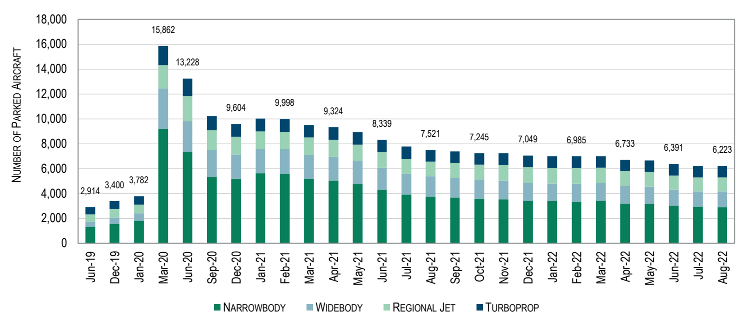


Figure 10: Airbus and Boeing net orders (Jan 2020-Dec 2021)

have been seen because of value degradation.

Companies such as EFW reported an increase in passenger-to-freighter (P2F) demand for A320, A321 and A330 conversions given a significant uptick in feedstock availability, and AEI has received at least 60 orders for its Boeing 737-800SF converted freighter. Blackrock was reported to have purchased three 747-400 converted freighters and five 737-800SFs.

Incentivisation initiatives including China's finance ministry reporting it will subsidise up to 80% of P2F conversion costs are also emerging worldwide. The uptick in demand has also been driven by the reduced cargo capacity in the market because of large numbers of widebody aircraft parked worldwide.

Some older unencumbered aircraft – such as the A319 – that need heavy maintenance or have better early part-out value propositions are likely to drive initial retirements. A proportion of the parked fleet is expected to be permanently retired, including ageing widebodies such as the A340, 777-200, 777-300, and older A330s, 767s and A380s. Older narrowbody platforms such as the MD80/90 and passenger 757s may also see an early retirement.

Overall, fleet trends seem to be on track for the coming years, if a bit accelerated compared with previous estimates.

Effects of Russia's invasion of Ukraine

IMF's April 2022 World Economic Outlook initially recorded a 6.1% global increase in real GDP in 2021 after the 3.3% decline in 2020. Because of the ongoing Russia-Ukraine conflict, monetary tightening and financial market volatility, the IMF slashed the global 2022 projected GDP growth to 3.6% and forecasts negative GDP growth in the emerging European economies – with Russian GDP expected to decline by 8.5% in 2022.

Following the outbreak of the Russia-Ukraine crisis, various countries suspended Russian carriers' operations within their airspace in February 2022. Russia closed its airspace simultaneously as a countermeasure against the sanctions.

Figure 11: Historical passenger-to-freighter conversions (2010-2021)

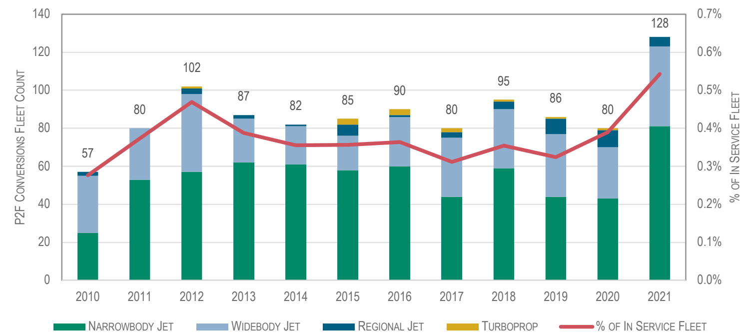


Figure 12: IMF real GDP growth projections by region

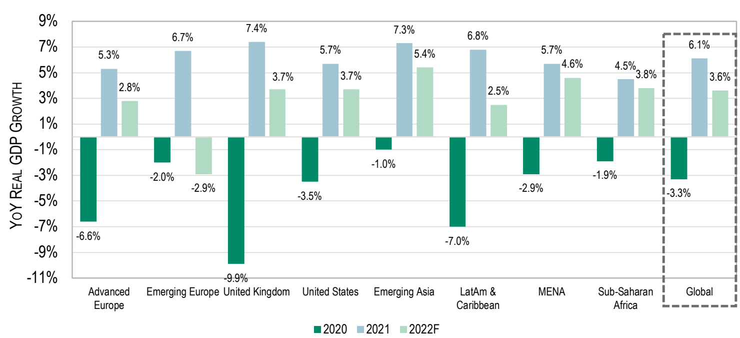
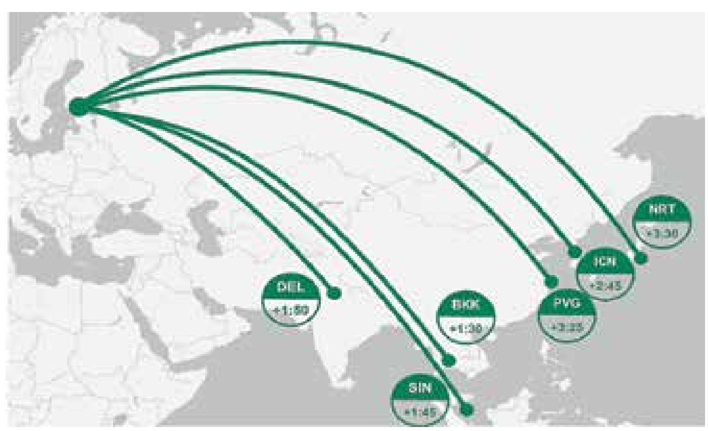


Figure 13: Additional flight hours for eastbound Finnair flights from Helsinki (Feb 2022 versus Apr 2022)



As a result, Russian air traffic plunged, with its international segment experiencing a 60% decrease in April compared with January.

Moreover, airlines operating on Europe-Asia and Asia-North America routes were forced to re-route following the Russian air space closure, significantly increasing sector lengths. Finnair, which claimed the fastest northern route between Europe and Asia, has seen an average two-hour increase in flight time compared with its original routes' duration. Because of a lack of demand and a challenging operational environment, Finnair indicated it might halt routes to South Korea, Japan and China, and lay off up to 650 employees.

Although the sanctions may not significantly impede the post-Covid global traffic recovery (since the Russian market only accounts for about 4% of global air traffic historically measured by seat capacity), its geographic position will heavily impact routes connecting Asia to Europe, which further increases operating costs of airlines focusing on these key market segments.

Sanctions also threaten the long-term feasibility of foreign aircraft leasing in Russia, a market whose growth was strategically important to many lessors.

On 25 February 2022, the EU imposed broad and far-reaching sanctions regarding the Russian aviation industry, limiting direct or indirect export of aircraft, parts and various aircraft-related services into Russia starting from April 2022. The US issued similar aircraft export restrictions within the same month.

The sanctions forced lessors to terminate leasing agreements and attempt to repossess their fleet from Russian carriers, which was largely unsuccessful. Airbus cancelled 15 aircraft in April's orderbook, while Boeing removed nearly 90 aircraft from its backlog. Boeing's Max recertification is unlikely to occur in Russia in the foreseeable future.

Sanctions will limit the fleet growth in the near- to mid-term for both new deliveries from original equipment manufacturers (OEMs) and the leasing market. The existing in-service fleet size will also be impacted in the near- to mid-term following the restrictions on aircraft parts imports and maintenance, repair and overhaul (MRO) services, because the Russian carriers are expected to cannibalise their western-built aircraft for spare parts.

The immediate impact of Russian sanctions on the global aviation market is not as wide-ranging and profound as the Covid-19 crisis. Still, it has nonetheless been painful for certain lessors, dragging on resources and highlighting the limitations of insurance coverage.

In the first quarter of 2022, about $6 billion in impairments were reported by lessors in respect of their Russian exposure. Investment-grade lessors

Figure 14: Russia passenger fleet composition

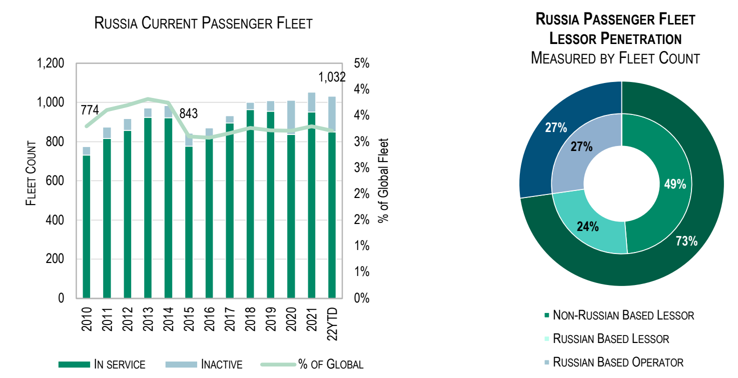


Figure 15: Major non-Russian-based lessor impairments filed in Q1 2022

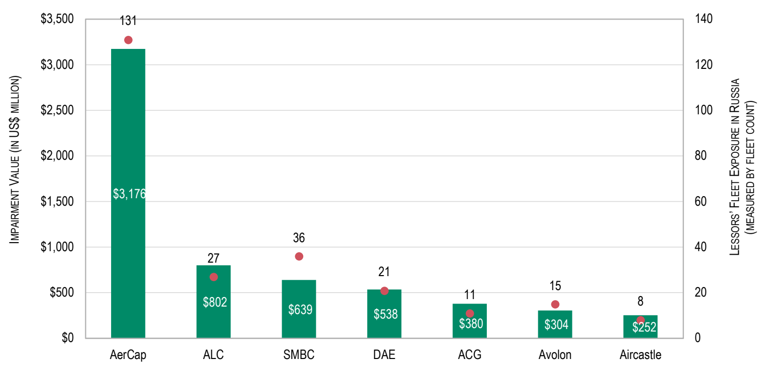
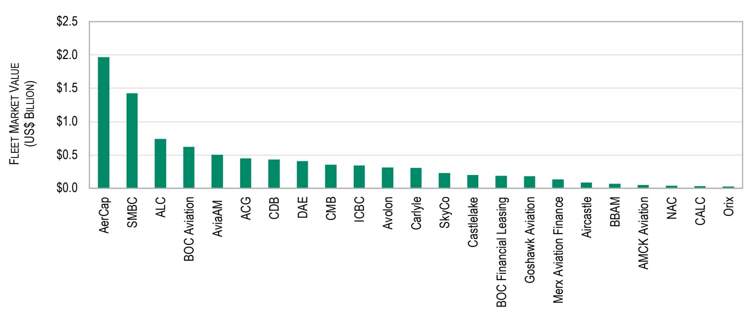


Figure 16: Major non-Russian-based lessor fleet exposure to Russia measured by aircraft market value ($bn)



had seen their ratings moving back to neutral outlooks from negative, and there were indications potential upgrades may happen, but the impact of the war and resulting impairments and reduced cash flows and increased debt-to-equity ratios may have put this on hold for now.

The industry expects lessors to recoup much of the lost asset value via insurance claims of up to $10 billion, but that process is likely to be protracted.

As of June 2022, there were about 500 aircraft managed/leased by non-Russian-based lessors operating in Russia, and lessors successfully repossessed only a small portion of these leased aircraft after the aviation sanctions.

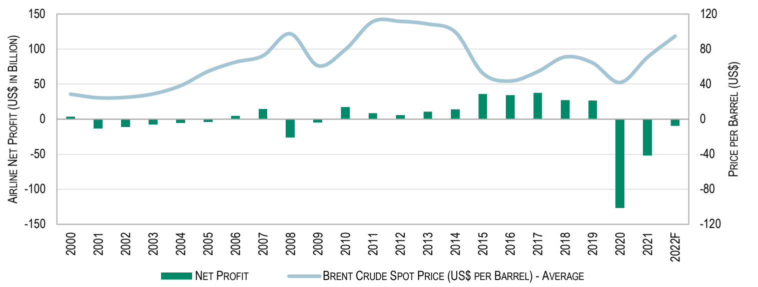
According to *Insurance Journal*, the total aviation insurance losses from the Russia-Ukraine war could range from $6 billion to $15 billion. Fitch estimates the aggregate loss limits are likely to restrict claims to $5 billion to $6 billion, while a worst-case scenario could entail $10 billion.

Several lessors have filed insurance claims or taken other measures regarding their unrecoverable aircraft: Aercap filed a $3.5 billion insurance claim for its 131 aircraft dispatched in Russia, and SMBC Aviation Capital has written off the value of all its aircraft stranded in Russia, worth $639 million.

Following several business consolidations and some large insurers withdrawing from writing aviation risk in mid-2019, the dynamics of the aviation insurance market have shifted toward increased pricing, which was further accelerated by the Covid-19 pandemic in 2020 and Russia sanctions in early 2022.

Given the broad scope of sanctions and sizeable lessors' fleet exposure to Russia, the impact on aviation insurance is unprecedented and will be profound in the long run, though the full, true impact remains uncertain. A bilateral agreement between insurance companies and lessors will likely come to fruition. Still, the negotiation process may take much longer than initially anticipated. The aviation insurance market will likely see a significant hardening of the insurance premium and tightening of the insurance coverage, especially for contingent insurance.

Figure 17: Historical passenger airline profitability ($bn) and jet fuel price



Note: 2022F – net profit based on IATA June 2022 update, Brent Crude Spot Price as of 15 August 2022

Spiking fuel prices

Following the Russian invasion of Ukraine, jet fuel prices skyrocketed compared with the stable low prices seen over the past seven years. IATA estimated 2022's jet fuel price average to be $135.7 per barrel in May 2022, 75% higher than its previous estimate of $77.8 per barrel in October 2021.

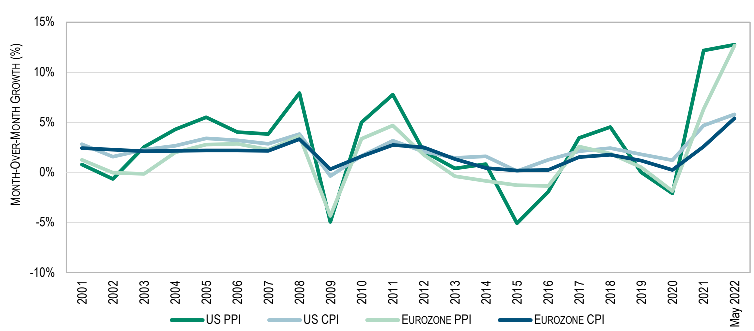
Prices of Jet fuel tracked crude oil prices closely with a limited pricing differential in the past decade. Historically, there has been a positive correlation between airlines' profitability and jet fuel price given a large proportion of operating expenses attributed to jet fuel expense. On an individual airline basis, hedges can decouple the natural correlation.

Usage of Jet fuel for US-based airlines in March 2022 was almost 90% of March 2019's level, while the jet fuel expense was 1.3 times higher than in March 2019.

Jet fuel is a significant operating cost item for airlines and typically represents 15% to 40% of total operating expenses, varying between different business models. In response to the jet fuel price spike, airlines can partially transfer the cost to passengers in the short term through increased fares and fuel surcharges. In the near term, given the current pent-up travel demand in wealthier nations, passengers are willing to pay higher prices to get away after two years without travel.

If oil costs remain at the elevated levels or continue to increase, or the global economy slows or enters a recession, passenger demand, particularly with higher fare levels, would be tested, making the airlines' ability to pass fuel costs onto the passenger uncertain.

Figure 18: Historical CPI % PPI for the USA and Eurozone (2000-May 2022)



Note: producer price index (PPI) for the manufacturing industry within each region

Rapid inflation

As headline inflation numbers have risen to levels not seen in 30 to 40 years, there is the potential for a paradigm shift in how those deploying capital assess opportunities, with aviation no exception.

Inflation's impact on the broader aviation value chain is complex and wide-ranging, so it is difficult to isolate and quantify what it will mean for the industry and asset prices. As with many factors, some time will be required before the impact of inflation is fully reflected across the industry value chain and in asset prices.

While there may be a correlation between inflation and asset prices, the impact can be categorised as both direct (ie, higher escalation), and indirect (ie, the follow-on impact inflation has on interest rates, economic activity and aircraft supply and demand); the indirect impact may be more important when considering the assets values over the medium to long term.

Stagflation would have a different impact than a growth-driven inflation environment because higher prices in the face of weaker growth would impact the supply-demand balance, which could outweigh the effects of inflation on asset prices, particularly for older technology assets. In turn, an airline's ability to pass on higher costs to consumers without negatively impacting customer demand is crucial in determining how inflation will impact asset values.

The impact of inflation on various market stakeholders is largely determined by the cost inputs to which they have exposure:

OEM/new orders

OEMs are exposed to labour, energy and material costs that are closely linked to the producer price index (PPI). OEMs have some protection in contracts via their escalation clauses. However, the hedge is not perfect, more so for Airbus, where its labour and energy costs are more European-centric. Escalation caps and the ability of airlines to absorb the higher asset cost will impact how much escalation OEMs can push through.

Airlines: Airlines have direct exposure to the rising consumer price index (CPI) and PPI. Increases in the cost of fuel, labour, higher airport charges and MRO charges will all be headwinds to longer-term profitability. Higher asset prices will hurt profitability because it costs airlines more to acquire/lease assets. However, airlines can partially recapture these costs via increased ticket prices passed onto consumers.

Airports: inflation will impact airports primarily via labour and energy costs that affect the cost of running operations; higher material costs will manifest in higher capital costs that could impact expansion and infrastructure renewal expenditure. Airports may also be exposed to reduced passenger service fees should inflationary pressures depress demand for air travel.

MRO: MROs face a similar impact as OEMs, with labour and material inflation the most significant risk. The MROs will look to pass this through to the end customer where possible. Higher MRO costs should support the residual value of part-out engines as the relative cost of overhaul drives an increase in the value of engine components.

Intuitively, higher inflation will drive higher delivery prices, which, in turn, should result in higher rentals and residual values. Other factors will ultimately determine the impact of inflation on long-term residual values and lease rates. The timing of when residual values are crystallised will be a critical determinant in realised returns.

Volatility in fuel prices can quickly raise costs, while more favourable operating conditions can lower the barriers to entry and invite new competition to the field and, as a result, put pressure on revenues and profits.

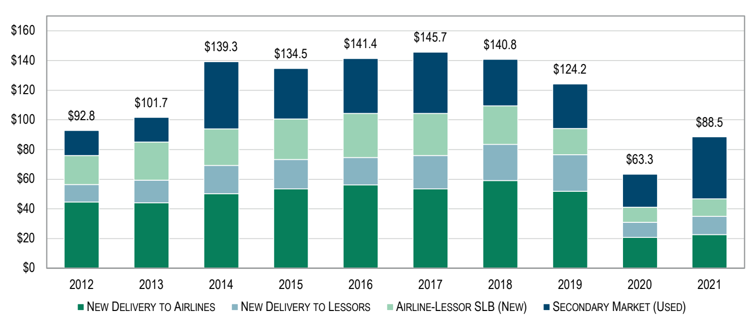
Rising interest rates

The interest rate environment has also changed dramatically since the onset of the pandemic. While rates have been moving higher since summer 2020, in the past few months, rates have risen to heights not seen in decades and have been a focus of discourse in the wider global economy.

To combat high inflation, global central banks have sharply raised interest rates recently. A high interest rate environment discourages borrowing and aircraft trading, negatively impacting values of on-lease aircraft. Higher interest rates make thin-margin aircraft deals that were executed in the previous low-interest rate environment less tradeable. Investors in these assets will seek higher returns to cover the higher financing costs. Higher interest rates will also be partially passed through to lessees through rising lease rates, increasing airlines' overall fleet-ownership costs.

The public markets and the most liquid assets react quickly to interest rate changes. There has been a material decline in equity and bond asset prices in the second quarter of 2022, as rates increased and the expectation of the higher cost

Figure 19: 2012-2021 narrowbody and widebody transactions by aircraft value* ($bn)



of funds seeped into the market valuations. The impact of higher interest rates typically sees a time lag before manifesting itself in private and alternative asset prices, and this has been true in aviation, with long lead times on placements, sale and leasebacks, and high levels of capital available, it takes some time before interest rates are fully reflected across the market.

Aircraft that already have fixed-rate leases attached, dependent on the remaining lease term, will act like a bond instrument and, in theory, those cash flows are worth less than in a lower rate environment putting downward pressure on the price a buyer will pay for a lease-encumbered asset.

In the immediate future, airlines will be impacted by higher interest rates through reduced disposable incomes and subsequently consumer spending. An associated drop in demand would equate to the need for more revenue per passenger to return to pre-Covid profit levels. As such, reduced air transportation could feed into lower demand for aircraft, impacting lessor placement opportunities, oversupply and constraining asset values.

Figure 20: Historical new aircraft ownership at delivery

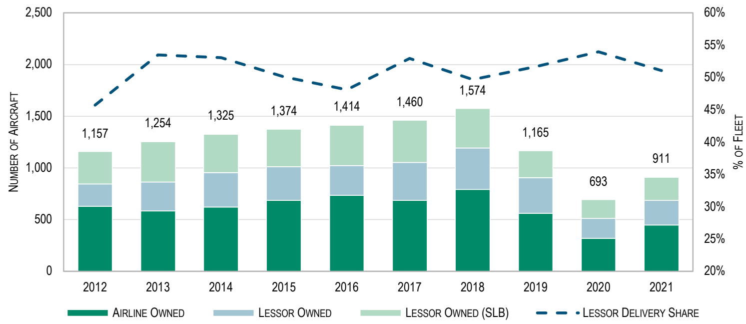


Figure 21: Historical commercial aviation financing by channel ($bn)

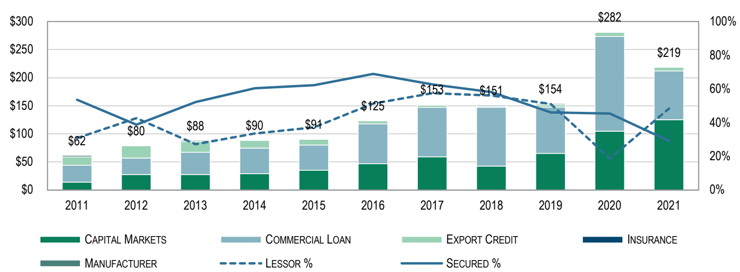
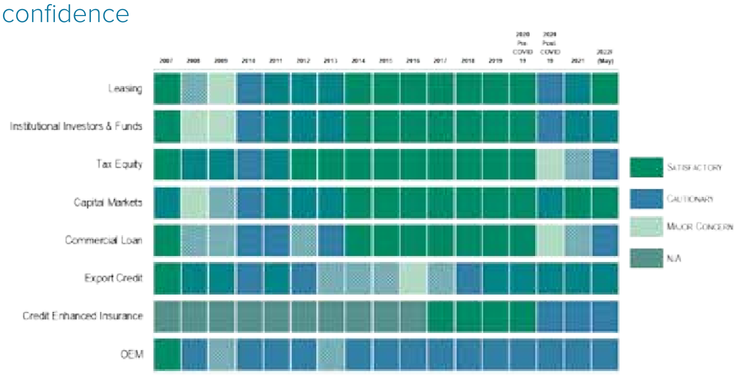


Figure 22: Historical commercial aviation financing channel confidence



Funding the leasing market

The dynamic aviation financing and leasing market have experienced significant change, with leasing further growing in importance. New aircraft delivery financing grew steadily over the previous decade, but volumes fell in 2019 with the 737 Max issues and again in 2020 amid the Covid-19 pandemic.

The share of transaction value of new deliveries to airlines has continued to decline, decreasing from 48% of transactions in value to about 40% pre-pandemic and dropping to as low as nearly 25% in 2021 while most airlines were financially distressed. On the other hand, the secondary market for used aircraft has seen significant growth over the past two years.

Lessors play an increasingly essential role in the primary aircraft financing market; via direct orders and sale and leasebacks, lessors have acquired about 50% of the fleet at delivery for many years. About 70% to 80% of new deliveries each year were initially ordered by airlines, but via the sale and leaseback financing channel, some 20% to 30% of the fleet was transferred to lessors at delivery.

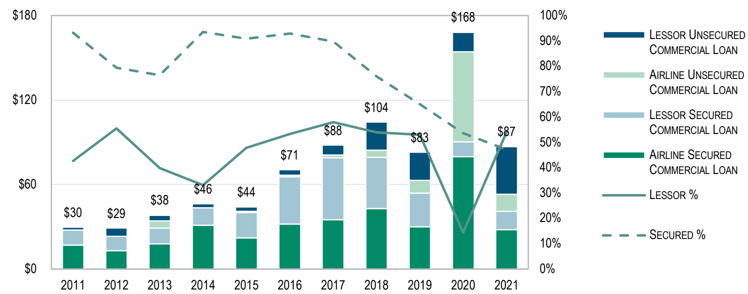
The aviation debt financing market has experienced strong growth over the past decade, pre-Covid, from just $62 billion in 2011 to $154 billion in 2019. Capital markets and commercial bank loans drove more than 95% of total debt market funding, especially post-2016 when export credit agency (ECA) loans were few. Secured debt financing had gradually declined because of the increasing credit profile of airlines and lessors. Since the outbreak of Covid-19, many large airlines and flag carriers have sought government support and guarantees to obtain more unsecured financing.

Driven by liquidity, capital markets and leasing recovered faster than other financing channels after the pandemic. Following the recovery from the 2008 global financial crisis, most financing channels, except for export credit, were widely available, competitive and efficient.

Leasing equity, capital markets bonds and commercial loans have been the three largest funding channels since 2014. Unlike the previous downturn, during the pandemic, financing liquidity was abundant for strong credits, but the aircraft supply/demand imbalance still negatively impacted participants with pre-Covid exposures.

With market uncertainty moving into 2023, it is expected that leasing and capital markets will remain fundamental to funding new aircraft deliveries. Highly leveraged airline cost structures are likely to be under further pressure from rising interest rates and as such likely to be dependent on leasing for fleet expansion.

Figure 23: Historical commercial loan financing by segment ($bn)



Commercial loans

The commercial loan market has been a traditional financing source for airlines to fund aircraft purchases. Historically, commercial loans, combined with cash, provided more than 50% of the funding for new aircraft acquisitions.

The commercial loan channel saw a record year in 2020 – driven by the liquidity requirements of many top-tier airlines. The size of certain airline loans was historical, such as ANA's ¥900 billion-plus ($6.5 billion-plus) unsecured commercial loan and United's $3 billion secured commercial loan collateralised with its Mileage Plus frequent-flyer programme.

In 2021, commercial loan borrowings dropped back to pre-Covid levels as many airlines took on high leverage in 2020, requiring lesser liquidity in 2021 along with some traffic recovery. Also, many airlines have started to report positive operating cash flow during the second half of 2021, reducing the need for additional funding.

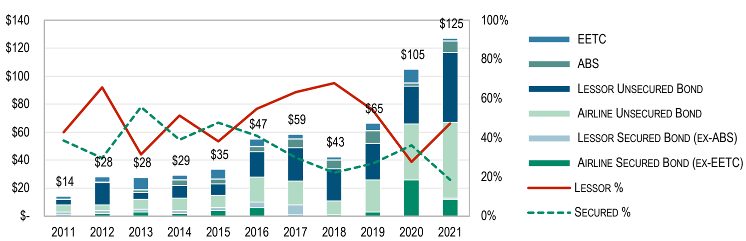
Lessor borrowing volumes generally grew over the past five years in line with increased aircraft trading activity. Lessors have increasingly sought financing through the capital markets with less dependence on the commercial loan market. Lessors have generally been moving away from the commercial loan market since 2019, migrating toward more-efficient capital markets. A continuation of that trend was accelerated in 2020 because of Covid when lessors raised only $24 billion from the commercial loan market, $20 billion down from 2019.

Capital markets

Capital markets financing has experienced rapid growth, especially after 2015, with borrowers' credit profiles improving amid solid industry performance and as investors seeking yield re-evaluated the industry's risk-and-return profile. As the industry saw a more straightforward path to recovery in 2021, sourcing debt from capital markets became more prevalent. The amount issued by lessors also increased sharply, primarily driven by Aercap's acquisition of GECAS and the asset-backed securities (ABS) market recovery.

Since the sanctioning of Russia, capital markets financing has slowed down significantly, especially with ABS fading away from the market. Unsecured issuance has also decreased because issuers no longer need to raise capital after several months of favourable conditions.

Figure 24: Historical capital markets financing by segment



Airline bonds

The decline in demand because of Covid-19 necessitated airlines' requirements for additional liquidity. Airlines have long used their owned aircraft as collateral for commercial loans and enhanced equipment trust certificates (EETCs), but also looked to other tangible and intangible assets, such as slots, gates, routes, frequent-flyer programmes and intellectual property, for collateral in secured financings in 2020.

Many flag carriers – especially Asian carriers with close government ties, such as Singapore Airlines, China Southern Airlines and China Eastern Airlines – were able to raise significant capital via unsecured bonds at historically low rates, with investors fleeing to quality under the challenged market conditions.

Bond rates have dropped significantly since the global financial crisis in 2008 and averaged about 4% in 2015. As a result of Covid-19, coupons for secured bonds increased to about 8%, given increased perceived risk; coupons for unsecured bonds remained stable in 2020, because many top unsecured borrowers were supported by their governments or national sovereign funds. Both secured and unsecured rates trended downward in 2021 but have now risen substantially in 2022.

The markets will gradually open to more carriers as airline financial performance recovers. In the longer term, airlines may seek to deleverage and pay off their more expensive debts, including those secured by assets.

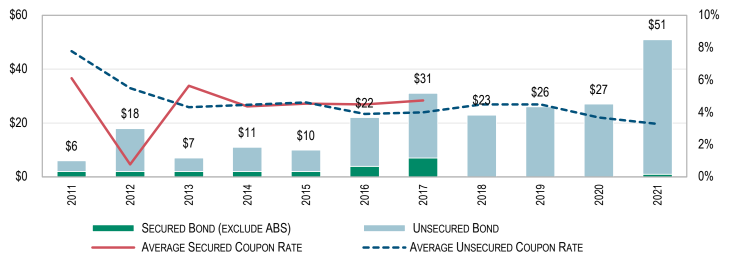
EETC

Over the past two decades, more than 85% of the EETCs were issued by major US-based airlines. While popular for US airlines, the number of EETCs issued by non-US airlines is modest, limited by corporate rating needs, complicated structures and compliance, and a nexus to the United States.

Since the outbreak of Covid-19, the flexibilities in EETC financing have appealed to airlines, and an increase in EETC issuance was observed in 2020. Established airlines usually are in better financial condition with more unencumbered assets to leverage for fundraising through EETCs. Many also ran out of unencumbered aircraft since they were used extensively to raise secured financing throughout Covid-19. However, the surge in 2020 was only temporary; issuance activity in 2021 fell to pre-Covid levels as other capital market channels became available that offer borrowers less complexity and more flexibility, such as unsecured bonds.

In the short-term, the EETC market is expected to remain open for

Figure 25: Historical EETCs issued by airlines



top-tier airlines to access funding at relatively lower rates, with collateral requirements continuing to be less sensitive as credit rules the day; however, the volume will be lower than other channels because of the reduced number of airlines with access to the market.

Lessor bonds

As the economy improved after the financial crisis, many lessors were positioned to receive investment-grade ratings through scale, changes in ownership through M&A, rise of Chinese lessors and large established lessors which have benefitted from a robust market. Hence, financing activities have shifted from secured to unsecured notes; non-ABS secured bond issuance almost disappeared after 2017. Lessors preferred the more attractive unsecured financing because of the lower cost, less complexity and more flexibility.

After the Covid-19 outbreak, government-backed lessors and other top lessors have consistently been able to access unsecured financing. Top-tier lessors were even able to raise funding at rates lower than pre-Covid to repay their more expensive funding and reduce their overall debt servicing cost.

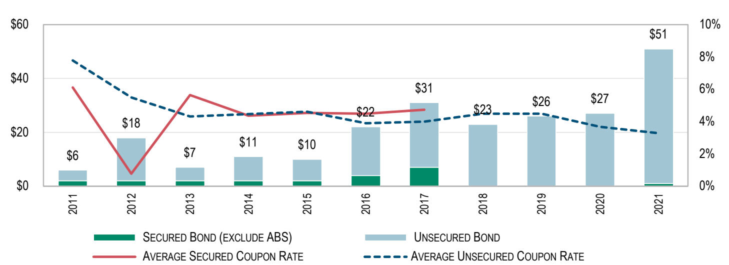
In 2021, Aercap raised $21 billion in unsecured bonds, most of which was used to fund the acquisition of GECAS. These loans accounted for 42% of total bonds raised by lessors in 2021. In the long run, Alton projects the non-ABS secured bond market for lessors is likely to continue being muted, and long-term continued access to capital at relatively lower rates through the unsecured bond market would seem assured for large-scale lessors.

The unsecured bond market is anticipated to remain attractive to lessors and investors, supported by lessors' credit profiles and their ability to withstand near-term cash-flow shortages. Further into the future, continued access to capital at relatively lower rates through the unsecured bond market would seem assured for large-scale lessors.

Asset-backed securities

ABS transactions have been popular among some larger lessors to sell off assets strategically to financial

Figure 26: Historical bonds issued by lessors



investors to meet fleet age and airline concentration targets. ABS also provided efficient term financing to funds and small lessors. Mid-to-end-of-life asset lessors also seek ABS transactions because the tranche structure can provide investors enhanced credit security, thereby achieving relatively lower costs of borrowing and higher loan-to-values (LTVs) for issuers.

A record year for ABS had been observed in 2019 with more than $9 billion ABS issued, of which more than 60% was used to sell assets. The following year, 2020, was expected to follow the same trend until the Covid-19 outbreak, which resulted in airline defaults, impacting ABS payback capability.

After the market paused in 2020, ABS transitions increased again in 2021 after a successful Castlelake issuance, but because of the Russian invasion of Ukraine and the rising interest rate and inflation environment, the ABS market paused again in 2022. Carlyle tested the market with its AASET 2022-1 issuance, which priced at an unusually high coupon rate.

As the market stabilises, the ABS market is expected to return as a popular tool, especially for mid-to-end-of-life asset lessors to finance aircraft. The outlook for using the ABS market as a direct disposal channel remains less certain.

Lessor acquisition and disposal dynamics

Aircraft transactions were at historically high levels during the years preceding the Covid-19 pandemic, driven by the robust macroeconomic environment. New aircraft deliveries had already declined because of the cessation of 737 Max production; new aircraft deliveries were further reduced in 2021 because of the pandemic and the 787-recertification issue.

Amid the pandemic-induced decline, sale and leaseback transactions in the secondary market for used aircraft sharply increased as operators sought liquidity. In tandem with the post-pandemic recovery, lessor trading activities showed a strong recovery in 2021, partially driven by a few major M&A transactions, such as Aercap's acquisition of GECAS.

Figure 27: Historical commercial aircraft/engine ABS issuance

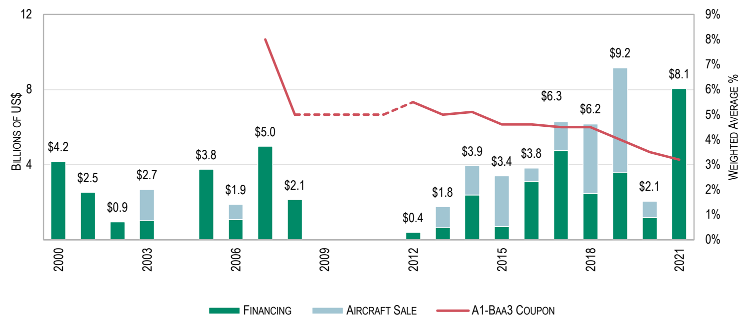


Figure 28: 2012-2021 narrowbody and widebody transactions by number of aircraft

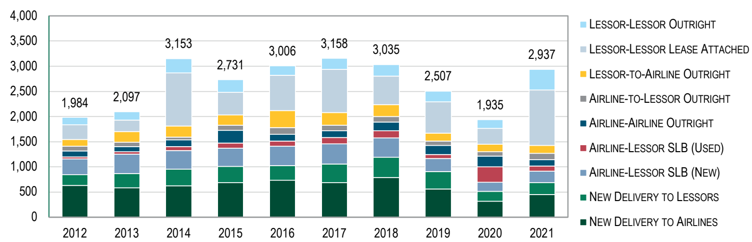
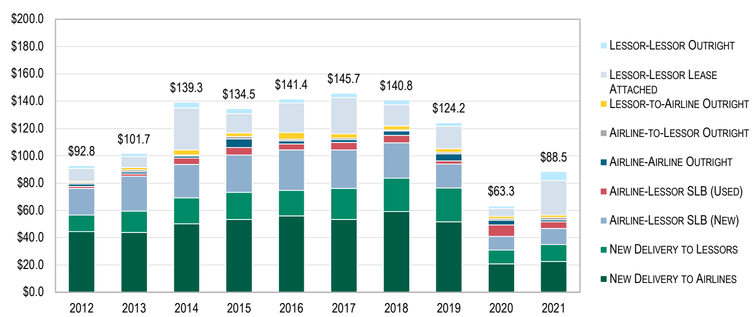


Figure 29: 2012-2021 narrowbody and widebody transactions by aircraft value ($bn)



Note: aircraft transaction value based on AVAC appraised value, not actual transaction value; includes M&A at parent company.

In terms of value, because of sharply reduced new deliveries in 2020 due both to the pandemic and the 737 Max issue, the estimated transaction value in 2020 was only half of 2019. The 2021 transaction value has partially recovered, mostly because of an increased lessor trading and M&A activities, but the new delivery level in 2021 remained low. As a result, while the total transaction units recovered to 117% of 2019 levels, the total transaction value has recovered only to 71%.

Acquisition channels

Large lessors acquire most assets through three main channels:

OEM direct order: lessor direct orders from OEMs have gradually grown over the past decade. Financing for new Airbus and Boeing deliveries has been heavily reliant on cash and commercial loans, with increasing support from sale and leasebacks. Capital markets are an additional significant financing channel for Boeing deliveries.

Most orders come directly from operators rather than lessors – lessors account for less than 20% of total orders from the leading OEMs. The more established lessors with stronger platform capabilities dominate the OEM orderbooks – the top 10 lessors in terms of number of aircraft on order account for more than 80% of all lessor orders. Although some new aircraft deliveries were delayed because of Covid-19, as the market continues to recover, lessors are expected to take delivery of their significant forward orderbooks.

Because of high placement competition and lack of slots, it will be challenging for new entrants to participate in the forward order market. For key lessor aircraft types, A320neo family, 737 Max and even the A220-300 – current OEM backlogs present limited near-term acquisition opportunities. As a result, opportunities for new lessor entrants looking to place speculative orders for new-generation aircraft will be minimal for the foreseeable future.

Figure 30: Airbus delivery financing

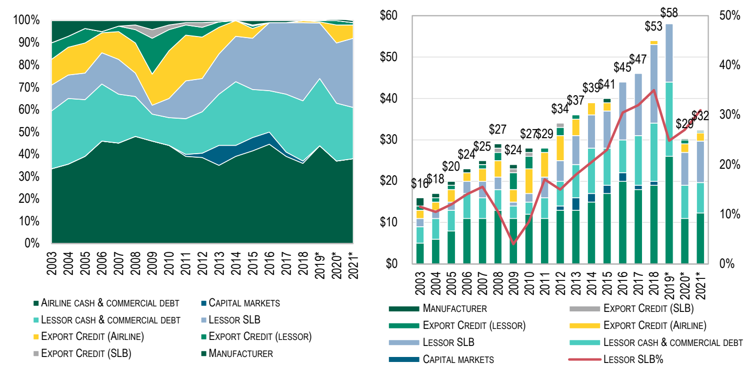
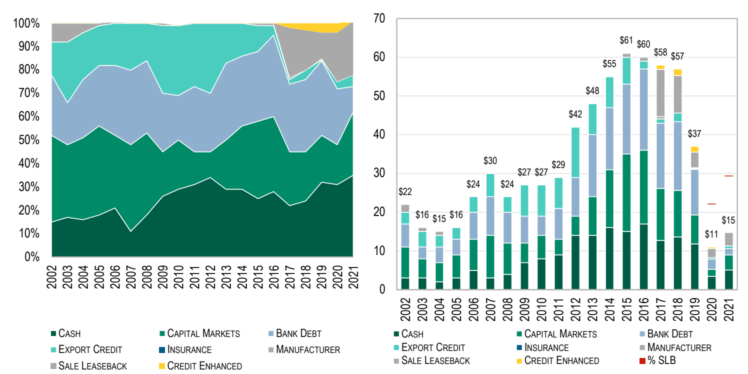


Figure 31: Boeing delivery financing



Sale and leasebacks: primary market sale and leasebacks have become a popular method for lessors to acquire early-life assets. In lieu of direct orders, sale and leasebacks provided a mechanism to leverage inexpensive airline pricing and early delivery slots. With limited slot availability, sale and leasebacks yield access to new-technology assets, increased traction with lessors looking for near-term portfolio growth and no forward order placement risk.

Since 2000, about 25% of new aircraft deliveries have been financed through sale and leasebacks; in 2021, this increased to about 30% of deliveries. The top end of the sale and leaseback market is typically highly contested, putting downward pressure on rents and lease conditions. Lessors could get additional returns from scale effect by doing larger sale and leaseback transactions and then trade down to other lessors/ABS.

During Covid-19, airlines actively tapped the secondary sale and leaseback market to raise liquidity; both the total transaction volume and transacted aircraft value more than doubled 2019 levels. In the past, airlines used secondary sale and leasebacks to remove aircraft, debt and residual value risk from balance sheets, but IFRS16 now requires operating leases to be reported on balance sheets.

As the industry recovers and other financing channels gradually reopen to more airlines, the number of used aircraft sale and leasebacks has declined significantly.

At the onset of the pandemic, lessors and investors remained cautious and preferred to execute sale and leaseback transactions with more creditworthy airlines, especially for illiquid older-generation aircraft. Airlines with better credit ratings accounted for most of the surge in secondary sale and leaseback transactions in 2020. For less creditworthy airlines, primary and secondary sale and leaseback transactions decreased and remained approximately constant, respectively, despite such airlines similarly seeking liquidity during the crisis.

Among the secondary transactions that did take place, the number of legacy aircraft also decreased from the previous year, while the number of new-generation aircraft increased. In 2021, as vaccination rates increased and the industry started to show signs of recovery, the proportion of transactions between both groups of airlines started to edge back towards pre-Covid norms. Increased airline leverage taken on during the pandemic is also thought to drive transactions as airlines seek to relieve pressure.

From a lessor perspective, the secondary market has higher returns (and associated risks) than the primary market. This channel can provide lessors with opportunities to acquire target assets from operators which need liquidity (particularly early-to-mid-life aircraft at favourable prices) and/or are phasing out a fleet within the short to medium term.

Portfolio trading and M&A: portfolio trading and M&A have been used extensively by lessors to balance portfolios, achieve higher returns and grow rapidly.

Key reasons for engaging in trading and M&A include balancing portfolios to meet corporate objectives, achieving higher returns on assets and achieving rapid fleet growth. Total transactions have increased sharply since 2014, spurred in large part by an increase in M&A activity among major players. Lessor-to-lessor transactions dropped significantly in 2020 at the onset of the pandemic but have since increased in 2021 in line with the industry's recovery. There have consistently been more transactions with leases attached than without, because this reduces aircraft on ground time and allows for higher pricing.

Recent M&A also provides buyers with the access to order backlogs, which is critical for lessors seeking to expand their fleet. The most in-demand aircraft types for lease-encumbered lessor-to-lessor transactions have been mid-life, medium-sized narrowbody jets.

M&A remains the most efficient way to gain scale quickly, grow the customer base, increase bargaining power and expand market exposure.

The Aercap-GECAS acquisition has created a clear dominant lessor, which is expected to have a positive impact on the leasing market overall.

Aercap maintained its investment-grade credit rating despite increasing its leverage by more than three times, allowing it to achieve immediate scale with no downside to its cost of capital. Post-acquisition, Aercap also enjoys relationships with more than 200 airlines and 45 engine lessees. Overall, the transaction cements Aercap's position as the dominant lessor in the market.

Because of the large size of the combined portfolio, Aercap is likely to increase its trading activity due to the need to further balance the portfolio for credit and asset exposures (eg, disposing of older technology aircraft from GECAS's portfolio). It may also determine whether certain segments (engines, helicopters, freighters, regionals, etc) are core or non-core.

Figure 32: 2012-2021 narrowbody and widebody lessor-to-lessor transaction values and volumes

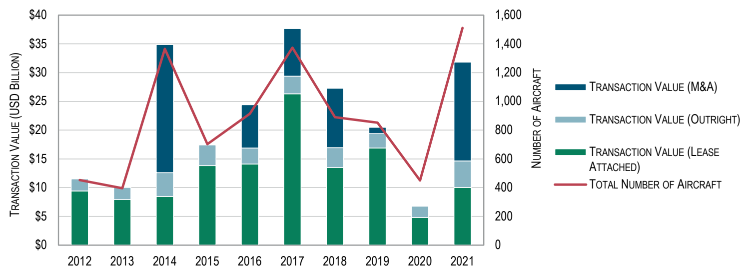
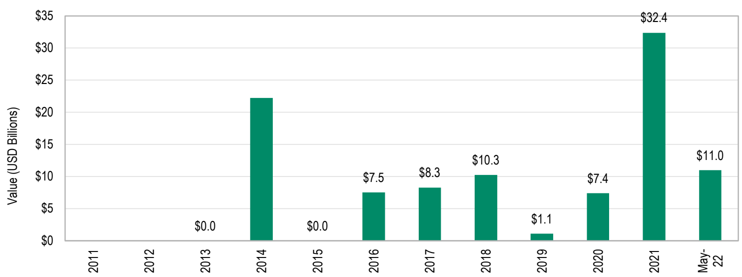


Figure 33: 2012-May 2022 M&A transaction indicative value



Disposal channels

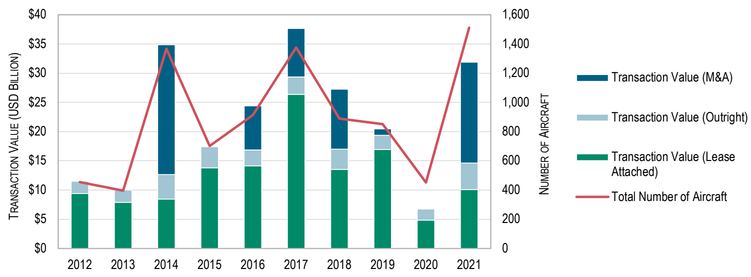
There are multiple factors influencing why lessors may look to dispose of aircraft in their portfolio:

- **Fleet transition:** sell older and less desirable assets to bring down average age of fleet or reduce exposure to less in-demand or liquid aircraft.
- **Return risk:** dispose of new or young aircraft to investors who value investment stability over return, because younger aircraft generally exhibit lower volatility with lower return profiles.
- **Risk mitigation:** reduce exposure to a certain airline, asset type (residual value), lease expiry schedule, country, or even region.
- **Investment profile:** hold assets or portfolios only for a certain predetermined period to match specific investment horizons.
- **Market conditions:** take advantage of conditions that enable higher selling prices, low interest rates and eased access to capital (such as the pre-Covid environment).
- **Technical capability:** sell aircraft before they reach a certain age to minimise maintenance costs, especially for lessors with limited technical capabilities to maintain ageing aircraft.

Lessors tap specific disposal channels that match their objectives and asset profiles – and market environment. Portfolio sales declined significantly in 2020 at the onset of the pandemic because of higher discount on airline credit and depressed asset residual values. M&A activity increased at the same time during the downturn as industry stakeholders viewed this as a good opportunity to consolidate.

In 2021, trading activity resumed to near pre-pandemic levels as the industry's recovery path became clearer, led by Avolon, which sold 24 aircraft at a total transaction value of more than $629 million. Given the rising interest rate environment kicked off in 2022, all trading and financing activities are expected to slow down in the near term.

Figure 34: 2017-2021 narrowbody and widebody lessor-to-lessor transaction values and volumes



Lessor-to-lessor transactions

Before Covid-19, larger lessors leveraged the scale of their fleets to reduce credit counterparty risk, reduce residual value risk and generate trading gain. While there are signs that this market segment may be coming back, buyers are likely to be more focused on asset and credit counterparty risk in the near term.

Sales to financial investors/non-asset managers

Certain lessors also leverage their asset management expertise to attract investors who do not have the required platform or capabilities. Using this tactic, sellers can source buyers that are attracted to the space but uninterested in developing in-house asset management capabilities – essentially expanding the pool of potential investors. Investors see this structure as a mechanism for safeguarding their investment because of the servicer's perceived asset management expertise.

Additionally, buyers without platforms are often less sophisticated and therefore lessors can often extract higher value from transactions. Certain lessors have entered joint ventures with these types of investors, typically retaining a minority stake in the venture; in some instances, the value of the retained equity is less than the gain on sale that the seller achieved.

ABS issuance

Until the pandemic, sellers looking to rationalise their portfolios had been targeting lessors/buyers which were planning on issuing ABSs. Balanced within larger diversified portfolios, lessors issuing into the ABS markets were considering:

- equity investors in ABS were willing to acquire less-liquid assets with older age profiles such as A319-100 (IAE-powered), A330 and 777 aircraft;
- equity investors in ABS were willing to acquire aircraft on lease to weaker credit airlines such as UIA, XL Airways and Sky Angkor; and
- ABS issuance proceeds are based on maintenance-adjusted base values rather than market value and therefore issuers were often willing to place higher value on assets than non-ABS-issuing buyers.

After the increased risks that lower tranche bondholders have observed and the losses equity investors have suffered during the pandemic, using ABS as a disposal channel is likely less viable in the near term, especially given the current market uncertainties.

Sales to JoI arrangers

Historically, lessors were able to benefit from the specific nature of the Japanese operating lease (JoI) market and would tailor portfolios to suit the demand of these sales targets.

Japanese investors use JoIs as investments into aircraft ownership and debt financing of aircraft in exchange for tax benefits because Japanese tax law allows aircraft owners to claim tax depreciation over eight years on a declining basis. As a result, JoI investments are in demand, particularly from small and medium enterprises, as well as high-net-worth individuals – lessors such as Orix, SMBC Aviation Capital, BBAM and Arena Capital actively seek opportunities to sell assets into the JoI market.

As a result, arrangers valued mid-life aircraft positively for JoI arrangements, enabling large traditional lessors such as Aercap and GECAS to divest from previous-generation aircraft by selling them to JoI arrangers. JoIs place more emphasis on lessee credit over lease rent and asset type; traditional lessors see this as an opportunity to include assets that are less liquid but operated by airlines with strong credits when selling to JoI arrangers.

Sale to fund managers

Pre-Covid, lessors could extract value from return-driven fund managers willing to take an aggressive view on the return potential of certain assets:

- investors: equity investment funding from investors – fund managers raise funds designated for aircraft investments from a variety of investor groups including private equity and pensions funds. These funds generally have a predetermined return hurdle;
- fund manager: acquisition of aircraft portfolios outright – driven by the investment target, fund managers have been known to take aggressive views on the potential yields they can achieve and shown a propensity to invest in assets with higher risk for a potentially better return. The fund manager's model usually consist of a servicing team that collects fees from investors for managing the aircraft;
- lessor aircraft portfolio sale:

packaged based on yield requirements – higher yield return targets mean asset types sold to fund managers can vary across a spectrum of airlines credit, assets liquidity and lease rates. Because of this increased appetite for risk, coupled with pressure by investors to deploy funds, these buyers have been willing to acquire mid-life aircraft from lessors, which include a mixture of widebody and narrowbody aircraft, operated by a mixture of airlines; and
- investment return: fund managers return investment and any profits to investors after a given length of investment horizon, and take a performance fee of about 20% of the return.

Aircraft leasing competitive landscape

Lessor-owned fleets have grown at a compound annual growth rate of 3% since 2006. It is driven by being less capital-intensive than direct aircraft acquisition, particularly with the emergence of new carriers with less mature finances in the low-cost market. From an investor perspective, leasing is viewed as an avenue for steady long-term returns and has helped increase market growth.

On a percentage basis, lessor penetration has remained relatively stable at about 50% since the early 2000s. As most airlines faced unprecedented liquidity pressure during the pandemic, many have chosen to leverage through their owned fleet to raise additional liquidity, either through EETC offerings for major airlines with capital markets access, and/or sale and leaseback transactions for airlines without the same access.

In the near term, given the increased leverage at most airlines, financing aircraft acquisitions through traditional debt channels may not be feasible and an increased appetite for lessor financing is expected. In the long term, airlines have and will continue to tap the lessor channel to finance new deliveries and to raise capital through the sale and leaseback of their existing fleets.

Leasing penetration increased during the pandemic, as many airlines raised liquidity through sale and leasebacks from lessors.

Figure 35: Historical lessor aircraft ownership

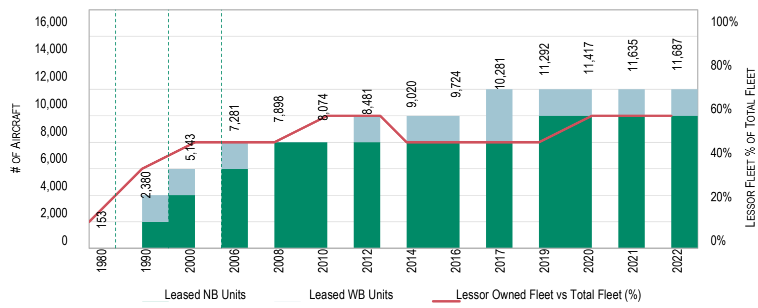
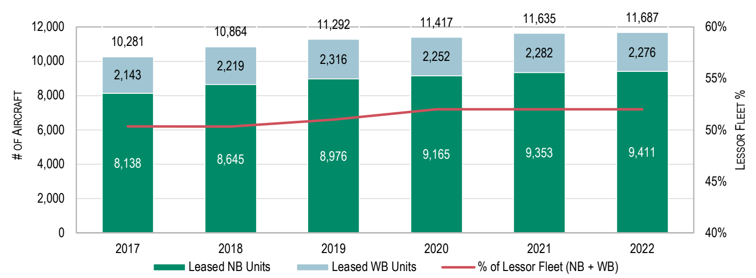


Figure 36: Lease penetration of narrowbody and widebody aircraft



Young and liquid narrowbody aircraft were among the most popular targets for sale and leasebacks, which has been the primary driver for recent overall increasing lease penetration rate. Several airlines which restructured during Covid-19 either reduced high widebody lease rates and/or returned unnecessary expensive widebody capacity. Airlines also deferred widebody deliveries. As widebody deliveries gather pace, some will be financed via sale and leasebacks but not at the same rate as liquid narrowbodies.

Lessor credit ratings have not been downgraded much during Covid, allowing them continuous access to unsecured debt markets. Some lessors even used the low interest rate environment to refinance more expensive debt. As interest rates increase, lessors and airlines are expected to incur higher funding costs.

Airlines which have not undergone material restructurings will carry a heavier financial burden. Flag carriers and larger carriers raised funds by leveraging government guarantees and assets as collateral. In comparison, smaller airlines lack valuable assets and access to government guarantees sourced from other financing channels that can be pricy or can only provide limited financing. Increased leverage that resulted from the Covid-19 market environment has resulted in poorer credit ratings, which will impact an airline's ability to borrow and refinance in the near to medium term.

Given that many carriers now exhibit higher levels of debt, lessors can step in and provide the necessary funding to airlines which is expected to result in increased lessor market share and, as the market returns to supply and demand equilibrium, more power for lessors.

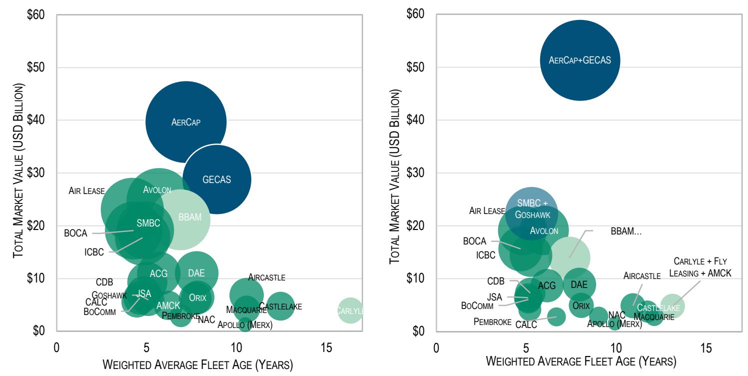
Operating lessor participants

While there have been significant M&A activities recently, the leasing market remains highly fragmented with further consolidation possibilities. The Aercap plus GECAS portfolio is about the size of the next three largest lessors combined.

The aircraft leasing industry has continued to consolidate throughout the past decade; however, the market remains fragmented with more than 180 active players in the market and new investors continuing to enter.

Because of the strong competition in the market, which has led to reduced margins and bargaining power for lessors, many existing players must continue to grow in scale and achieve stronger credit to reduce further operating and financing costs which has continued to drive for more consolidation. New entrants tend to focus their investments on new technology-equipped and young aircraft because of the lower risk and less technical capability required.

Figure 37: Lessor portfolio profiles (2020 versus 2022)



Lessor financial performance

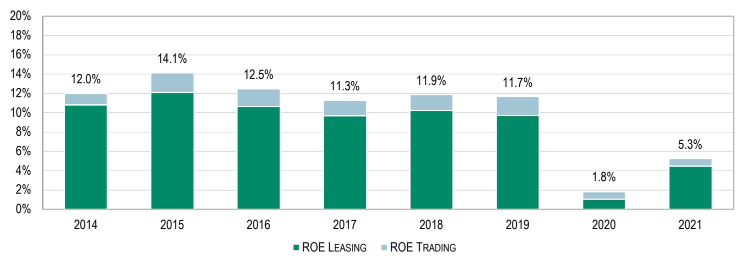
Before Covid-19, lessors were beginning to see profitability decline because of the increase in lower yielding deals, and natural roll off of first leases, but this was not yet fully reflected in the financial results. Reported return on equity (ROE), excluding trade gains, was declining and those that completed M&A at high values saw a compression in ROE.

Lessors were able to keep ROE strong in the pre-pandemic period via strong sales proceeds and gain on sales as they sold down higher yielding current-technology assets into a buoyant market. The early 2019 E-Note ABS market was potentially the high-water mark in terms of realised current-tech values.

While headlines have focused on deferrals, the level of “amend and extend”, lease expiry and restructured leases have hurt the near- to mid-term outlook profitability.

Lessors face a tough battle ahead to recover profitability. Changing course takes time and the results of decisions made today may not be seen for a number of years in the results.

Figure 38: Consolidated lessor return on equity



Critical success factors

Funding – lessors that are bank subsidiaries, state-owned lessors, or with strong credit ratings will continue to thrive from cheaper and easier access to capital. Chinese lessors which are bank subsidiaries receive strong financial backing, allowing access to cheaper capital, enabling them to generate strong returns during a bullish market.

In down markets, several such lessors have demonstrated an ability to deploy even more capital and secure higher returns, while managing the current book. Some state-owned banks are even legally obligated to provide liquidity to domestic lessors. Like the Chinese bank-backed lessors, Japanese bank-backed lessors include Aviation Capital Group and SMBC Aviation Capital.

With a strong focus on JoI and Japanese operating lease with call option leases, the investors for these leases are usually very credit-sensitive, and therefore are more stringent with their selection of lessee, leading to a lower return but better risk exposure.

The big wave of investment from China and Japan over the second half of the past decade flooded the market with lower cost funding, which has significantly increased the industry’s competitiveness. Established lessors have had to identify further and sharpen their competitive niche and pushed for investment-grade ratings to remain competitive. Lessors with an investment-grade rating are more attractive to debt investors, especially in an economic downturn. As a result, credit ratings have opened new sources of funding, along with the availability of unsecured financing at very attractive rates.

Because of relatively strong credit ratings, Air Lease Corporation was able to raise a total of about $3.95 billion in unsecured issuances in 2021, $750 million of which were issued at a record low rate of 0.7%.

Mid-tier lessors without access to inexpensive capital or with problematic portfolios may struggle to maintain relevance in the market. Lessors with higher cost of capital will need to take higher risks to secure sufficient returns and asset quality – and asset quality is a key factor that will impact the future performance of a lessor.

Old-technology aircraft are more likely to be retired, widebodies are less favourable and regional jets/turboprops are also less favoured as the ultimate lessees are usually less creditworthy customers.

Risk management – historical data indicates that the recovery trajectory of an aircraft type following a demand shock is linked to the life cycle of the aircraft programme. Older-technology widebody aircraft, such as A330s and 777s, experience steeper value degradation and a more uncertain path to value recovery. As such, lessors with a larger exposure to older-technology assets, especially widebodies, are likely to face the prospect of future flight equipment impairment charges and reduced profitability.

Popular, in-production narrowbody jets have been resilient in previous downturns with recovery, until replacement technology aircraft enter.

The A320neo is expected to be the next decade's most popular and liquid aircraft type; its value has remained relatively resilient during the crisis and has very quickly recovered its ground as the domestic traffic returns in significant regions (North America and Europe) during the second half of 2022.

The 737 Max has retained value better than other older-generation aircraft types but has still suffered more degradation than the A320neo because of its technical issues.

Since 2021, as more jurisdictions re-cleared it for the skies, the value of the 737 Max has recovered rapidly, catching up with the A320neo. In the near term, the value for both the A320neo and the 737 Max will remain strong, especially as many airlines and lessors are trying to gain additional delivery slots for these aircraft – delivery delays and supply limitations should help to support near-term value retention.

Moving forward, strong competition will remain with these liquid narrowbody asset types, and low returns will be expected, especially with long-term leases with top operators.

Values of older-technology widebodies have been declining gradually since 2013 because of shifts in market preference for newer and more fuel-efficient counterparts such as 787s and A350s, in addition to the overall oversupply of widebody aircraft in the market.

Widebody passenger aircraft have also been impacted much more severely by the pandemic because of the lack of international long-haul travel demand compared with narrowbodies, which can be utilised efficiently on short-haul and domestic routes.

Because of the sharply decreased belly cargo space and an increasing cargo demand due to the growing e-commerce, widebody freighters such as the 777F, on the other hand, have increased in value during the pandemic. To catch the rising cargo demand and to avoid significant book value write-offs on passenger widebodies, some lessors and investors were prompted to convert older widebody aircraft into freighters.

The value of old-generation widebody passenger aircraft is expected to continue declining even after international traffic recovers, because the market will prefer the more fuel-efficient new-technology widebody aircraft; a cool down in the value of the widebody freighters is also expected, as the cargo capacity shortage will be filled gradually by the returning of belly space of passenger aircraft, although the impact will be mild because of the continuously growing e-commerce industry.

Hope for clearer skies ahead

The leasing market is a capital-intensive space, projected to continue recovering over the next five years with increasing demand for financing, providing inflationary pressures and high interest rates do not remain for the long haul. Should unfavourable market dynamics last, uncertainty may prevail across the aviation finance industry with airlines highly leveraged post-pandemic with further pressure from inflation and rising interest rates.

Fundamentally, such market forces are likely to shape passenger demand for air transportation with potential to impact demand from lower disposable incomes and cost-conscious corporates, particularly in the current high fare market, challenging some airlines' ability to repay debt.

Given the current liquidity position of most airlines, it is expected that the portion of leased aircraft will grow over the next few years. As the market continues to recover from Covid-19, airlines remain in a slightly stronger near-term bargaining position in the placement market. As the market moves further past the impacts of Covid-19 and towards supply and demand equilibrium, lessors' power in the market will improve, but the environment is expected to remain competitive.

Placement opportunities for various airline regions and business models will depend on recovery, environmental, social and governance, fleet, orders and creditworthiness. Bargaining power for sale and leasebacks of new aircraft will remain with the highly creditworthy airlines for some time, with improved yields available with less creditworthy counterparties, albeit at an increased risk.

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Data and charts in this article, and analysed by Alton, are sourced from the following (numbers shown in parentheses relate to chart figure numbers in the article): ABS New Issue Report (21, 27); Airfinance Journal (15, 16, 21, 23, 25, 26, 27); Airbus (10, 30); Airline Monitor (1); Airlines Financial Release (21, 23, 24, 25); AVAC (19, 28, 29, 30, 31, 33); Boeing (10, 22, 31); CAPA (8, 9, 11, 14, 15, 16, 19, 20, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37); Federal Reserve Bank of St. Louis (18); Fitch (16); IATA (1, 3, 4, 6, 7, 17); ICAO (6); IMF (12); Insurance Journal (16); Lessor Company Filings (38); OAG (5, 13, 14); Our World In Data (2); US Energy Information Administration (17); World Bank (1).

International tax reform: the post-pandemic era

Matthew Dolan, Aviation Finance and Leasing Tax Partner, Deloitte Ireland, and Danielle Ryan, Aviation Finance and Leasing Senior Tax Manager, Deloitte Ireland, look at how the global tax landscape has changed since Covid-19 struck.

As the aviation industry continues along on its road to recovery, we have seen the reopening of country borders and passenger numbers steadily increase back towards pre-March 2020 numbers. However, one market factor that no longer resembles its pre-pandemic self is that of the global tax landscape.

Over the past number of years international tax reform has become an area of increased focus, with the seemingly relentless release of new OECD guidance, EU directives, and US and Irish domestic legislation fast becoming the post-pandemic norm.

While the outlook for the aviation industry remains positive, the emergence of fundamental tax changes requires airlines and lessors to revisit historically tax-efficient structures and consider the impact these changes in tax legislation will have for them.

In this article, we have reviewed the key changes in international and Irish domestic tax legislation and the impact these may have on aircraft leasing structures.

ILR guidance

Finance Act 2021 saw the introduction of the Interest Limitation Rules (ILR), as required under Article 4 of the EU Anti-Tax Avoidance Directive (ATAD 1). The ILR imposes a restriction on the interest deductibility of corporate entities up to 30% of a taxpayer company or group's taxable earnings before interest, tax, depreciation, and amortisation (EBITDA). The rules have been legislated for in Part 35D of the Taxes Consolidation Act 1997 and comprises five chapters spanning the scope of the rules, the calculation of the restriction (where applicable) and the carry forward of disallowed amounts or total spare capacity.

On 4 August 2022, the Irish Revenue Commissioners issued more than 60 pages of guidance on the ILR. This guidance addresses various aspects of the law as enacted, including, but not limited to, key definitions, the meaning of interest equivalent and the calculation of allowable and disallowable amounts for both single taxpayers and for interest groups.

The guidance addresses the calculation of EBITDA and operation of the restriction including the use of any carried forward disallowable amounts and total spare capacity.

Some other key areas addressed in the guidance are as follows:

Interest equivalent. The ILR intends limiting the deductibility of in-scope taxpayers' net interest expense (taxable interest and other interest equivalent taxable revenues less deductible borrowings). Therefore, the greater the proportion of an aircraft lessor's income which is treated as taxable interest income and other interest equivalent taxable revenues, the lesser the effect of the ILR.

Therefore, an important feature of the ILR for aviation platforms, which is addressed in the guidance, is the element of the aircraft lease rentals that can be regarded as economically equivalent to interest. For finance leases, this is the "finance element of finance lease payments". The finance income element and finance cost element of non-finance lease payments of a company that carries on a separate trade of leasing for the purpose of the tax acts are also treated as "interest equivalent" – i.e. the interest portion of an operating lease payment.

The guidance provides helpful worked examples on the calculation of interest equivalent in this regard and highlights the requirement to recalculate the interest equivalent amount, where the terms of the lease (finance or non-finance lease) have been amended during the life of the lease, as if a new lease was entered into at the date of the amendment.

Where the lease agreement is linked to floating interest rates such as the Libor, best estimates on commencement of the lease are required to be used to calculate the total finance cost/income of the lease over the life of the lease and the total expected cost/income of the lease.

Further worked examples have been included in the guidance, which address scenarios such as the treatment of guarantee fees connected with the raising of finance, hedging derivatives and interest equivalents on non-performing loans.

Adequate resourcing and sufficient timing should be allocated to the calculation of the interest equivalent amount, which may need to be calculated on a lease-by-lease basis for some aviation platforms.

Group and equity ratios. The application of the group and equity ratios in the context of worldwide accounting groups is an important element of the new rules that is addressed in the guidance, because these ratios provide exemptions from the rules, which ultimately can result in a zero adverse impact for some aircraft leasing platforms.

With respect to the equity ratio rule, such a rule requires a comparison of the equity-to-assets ratio of the relevant entity to the worldwide group (or single company worldwide group as appropriate). This requires that accounting standards and policies must be equivalent and therefore may necessitate adjustments to the results of the relevant entity. The guidance recognises that where an Irish subsidiary prepares financial results under a set of accounting standards different to the ultimate consolidated accounts, a reporting pack may be prepared for the entity under the GAAP of the ultimate parent.

The guidance indicates that the Revenue is prepared to accept such a reporting pack as a basis for assessing whether the conditions of the equity ratio rule are accepted; such a simplification will be welcome to aircraft lessors assessing the potential impact of the ILR in the context of large and complex aircraft leasing platforms. However, whether or not a reporting pack is produced, a reconciliation from local statutory accounts to accounts used for the purposes of the equity ratio test must be maintained.

Interest group. Electing to be a member of an "interest group" allows aviation groups to be treated as a single taxpayer for the purpose of the ILR. This election is available to the companies which are subject to Irish corporation tax and part of the same worldwide group (i.e. the accounting consolidation group) or where not members of the same worldwide group, members of the same Irish corporation tax loss group.


Matthew Dolan, Aviation Finance and Leasing Tax Partner, Deloitte

In dealing with the calculation and operation of the restriction in the context of interest groups, the legislation provides that amounts calculated in respect of an interest group will comprise the results of all members of the interest group. It is silent as to the exact method for such a calculation. The guidance issued by Irish Revenue confirms that such a calculation may be carried out on either an aggregation or a consolidation basis (whereby results may be adjusted to remove intercompany transactions between interest group members). The guidance confirms that the methodology chosen should be applied on a "consistent basis".

Administration. The guidance provides further detail on the reporting requirements which arise in the context of the ILR, with details to be provided on the relevant entity's corporation tax return (Form CT1). Several disclosures will be required to be made on the Form CT1 even where no interest restriction applies. Aircraft lessors should ensure to consider this additional level of detail that will be required as part of the filing of the corporation tax return.

Preliminary tax. Last, the guidance provides further commentary on the treatment of preliminary tax payments in an ILR context. In recognition of the difficulties that some companies may face in accurately forecasting their expected corporation tax liability in advance of their year end, the legislation enacted allows for a top-up payment to be made six months after the end of the accounting period where there is an underpayment of preliminary tax caused by the ILR. This temporary measure will cease to be in effect for accounting periods ending after 31 December 2027. However, the guidance issued confirms that the ability to make top-up payments in respect of gains on disposals of assets or in respect of certain profits or gains on financial assets or liabilities remains unchanged.

Next steps

The ILR is applicable to accounting periods commencing on or after 1 January 2022. An advance body of work is required by aviation platforms in terms of modelling and preparation for the impact of the ILR in highly leveraged platforms and assessing any potential mitigation strategies. In particular, aviation platforms should act now (if they have not already done so) to put in place sufficient resources and infrastructure to assess accurately the impact of the ILR as part of the FY2022 compliance cycle.

Advance modelling needs to be carried out for larger and more complex platforms to identify the projected impact of the rules on cash tax liabilities, the availability of group exemptions and, in particular, the identification of which lessors should elect into an interest group, if such an election is to be made.

DEBRA

While the introduction of the ILR has increased the already complex requirements to secure an interest deduction for Irish lessors, this legislation is by no means the end of new interest restrictions, with further restrictive measures on the horizon.

A draft of another new directive was announced by the European Commission (EC) on 11 May 2022. The proposed directive, focusing on the debt-to-equity bias reduction allowance (DEBRA), is aimed at addressing the tax-induced debt-equity bias. The proposal includes both a debt-equity bias reduction allowance in the form of a notional interest deduction on equity *and* a general limitation on the tax deductibility of debt-related interest payments.

Under current tax rules, businesses in EU member states generally may deduct interest attached to debt financing, but, in contrast, no deduction is available in most member states for the costs associated with equity financing. As a result of this disproportionate tax treatment, a bias towards debt in investment decisions can exist.

The EC has highlighted its concerns with encouraging companies to accumulate debt because this may lead to high rates of insolvency, with a negative effect for the EU as a whole. This debt bias also penalises the financing of innovation through equity. The EC has proposed two new rules in the draft directive to tackle this. These rules would operate independently and apply to all taxpayers that are subject to corporate income tax in one or more member states, except for certain financial undertakings.

Equity allowance. The first rule provides for an allowance on equity financing by allowing a tax deduction for notional interest on increases in an entity's net equity position year on year – i.e. the difference between the net equity at the end of each relevant tax year, being relevant equity. In order to calculate the deductible amount, the relevant equity is multiplied by the applicable notional interest rate (NIR).

As currently drafted, the proposal provides that the NIR is intended to consist of two components: the currency specific risk-free rate and a risk premium. The risk-free rate is based on the Solvency II directive and the risk premium generally would be set at 1%, deferring from the arm's-length principle endorsed by the EU.

The allowance on equity would be available for 10 years – i.e. it would be deductible in the year it was incurred and in the next successive nine years.

A number of anti-abuse measures have been included in the draft directive, one of which limits the deductibility of the allowance for each tax year to a maximum of 30% of the taxpayer's EBITDA. An entity may carry forward any excess allowance that cannot be deducted because of this 30% limitation for a maximum period of five years. Any excess that cannot be deducted because the deductible allowance on equity is higher than the taxpayers' net taxable income may be carried forward indefinitely.

Several other anti-abuse provisions to prevent both the use of equity increases in an abusive manner and to ensure the equity allowance is not used as a new mechanism for base erosion have also been included in the draft directive.

Structuring opportunities may arise for the aviation industry with the equity allowance, while bearing in mind investors will be keen to ensure any disposal of their investment by way of equity financing will not be subject to exit taxes.

Debt rule. The second rule included in the draft directive intends limiting the deductibility of interest to 85% of the taxpayer's exceeding borrowing costs – i.e. the excess of interest paid over interest received. This element of the directive, in particular, is worthy of more attention than it is receiving.

The EC launched a public consultation on DEBRA that sought stakeholder feedback on the directive as currently drafted. Deloitte has engaged with the EC in this regard and highlighted some key concerns with the proposed directive:

- the directive is not clear as to whether the notional equity deduction is mandatory or optional for taxpayers and seems to suggest that it could be mandatory. Where optionality is not available, the equity allowance could reduce the effective tax rate (ETR) of companies below 15% – i.e. below the upcoming 15% global minimum ETR
- additional definitions and clarifications on various aspects of the proposal are also required. For example, tax consolidation and the potential to pool the taxable results of group entities is an area that will need to be addressed by the EC
- as with the ILR, the additional compliance burden DEBRA could create for aviation platforms needs to be considered. One critical area that also needs to be monitored as the directive progresses is the calculation of the net interest

restriction under DEBRA. While the calculation of this restriction is based on the net interest expense, similar to ILR, DEBRA does not currently include the concept of "interest equivalent", rather it speaks only to "interest". Therefore, it remains to be seen if a portion of operating lease income may also be treated as interest for the purposes of DEBRA as it is treated as interest equivalent for ILR

- although an allowance for equity would be welcomed in the aviation industry, further restrictions on an entity's ability to deduct interest on debt is not supported. The ILR under ATAD 1 has already been introduced throughout EU member states, and Irish aviation platforms continue to grapple with assessing the implications of these rules despite them having taken effect on 1 January 2022. DEBRA proposes the introduction of a new limitation of the deductibility of financial expenses to 85% of exceeding borrowing costs. This is in addition to the ILR noted above. The proposed directive provides that the taxpayer will apply the 85% limitation rule as a first step and then, calculate the ILR limitation applicable in accordance with ATAD 1.

  If the result of applying the ILR is a lower deductible amount, the taxpayer will be entitled to carry forward (or back as domestic legislation provides for) the difference in accordance with ATAD 1.

  Further consideration is needed by the European Commission to ensure alignment of ATAD 1 and DEBRA – i.e. all carve-outs and escape clauses under ATAD 1 should also be applicable to taxpayers that are in the scope of the new interest limitation rule.

The directive is still draft and for it to be adopted, member states would need unanimously to agree in the Council of the European Union on the draft text. The European Parliament and European Economic and Social Committee also must be consulted and give their opinion, although this is not binding. The proposal may, therefore, be viewed as the starting point for discussions.

If adopted, EU member states would be required to transpose the directive into their domestic legislation. Currently, the implementation deadline is set at 31 December 2023 and it is proposed that member states apply the directive as from 1 January 2024.

The six member states (Belgium, Cyprus, Italy, Malta, Poland and Portugal) that already have rules in place providing for an allowance on equity may choose to apply a "grandfathering" clause. This means that taxpayers that already benefit from a domestic allowance on equity as at the date of entry into force of the directive would be able to continue to benefit from the specific national allowance for a period of up to 10 years.

Given the capital-intensive nature of the aviation finance industry and high levels of relative leverage, any further interest restriction could have a significant impact on aviation platforms. Industry participants should therefore be mindful that further restrictions on the deductibility of interest are on the horizon and these will need to be considered for new and existing platforms.


Danielle Ryan, Aviation Finance and Leasing Senior Tax Manager, Deloitte

Pillar One and Two

Since 2017, the 140 member countries of the OECD inclusive framework have been jointly developing a two-pillar approach to address the tax challenges arising from the digitalisation of the economy. These discussions have resulted in the introduction of Pillar One (taxation of multinational enterprises in the digital economy) and Pillar Two (global minimum taxation), and these are part of the second phase of the OECD's Base Erosion and Profit Shifting (BEPS) framework. Both Pillars One and Two are targeted for implementation in 2023 but with 2024 appearing at present to be the more likely implementation year.

Pillar One. Pillar One deals with the reallocation of certain profits from large multinational enterprises (MNEs) to market jurisdictions – i.e. based on where sales or users are located. The new taxing right is known as Amount A, and will initially apply to multinational businesses with global annual turnover above €20 billion ($19.8 billion) and profitability above a 10% margin.

In-scope businesses will reallocate 25% of their residual profit (defined as profit of more than 10% of revenue) to market jurisdictions using a revenue-based allocation key. Amount A will be implemented through a multilateral convention to be developed and open for signature in 2022, with the stated objective of Amount A coming into effect in 2023.

Amount B will apply transfer-pricing rules to the remuneration of related party distributors that perform "baseline marketing and distribution activities" in the market jurisdiction. We await further detail on the design and scope of Amount B, which is expected to be complete by the end of 2022.

While Pillar One may generally not be relevant for the aircraft leasing industry, there are a number of platforms owned by large banks and conglomerates that could potentially come within scope. Helpfully, as currently drafted, Pillar One provides for a regulated financial services exclusion (i.e. a depositary institution, mortgage institution, investment institution, insurance institution, asset manager, a mixed financial institution, and an RFI service entity).

The application of the regulated financial services exclusion comprises of seven steps which ultimately allows for the exclusion of certain revenues earned by regulated financial institutions in the calculation of Amount A. So, while the exclusion is not aviation specific, revenues generated by leasing and other non-excluded activities at the group level that is less than €20 billion (with the potential to reduce to €10 billion in the future) is not expected to be in scope.

To note, groups are defined by reference to accounting principles, requiring the identification of ultimate parent entities and the group entities included in consolidated financial statements.

Comments on the draft model rules were invited by 19 August 2022. The inclusive framework will review stakeholder input and seek to "stabilise" the Amount A rules in October 2022. The rules on administration and tax certainty for Amount A are expected to be released in advance of October and the model rules once finalised will be included in a multilateral convention to be signed in early 2023.

Pillar Two. While the potential for DEBRA to increase the ETR of certain aviation platforms will be subject to further debate, one area that will likely increase the minimum tax rate for organisations in scope is Pillar Two.

On 22 December 2021, the EC proposed a draft directive to implement the G20/OECD inclusive framework on BEPS' Global Anti-Base Erosion Model Rules (Pillar Two). Pillar Two is designed to ensure a global minimum ETR (15%) for multinational groups.

The introduction of a global minimum effective rate of tax will, among other things, likely impact on any deductible payments to related parties which are taxed at a low ETR or a zero-nominal rate. The draft directive would apply only to entities located in the EU that are members of MNE groups or large-scale domestic groups that meet the annual threshold of at least €750 million of consolidated revenue in at least two of the four preceding years. This threshold would be consistent with the threshold adopted in existing international tax rules such as the country by-country reporting rules.

Accordingly, groups below the threshold should still be able to avail of the existing 12.5% rate of corporation tax on trading income in Ireland. In other words, several aircraft leasing platforms would not be affected by this rule but aircraft leasing platforms with an effective tax rate below 15% which are part of a large group may be affected.

The three areas of Pillar Two that are of importance to aircraft lessors are the Income Inclusion Rule (IIR), which imposes top-up tax on a parent entity in respect of the low taxed profits of a subsidiary, ensuring a minimum ETR of 15% on profits of international business, regardless of what country they are headquartered in or where they operate, the Undertaxed Payments Rule (UTPR) denies deductions for payments made to low taxed entities, and the Subject to Tax Rule (STTR), which seeks to impose a withholding tax on payments to low-taxed entities.

The IIR operates by requiring an additional top-up amount of tax to be paid by the parent entity of the group to its tax authority. Whether a top-up amount of tax is required or not is determined by calculating the ETR of each group company on a jurisdictional basis.

The ETR is calculated by dividing the amount of covered taxes by the amount of income as determined by "GloBE rules". Covered taxes are taxes on a group company's income or profits, including both domestic and foreign taxes imposed on the company. Once the entity has determined their covered taxes, they must calculate the "GloBE tax base". This is done by calculating its net income using the financial accounting standard of its parent company in the preparation of consolidated financial statements (after making certain prescribed adjustments).

Subject to some exclusions, included in the proposed definition of covered taxes is both current and deferred tax with the latter including a recapture rule that limits the allowable timings differences to those which reverse within five years. Helpfully, deferred tax on tangible assets is excluded from this recapture, meaning aircraft lessors can include deferred tax expense (capped at 15%) on aircraft in their calculation of covered taxes and potentially increasing their ETR for the purpose of the calculation.

When determining the GloBE tax base, a formulaic substance carve-out will exclude income that is a 5% return on tangible assets and payroll. A transition period will apply during which 8% of the carrying value of tangible assets (potentially excluding assets leased out, based on current wording) and 10% of payroll initially will be excluded, declining gradually over a 10-year period to 5%. There also will be a *de minimis* exclusion in respect of countries where a group has revenues of less than €10 million and profits of less than €1 million.

The UTPR is intended to apply as a backstop rule and kick in should the IIR not apply. For example, if the ultimate parent company has not implemented the IIR or is tax resident in a low ETR country. The UTPR operates by denying tax deductions for related party payments to low ETR jurisdictions. The UTPR would not be applicable to payments between third parties, therefore aircraft lease payments to low ETR countries would not be impacted, unless the lessor and lessee are related (e.g. in captive lessor airline structures or lease-in-lease-out structures) and the €750 million group revenue threshold has been met.

As a result, the impact of the rule in an aviation finance context is expected to be more relevant to interest payments made to low ETR jurisdictions within large aircraft leasing groups (or aircraft leasing platforms owned by large multinationals).

The STTR applies on a payment-by-payment basis (covering interest, royalties and a defined set of other payments) and is triggered where the full amount of a payment will not be subject to tax at a nominal rate of least 7.5% to 9%. Where the STTR applies, treaty relief that would otherwise have been provided may be denied, with the maximum applicable withholding tax being 9%.

While it is clear that Pillar Two will create additional tax implications, compliance burdens, and require lessors and airlines to review what technological solutions they have in place to manage both, the ultimate question for industry participants is, will there be cash tax payable as a result?

In calculating the ETR, the model rules allow for pre-Pillar Two losses to be taken into account during the year of transition (year one of the rules applying) at the lower rate of 15% or the applicable domestic rate. Lessors with deferred tax assets originally recorded at the Irish 12.5% corporation tax rate, may take these into account at the higher 15% rate to the extent it can be demonstrated that the DTA is attributable to a GloBE loss, had the rules been applicable when the loss originally arose. This would result in an adjustment to the covered taxes included in the ETR calculation and is therefore an area lessors should be cognisant of as part of preparing for the introduction of Pillar Two.

It still, however, remains unclear how the Irish government will seek to introduce these rules: will the headline corporation tax rate for in-scope entities move from 12.5% to 15% or will a 2.5% top-up tax apply instead? The movement from a rate of 12.5% to 15% could impact the deferred tax balance with a potential impact on the profit-and-loss account. Alternatively, the introduction of a 2.5% top-up tax may result in unforeseen cash tax due by lessors as it remains to be determined whether this top-up tax would be treated as a separate tax, for which losses from a trade of leasing may or may not be available to shelter. Further clarity is needed in this area.

ATAD 3

On 22 December 2021, the EC published a draft for a new directive "unshell initiative" or ATAD 3 designed to prevent "the misuse of so-called 'shell entities' for improper tax purposes". The proposed directive is aimed at establishing standards for substance and transparency to enable tax authorities to easily detect any abuse from the use of shell companies that exist merely on paper, through the use of indicators such as income, staff, premises, etc. The purpose of the directive is to deny certain tax benefits (double tax relief, application of treaty benefits) where these minimum substance requirements are not met. Furthermore, the "substance test" contained in the directive imposes additional tax compliance obligations on taxpayers, provides for sanctions and extends the scope of automatic exchange of information between EU member states.

The draft, which requires a unanimous vote by all EU member states in order to be adopted as a directive, would be required to be transposed into national law by the EU member states before 30 June 2023, and is expected to be applied from 1 January 2024 (although 1 January 2025 is increasingly looking more likely).

A two-year look-back rule will be applied to determine if a company falls within the scope of the directive. Taking these dates into consideration, a company's position as of 1 January 2022 may be the first reference point as to whether the directive will apply to them, and companies may want to consider appropriate actions based on their current position. Moreover, companies may need to anticipate necessary operational changes. Aircraft lessors in Ireland which outsource certain functions to external corporate service providers urgently need to take note of the current ATAD 3 draft provisions.

All entities that are considered tax resident and are eligible to receive a tax residency certificate in a member state are considered to be within scope of the directive. However, the rules are structured by use of a step-by-step process, filtering out entities that qualify for an exemption from reporting, meet the minimum substance requirements or do not result in a tax advantage. Should the entity still remain in scope following the application of these steps, the imposition of tax consequences will apply.

Step 1: *Are substance indicators met?* The draft directive will apply to an entity meeting all three "gateways" established by levels of indicators. The proposed gateways are:

i. The first gateway is met if 75% or more of overall revenue in the previous two tax years is considered "relevant income" as defined in the directive. This includes interest, income from immovable property, royalties, dividends and notably income from financial leasing, among others. The first gateway will also be considered to be met if more than 75% of its assets are real estate property or certain other private movable property of particularly high value.
ii. If at least 60% of the entity's relevant income is earned or paid out via cross-border transactions, or in the case of income from immovable property or certain high-value movable property, if more than 60% of the book value of such assets are located outside of Ireland.
iii. If the entity outsourced the administration of day-to-day operations and the decision making on significant functions in the preceding two tax years.

Entities that do not meet the above three gateway tests would not have any reporting obligations.

Further, an entity that meets the above gateways may still submit a request for an exemption. On providing sufficient evidence that the entity's existence does not in fact reduce the tax liability of its beneficial owner (or of its group), an exemption may be granted for one year and is extendable up to five years.

Step 2: *Entities that may benefit from carve-out or exemption from reporting.* There are a number of specific exclusions to the above rules, the most notable being, broadly:

- certain regulated financial entities (including certain securitisation special purpose entities, investment funds and certain pension institutions)
- entities with transferable securities listed on a regulated market
- entities with at least five of its own full-time equivalent employees or members of staff exclusively carrying out the activities generating the relevant income.

Notably, as currently drafted, ATAD 3 does not contain any leasing-specific carve-out; however, commentators believe there may be arguments for same as the directive progresses.

Step 3: *Reporting minimum substance requirements.* If an entity crosses all three gateway criteria (Step 1) and is not covered in the exclusions (Step 2), it is required to report information in its annual tax return on whether it meets the minimum substance requirement.

Failure to comply leads to a penalty that at minimum includes a fine of at least 5% of the entity's turnover in the relevant tax year.

The draft directive sets out the minimum substance requirements as follows:

a) the entity has an office space or exclusive use of an office space
b) the entity has at least one active bank account in the EU
c) the entity meets one of the following two indicators:

i. At least one director of the entity

- is resident of or, broadly, lives close to the jurisdiction of the entity
- is qualified and authorised to make relevant decisions
- actively, independently and on a regular basis make use of their authorisation
- is not also an employee of an unrelated party and is not a director of any other unrelated entity.

ii. The majority of the entity's employees are resident or live close to the jurisdiction of the entity, and those employees are qualified to carry out the income-generating activities.

The statement needs to be substantiated with documentary evidence (e.g. address and type of premises, gross revenue, director details, outsourced business activities and bank account details, among others) supplied with its tax return.

If an entity fails to meet the minimum substance requirements set out in a-c above, it is presumed to be a shell entity for the purpose of the directive. On the contrary, if an entity meets all of a-c above, it shall be presumed not to be a shell.

Step 4: *Possibility of rebuttal.* Entities that are presumed not to have the minimum substance levels required by the proposed directive (i.e. if the requirements at Step 3 are not met) do have the option to rebut this presumption by providing additional supporting evidence of the business activities which they perform to generate relevant income.

For example, additional supporting evidence could include the viable commercial (non-tax) reasons supporting the entity's establishment in the member state, that core income earning activities are actually carried out in the member state of tax residence and the board of directors have the skills, expertise, experience, authority and capability to make key decisions concerning the core income-generating activities.

Step 5: *Tax consequences.* There are a number of adverse tax consequences where the minimum substance requirement have not been met, including denial of double taxation relief; no longer receiving a certificate of tax residency (or the receipt of an amended tax residency certificate indicating that the reporting entity is no longer entitled to treaty benefits or relevant EU directives); and in the relevant income of the entity may be subject to tax in the hands of its EU shareholder as if it received that income directly (i.e. by ignoring the existence of the shell entity).

Step 6: *Exchange of information/ potential request for the performance of a tax audit.* Information on all entities in scope would be exchanged automatically between EU member states' tax authorities, even in the case of rebuttal or exemption. With the exchange of information in relation to this, comes also an increased risk of tax audits.

Impact on the aviation finance industry

The European Commission launched a public consultation on the directive which closed on 6 April. Stakeholders across member states provided feedback on the directive as currently drafted (including Deloitte), and although there has been no further feedback at the time of writing this article, there were several common concerns identified. For example, multiple concerns were raised about clarity of the definitions (e.g. undertaking's shareholders, economic activities, private purposes, associated enterprises, outsourcing, significant function).

ATAD 3 remains a highly important area of focus for the aircraft leasing industry that needs to be monitored as the directive progresses. The industry relies heavily on treaty access and therefore any potential denial of same warrants thorough review.

For many large aircraft leasing platforms, it is relatively common practice to outsource the day-to-day operations of its business. Consequently, the trajectory of travel for these platforms may ultimately be through ATAD 3's gateways. Therefore, platforms that do not benefit from the carve outs provided for in the proposed directive, will need to consider whether they meet the substance requirements set out therein.

As a result, going forward increased efforts will need to be made by many aircraft lessors to potentially justify and increase the level of substance they have in jurisdictions where tax residence is claimed.

Furthermore, additional consideration as to the make-up of the board of in-scope lessors will also be required, as the need for these directors to have significant leasing experience in order to make decisions regarding the management of these platforms and the transactions they undertake is fast becoming an area that will face increased scrutiny by tax authorities and lessees.

Conclusion

The future international tax developments discussed in this article should be closely monitored and considered by aircraft lessors and airlines to assess the impact they will have on these companies. While fundamental changes to the framework of international taxation are expected and fast becoming the norm, tax planning and investment opportunities still exist for aircraft leasing platforms.

New-tech engines stay out in front

A strong recovery in narrowbody aircraft utilisation has led to greater value stability for engines equipping mature aircraft. The new-technology engines continue to lead.

The market has peaked up over the past few months with the reopening of travel. One source says there is a general consensus that there is not going to be enough narrowbody aircraft available to operate for the summer season.

The V2500-A1 market is marginal and essentially a part-out market and greentime. This engine is stable and at the value floor, says one pollster.

Backlog on the V2500-A5 engine shop work has been affected by the February 2021 airworthiness directives (AD) that address potential anomalies in the material during inspection of the high-pressure turbine (HPT) stage 1 and stage 2 stage hubs.

"The AD is about the HPT stage 1 and stage 2 fault disk that requires an inspection with defined limits. There have been numerous AD revisions and inspections for cracking and potential replacement," says an engine source.

He adds that the V2500 maintenance market is relatively narrow and limited and there are not a lot of shops performing engine works. "The engine needs to be done in the shop and this has led to a lot of backlog."

The V2500-A5 has an established fleet but issues persist, says another engine lessor. "It continues to lease well and will do like the -5B and -7B in future."

Another pollster says the V2500-A5 engine is a strong liquid market. "Demand is driven by AD on HPT hubs."

A lessor says: "We have a situation now where the V2500 engine is getting into the mature phase, and its intervals are rather shorter than the CFM56 engine equivalent. There is a lot of demand for shop visits."

The V2500-A5 engine is dominant on the Airbus A321 models and this is where the market is strongest.

The CFM56-5B market compared with other narrowbody engines is relatively "soft" at the moment and has not recovered, says the lessor. "There is oversupply. The -5B is dominant on the Airbus A319 model, which is where the market is softest."

On the freighter narrowbodies, the CFM56 engine appears to be the most popular choice.

The engine lessor explains that a modification which can be done on the thrust reversers allows a reduction of noise, especially for night-time operations.

"There is still upside in the -5B engine market. Available engines will present multiple options due to factors affecting the host aircraft fleet. Values now make the engine," says a pollster.

"The -5B is still in good demand. We see demand for package deals where customers are after multiple engines as they try to address capacity or wider fleets. It is probably quicker for an airline to address capacity ramp-ups with an A320 or [Boeing] 737NG rather than relying on the aircraft OEMs [original equipment manufacturers] and be potentially delayed in their fleet plans," says another pollster.

Still, the CFM56-5B market continues to lag behind the CFM56-7B or V2500-A5, which have both benefitted from domestic market recovery, especially in the USA and China.

The CFM56-7B demand seems balanced and values are recovering on the leasing side, particularly on greentime leasing.

On the aftermarket, the -5B and -7B run-out engines are trading between $1.2 million to $1.5 million depending on the quick engine change and assuming minimum of life-limited parts life, says the lessor.

"Those were trading between $1.8-2 million per engine pre-Covid. It has not fully recovered yet, but it could recover in the fourth quarter of this year. We will see how airlines perform in the summer and have better long-term market conditions," adds the lessor.

There is a distinction in the -7B engine market. Depending on the operations, some airlines may lease the 24,000lbs thrust but the 22,000lbs is where the issue is for demand.

The rentals in the narrowbody engine market are creeping up.

The short-term lease rates will recover quicker than the long-term lease rates, which are still being priced below pre-Covid-19 levels.

"Some lessors are placing -7B engines on three-year leases at $75-80,000 a month. That would go up but the lease rates are not there yet," says the lessor.

Another lessor points out that the issue is there are too many greentime engines.

"Some that purchased greentime engines prior to the Covid pandemic paid a premium. Consequently, they need to get revenues against their asset and unfortunately are placing their engines at relatively low lease rates to ensure cash flows," he states.

Narrowbody engines

	Investor appeal	Remarketing potential	Residual value
CFM56-3C (737 Classic)	2.50	2.83	3.08
CFM56-5A (A320 Family)	1.50	1.83	2.25
CFM56-5B (A320 Family)	4.75	4.42	5.00
CFM56-7B (737NG)	5.50	5.25	5.33
CFM LEAP-1A (A320neo Family)	6.36	6.09	5.82
CFM LEAP-1B (737 Max Family)	6.36	5.91	5.73
IAE V2500-A1 (A320 Family)	1.25	1.58	1.58
IAE V2500-A5 (A320 Family)	4.67	4.67	4.83
PW1100G (A320neo Family)	6.27	5.91	5.45
PW1500G (A220 Family)	5.45	4.91	5.00
PW2000 (757s)	3.08	3.42	3.42
RB211-535 (757s)	3.08	3.50	3.33

NB: Rating of 1 means lowest rating, 7 highest. *Source: Airfinance Journal* engine poll, March 2022

The market for 757 aircraft is now essentially a freighter market with low utilisation.

Delta Air Lines, FedEx and UPS are the primary operators of Pratt & Whitney-powered 757s. Aersale bought 24 units from American Airlines last autumn.

There seems to be a market for trading. "The engines have their price, and we have seen market values exceeding base values," says one pollster.

The new-technology engine market is more balanced.

The LEAP-1B has been reintroduced into the system and the market is waiting to see if there are similar problems as the -1A before, according to one lessor. "As a consequence, everybody is waiting on will there be additional demand requested."

Boeing delivered 245 Max aircraft in 2021. With production on track to reach 31 aircraft a month sometime this year, the US manufacturer must ramp up 737 Max deliveries significantly to keep its inventory winding down and newly built aircraft flowing to customers.

The LEAP products are described as the heart of the market for investors. But one lessor cautions that book values are restricting deals from its perspective.

He adds that the PW1100G engine market is similar to LEAP engines. "Still on-going developments from a technical standpoint that will determine how long this engine stays on-wing. We have bid on this engine – book value constraints were a factor we felt."

Another lessor says demand has increased for spare engines since the beginning of the year.

"We have seen a lot of demand but not in the traditional way. Airlines are managing their engines pool and using greentime on their classic fleets as they reintroduce some of their aircraft into the system."

The lessor representative says the trend is different for new-technology aircraft. "New-technology aircraft fleets are also being reintroduced but are under warranty periods from the manufacturer, therefore demand is not as significant."

He observes that in the current high oil price environment, most airlines are looking to operate their new-technology aircraft fleets. He expects aircraft manufacturers to speed up deliveries of parked Max aircraft while those that have not returned to service yet, may also enter service again.

Still the gap between what Boeing can deliver and capacity that airlines want to deploy will be filled by existing types.

He observes that aircraft OEMs are facing the dilemma of how quickly they can ramp-up production rates to reasonable levels to allow the airlines transition to new-technology aircraft.

"The market is starting to shift to new-technology engines and more engine lessors are moving into that space.

Some have the financial resources to support their customers. Others are focusing on acquiring used serviceable materials, greentime engines off the aircraft to lease the engines."

He expects more airlines to come up with sale and leaseback opportunities on new-technology engines.

"Engine lessors are focusing on managing their portfolio the best possible way to address the demand in the market in existing technology engines but also grow their exposure to new-technology engines," he concludes. "It is inevitable that as the demand grows for new-technology types, the largest engine lessors migrate to this market."

Widebody market

Widebody aircraft utilisation has steadily improved but at a slow pace because long-haul flying is not expected to recover fully for another two years.

The slowed recovery has continued to depress engine values of mature fleets.

"The widebody market is still struggling to recover fully and, as expected, we don't see as much activity when compared with the narrowbody market. We see demand for sale and leaseback spare engines on the Trent XWB side, but on the widebody, short-term spares engine requirements are usually not plentiful. This is because airlines are normally covered by the OEM's long-term lease power by the hour (PBH) contracts," says a source.

The perception of the widebody market is activity mainly on new engines.

"It is still quiet on most markets but there is activity on the Trent 700 engine as more Airbus A330s head back in operations. There seems to be a trend of short-term lease appetite for this market with A330 operations during the next six months, not long term," says a source.

He adds that there has been increasing talk about aftermarket services on the Trent 700, with Rolls-Royce offering spare parts support on a mature basis. "This has been considered but it could be a reality now and be helpful."

The GE90 market represents the long widebody hangover, and is a depressed market, observes a source. Market values of GE90 engines have reduced significantly over the past two years, but were arguably decreasing prior to Covid-19.

Some 777 operators have expressed interest for the GE90 engines to get additional capacity. Those are typically charter operators which are after large capacity aircraft.

Another pollster confirms interest in the GE90 market.

"There seems to be some pick up in this GE90 market. Some engines are being sold for part-out and the numbers are quite high. This may reflect that some are looking at being there in the long-term support basis," he comments.

The freighter market will certainly help the GE90 engine market. There has been an increasing appetite over the past year with Mammoth Freighter launching a conversion programme with Delta Air Lines Boeing 777-200LR aircraft, while the first converted 777-300ERSF by GECAS is scheduled by the end of this year.

The Trent 1000 has been impacted by the pause in deliveries of the 787 variants, and some believe the significant entry into service (EIS) issues are resulting in losing large market share to the GEnx-1B model. More than 110 787s are undelivered and in storage because of production quality issues.

One pollster says the aircraft longevity, because of technology and limited other future options, should keep this market stable despite being the unfavoured engine option.

The Trent XWB values are holding firm and the engine is Rolls-Royce's strongest product. As one source says, it is a "reliable engine on a growing fleet with residual value likely dictated by the OEM".

"It will be interesting to see what happens with the Qatar Airways A350 issue with Airbus and if that means more impairment and grounding of aircraft? What would that do to the engines?" asks another source.

The GEnx-1B remains a strong engine/aircraft platform. The GEnx-2B, which is predominantly cargo, has a limited appeal.

The CF6-80 market is still buoyant. Freight drives demand, and some North American operators are resilient in 767 operations. Boeing still get orders for the factory-built 767F version.

Despite the market moving to the 777 conversions, the 767-300ER has benefitted from a second life in the cargo conversion market over the past few years, although Boeing continues to sell the factory-built 767F model.

The Chicago-based company found strength in the widebody market supported by strong demand for freighters last year and recorded 84 orders for 777F, 767F and 747-8F models, which beat the previous record of 83 freighters ordered in 2018.

Widebody engines

	Investor appeal	Remarketing potential	Residual value
CF6-80 (747s, 767s)	3.67	4.50	4.17
GE90 (777s)	2.75	2.92	2.92
GEnX (787s, 747-8s)	5.82	5.18	5.27
GP7200 (A380)	1.33	1.25	1.25
JT9D (747s, 767s)	1.00	1.00	1.33
PW4000 (A330s, 747s, 767s, 777s)	3.09	3.36	3.18
RB211-524 (767s, 747s)	1.33	1.83	1.75
Trent 700 (A330s)	2.58	2.92	2.50
Trent 800 (777s)	1.58	1.50	1.42
Trent 900 (A380)	1.42	1.25	1.33
Trent 1000 (787s)	4.00	3.73	3.27
Trent 7000 (A330neo)	4.00	3.36	3.36
Trent XWB (A350s)	5.09	4.45	4.27

NB: Rating of 1 means lowest rating, 7 highest. *Source: Airfinance Journal* engine poll, March 2022

The CF6-80 market benefits from the Amazon effect, high demand because of a shortage of good engines and USM parts, says a pollster.

The CF6-80C2B6F is the only opportunity on 767s but the market remains volatile.

"Engine values have been on or above expectations for some time," remarks another pollster.

Regionals

The regional engine market improved over the past year with the exception of the old-generation engines for turboprops.

Demand for CF34 engines with greentime is expected to be quite strong for mid-life aircraft as PR and life-limited parts costs are high, observes one pollster.

The CF34-8C market continues to be active. One pollster says it is a concentrated market and the fleet will benefit from the move away from the 50-seat CRJ200/ERJ145s in the medium term. "It is a long established engine lessor market," he adds.

The biggest drive in the CRJ700 market can be the engine condition and its costs relative to the trading of aircraft, which has been around the $3 million to $5 million range.

The -8E market is well established and currently irreplaceable in the North American market.

The Embraer 170 operator base is relatively thin compared with other members of the family but the type is seeing a new lease of life in the USA, flying for American Airlines as 65-seaters.

The best-selling E175 continues to sustain Embraer, making up about 50% of the entire commercial aircraft backlog. But the US concentration of global fleet is increasing.

The fact that no scope clause-compliant aircraft can replace E170/E175 fleets in the US means less volatile residual values, but at a much lower level now, observes a source.

Demand has picked up for CF34-10 engines, albeit in a limited market, but new and secondary operators such as Air Dolomiti, Sky High Aviation Services, United Nigeria and Congo Airways could boost demand, according to one source.

The CF34-10 is a relatively expensive engine considering the market and this has restricted appeal outside established players, adds the source.

The E190 model has probably been the most traded regional aircraft over the past two years. Supply has been mostly absorbed, with more than 50 aircraft placed at Alliance Airlines, Airlink and Breeze Airways alone, plus smaller numbers at carriers such as BA Cityflyer, Bamboo Airways and Cobham Aviation. Nevertheless, there is little doubt that between the abundance of E190s on the market and Covid-19, many of the E190s placed (not only in Australia) had an element of distress, which, in turn, helped stimulate the demand, says one source.

The PW150A market continues to be relatively quiet, compared with the PW127 engine models.

"As hot section inspections and life-limited parts costs are more manageable for turboprop engines than jets, and TBOs [time between overhauls] tend to be lower, the attractiveness of used engines is lower," says one pollster.

The PW150A is expensive to put through the shop at about $1.5 million to $1.6 million and the Q400 type has experienced difficulties in placement in the market. Some airlines have expressed interest in the type but their price expectation was lower than offers.

Production for the Dash 8-400 is still paused, with limited demand. The Flybe bankruptcy (54 aircraft) has not helped the type. When combined with Air Baltic, LGW, Austrian Airlines and SA Express phase-outs, a total of 90 units have been on the market looking for new homes.

The type is effectively retiring from the European markets and one source points out as many as 110 units, or more than 25% of the estimated 420-active fleet, include imminent retirements at Olympic Air and LOT Polish Airlines.

The secondary market demand has been very limited for the passenger side with several operators adding capacity while main trading has been aerial firefighting applications at Conair Aviation.

The PW127F engine ranked lower than last year. More airlines are moving to the ATR72-600 models but demand has in the meantime increased on the freighter side because conversions are now only for the ATR72-500 type.

The PW127 engine fleet is dominated by original equipment manufacturers and few players, observes one pollster. Growth in freight and inter-island services (on-going and expected) will support the fleet. Still, the types have a large number of aircraft in service and benefit from transitions to second- and third-tier operators.

LOT's ATR72-500s are still parked or stored, potentially with engines needing work. *Airfinance Journal*'s Fleet Tracker showed about 90 ATR72-500 units inactive in March 2022, while another 40 had been retired. Still, the ATR72-500 fleet accounted for more than 300 aircraft in service.

In 2021, 17 ATR72-500 passenger aircraft were converted into cargo. This compared with eight units before the Covid-19 pandemic. In addition, the manufacturer delivered four new ATR72-600Fs last year.

ATR is confident that this is a growing market because airlines operating for large integrators increased their flights substantially in 2021.

Regional engines

	Investor appeal	Remarketing potential	Residual value
CF34-8C (CRJs)	3.50	3.92	3.54
CF34-8E (E170/175)	4.29	4.57	4.25
CF34-10E (E190/195)	3.59	3.53	3.47
PW123 (Dash 8)	2.27	2.77	2.55
PW127E (ATR42-500)	3.00	3.38	3.33
PW127F (ATR72-500)	3.29	3.58	3.92
PW127M (ATR72-600)	4.13	4.46	4.58
PW150A (Q400)	3.25	3.42	3.71
PW1919 (E190/195-E2)	4.25	4.04	4.42

NB: Rating of 1 means lowest rating, 7 highest. *Source: Airfinance Journal* engine poll, March 2022

Narrowbodies **continue to lead**

Not surprisingly, narrowbodies remain the most popular types when it comes to remarketing potential, operational success, value for money and residual value – the four criteria in *Airfinance Journal*'s investor poll.

Since the start of the Covid pandemic, narrowbodies have increased their lead over the widebody aircraft, in the *Airfinance Journal*'s investor poll.

In 2021, the Boeing Max models benefitted from the gradual lift in bans from certain jurisdictions. The Boeing Max 8 was the star performer last year and recorded a 0.39-point improvement over the previous year to make the top five. The Max 10 was not far behind with a 0.30-point improvement.

Airbus's competitive products, the A321neo and the A320neo models, also recorded some improvements in 2021.

Once again, the A321neo was the clear winner in the single-aisle category and, for the first time, it led the way in all four criteria.

One pollster noted that the type has recorded four times more orders than the 737-10, adding: "The market has voted."

Second was the A320neo model with improved marks in all four categories.

The 737-800 came third, like in 2020, scoring better in three criteria than in the previous year. The model has benefitted from the Max crisis. Despite the ongoing replacement with the Max family, the 737-800 remains a key asset on the passenger side, while cargo conversion appetite continues to rise.

The lift in bans of the Max family gave investors confidence in the remarketing potential and residual values categories last year and this is set to continue in 2022. However, Airbus continues to extend its lead with airlines by converting some 737 operators into A321neo customers. In December, it clinched the KLM Group (which also includes Transavia France) and Qantas Group (although this was announced as a memorandum of understanding) as new narrowbody Airbus customers.

As *Airfinance Journal* passed to press (January 2022), Allegiant Air opted for the Max family to renew its Airbus fleet, but, Airbus could also clinch another Boeing operator in Europe: LOT Polish Airlines.

The proposed A220-500, a higher-capacity variant of the A220 family, could be a crucial part of negotiations between the European manufacturer and the Polish flag carrier.

The A220-300 enjoyed a successful year on the commercial side. The type has also benefitted from more diverse sources of financing from the investor community, as well as more leasing appetite. The A220-300 continues to attract many bids for sale and leaseback transactions at decent lease rate factors, when compared with other products. This was reflected in the investor poll with all four criteria.

Could it become the new darling of the industry?

(Continued on page 38)

Single-aisles

Aircraft types in each category are rated from 1 (worst) to 5 (best).

Aircraft type	Residual value	Value for money	Operational success	Remarketing potential	Overall score	Last year's score	Difference
A321neo	4.79	4.42	4.68	4.89	**4.70**	**4.54**	0.16
A320neo	4.60	4.30	4.55	4.68	**4.53**	**4.39**	0.14
737-800	4.05	4.32	4.79	4.17	**4.33**	**4.19**	0.14
A321	3.87	4.11	4.53	4.06	**4.14**	**4.05**	0.09
737 Max 8	4.24	4.00	3.74	4.33	**4.08**	**3.69**	0.39
A220-300	4.11	3.97	4.05	4.06	**4.04**	**3.88**	0.16
A320	3.43	3.95	4.63	3.74	**3.93**	**3.88**	0.05
737 Max 10	3.33	3.56	3.29	3.15	**3.33**	**3.03**	0.30
737 Max 9	3.11	2.95	2.78	3.19	**3.01**	**2.96**	0.05
737-900ER	2.79	3.47	3.11	2.61	**2.99**	**3.11**	-0.12
737-700	2.39	3.06	3.53	2.25	**2.81**	**2.74**	0.07
A319	1.90	3.10	3.65	2.00	**2.66**	**2.64**	0.02
A319neo	2.32	2.61	2.77	2.17	**2.47**	**2.29**	0.18
737 Max 7	2.50	2.56	2.50	2.29	**2.46**	**2.17**	0.29
C919	1.27	1.60	1.38	1.18	**1.36**	**1.38**	-0.02
ARJ21	1.19	1.25	1.25	1.08	**1.19**	**1.19**	0.00


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Aircraft types in each category are rated from 1 (worst) to 5 (best).

Aircraft type	Residual value	Value for money	Operational success	Remarketing potential	Overall score	Last year's score	Difference
A350-900	4.17	4.14	4.56	3.76	**4.16**	**3.81**	0.35
787-9	4.00	4.00	4.29	3.94	**4.06**	**3.95**	0.11
787-10	3.47	3.38	3.80	3.38	**3.51**	**3.4**	0.11
767-300ER	3.06	3.44	4.12	3.34	**3.49**	**3.5**	-0.01
777-300ER	2.72	3.67	4.22	2.65	**3.31**	**2.99**	0.32
A350-1000	3.29	3.24	3.53	2.94	**3.25**	**3.26**	-0.01
787-8	3.00	3.12	3.65	2.88	**3.16**	**3.08**	0.08
A330-300	2.39	3.61	3.89	2.41	**3.08**	**2.82**	0.26
A330-900neo	2.89	3.03	2.89	2.76	**2.89**	**2.99**	-0.10
777-9	2.93	3.08	2.78	2.69	**2.87**	**2.83**	0.04
A330-200	2.18	3.18	3.44	2.00	**2.70**	**2.4**	0.30
777-200ER	1.78	3.06	3.22	1.71	**2.44**	**2.14**	0.30
777-8	2.57	2.54	2.22	2.00	**2.33**	**2.26**	0.07
777-200LR	1.94	2.65	2.53	1.81	**2.23**	**1.86**	0.37
A330-800neo	2.15	2.41	2.11	2.13	**2.20**	**2.27**	-0.07
747-8 pax	1.88	2.38	2.50	1.63	**2.10**	**1.89**	0.21
A380	1.22	2.17	2.33	1.00	**1.68**	**1.44**	0.24

"This aircraft type has proven to be successful so far and current operators seem to be satisfied with the aircraft. While Airbus has managed to attract interest for the type in North America and Europe among different carriers operating under various business models, it has yet to attract interest from Asian carriers," observes one financier.

The A220-100 market has yet to develop and it will be interesting if Airbus launches the larger A220-500 model.

Airbus current-technology narrowbody productions are almost completed. The A321 model continues to see strong marking in the four criteria, as some markets continue to upgauge. But there is an increasing distinction between younger and mid-life aircraft versus older assets. The type is being gradually replaced by the A321neo, which offers improved economics and better operational performance. The passenger-to-freighter conversion programme suggests that aircraft values will stabilise over time.

Widebody changes

The Covid pandemic has highlighted an acceleration to new-technology aircraft, and this was no more apparent than in the widebody market.

With capacity seriously hampered in international markets over the past two years, operators have used new-technology aircraft to resume or maintain services. A return to a more normal capacity will include more new-technology aircraft.

The A330 models and the 777-300ER entered the Covid-19 period against a landscape of oversupply and declining values and lease rates. But current-technology aircraft placements have happened since the onset of the pandemic and this was reflected in the A330/777-300ER performances in 2021, which showed year-on-year improvement.

One pollster believes that when international travel returns to normality, the 777-300ER will be the "best bang for the buck".

While the passenger life for those models may be limited as the years pass, the cargo conversion market could take some of the capacity next.

The 767-300ER has benefitted from a second life in the cargo conversion market over the past few years and, although Boeing continues to sell the 767F model, the market is moving to the 777 conversions.

The A350-900 and 787-9 continue to be the reference models in the widebody market. In fact, both have extended their lead over the past year, the investor poll shows.

In 2021, the A350-900 topped the charts after reporting a 0.35-point improvement over the previous year – the 787-9 improved by 0.11.

While the A350-900 enjoys large success from customers, it may also have benefitted from the technical issues around the 787-9 model, along with the ongoing restructurings of some 787 operators. Still, the A350-900 is not immune because it was impacted in the LATAM restructuring.

Beyond both successful models, the gap was further widened last year. Third came the 787-10 with a similar scoring than in 2019, and a slightly improved overall performance on 2020.

The 787-10 benefits from strong interest from full-service carriers – such as the A350-1000 – but as one pollster observes, its overall success could be impacted as the widebody market shifts to smaller widebody aircraft.

"We see the Boeing 787-10 aircraft as an asset with limited secondary market opportunities as operators tend to favour the smaller variant -9," says the financier.

The A350-1000 and the 787-8 remained fifth and sixth with no noticeable improvements over 2020.

The A330neo products have yet to convince pollsters. While interest for the A330-800 is limited, current backlog figures for the A330-900 suggest that operators are willing to shift from previous aircraft series to new aircraft programmes such as the A350 or the 787, notes one pollster.

Airbus sold the A330-900 model to Condor and ITA Airways in 2020, but the type has attracted non-tier one operators with the exception of Delta Air Lines, and this seems to penalise it.

Air Lease, Avolon and BOC Aviation are the main lessors on the programme (via direct orders) and total about 65 units, or about 20% of the orderbook.


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ATR72-600 makes it three in a row

The European manufacturer's turboprop celebrates a hat-trick of wins in *Airfinance Journal*'s Investor Poll regional aircraft category.

The ATR72-600 model continues to top *Airfinance Journal*'s Investor Poll regional aircraft category. This is the third year in a row the turboprop has won, but in last year's results the top five models were slightly down in their overall ratings.

The regional market recovery has been fuelled by domestic traffic and public service operations. However, airline failures and bankruptcies have not spared it.

ATR has had a decent year in terms of new orders, with 35 units.

The European manufacturer reinforced its market position by updating ATR72-500 fleets with new -600s as shown with Binter Canarias, Air Corsica and Tarom while winning new campaigns such as Greece's Sky Express and Maldivian carrier Island Aviation Services.

This followed six orders for its products in 2020 while deliveries to customers accounted for 10 units.

The French turboprop manufacturer delivered 31 new aircraft to customers in 2021.

ATR, which celebrated 40 years of operations in November 2021, also launched a new engine variant, the PW127XT engine.

The engine sets a new standard for sustainability and operating economics in regional aviation. Customers will benefit from 40% extended time on wing, bringing the engine overhaul to 20,000 hours, resulting in fewer events over the lifecycle of the aircraft. This will allow a 20% reduction in engine maintenance costs, says the manufacturer.

The PW127XT will provide 3% improvement in fuel efficiency from technology injection. It consumes more than 40% less fuel versus other regional jets, amounting to a similar proportion of CO_2 savings. The engine is compatible with sustainable aviation fuels, says ATR.

There is no doubt that ATR continues to increase its market share in the turboprop sector and the -600 series is enjoying a relatively favourable perception in today's lean, increasingly ESG-focused market.

However, the ATR series is fundamentally a 40-year-old aircraft design concept, despite the numerous improvements especially over the past 10 to 12 years with improved engines, updated avionics and cabins.

The manufacturer has beefed up its offering over the past few years with a full cargo version, which is attractive and suitable to dedicated freighter operations, and a short take-off and landing version to address some limited runways. Those have allowed ATR not to commit to launching a radically new successor to the ATR42/72-600 series.

ATR benefits from a broader customer base than its closest competitor, but like de Havilland, some of its customers have defaulted, thereby resulting in structurally high availability of relatively young aircraft on the market.

Some new operators such as Irish regional carrier Emerald Airlines are emerging taking some capacity, while others such as Air Serbia, Windrose Aviation and Loganair are leasing ATR72-600 equipment to renew their ATR existing fleets.

On the lessor side, Truenoord Regional Aircraft Leasing has acquired

Regionals

Aircraft types in each category are rated from 1 (worst) to 5 (best).

Aircraft type	Residual value	Value for Money	Operational success	Remarketing Potential	Overall Score	Last year's score	Difference
ATR72-600	3.81	3.92	4.39	3.97	**4.02**	**3.60**	0.42
E175	3.33	3.56	4.33	3.25	**3.62**	**3.52**	0.10
ATR72-500	3.03	3.44	3.89	3.11	**3.37**	**3.28**	0.09
ATR42-600	3.22	3.28	3.53	3.31	**3.33**	**3.06**	0.27
E195-E2	3.21	3.22	3.19	3.06	**3.17**	**2.72**	0.45
CRJ900	2.79	3.26	3.74	2.88	**3.17**	**3.07**	0.10
A220-100	3.06	3.16	3.39	3.06	**3.16**	**2.88**	0.28
E190	2.69	3.19	3.67	2.75	**3.08**	**2.85**	0.23
Dash 8-400	2.63	3.05	3.39	2.89	**2.99**	**2.99**	0.00
E190-E2	2.97	2.97	3.00	2.88	**2.95**	**2.53**	0.42
CRJ700	2.68	2.88	3.47	2.76	**2.95**	**2.82**	0.13
ATR42-500	2.72	2.94	3.28	2.72	**2.92**	**2.89**	0.03
Dash 8-300	2.76	2.88	3.24	2.76	**2.91**	**2.95**	-0.04
E195	2.72	2.94	3.22	2.69	**2.90**	**2.67**	0.23
E175-E2	2.73	2.79	2.80	2.57	**2.72**	**2.18**	0.54
ERJ-145	1.82	2.71	3.35	2.35	**2.56**	**2.74**	-0.18
E170	2.31	2.67	2.89	2.17	**2.51**	**2.47**	0.04
CRJ1000	1.79	2.44	2.38	1.76	**2.10**	**2.26**	-0.16
SSJ-100	1.03	1.44	1.22	1.09	**1.20**	**1.24**	-0.04

new aircraft on an opportunistic basis. Azzora Aviation, Falko and Acia Aero Leasing are expanding their portfolio with the -600 models, while Avation and debtholders on some Nordic Aviation Capital aircraft have sold assets with leases attached.

The Embraer E175 model is firmly installed in second place in the regional aircraft market, because of its continuing sales.

The type has been described as the "sweet spot" for regional aircraft in the USA despite a potential threat of airlines being able to renegotiate their scope clauses amid the Covid-19 pandemic.

Embraer has, however, opened some markets for the type outside North America. The sales to Nigerian carrier Overland

Airways also supports the manufacturer's efforts in the African market on the E2 front.

The best-selling E175 continues to sustain Embraer, making up about 50% of entire commercial aircraft backlog.

But as one pollster observes, the US concentration of global fleet is only increasing and demand is only for new E175 types. Former Flybe and Alitalia E175s are taking time to place, asking the question: just how liquid is the E175 on the secondary market?

The pollster says that it could be that the market will start to distinguish more between the original E175 (only about 180 built) and the more efficient, more ubiquitous E175+ that has comprised all deliveries since 2014.

The E195-E2 model was the most improved aircraft in operations last year, up 0.45 points overall and dramatically improving in all four categories: remarketing potential, operational success, value for money and residual values.

The type is Embraer's best-selling E2 variant, and despite strong competition from the larger Airbus A220-300 type, the Brazilian manufacturer shows it can sell the E195-E2 to replace small narrowbodies such as the Boeing 737-700s, with KLM Cityhopper.

Embraer also has further opened the leasing sector beyond Aercap, ICBC Leasing and Aircastle. Lessor Falko has also played a role in that market, supporting some deliveries (through the sale and leaseback market) for new customer Porter Airlines.

The polls also show the E190 and E195 models strongly improving in 2021 over the previous year.

The E190 has benefitted from a liquid market and has probably been

The ATR72-600 model continues to top *Airfinance Journal*'s Investor Poll regional aircraft category

the most traded regional aircraft since 2019. Supply has been mostly absorbed over the past two years, with more than 50 aircraft placed at Alliance Airlines, Airlink and Breeze Airways alone, plus smaller numbers at BA Cityflyer, Bamboo Airways, Cobham, etc.

The E195 has had different fortunes regarding trading over the same period. Main customer Azul Linhas Aereas was planning to rollover its fleet in 2020 over a two-year period as it was receiving new E195-E2s.

All its E195s were expected to be phased out by the end of 2022 and were to be sub-leased at least until the end of the original operating lease term.

LOT Polish Airlines had signed letters of intent covering 18 units, Breeze for up to 28 E195s, while some aircraft were being earmarked to Portugalia Airlines (PGA).

Azul has nine E195-E2s and operates its 50 E195s alongside them, but plans could be revised to make way for the E2 orderbook.

Production for the Dash 8-400 is still paused, with limited demand. The Flybe bankruptcy (54 aircraft) has not helped the type.

When combined with Air Baltic, LGW, Austrian Airlines, SA Express phase-outs, a total of 90 units have been on the market looking for new homes.

The type is effectively retiring from the European markets and one source points out as many as 110 units, or more than 25% of the estimated 420-active fleet, include imminent retirements at Olympic Air and LOT.

Demand and the secondary market demand has been very limited for the passenger side while the main trading has been aerial firefighting applications at Conair Aviation.

The Canadian operator intends converting the 2007/09-vintage fleet into Q400AT air tankers and Q400MR multi-role variants to join its firefighting fleet of 70 aircraft, which also includes Convair 580s and BAe Avro RJ85s.

The freighter conversion could also be revived, though.

End of CRJ900 production

The final two deliveries of the Canadair Regional Jet (CRJ) family were performed in February 2021.

One aircraft went to Chorus Aviation, for forward lease to Jazz Air. The second was delivered to Delta Air Lines, for operations at Skywest Airlines.

The CRJ family, made up of the 50-seat CRJ100/200/550s, the niche 44-seat configured CRJ440, the 70-seat CRJ700, the 86-seat CRJ900 and 104-seat CRJ1000 models, has received more than 1,950 orders in almost 30 years in production.

One pollster says the CRJ900 unsurprisingly shares similarities with the E175: the best-selling member of its family, driven largely by demand from the USA in 76-seat configuration. The CRJ900 type recorded limited activity in the second-hand market in 2021. Only a handful of Lufthansa Cityline aircraft were sold to lessor Regional One for forward lease to Elite Airways. Another unit was leased to Copenhagen Air Taxi.

The CRJ700 customer base is now 88% concentrated in North America. As with the E170, aircraft being phased-out by European operators are finding their way to the USA, so expect concentration in the latter market to grow, observes a pollster.

There is one real CRJ1000 operator, Air Nostrum. Air France's Hop has tried to sell its fleet for about 18 months, but demand is relatively limited, and offering prices are low.

Clifford Chance reclaims top spot

***Airfinance Journal*'s legal survey sifts through more than 1,200 deals reflecting a more active year in 2021.**

In the 2021 legal survey, *Airfinance Journal* received submissions from 15 firms, compiling 1,195 unique deals overall, including transactions gathered from Deal Tracker.

The 2021 survey is tempting to compare with pre-Covid, or the 2019 activity.

In 2019, *Airfinance Journal* recorded 1,520 deals from 15 law firms.

The capital markets were buoyant in 2021 with the first deals closing in January and signalling a return, especially in the asset-backed securities (ABS) market, after a nine-month pause. Lessors and airlines continued to tap the capital markets last year. In total, 260 eligible transactions were recorded versus 216 in 2020 and 179 the previous year.

The other categories considered in the legal survey, improved year on year but are lagging behind the 2019 levels.

Asia-Pacific became, for the first time last year, the number one region in terms of deal origination. The region recorded 381 eligible deals in 2021, or 32% of the total. It totalled 326 deals in the 2020 legal survey, down from 410 the previous year (representing a 27% market share).

Just over 30% of the submitted deals originate with European customers versus 34% in the 2020 legal survey. Europe represented 362 transaction points, compared with 562 deals in 2019.

North America is the region that saw the most progression last year with 313 eligible transactions (versus 237 deals in 2020). The region reduced the gap with Europe and Asia-Pacific in terms of percentage with 26.2%, compared with 23% in the 2020 legal survey. The region's level of activity matched the 2019 levels.

Activity in Latin America slightly increased last year with 62 deals recorded. This was up from 52 the previous year and three years of decline. Some 5.1% of last year's total involves clients from that region, against 6% three years ago.

Activity in the Middle East remains at the previous year's level, with 42 eligible transactions. This represented about half of the activity in the region pre-Covid, according to the data.

In Africa, 35 transactions closed last year, up from 29 in the 2020 legal survey and 55 the previous year.

Methodology

Airfinance Journal's annual legal survey includes aviation finance deals based on submissions from law firms as well as *Airfinance Journal*'s Deal Tracker transactions. Those are subsequently aggregated to create the winners.

The *Airfinance Journal* data team then reviews the different deals and selects those eligible for Deal Tracker. This list is then used to select the most active law firms, which are then selected by region and product type. The legal survey reviews transactions for calendar year 2021 only.

This is significant because we recognise that markets change, as do law firms; however, we felt this was the only way to offer an accurate snapshot of aviation finance legal activity.

Our aim is to continue being transparent and impartial. All of the deals used to judge the winners are eventually loaded into Deal Tracker and can be reviewed by our readers.

In this sense, our survey is unique. Our research team assesses each deal to verify them and to avoid double counting. The benefit of using Deal Tracker is that we can offer a granular presentation of law firm activity by both product type and region.

There are limitations to the survey. Client confidentiality may be an issue for law firms when submitting deals and some firms opted not to participate. As a consequence, the survey does not necessarily represent all of the deals happening in the marketplace but it remains the most comprehensive survey of its type and crucially offers real insight into the aviation market.

The survey gives a strong indication of which law firms are most favoured for certain deal types and for certain regions.

Airfinance Journal continues to listen to its audience.

Law firms were asked to self-assess the complexity of each transaction and their role in the transaction according to the following new set of criteria for which the specified points will be awarded:

Complexity:

- Ground-breaking pioneer transaction: 10 points
- Complex transaction, some new parties or jurisdictions: 7 points
- Average complexity, repeat transaction with same players and jurisdictions: 5 points
- Less complex transaction: 3 points
- Low complexity: 1 point

Role:

- Drafting counsel for major transaction documents: 10 points
- Primary counsel to major transaction parties: 7 points
- Secondary counsel to transaction parties: 3 points

For all Deal Tracker transactions that were not part of the submitted deals, *Airfinance Journal* assigned one point for the complexity of a transaction and three points for the role played by the law firm. This resulted in total score of four that was assigned to all Deal Tracker transactions that were not part of the submitted deals.

Overall rankings

Like previous years, the survey records the overall number of deals for each law firm. A deal, as defined by the survey, represents one mandate and can include multiple aircraft and lawyers.

In addition to presenting the most active law firms by product and region, the survey also aggregates how law firms have performed to produce an overall ranking.

Law firms secure points based on where they are placed for each region, product and category.

Overall winners

Clifford Chance secured the number one spot among the law firms by topping Asia-Pacific, Europe, Middle East, sales and purchases, and operating lease categories.

The firm represented 14.6% of the total transactions recorded by the survey, with 175 eligible deals. Its overall score was 2,412 points, or about 500 more points than second-paced Milbank.

"We are delighted once again to be the overall winner of *Airfinance Journal*'s Legal Survey, which recognises the most active firms in the aviation sector based on deals completed in a dozen categories. This achievement is the result of the dedication and quality of our hard-working and high-achieving team of lawyers, and the firm's cross-practice capabilities throughout our global network.

"As ever, we are grateful to our fantastic clients for the trust and

Legal Transaction of the Year: **Aercap-GECAS merger**

The *Airfinance Journal* editorial team selected the Aercap-GECAS merger as the winning submission in 2021.

On 10 March 2021, Aercap Holdings entered into a definitive agreement with General Electric Company (GE) under which Aercap would acquire 100% of GE Capital Aviation Services.

The acquisition positions Aercap as the worldwide industry leader across all areas of aviation leasing: aircraft, engines and helicopters. The combined company will serve about 300 customers worldwide and will be the largest customer of Airbus and Boeing.

The transaction, which closed on 1 November 2021, was extremely complex and involved more than 300 operator jurisdictions.

Under the terms of the transaction agreement, GE received total consideration of greater than $30 billion on closing, including about $23 billion in net cash proceeds; 111.5 million ordinary shares equivalent to about 46% ownership of the combined company, with a market value of about $6.6 billion based on the closing share price of $59.04 on 29 October 2021; and $1 billion paid in Aercap senior notes. GE transferred $34 billion of GECAS's net assets, including its engine leasing and Milestone helicopter leasing businesses, to Aercap.

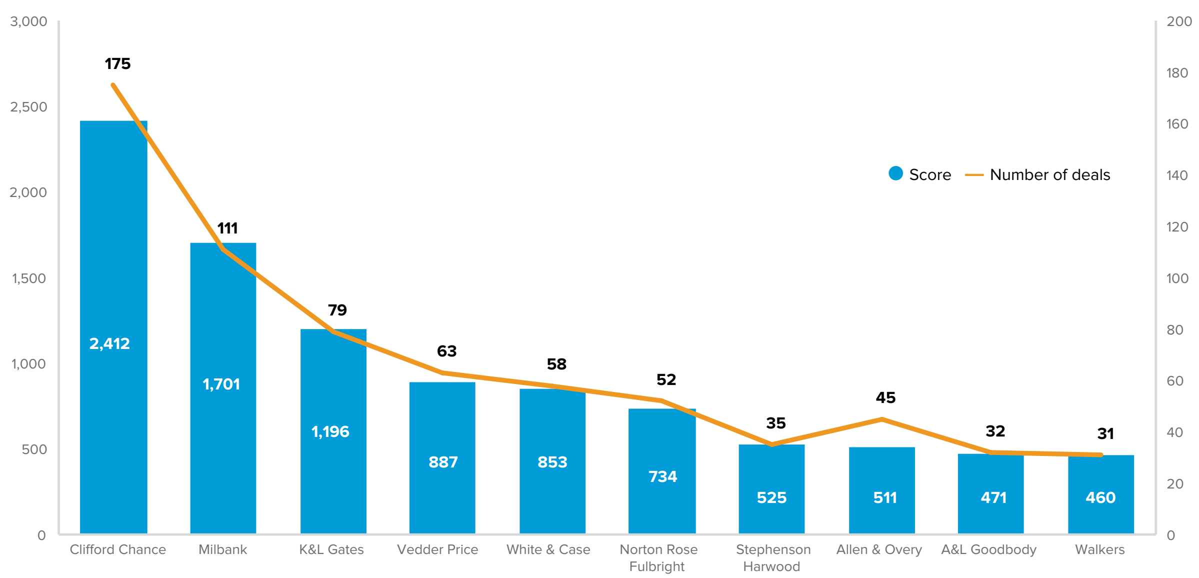
Clifford Chance advised GE on aviation business aspects of the transaction, as well as on global anti-trust clearances.

A&L Goodbody represented GE as Irish counsel while Paul, Weiss, Rifkind, Wharton & Garrison advised GE on US M&A aspects of the transaction.

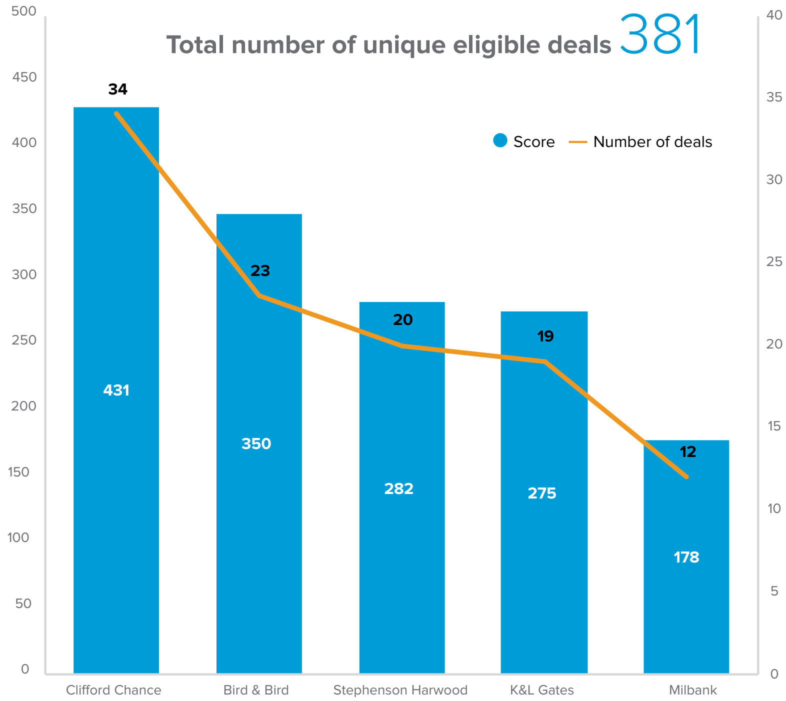
Cravath, Swaine & Moore (as US M&A counsel), NautaDutilh (as Dutch counsel) and McCann Fitzgerald (as Irish counsel) acted legal advisers to Aercap.

Top 10 law firms by number of deals

Total number of unique eligible deals 1,195



Asia-Pacific



Source: law firm submissions and *AFJ Deal Tracker*

The number of unique eligible transactions rose significantly last year in the Asia-Pacific region to 381. This was an 18% increase on the previous year.

In 2021, the manufacturers delivered more aircraft to customers. Airbus handed over 611 aircraft to customers last year, up from 566 units in 2020, while Boeing delivered 340 units.

Asia-Pacific deliveries were up but the airline industry also went through significant restructuring of flag carriers as well as low-cost carriers.

Clifford Chance says the extremely challenging conditions experienced by the aviation sector in the APAC region in 2020 continued into 2021 and largely persisted into 2021 . "Although some major airline restructurings were completed or substantially completed (Virgin Australia, Philippine Airlines, HNA, MAB, Thai Airways), others have dragged on (Lion Air) and new restructurings have commenced (Garuda, Thai Air Asia X, Hong Kong Airlines," says Clifford Chance's APAC partner and foreign legal consultant, Fergus Evans.

The law firm maintained its lead in the Asia-Pacific market.

"International travel into some major markets (the People's Republic of China, Japan, Hong Kong) continues to be very restricted while other markets (Singapore and Australia) have rebounded strongly as borders reopen," says Evans.

"After a hiatus, save for strong lessors and airlines (Singapore Airlines) the number of commercial financings of aircraft have recently increased but are still below pre-pandemic levels. We have also seen an increase in ECA/Ex-Im supported financings as well as AFIC/Balthazar transactions.

"On the investor side, while some APAC-based lessors have seen restructurings (especially US Chapter 11 proceedings) resolved, for others the continuing pandemic-related pressures have been exacerbated by large exposures to Russian airlines and other counterparties impacted by sanctions. There was significant M&A activity in the region with sales by Hong Kong investors CK Asset Holdings, and NWS Holdings and Chow Tai Fook Enterprises of their respective interests in aircraft leasing platforms AMCK Aviation and Goshawk Aviation," adds Evans.

K&L Gates partner James Bradley says that despite the regional economic headwinds and challenges that face the aviation industry, the firm's Asia-Pacific practice remains nimble and robust.

"We have been fortunate to work on a number of significant restructurings, litigations and new transactional matters. This highlights the depth, dynamism and capability of our Asia-Pacific team, which works out of our offices in Tokyo, Hong Kong, Singapore, Brisbane and Sydney. We look forward to continuing to advise and support our clients across the region as the sector continues to recover," adds Bradley.

Bird & Bird benefitted most from the Asia-Pacific activity with its ranking jumping from fifth in 2020 to second last year.

Bird & Bird partner and head of aviation and aerospace sector group, Leo Fattorini, says: "The aviation market in Asia-Pacific remained constrained for much of the past year, such that a significant portion of our work has been related to ongoing restructurings, court-based and otherwise. In this respect, it's been terrific to see the vast majority of lessor, financier and OEM [original equipment manufacturer] creditors supporting their cash-strapped airline customers throughout the crisis.

"Although the vast China market is still largely closed to international traffic (with a consequent ongoing impact on the region as a whole), there has been a marked pick-up in air travel across South-East and South Asia as restrictions have fallen away in recent months. However, capacity remains a good deal lower than in 2019 as airlines work to get aircraft back into service, and re-hire the staff to support this – with yields up accordingly," says Fattorini.

He adds: "Airlines in APAC will need to be careful to balance their recovery of higher operating costs from passengers, while still offering competitive fares to a travelling public increasingly facing financial pressures themselves."

Fattorini says the operating lease market (especially for multiple newer technology aircraft) appears bullish for the moment as airlines begin to take delivery of deferred aircraft. "Established and newer equity funds continue to look for new deals in the region, and commercial debt financing is starting to pick up. Over the past few months, we've also seen an uptick in trading between lessors. Throughout the pandemic we have been busy supporting lessors involved in the cargo market, with P2F converted aircraft in particular. We see this area of the industry continuing to thrive, with large numbers of aircraft still awaiting conversion and air carriers keen to get their hands on them as quickly as possible," he comments.

Africa

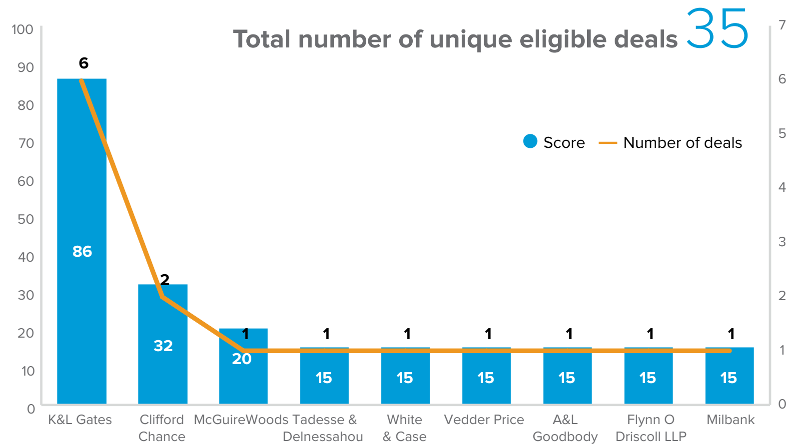
The African market recorded 35 deals in 2020, up from 29 the previous year. However, this is far below the level of activity pre-Covid-19 pandemic, where 55 transactions closed in 2018 and 2019.

Activity in the regional market included operating lease transactions for second-hand ATR72-500/600s, De Havilland Dash 8s, as well as the first Airbus A220-300 deal for Senegal Airlines.

K&L Gates has topped the ranking for two consecutives years. The law firm was particularly involved in the trading of Boeing 737-700s and 737-800s in the region, notably the Royal Air Maroc fleet. The mandate follows a previous representation of the carrier in its first Japanese operating lease with call option (Jolco) covering Max deliveries in 2020.

"We are delighted with the continued recognition by *Airfinance Journal* as one of the top law firms advising on aviation deals on the African continent. This reflects the trust our clients are putting in us to guide them in this high growth market. We are excited for the huge opportunities to come in this region and ready to assist further expansion," says Manuela Krach, a partner at K&L Gates.

Clifford Chance acted as law firm in some operating lease, and sale and leaseback transactions for Ethiopian Airlines last year.



Source: law firm submissions and *AFJ Deal Tracker*

Europe

Europe represented 362 transactions points, a slight increase on 2020, but far from matching the levels of 2019 when 562 eligible deals were recorded.

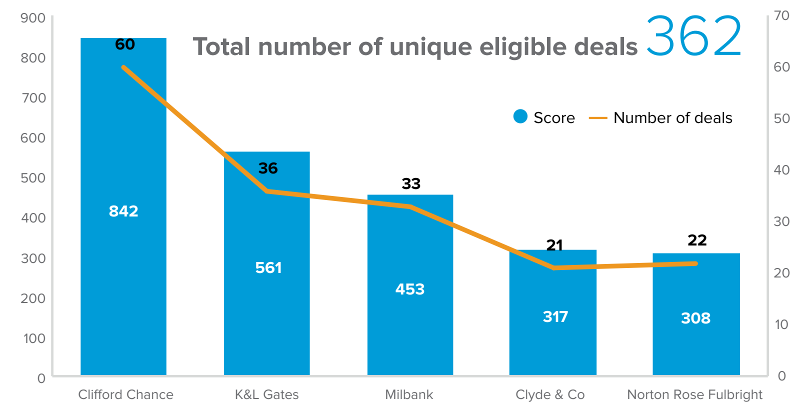
In 2021, the top five law firms in this market accounted for 172 eligible deals, or 48% of the total transactions. This was up in percentage terms from 34% and 35% recorded in 2020 and 2019, respectively.

Commercial loans account for 82 transactions points, of which 62 are secured.

Among the unsecured activity in 2021, operating lessors represented less than half of the transactions with Aercap, Gilead Aviation and Nordic Aviation Capital notably issuing debt.

Clifford Chance regained the top position in 2021 in the number of eligible deals in this market. The survey shows 60 transactions, with about an equal share of representation of airlines and leasing or financing entities-related transactions. Clifford Chance represented the major flag carriers in the region last year and the major lessor entities.

In terms of products, a large share was through commercial loans-related transactions (21 transactions), DCM deals (five), structured leases (eight), operating leases (11) and aircraft acquisition (13 transactions), shows the data.



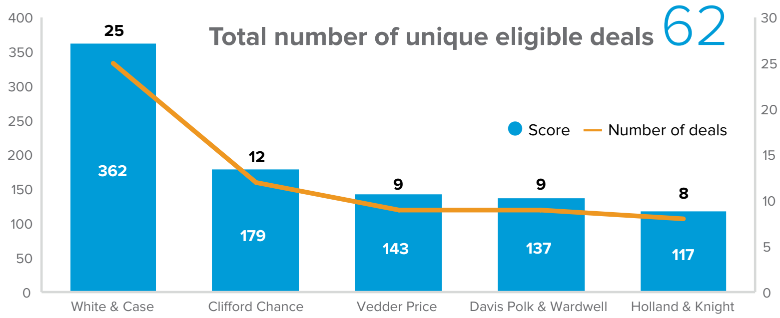
Source: law firm submissions and *AFJ Deal Tracker*

"The start of 2021 continued to prove challenging for the European aviation industry, with the slower-than-expected roll-out of vaccines and the continued application of travel restrictions continuing to weigh on the industry. As the year progressed, Europe did see a partial but sustained recovery across the sector, though we continued to see distress in some areas, including amongst certain lessors, as evidenced by Nordic Aviation Capital's Chapter 11 filing (and subsequent successful emergence) at the end of the year," says Clifford Chance partner Richard Evans.

He adds: "2021 also saw a continuing increase in the level of focus placed on ESG [environmental, social and governance] legislation and its potential impact across the aviation industry – the publication of draft technical screening criteria for aviation by the European Commission has, in particular, focused minds on how such legislation may impact European lessors and carriers. We expect these ESG concerns, the continued impact of Covid and the fall-out from new headwinds coming out of the war in Ukraine and rising fuel prices, to dominate discussion during 2022."

Pete O'Hare, a partner K&L Gates, says 2021 "was another turbulent year for the industry due to the emergence of new Covid variants. However, airline revenue and passenger numbers returned to around 50% of pre-pandemic levels, whilst cargo revenue saw a record year."

Latin America



Source: law firm submissions and *AFJ Deal Tracker*

White & Case partner Chris Hansen says 2021 was another challenging year for the commercial aviation sector in Latin America with most airlines in the region forced to continue with some form of restructuring efforts – in Chapter 11 proceedings in the cases of Avianca, Aeromexico and Latam, and informally through direct negotiations with lessors and other creditors in several others.

"This was in large part due to the lack of direct government financial support that many other airlines around the world received. We also began to see the initial phases of consolidation in response to these ongoing challenges (Avianca-Gol-Sky), and we would not be surprised to see additional moves toward consolidation (whether through alliances, joint ventures or otherwise) in the near future."

He adds: "In a sign that the tide was turning, the low-cost sector of the Latin American market rebounded much more quickly in 2021 than the legacy carriers. Viva Aerobus in Mexico is a good example of that trend, which led to a unique cross-border alliance of low-cost carriers with US carrier Allegiant Air that was signed at the end of 2021 (and awaits regulatory approvals)."

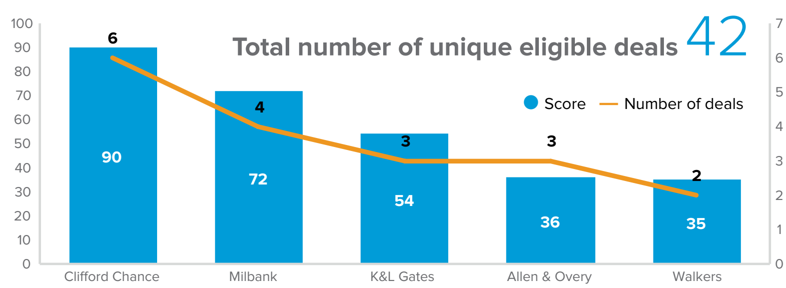
White & Case topped the ranking in the region, for the second time in a row.

The law firm played a role in most of the major restructuring transactions in Latin America last year. It was counsel to a group of bondholders and the debtor-in-possession lenders in Latam and acted for its long-time client, Aeromexico, as its special aviation counsel throughout its Chapter 11 case.

"We were very gratified to see the OEM [original equipment manufacturer], lessor and lender communities strongly support their Latin American customers during the very difficult times created by the Covid pandemic," says Hansen. "Many were willing to place more new aircraft into the Latin American market on quite reasonable terms in the midst of the restructuring processes.

"The main trend we have noted recently has been a move back to sale and leasebacks of new fuel-efficient single-aisle aircraft such as the Max and the Neo aircraft. It will be interesting to see over the next few years whether certain market segments, such as Jolco [Japanese operating lease with call option] and EETC [enhanced equipment trust certificates] investors, are willing to re-enter the Latin American market after facing substantial pressure due to the Chapter 11 filings of three of the largest regional carriers.

Middle East



Source: law firm submissions and *AFJ Deal Tracker*

Clifford Chance maintained its lead in the Middle East last year with six transaction points for a total score of 90.

The law firm was involved in different types of activities and different aircraft types in the region. It acted as lenders' counsel in DAE Capital's unsecured facility, a complex dual-tranche structure combining a long-term Murabaha contract and a series of short-term Murabaha contracts.

Clifford Chance also acted on a commercial loan for the lessor, as well as Navigator 2021-1, an asset-backed security serviced by Dubai Aerospace Enterprise on the secured side.

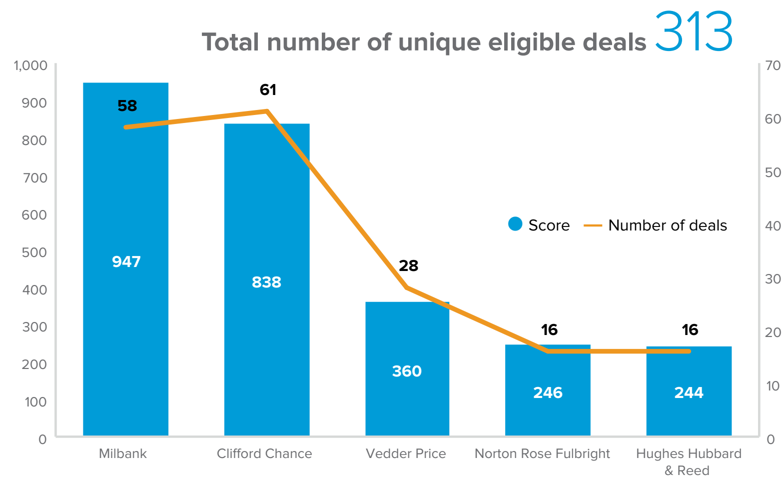
The law firm was also counsel on lease transactions with Fly Baghdad, Flydubai and Emirates Airline.

The firm observes that while there were increasing signs of recovery in the region's aviation industry towards the end of 2021, with passenger loads increasing significantly in the second half of the year, the continued restrictions on travel imposed by many countries amid the renewed threat of the Omicron variant had a sustained impact.

Stephen Chance, Clifford Chance counsel, says: "Despite the significant improvement on 2020 performance, the ongoing impact of the restrictions was clear, with passenger numbers below pre-pandemic levels. Amidst this ongoing slowdown, the Middle East airlines once more relied on a combination of state funding and funds raised through secured financings and sale and leaseback transactions. As restrictions continue to ease and many destinations permitting unfettered entry, including in the Middle East, our expectation is that passenger numbers will rebound further in 2022, albeit still taking some time to return to 2019 levels."

K&L Gates' Krach says: "Looking at the reports of passenger numbers, it appears that the aviation sector in the Middle East has successfully put the Covid-19 crisis behind it. We at K&L Gates are pleased to have played an important role in helping airlines in the region increase their fleet even during challenging times and appreciate the recognition, once again."

North America



Source: law firm submissions and *AFJ Deal Tracker*

Last year North America was the only region that matched the level of activity of 2019. The region recorded 313 transaction points.

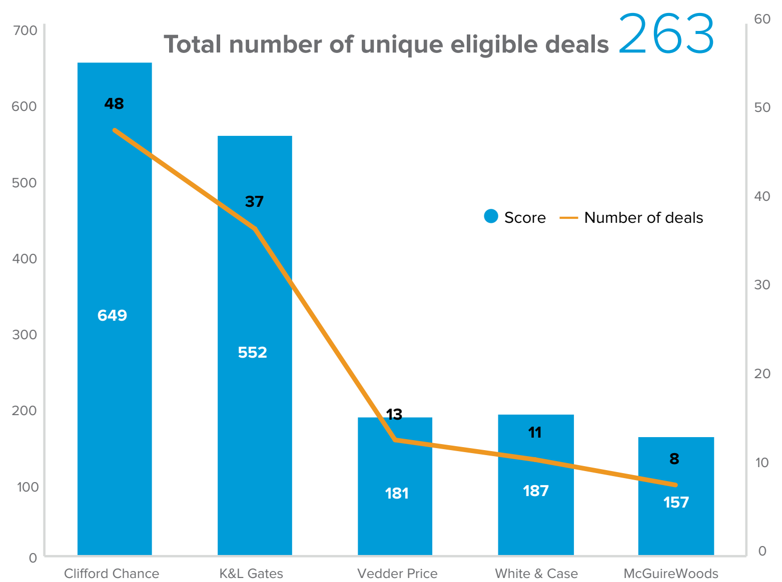
Milbank and Clifford Chance were neck and neck in North America, with both firms representing 38% of the total eligible transactions in volume.

Last year saw a rebound for the aviation industry in North America, but it was not without turbulence.

"While many airlines started increased operations and the cargo market remained hot, a number of carriers sought bankruptcy protection," says Clifford Chance partner Emily Wicker. "Most notably, three large Latin American carriers sought refuge under US Chapter 11 filings, bringing a flurry of restructuring activity and a host of new market entrants, including distressed debt investors."

She adds: "We saw a rise in M&A activity, most notably the acquisition of GECAS by Aercap. This trend seems to be continuing into 2022 both in the lessor and airline sectors. The ABS market came back in 2021 and fed some of the pent-up demand from 2020 but, by early 2022, the war in Ukraine, rising fuel prices and inflation put that market back on hold. Those same factors are the source of disruption across the industry for 2022, and we expect rising interest rates and fuel costs to be especially burdensome on North American carriers."

Sales & purchases



Source: law firm submissions and *AFJ Deal Tracker*

The sale and acquisition market performed better last year than in 2020 as a lack of liquidity since the onset of the pandemic had prevented many buyers to acquire assets. There were 263 transactions recorded, the data shows, up from 59 in the 2020 legal survey and 300 the previous year.

Still, at the height of Covid, some lessors expanded their footprint in the marketplace by acquiring aircraft on a strategic basis.

Last year, activity in the sale and leaseback market, and portfolio sales that resumed during the year, were plentiful.

Clifford Chance was the most active law firm with 48 transaction points out of a total of 263. K&L Gates racked up 37 transaction points, well ahead of Vedder Price with 13 deals.

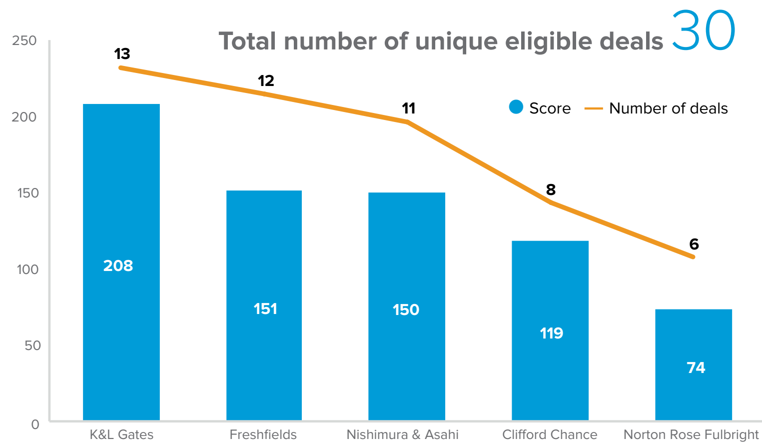
"We saw a concentration of aircraft trading in the US market throughout 2021, due in part to the swift upturn of travel (both domestically within the US and internationally to and from the US), once restrictions were lifted," says Amanda Darling, a partner at K&L Gates. "We expect this trend to continue – in particular, with other jurisdictions recovering slower than the US market."

The aircraft trading market saw a steady increase in appetite and transactions through 2021, without returning to pre-pandemic levels.

Trading has progressed from small opportunistic deals to mid-sized portfolios, with purchasers including both new entrants and established lessors. The make-up of portfolios has been critical to the success of these transactions, with a clear focus on the right asset type and lessee customer.

This has led to a level of concentration in the trading of particular airline names, with a corresponding need to ensure novations are run as efficiently as possible for those lessees. "The Russian invasion of Ukraine has further impacted sale and purchase transactions in 2022, causing the early termination of sales of some Russian aircraft, and a renewed analysis of other deals. An increase to the size and frequency of portfolio sales is expected as the year progresses," says Paul Carrington of Clifford Chance.

Structured leases



Source: law firm submissions and *AFJ Deal Tracker*

The activity for structured leases in 2021 was lower than the previous year for commercial aircraft.

Japanese investors remain wary of the aviation market. The restructuring at airlines over the past two years has exposed those investors through difficult times.

Some of the names that had Japanese operating lease (Jol)/ Japanese operating lease with call option (Jolco) exposure included all three Latin American carrier bankruptcies – Aeromexico, Avianca and Latam.

The restructurings at Air Mauritius, Virgin Australia, Virgin Atlantic Airways, Norwegian and Malaysia Airlines also had an impact on Japanese equity investors and commercial debt providers.

Japanese equity arrangers are reluctant to restructure because this directly impacts the tax position of their investors and, in turn, impacts the market for future investment by Jolco investors.

A top executive at an investment bank recently told *Airfinance Journal* that while some equity arrangers still shy away from new underwriting, or at least require very specific conditions, certain players became more aggressive when new opportunities arose in 2021.

"This is a typical recovery scenario, like during past crises, although the magnitude of Covid-19 is much worse," he says.

The deal flow in the Jolco market remains relatively light and concentrated on the best credits, long-standing and established names. Yet, the major players are cautiously optimistic that Jol and Jolco aircraft financings will pick up again this year.

Still, some innovative transactions closed last year.

FPG Amentum and Societe Generale closed the first financing of a Jol supported by Aircraft Finance Insurance Consortium secured against a Boeing 737 Max 8 leased to Flydubai.

ABL Aviation was very active in the market last year with the Jolco financing of two Airbus A350-900s for Germany's Lufthansa, an A320neo for Pegasus Airlines as well as the sale of an A320 on lease to Wizz Air and an A321 on lease to Eva Airways from Jol investors to US investors.

The firm also sold eight A320s on lease to Latam and placed eight Delta Air Lines A220-100s in the Japanese market.

Air France opened up the Jol market for some of its A220-300 deliveries. Osaka-based Chishima Real Estate's aviation division last year secured a deal for Japanese investors that involved two deliveries acquired and leased back to Air France under a Jol structure.

Tokyo Century financed three A321neos under a Jolco mandate for Wizz Air, as well as two A321neo aircraft for Lufthansa.

"It's a very different story for Jols as funding is readily available for lessors and underwriters. The market size of Jols is much more difficult to assess, as we would probably need to start from defining what Jols are, but with the likes of Bleriot successfully concluding deals, we do feel there is momentum," Tokyo Century aviation financer, Marito Takamasa, told *Airfinance Journal* earlier this year.

K&L Gates remained the top law firm in this market last year, ahead of Freshfields and Nishimura & Asahi, the data shows.

"Notwithstanding Covid, Japanese equity investment in the aviation sector remained very high and we continued to see high demand for Jolco lease structures," says Bob Melson, head of aircraft finance and finance practice area leader at K&L Gates. "However, given the zero or low Covid goals of some countries in Asia, we are seeing more Jolcos in Europe and even a few in the US with structures that ameliorate Japanese withholding tax."

"After the Chapter 11 bankruptcy filing of two Jolco lessors in December 2021, certain market participants claimed that the Jolco market would not survive the pandemic. However, we observe a strong coming back of the Jolco market for our clients. It appears that at least some of the established players on the equity side pursue high quality investments, irrespective of any set-backs that their portfolios may have suffered in airline restructurings over the last two years. Those equity arrangers that we have seen being active again at an early stage of the recovery seemed to be able to firmly underwrite even larger tickets and modern widebody aircraft for later placement in the equity market. This development led to a number of warehousing transactions which have been placed successfully in the market within a reasonably short period of time," comments Konrad Schott, a partner at Freshfields.

He adds: "The development on the debt side was slightly different, as a number of the established market participants seemed to be distracted by the numerous work-outs and restructurings, while others showed interest in high quality credits and some new (or previously less active) lenders seized the opportunities which the still-Covid market offered."

"More generally, we expect demand for legal advice in conjunction with the impact of Covid-19 crisis to persist beyond 2022, followed by consolidations and reorganisations on a corporate level that will lead to M&A and further restructuring activities. Most recent geopolitical developments have prompted the necessity for ad hoc advice on various matters in connection with the sanctions imposed against Russia and Belarus. At the same time the latest industry numbers appear to indicate that the airline market may actually recover more quickly than originally expected," comments Johannes Vogel, a partner at Freshfields.

Operating leases

Better productions rates from the original equipment manufacturers, as well as more trading in the secondary market through lease placements, benefitted the operating lease market in 2021.

However, the industry is far behind the level of activity in this market pre-pandemic, when 634 transaction points were recorded as operating leases continued to be popular for new deliveries.

In total, 377 transactions closed compared with 310 in 2020.

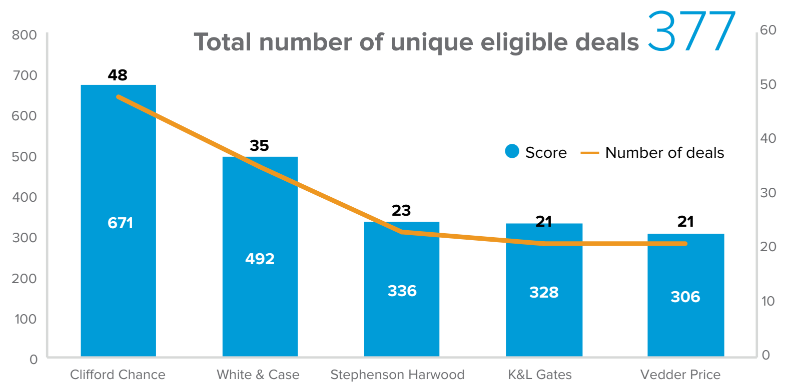
"The operating leasing market has continued to be heavily impacted by the pandemic and its effects on airlines around the world," says Justin Benson, global head of asset finance of White & Case. "However, some lessors have been able to seize opportunities to develop new relationships with airlines and/or acquire favourable delivery slots to new aircraft types in the sale and leaseback market, and the pandemic has seen several operating lessor mergers and acquisitions."

His firm has been very busy helping its operating lessor clients with a wide range of matters, including rent deferral arrangements, navigating through airline defaults, bankruptcy and claims processes, remarketing and repossessions, as well as sale and leaseback arrangements and aircraft trading over the past year.

"We have also supported new entrants into the operating lease space establish leasing platforms and acquire aircraft in distressed situations," adds Benson.

K&L Gates partner Sebastian Smith says: "As the Covid aviation crisis took hold, we saw airlines going into Chapter 11 insolvencies or negotiating early redelivery of aircraft to lessors. These assets had to be remarketed and we saw a large number of smaller players move into the operating lease space."

"2021 was a busy year for operating lease transactions. The market saw strong demand from lessors with capital to invest, and equally strong supply. Airlines in need of capital following the pandemic have continued to offer aircraft for sale and leaseback, and lessors have had many off-lease aircraft for which new homes were needed. Many new aircraft too have been put on lease, with some allowances needing to be made for delivery delays at manufacturers. Transactions tied to pre-delivery financing or other complex products have ensured that deals are carefully tailored to the parties' needs. Increased passenger demand has seen these trends continue in 2022," adds Paul Carrington of Clifford Chance.



Source: law firm submissions and *AFJ Deal Tracker*

Capital markets

The capital markets category has not been very active since the turn of this year, but in 2021 the level of activity continued to rise on previous years as airlines, and particularly leasing companies, benefitted from the low funding cost in the sector.

According to *Airfinance Journal*, lessors alone tapped about $60 billion-worth of debt in 2021 from the capital markets.

Last year's 260 eligible transactions total compared with 216 in the 2020 legal survey and 179 the previous year.

The capital markets are still open for business, with substantial quantities of investor liquidity actively seeking opportunities in the sector.

Aircraft lessors displayed greater financing appetite in 2021 than the previous year.

The asset-backed securities (ABS) market recovered strongly in 2021. *Airfinance Journal* Deal Tracker shows that 15 transactions (of which two were engine deals) were issued by sponsors last year, with more than $8.65 billion of debt raised in the ABS market, versus $2.4 billion in 2020.

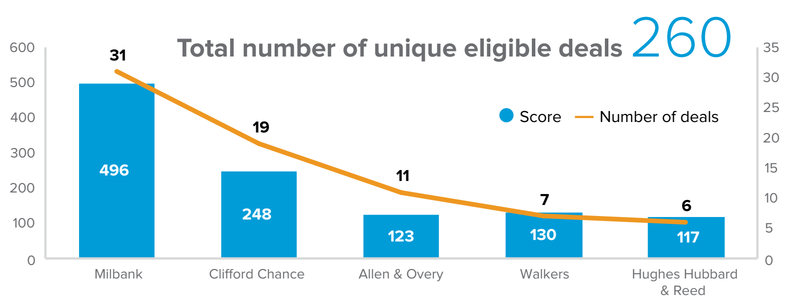
More than $7 billion-worth of debt was issued on the senior tranches in 2021. Appetite for the B tranches totalled more than $1.2 billion-worth of financings, while another $416 million was invested in ABS C tranches.

Still, aircraft deliveries are below pre-Covid levels. While 2020 represented the weakest year on record for net commercial orders, last year saw a substantial resurgence in demand.

Towards the end of 2021, issuer focus reverted to mid-life or older assets, rather than the young or new assets featuring in some transactions in the second quarter.

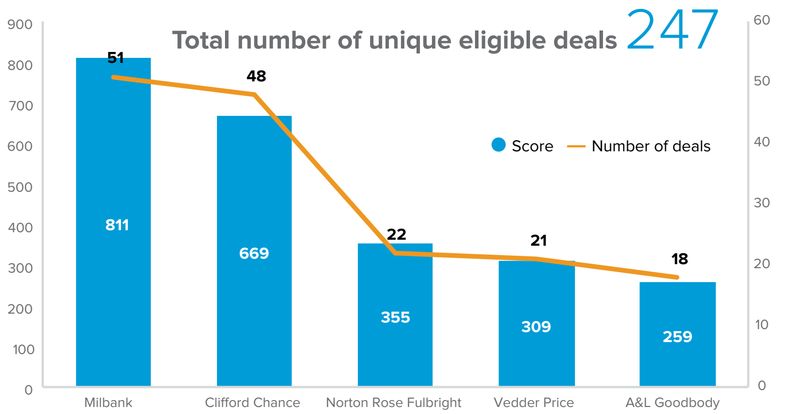
Milbank was a clear winner in the capital markets category last year and has dominated this category for a number of years.

The law firm was involved in almost every ABS transaction in the sector, as well as enhanced equipment trust certificate deals. Milbank also acted in many North American airline bond issuances along with leasing companies fundraising in the unsecured market.



Source: law firm submissions and *AFJ Deal Tracker*

Commercial loan



Source: law firm submissions and *AFJ Deal Tracker*

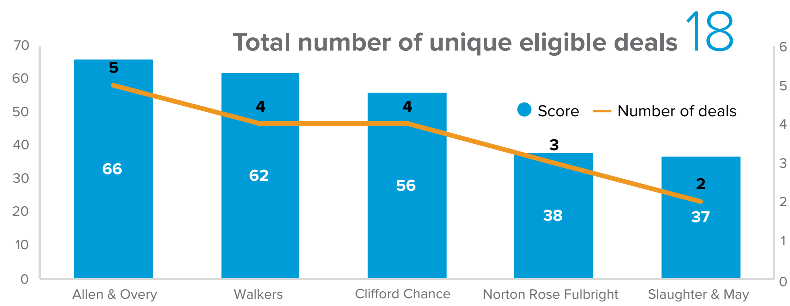
The commercial loan market was more to the 2019 levels in 2021, after a surge in activity in 2020 as a result of airlines and lessors raising funds for liquidity purposes.

Covid-19 highlighted the importance of the traditional banks supporting the sector, while alternative sources of financing, in search of reasonable yields, has dramatically increased over the past two years. Commercial loans include insurance-supported financing transactions which are also growing in the aviation sector with now AFIC, Balthazar and IFLI, which executed its first transaction last year through the refinancing of an Airbus A350-900 held under a Japanese operating lease with call option structure.

Airlines continue to use the commercial debt markets to support their fleet renewals. Lessors raised more than $46 billion in this market last year, according to *Airfinance Journal*'s data.

Milbank finished the year ahead of Clifford Chance in terms of eligible transactions but the gap between the top two law firms has reduced over the past two years.

Export credit



Source: law firm submissions and *AFJ Deal Tracker*

Export credit financing (ECA) for the aviation sector is expected to remain resilient as the industry continues to recover from the Covid-19 pandemic.

Its role has historically played an important part to support the industry when needed and plug any potential funding gaps. European ECAs were supportive at the start of the pandemic in offering deferrals of loan principal payments across the field.

Export credit was particularly beneficial for airlines undergoing or emerging from restructuring. Lessors have hardly used this tool of financing because of the competitiveness in the capital markets.

One milestone in 2021 was Emirates Airline financing its final Airbus A380 deliveries in the ECA market.

Emirates completed its A380 financing programme on 16 December with the last aircraft of that type to be built by Airbus. The delivery was financed under an ECA-backed financing with Bpifrance Assurance Export acting as lead and fronting export credit agency for the transaction. UKEF and Euler-Hermes acted as reinsurers in the transaction.

The French ECA supported the financing of five A380 deliveries to Emirates in 2021 and a total of eight deliveries over the past two years for the carrier.

Last year, also saw A350 deliveries being financed under the European ECA support for Cathay Pacific Airways. Some A320neo deliveries were also financed in the ECA market in 2021 for Turkey's Pegasus Airlines, as part of a 10-aircraft mandate.

The ECAs stepped up their presence for other commercial aircraft products in 2021.

Brazilian carrier Azul Linhas Aereas Brasileiras turned to the ECA market for the financing of three ATR72-600 deliveries in the final days of December through financing backed by export credit agencies.

The Brazilian Development Bank approved more than $500 million in export credit financing to support the export of 24 Embraer 175 deliveries to Utah-headquartered Skywest Airlines last August.

Boeing Capital said export credit-backed financing plays a crucial role in shoring up confidence in times of market dislocation. In 2021, the ECAs supported about 9% of funding for the industry and nearly 5% of Boeing deliveries in 2021.

Ex-Im supported 4.7% of Boeing deliveries last year.

Ex-Im provided a $500 million loan guarantee covering four Boeing 787-9 aircraft deliveries to Canada's Westjet Airlines. Panama's Copa Airlines received a $324.5 million loan guarantee for the financing of several 737 Max 8 deliveries.

Ex-Im also approved two tranches of $389.8 million and $442.7 million in loan guarantees for 787-9, 737 Max 8 and 737 Max 9 deliveries to Turkish Airlines.

Last year, 6% of Airbus deliveries were supported by guarantees from ECAs. This was down from 10% of Airbus deliveries in 2020.

Alternative sources of financing have grown over the past few years and have become very competitive to both the commercial debt market and the ECAs. This trend is expected to persist. But while customers continue to look for diversity in financing sources, the ECAs provide an attractive alternative option.

Airfinance Journal's 2021 deals of the year awards

***Airfinance Journal* reveals the winners of our prestigious annual Awards, recognising the most innovative deals, individuals and teams in aviation finance.**

Africa-Middle East Deal of the Year: DAE Capital **$1bn unsecured bond**

Borrower/issuer: DAE Capital

Structure: Senior unsecured notes

Banks: Active bookrunners: BNP Paribas, Credit Agricole-CIB, Emirates NBD Capital, JP Morgan (B&D) and Truist Securities. Joint lead arrangers and bookrunners: BNP Paribas, Credit Agricole-CIB, Emirates NBD Capital, Fifth Third Securities, First Abu Dhabi Bank, Goldman Sachs International, HSBC, JP Morgan (B&D), Mizuho Securities, Morgan Stanley, Natixis and Truist Securities

Law firms: Allen & Overy and Clifford Chance

Amount: $1 billion

Tenor: Three years

Date mandated: 7 June 2021

Date closed: 22 June 2021

On 15 June 2021, Dubai Aerospace Enterprise (DAE) successfully issued a $1 billion three-year Reg S/144A senior unsecured issuance at a coupon of 1.55%.

The issuance marked the lowest coupon achieved by DAE in the capital markets.

DAE's planned transaction was re-announced to the market on 14 June and included contemplated tenors of three and/or seven years in order to focus investor feedback on these maturities.

The targeted one-day virtual roadshow saw participation from more than 50 investors across one-on-one/small group calls, with engagement from some of the largest and most active high-grade, real-money and emerging-market accounts globally.

After gathering strong feedback from accounts across both tenors, the company decided to proceed with a three-year maturity issuance to minimise absolute cost of funding in light of the steepness of the UST curve and the credit curve extension.

The deal's initial price thoughts (IPT) was in the "T+175 bps area" for its three-year USD benchmark issuance at 6am UK time/9am UAE time on 15 June, which marked a circa 20-25 basis points (bps) new issue concession. The orderbook momentum throughout the European morning allowed the company to revise IPTs to the "T+155bps area" around 9:30am NY time/2:30pm UK time with the intention for books to go subject at 10am NY time.

Orders showed resilience to the tightening and continued to grow as books went subject, prompting the company to release final guidance of "T+140-145bps (WPIR)" at 10:45am NY time.

The continued growth in demand allowed the company to launch a $1 billion deal, increasing the size of the transaction from initial considerations of $750 million, and to set the spread at T+140bps – 35bps tighter than IPTs, which marks a new issue concession of (10)-(15)bps.

Asia-Pacific Deal of the Year: PAL's **pre-negotiated Chapter 11 cross-border restructuring**

Borrower/issuer: Philippine Airlines

Structure: Chapter 11 plan

Adviser: Seabury Securities represented PAL as financial adviser and investment banker

Assets: Aircraft and frequent-flyer programme

Law firms: Debevoise & Plimpton represented PAL as Chapter 11 restructuring counsel. Norton Rose Fulbright represented PAL as special aircraft restructuring counsel. Angara Abello Concepcion Regala & Cruz law offices represented PAL as Philippines counsel. Other law firms including Clifford Chance, Dentons, Dorsey & Whitney, Herbert Smith Freehills, Holland & Knight, Hughes Hubbard, K&L Gates, Morris Nichols Arsht & Tunnell, Perkins Coie, Sidley Austin, Vedder Price and White & Case represented various creditors

Amount: About $6 billion

Date mandated: 13 September 2021

Date closed: 17 December 2021

Philippine Airlines (PAL) filed for Chapter 11 on 3 September 2021 to implement a pre-negotiated restructuring that it reached with all of its lenders, aircraft lessors, and aircraft and engine suppliers and maintenance providers, as well as its majority shareholder.

This was the first pre-negotiated Chapter 11 by an airline and, at less than four months in total duration, it was probably the fastest Chapter 11 in the history of the airline industry.

The PAL restructuring will produce about $4.5 billion in incremental liquidity, permanently reduce costs by more than $2.75 billion, and allow the company to re-optimise the size and shape of its business in order to compete effectively in the post-pandemic marketplace. It resulted in more than $3 billion in improvements, including $1.8 billion in permanent aircraft lease savings, a $630 million reduction in unsecured bank and other funded debt and undisclosed savings from original equipment manufacturer modifications, and allowed the company

to re-optimise the size and shape of its business in order to compete effectively in the post-pandemic marketplace.

Almost every single impaired creditor affirmatively supported the plan (far surpassing the two-thirds by value required for confirmation) and not one issue was contested or litigated in the case.

The PAL restructuring demonstrates that an airline Chapter 11 restructuring can be accomplished in a pre-negotiated fashion that avoids a "free-fall" Chapter 11 case that may take years to complete and result in significant costs and negative impacts on the business and values.

Europe Deal of the Year: Turkish Airlines **US Ex-Im Bank French Lease for nine 737 Max and three GEnx engines**

Borrower/issuer: Turkish Airlines and various SPCs

Structure: ECA-guaranteed French tax lease

Banks: BNP Paribas as sole bookrunner, lease arranger and debt arranger, lender of record of the entire facilities, facility agent and foreign exchange provider. Citibank, Bank of America and Caixa acted as sub-participants

Assets: Nine Boeing 737 Max and three GEnx 1B74/75 engines

Law firms: Norton Rose Fulbright as legal counsel to lessor, lessor parent, facility agent and guaranteed lenders. Clyde & Co as legal counsel to lessee. Dikici Law as Turkish legal counsel to lessee. Robert Wray as US legal counsel to US Ex-Im Bank. Watson Farley & Williams as French legal counsel to US Ex-Im Bank

ECAs: US Ex-Im Bank as guarantor

Amount: $400 million

Tenor: Eight years

Date mandated: 15 March 2021

Date closed: 15 December 2021

The European Deal of the Year Award established a new market benchmark as the first US Ex-Im Bank transaction structured by BNP Paribas for Turkish Airlines since 2015.

The transaction was structured as French Lease financings in euros for the acquisition of nine new Boeing 737 Max aircraft operated by Turkish Airlines and three spare widebody engines.

For each aircraft and the three engines, a term loan was provided in euros to a French special purpose vehicle for the purchase of the related asset, which is leased to the airline for a period coterminous with the loan. Lease payments are used to repay the debt. Payments of principal and interest under the loan are 100% guaranteed by the US Ex-Im Bank. Each of the spare engines and two spare propulsors was initially purchased by Turkish Airlines from General Electric Aviation. Turkish Airlines then refinanced the purchase price it paid for each spare engine using the proceeds of a US Ex-Im Bank-guaranteed euro-denominated loan from the lenders.

The transaction was innovative

because it combined a French tax lease and US Ex-Im Bank-guaranteed financing ensuring optimal loan advance and pricing terms for the airline thanks to lease rebates payable throughout the lease term and comprehensive risk protection for the lenders.

The financing amount consists of the euro equivalent of $54.5 million covering three spare engines while the balance was aircraft related. During the Covid crisis, the size of transaction for three spare engines guaranteed financing was particularly large when spare engine financings were taken into consideration. The transaction also closed in a deteriorated market environment and after a pause of several months in the deliveries from manufacturers.

Latin America Deal of the Year: Avianca **$482m sale and leaseback for 27 aircraft**

Borrower/issuer: Avianca

Structure: Sale and leaseback

Adviser: Seabury Securities as exclusive financial adviser and arranger

Assets: 27 aircraft, including A319s, A320s, A321s and A330Fs

Lessors: Castlelake as purchaser and lessor. Fortress Transportation and Infrastructure Investors as purchaser and lessor

Law firms: Smith Gambrell & Russell acted as Avianca's deal counsel. Milbank acted as Avianca's bankruptcy counsel. Norton Rose Fulbright represented Castlelake. Clifford Chance represented Fortress Transportation and Infrastructure Investors

Amount: $482 million

Tenor: Six months to 10 years

Date mandated: 1 April 2021

Date closed: 3 December 2021

This winning transaction was put together on an extremely short timeframe to facilitate Avianca's planned exit from Chapter 11.

The Colombian carrier entered umbrella agreements with Castlelake for six Airbus A330-200Fs and with Fortress Transportation and Infrastructure Investors for 14 A319s, four A320s, two A321s and one A330-300 aircraft.

The transaction involved a restructuring deal with the export credit agency (ECA) while simultaneously pursuing a market alternative to pay off the ECAs. In each case, the special purpose vehicle (SPV) purchased the aircraft with proceeds from a loan advanced by ECA lenders and guaranteed by European export credit agencies.

Under the transactions, Avianca sold the beneficial interest in each of the SPVs to Castlelake and Fortress Transportation and Infrastructure Investors.

The A330F transaction with Castlelake involved a simultaneous purchase of four engines from Castlelake to replace four of Avianca's engines that needed overhaul. This allowed Avianca to minimise cash otherwise needed to restore the engines.

The lease plus an engine solution provided by Fortress Transportation and Infrastructure Investors helped Avianca transition out of an engine type that it no longer wanted to operate long term but wanted to operate for six to 12 months.

Highly structured power-by-the-hour arrangements on the passenger aircraft in the fleet allowed Avianca to maximise cash proceeds and operational flexibility as it managed uncertain Covid demand.

North America Deal of the Year: United Airlines $4bn bond issuance/$5bn term loan

Borrower/issuer: United Airlines

Structure: Bond and term loan

Adviser: Goldman Sachs

Law firm: Milbank

Amount: $9 billion

Tenor: Six months to 10 years

Date mandated: 31 March 2021

Date closed: 21 April 2021

While slots, gates and routes (SGR) collateral is not unusual for airlines to secure, the United Airlines transaction was unique in that it will be the first time that an airline pledged its entire SGR portfolio into a single transaction.

The collateral package included a pledge of United's entire international network and all of United's material domestic SGR collateral including at New York-JFK and New York-LaGuardia airports and Ronald Reagan National in Washington DC. Slots with about 70% of the pledged international routes touch airports classified as slot constrained – indicating the value of these assets.

The transaction was part of United's planned $10.75 billion debt package consisting of a revolver, loan and bonds.

The credit facility includes a $1.75 billion revolving credit commitment that expires in 2025 and a term loan B due in 2028.

At the time, the carrier had an existing credit facility consisting of a $1.4 billion outstanding loan from March 2017 and a $2 billion revolver backed by its Pacific SGRs. United also had access to a total of $7.5 billion ($520 million already drawn) in government loans under the CARES (coronavirus aid, relief and economic security) Act, secured by its remaining SGRs.

The transaction refinanced both the existing credit facility and the CARES Act outstanding loan.

The collateral package was valued at $25.5 billion by independent appraisers, driving a collateral coverage ratio of 2.3x, assuming a fully drawn revolver.

The two-series notes offering are due in 2026 and 2029.

Bank loan Deal of the Year: Easyjet $1.87bn secured loan

Borrower/issuer: Easyjet

Structure: Senior secured debt facility

Banks: Citibank, Banco Santander, BNP Paribas and Societe Generale as coordinating mandated lead arrangers and bookrunners. Bank of America, Bank of China, Barclays Bank, Sumitomo Mitsui Banking Corporation, Morgan Stanley and Lloyds Bank as mandated lead arrangers

ECA: Export Credits Guarantee Department (operating as UK Export Finance)

Assets: A pool of Airbus A320 aircraft

Law firms: Herbert Smith Freehills acted as counsel to Easyjet. Allen & Overy represented the UK Export Finance and the lenders

Amount: $1.87 billion

Tenor: Five years

Date mandated: 1 January 2021

Date closed: 11 January 2021

Easyjet's $1.87 billion secured loan supported by a guarantee from UK Export Finance achieved a double first: Easyjet was the first carrier to secure a loan through the UK Export Finance's Export Development Guarantee (EDG) scheme, and the transaction also marked the first secured EDG facility to reach financial close.

Valued at $1.87 billion, the financing was underwritten by a syndicate of 10 banks. The term of the loan is for a period of five years and allows Easyjet to refinance existing commercial debt and further boost liquidity. The loan was secured against a portion of its existing fleet of Airbus A320 aircraft.

The purpose of the facility was to refinance in the first quarter of 2021 the existing $500 million fully drawn revolving credit facility and the two outstanding term loans amounting to £400 million and due to mature in 2022, and further boost liquidity required for general corporate needs. As such, the facility has become Easyjet's new central flagship and core relationship bank facility.

In spite of its very significant size, the transaction was vastly oversubscribed, demonstrating lenders' continued willingness to support core clients and confidence that Easyjet has the ability to emerge from the Covid-19 crisis as one of the industry winners. It also demonstrates the attractive nature of the EDG product.

Guaranteed Financing Deal of the Year: Crianza Aviation $425m AFIC-supported and Balthazar-guaranteed loans for three aircraft

Borrower/issuer: Three special purpose companies organised by Crianza

Structure: Limited recourse financing of each aircraft

Assets: Two Boeing 787-10 aircraft and one Airbus A350-900

Banks: Natixis and Apple Bank as senior lenders for the two 787-10 aircraft; KfW-IPEX as senior lender for the A350-900 aircraft. Cerritos and other Korean financial institutions as mezzanine lenders for the three aircraft

Law firms: Milbank (London) counsel to the AFIC Insurers, Jaffa & Co (UK) counsel to Crianza, HSF (Singapore), counsel to the senior lenders for the Boeing aircraft, Norton Rose (Paris) counsel to the senior lender for the Airbus aircraft, Clifford Chance (Asia Practice), Norton Rose (Singapore), Yulchon, Lee & Ko, Rajah & Tann, Walkers and Matheson (Ireland)

Insurance support/guarantee: Aircraft Finance Insurance Consortium and Marsh SAS (Balthazar)

Adviser: Eastmerchant Capital as overall arranger of the transaction

Amount: Over $425 million

Tenor: 13 years with a balloon

Date mandated: 18 February 2021

Date closed: 15 April 2021

This winning deal had many firsts: first Aircraft Finance Insurance Consortium (AFIC)-supported sale and leaseback on a limited recourse basis; first AFIC-supported financing of a Boeing 787-10 aircraft; first AFIC-supported financing with a balloon for which the AFIC insurers recourse was only to the aircraft and the end of lease maintenance adjustment payments; first Balthazar-supported transaction for a lessor; first Balthazar-supported operating lease financing; and first Balthazar supported sale and leaseback financing with a balloon.

The transaction also marked the first AFIC-supported and Balthazar-guaranteed financing for Singapore Airlines, the first AFIC-supported and Balthazar-guaranteed financing with Eastmerchant Capital and the first AFIC-supported and Balthazar-guaranteed financing with Crianza and Korean investors.

The base transaction was the purchase and leaseback of three widebody aircraft consisting of two 787-10s and a single Airbus A350-900 from Singapore Airlines, which was closed as one package on the same day.

The deal was funded by a multilayered financing structure, including senior supported financing provided by Natixis and Apple Bank and backed by AFIC, KfW and Balthazar. Mezzanine financing was sourced in South Korea from institutional investors and equity funds were also sourced in South Korea

through Crianza Aviation.

More than $450 million of total financing (senior debt, mezzanine debt and equity) was in connection with the financing of the three widebodies under sale and leasebacks.

The transaction also marked the reopening of the Korean market for operating lease financings after an 18-month hiatus.

As the AFIC- and Balthazar-supported transactions were each based on separate sets of financing documents, broadly based on the different philosophies of Ex-Im Bank and the European export credit agencies, respectively, there were two groups of lenders/insurance consortiums with their respective counsels (four law firms), which had to agree on identical lease terms and also intercreditor terms with both the mezzanine lenders and Crianza. Essentially, this resulted in managing two individual operating lease financings in parallel, which proved to be a significant task when targeting a single closing date, as required by the airline.

Tax Lease Deal of the Year: SAS Jolco for one A350-900

Borrower/issuer: SAS

Structure: IFLI-supported Jolco financing

Assets: One Airbus A350-900

Bank: Credit Agricole-CIB

Law firm: Allen & Overy acted for IFLI and the insurers

Amount: $139 million

Date mandated: 1 March 2021

Date closed: 30 March 2021

This winning deal was the very first Piiq's insurance-supported financing. The transaction was a market first refinancing of a Japanese operating lease with call option (Jolco) on a 2020-vintage Airbus A350-900 operated by SAS.

Allen & Overy advised the insurers and IFLI on the very first IFLI transaction – drafting all the documentation and creating the product that competes with export credit agency-supported financings and commercial financing and other credit insurance-supported transactions.

The debt was provided by Credit Agricole-CIB and is for one A350 operated by Scandinavian Airlines System under a Jolco leasing structure.

The IFLI product allows banks and capital market investors the protection of an insurance-backed aviation finance product when financing new aircraft or refinancing aircraft already owned by airlines or lessors and is a market first because it is the first time that an insurance-backed product of this nature has supported the refinancing of an aircraft already in operation. This further development of the insurance-backed Jolco market enables Japanese financial institutions to access IFLI through Japanese insurers, and customers simultaneously to access the Japanese equity market and the credit insurance markets.

Sale and Leaseback/Operating Lease Deal of the Year: Aeromexico **operating lease for 12 737 Max 8 aircraft**

Borrower/issuer: Aeromexico

Structure: Operating lease

Assets: Twelve Boeing 737 Max 8 aircraft

Lessor: Dubai Aerospace Enterprise

Date closed: 1 September 2021

Dubai Aerospace Enterprise signed lease agreements for 12 Boeing 737 Max 8 aircraft just months after having placed a speculative order for 14 such aircraft with the manufacturer.

The deal is significant because of the size of the transaction, especially because the aircraft type had only just been recertified.

In April 2021, Aeromexico reduced its 737 Max orderbook to 24 aircraft from more than 50 units previously as part of its $2 billion restructuring agreement with manufacturers, suppliers and lessors under the Chapter 11 bankruptcy protection. Aeromexico petitioned for Chapter 11 in June 2020 and emerged from its restructuring process as a reorganised airline valued at $2.56 billion in March this year.

It will invest $5 billion over the next five years to improve its fleet after receiving 31 aircraft in 2021, and a further 22 units will deliver this year. Aeromexico operates a mix of 737 Max 8, 9, -700, -800, 787 and Embraer 190 units.

In March 2021, Middle East-based Dubai Aerospace Enterprise placed its first direct 737 Max purchase with Boeing.

The lessor has supported the Max programme through sale and leaseback transactions, notably with American Airlines and Brazilian carrier Gol.

In January this year, Dubai Aerospace Enterprise announced it had successfully completed the placement of its 14-aircraft orderbook, allocating the remaining two new units to Icelandair. Deliveries commenced in October 2021 and all aircraft are scheduled be to be delivered before the end of the first half of 2022.

Structured Lease Deal of the Year: Turkish Airlines **Italian lease combined with ACG guarantee for three A321neo aircraft**

Borrower/issuer: Turkish Airlines

Structure: Cross-border financing lease

Assets: Three Airbus A321neo aircraft

Banks: Societe Generale as arranger and facility agent, UMB Bank as security trustee

Guarantor: Aviation Capital Group

Law firms: Norton Rose Fulbright acted as counsel to lender, Dikici Law Office as local counsel to borrower, Matheson as local counsel, Clyde & Co as counsel to Turkish Airlines, Smith Gambrell & Russell as counsel to guarantor and security trustee

Amount: $150 million

Tenor: 12 years

Date mandated: 11 March 2021

Date closed: 14 June 2021

Aviation Capital Group (ACG) provided delivery financing for an Airbus A350-900 and three A321neos to Turkish Airlines (THY) under its Aircraft Financing Solutions (AFS) programme last year.

The California-based lessor partnered with Societe Generale to provide an ACG guarantee for the secured loan component of an Italian lease structure for three A321neo aircraft.

This deal marked the first time an Italian Lease was combined with an ACG guarantee. The successful combination provided Turkish Airlines with an innovative solution at a competitive overall cost of financing. Documentation and initial delivery have been achieved in a very tight timeline despite the continuing negative impacts of the Covid-19 crisis and the global lockdowns.

Turkish Airlines' senior vice-president finance, Ayşegül Denli, said the airline obtained a competitive overall cost of financing with a "solid commitment" from lenders during a challenging time for the industry.

Andrew Falk, managing director of ACG, said the fact that the lessor was able to respond to address Turkish Airlines' needs as both a direct lender and a loan guarantor demonstrated the "flexibility of the AFS programme and our ability to utilise a multitude of financing structures to address our clients' requirements".

Societe Generale's managing director and head of aviation finance for EMEA, Laurent Floquet, said both Turkish Airlines and ACG are "key clients of SG's global aviation finance franchise".

Used Aircraft Deal of the Year: SAS **$18m portfolio financing for four aircraft**

Borrower/issuer: SAS
Structure: Full recourse secured portfolio financing
Assets: Four Airbus A321 aircraft
Bank: MUFG as mandated lead arranger, agent, security trustee and account bank
Law firms: Dentons acted for MUFG. Watson Farley was SAS legal counsel
Amount: $18 million
Tenor: 18 months
Date closed: 31 March 2021

This deal was innovative because it involved upsizing and extending financing for four 2001/02-vintage Airbus A321s helping a key client for the MUFG Bank to manage its cash flow in a dynamic period in the industry with Covid-19 headwinds in full pressure.

The term sheet for the deal was agreed early in 2021, swiftly moving to documentation for closing at the end of March. The additional structuring element had $2 million of the advance against this A321 portfolio to be held in a security deposit pledged against another two A320s the bank had previously financed for SAS – to help improve the loan-to-value profile on the overall portfolio.

During this period, aviation finance banks were generally on pause, in terms of lending – especially on used and/or old aircraft but MUFG stepped up and provided an adequate solution for SAS, being a key client.

New Fund/Alternative Financing Platform of the Year: Castlelake **$2.6bn inaugural capitalisation**

Borrower/issuer: Castlelake Aviation
Structure: Senior secured RCF, term loan B; high yield bond and senior secured term loan
Assets: Portfolio of 71 aircraft and secured aviation loans
Banks: High-yield unsecured bond: Morgan Stanley as lead-left bookrunner and arranger; Citigroup, Barclays, BNP Paribas, Goldman Sachs, MUFG and RBC Capital Markets as joint bookrunning managers; Fifth Third Securities and Natixis as co-managers. Term loan B: Morgan Stanley as lead-left bookrunner and arranger; Citigroup, BNP Paribas, MUFG, Goldman Sachs, RBC Capital Markets and Barclays as joint lead arrangers and joint bookrunners; Fifth Third Bank and Natixis as co-arrangers. Secured revolver: Citigroup as sole structuring agent and global coordinator; Citigroup and Morgan Stanley as mandated joint lead arranger
Law firms: Milbank acted as counsel to Castlelake Aviation Limited, its subsidiaries, Castlelake LP and its affiliates. Cahill Gordon and Clifford Chance were counsel to investors and lenders. Walkers was counsel to the issuer with respect to Cayman law, A&L Goodbody counsel to the issuer with respect to Irish law, Morris James counsel to the issuer with respect to Delaware law
Amount: RCF: $750 million (with $250 million accordion). TLB: $1.2 billion. Unsecured bond: $450 million. Air Asia TL amendment: $246 million
Date mandated: 7 July 2021
Date closed: 22 October 2021

This winning deal transaction was a means of raising the initial capitalisation of Castlelake Aviation Limited, a newly established corporate-rated entity, which is owned and operated by Castlelake.

To achieve this, it closed on the following transactions: revolving credit facility, term loan B, unsecured bond and Air Asia term loan amendment. The transactions were part of the larger strategic initiative by Castlelake to establish Castlelake Aviation Limited. They also serve as a marker of Castlelake's graduation to unsecured financing. Castlelake Aviation obtained a corporate rating on the successful consummation of these debut transactions and acquisitions.

In the past, Castlelake has utilised limited recourse warehouse facilities in three of five transactions in conjunction with the asset-backed securities (ABS) market to finance its aircraft. Moving forward, Castlelake Aviation is expected to streamline Castlelake's capital-raising regime and become a primary vehicle for bond issuances and other recourse financing activities, with the ultimate goal of tapping the investment-grade capital markets.

The portfolio included 71 aircraft and secured aviation loans (including two aircraft under binding purchase agreement as of the closing date) with an estimated book value of $2.4 billion, weighted average age of 5.7 years, remaining lease term of 10.3 years and 72% narrowbody/28% widebody split.

The landmark and innovative transaction encompassed the corporate formation and capitalisation of Castlelake Aviation and involved inaugural ratings opinions issued by Moody's, S&P, Fitch and Kroll.

The formation of Castlelake Aviation builds on Castlelake's history of innovation in aviation finance and follows its establishment of an aviation lending business in late 2020 and its reopening of the aircraft ABS market in January 2021.

The transaction marked Castlelake's first issuance in the term loan and unsecured bond markets.

This innovative transaction required the simultaneous execution of the issuance and funding of $420 million of high-yield bonds, the funding of a $1.2 billion term loan B facility, the transfer of about 70 aircraft and aircraft-secured loans with a value of about $2.4 billion and the execution of a secured revolving credit facility to fuel future growth initiatives.

Cargo Deal of the Year: KKR/Altavair $300m four A330-200 conversions and leases

Borrower/issuer: KKR/Altavair

Structure: Operating lease

Bank: BNP Paribas

Assets: Four Airbus A330-200 aircraft

Servicer: Altavair

Amount: $300 million

Date mandated: 15 April 2021

Date closed: 16 June 2021

This deal was special because it represented the first converted current-generation freighters operated by the respective customers – Mas Air in Mexico, which leased two Airbus A330-200s, and Hongyuan in China with two units.

KKR and Altavair Airfinance agreed to purchase 38 A330 and Boeing 777 widebody aircraft from Etihad Airways in early 2020. The $1 billion acquisition will be made through aircraft leasing investment platform Altitude Aircraft Leasing, which was established by KKR's credit and infrastructure funds in 2018 to acquire aircraft serviced by Altavair.

Following the transaction with Etihad Airways, Altavair was positioning and preparing for the increase in demand for converted A330 freighters to replace older-generation aircraft. The Covid-19 pandemic and surge in cargo demand accelerated these plans.

Converting the aircraft into a freighter, given the growing demand for cargo operations, was an accretive way of extending the life of the A330-200, while also upgrading the cargo fleet of customers. Given the fleet under management by Altavair, direct support on engines for the lessees was structured into the transaction.

The transaction also marked Altavair's first A330 conversions, creating momentum behind its longer-term cargo conversion plans for the A330 programme.

Equity Deal of the Year: Cebu Air $840m capital raising and liabilities reprofiling

Borrower/issuer: Cebu Air Pacific

Structure: Capital raising through three instruments

Banks: BNP Paribas and BPI Capital acted as joint financial advisers

Law firms: Latham & Watkins and Romulo Mabanta Buenaventura Sayoc & de los Angeles acted as Cebu's international and local legal counsel, respectively, for the convertible bonds, sale and convertible preferred shares issuance. Picazo Buyco Tan Fider & Santos acted as lenders' counsel for the syndicated term loan facility. Clifford Chance acted as the legal counsel for the convertible bond investors

Amount: $840 million

Date closed: 18 May 2021

This landmark comprehensive transaction allowed Cebu Air Pacific to address the impact of Covid-19 with the issuance of three tranches of capital raising totalling $840 million and a liabilities reprofiling exercise resulting in two new prestigious international equity investors coming on board.

Cebu's comprehensive process involved an operational transformation plan to reposition the business for the new normal; a renegotiation of existing debt and lease terms to improve its cash runway; and a capital-raising exercise fully supported by its parent, JG Summit, domestic institutions and international investors.

The funding reached about 1.5x of Cebu's market capitalisation and involved:

- $250 million convertible bonds sale to International Finance Corporation, the International Finance Corporation Emerging Asia Fund and Indigo Philippines, an affiliate of Indigo Partners, a US-based private equity fund specialising in the aviation sector. The convertible bonds leg of the transaction was executed as an M&A transaction with the financial advisers providing sell-side M&A advisory services to Cebu;
- PHP12.5 billion ($260 million) convertible preferred shares issuance, under the form of a rights issue, fully underwritten by key shareholder, CPAir Holdings (a JG Summit company), but eventually well subscribed by the market; and
- PHP16 billion syndicated term loan facility provided by a group of Philippine government financial institutions and private sector commercial banks.

The transaction had full support from existing and new creditors: successful liability management, with existing banks and aircraft lessors; and a new large 10-year unsecured facility from government-linked financial institutions and private sector commercial banks.

M&A Deal of the Year: Aercap/GECAS $34bn merger

Borrower/issuer: Aercap

Structure: Aercap acquired 100% of GE Capital Aviation Services for 111.5 million shares, $23 billion cash and $1 billion Aercap notes; $21 billion senior unsecured notes; $2 billion senior secured term loan B

Banks: Financial adviser to General Electric: Goldman Sachs; joint lead arranger and structuring agent: Goldman Sachs and Citibank

Law firms: A&L Goodbody acted as Irish counsel in connection with the transaction. Paul, Weiss, Rifkind, Wharton & Garrison advised General Electric. Clifford Chance was asset counsel advising General Electric. Cravath, Swaine & Moore acted as counsel advising Aercap. NautaDutilh was Netherlands counsel advising Aercap. McCann Fitzgerald was Irish counsel advising Aercap

Date mandated: 29 January 2021

Date closed: 5 November 2021

This mega-merger transaction had everything: size, financing, involving the two largest leasing companies bringing the balance sheet in at $76 billion. It also marked Aercap's second large M&A transaction in seven years, after the ILFC transaction in 2014.

Aercap acquired $34 billion of assets, including the GECAS engine leasing and Milestone helicopter leasing businesses, transferred to Aercap, together with more than 400 employees. As part of the deal, GECAS acquired an equity stake in the combined Aercap entity.

The deal saw Aercap acquiring 100% of GE Capital Aviation Services for 111.5 million shares, $23 billion cash and $1 billion Aercap notes; $21 billion senior unsecured notes; $2 billion senior secured term loan B.

Goldman Sachs served as joint lead arranger and bookrunner on a $24 billion bridge facility to Aercap and provided 50% of the total commitment, which is the joint-largest industrials bridge commitment ever, the largest M&A transaction in 2021, the largest aviation/aircraft leasing M&A transaction and the largest investment-grade bridge since the Covid pandemic.

Airline Restructuring Deal of the Year: Avianca restructuring

Borrower/issuer: Avianca Holdings

Structure: Chapter 11 restructuring

Assets: Frequent-flyer programme (LifeMiles), aircraft assets, cargo business, intellectual property

Adviser: Seabury Securities, investment banker and financial adviser

Law firms: Milbank acted as debtors' counsel, and Smith Gambrell & Russell as debtors' aviation counsel

Tenor: Seven-year exit debt package

Amount: $3.2 billion

Date mandated: 1 May 2021

Date closed: 1 December 2021

This transaction represented the first of the big three Latin American Airlines to file Chapter 11 after the Covid-related government shutdowns and the first to emerge from Chapter 11.

The transaction saw a restructuring of about $5 billion of liabilities, including more than 150 aircraft financings and leases.

It raised $2 billion in debtor-in-possession financing, which was refinanced during the case with $1.6 billion exit debt financing plus conversion of subordinated debt to equity and additional equity capital raise.

The deal restructured multiple aircraft financing structures (Japanese operating lease with call options, private placements, bank loans, export credit agency-supported financings) into 100% operating leased fleet. Avianca also transformed its network and cost structure to compete with low-cost carriers in the region.

This restructuring was impressive given the scope and nature of the fleet restructuring achieved – more than 150 aircraft restructured and aircraft-related liabilities reduced by $2 billion. Avianca emerged after only 18 months in Chapter 11 bankruptcy.

Lessor Unsecured Bond Deal of the Year: Aercap/GECAS merger $21bn unsecured notes

Borrower/issuer: Aercap

Structure: Multi-tranche bonds with different tenors, floating-rate senior notes

Banks: Citigroup Global Markets and Goldman Sachs acted as joint global coordinators and joint bookrunning managers for the underwritten public offering. BofA Securities, Barclays, Credit Agricole-CIB, Deutsche Bank Securities, JP Morgan, Mizuho Securities, Morgan Stanley, RBC Capital Markets, Santander, BNP Paribas, Credit Suisse, HSBC. TD Securities, Truist Securities, Wells Fargo Securities, MUFG, Societe Generale and Fifth Third Securities were joint book-running managers

Amount: $21 billion

Investors flocked to the largest bond in aviation history, issued by Aercap to help finance its purchase of GE Capital Aviation Services.

Bankers involved say there was more than $70 billion in demand for the $21 billion bond issuance.

The weighted average coupon was 2.6% for a 7.3-year average term.

Aercap priced the offering of senior notes as follows: $1.75 billion in aggregate principal amount due 2023 at 1.15%; $3.25 billion due 2024 at 1.65%; $1 billion due 2024 at 1.75%; $3.75 billion due 2026 at 2.45%; $3.75 billion due 2028 at 3%; $4 billion due 2032 at 3.3%; $1.5 billion due 2033 at 3.40%; and $1.5 billion due 2041 at 3.85%.

It also issued $500 million of floating-rate senior notes due 2023.

The notes are fully and unconditionally guaranteed on a senior unsecured basis by the company and certain other subsidiaries.

This transaction had significant milestones: joint number one low-BBB/BBB- issuance of all time, the ninth-best investment grade deal of all time, the seventh-best M&A-linked investment-grade bond offering of all time, the

number five BBB-rated deal of all time and the number one aircraft lessor deal with the longest tenor.

On 1 November 2021, Aercap announced it had completed its acquisition of the GECAS business from General Electric after receiving all required regulatory approvals.

Airline Bond Deal of the Year/Overall Capital Markets Deal of the Year: Hawaiian Airlines $1.2bn secured notes

Borrower/issuer: Hawaiian Airlines Inc, Hawaiian Brand Intellectual Property, Hawaiian Miles Loyalty

Structure: Senior secured notes at 5.75%

Assets: Frequent-flyer programme (LifeMiles), aircraft assets, cargo business, intellectual property

Banks: Barclays, Goldman Sachs, BNP Paribas, Citigroup and Morgan Stanley acted as bookrunners of the offering

Law firm: Milbank, Hughes Hubbard & Reed acted as counsel for Hawaiian Airlines

Tenor: Five years

Amount: $1.2 billion

Date closed: 4 February 2021

Hawaiian Airlines issued the notes via two newly formed special purpose vehicles: Hawaiian Brand Intellectual Property and Hawaiian Miles Loyalty. These special purpose vehicles are wholly owned subsidiaries of Hawaiian Airlines' parent, Hawaiian Holdings.

This transaction was significant because the loyalty programme financing was an inaugural financing of this stature for the US carrier.

This transaction is also significant because the final $1.2 billion principal amount issued was an increase of $400 million over the original $800 million principal amount.

Hawaiian secured the debt for this transaction with a first-priority lien on the core assets of the company's Hawaiian Miles loyalty programme, including the intellectual property necessary to operate the programme, and all of the airline's other brand intellectual property.

Finally, this was a significant transaction for Hawaiian because it used the proceeds to repay federal loans received under the Coronavirus Aid Relief and Economic Security Act and to enhance its liquidity position further.

ABS Deal of the Year: SALT 2021-1 $893m for 156 aircraft

Borrower/issuer: SALT 2021-1 Trust. Affiliate of Bellinger Aviation Pte and SP Novo Holdings I

Structure: Asset-backed securities

Assets: Loans secured by 156 aircraft

Banks: Goldman Sachs & Co, Deutsche Bank Securities acted as arrangers. Citigroup and Mizuho Securities were the bookrunners in the transaction. Natixis acted as liquidity facility provider. UMB Bank, National Association as trustee and security trustee

Law firms: A&L Goodbody acted as Irish counsel for the lenders. Allen & Overy was UK counsel to Stonepeak. Milbank was US counsel to the lenders, counsel to the initial purchasers. Allen & Overy was counsel to the sponsor and issuer. Baker Botts acted as counsel to the managing agent. Smith Gambrell was counsel to the trustee

Amount: $893.47 million

Date mandated: 16 September 2021

Date closed: 29 October 2021

The asset-backed securities (ABS) winning deal was one of the largest aviation-related transactions in 2021 and was structured through four classes of notes with high loan-to-values. Stonepeak Infrastructure Partners achieved 92% loan-to-value through Class D, with 84% loan-to-value through the three IG-rated tranches.

It was also the first broadly syndicated aviation loan securitisation which combined bondholder protections and covenants utilised by both aircraft ABS and collateralised loan obligation (CLO) frameworks, and asset class expertise of alternative investment firm Stonepeak Infrastructure Partners and investment management firm Bellinger Asset Management.

SALT 2021-1 Trust issued $893.48 million of notes backed by loans secured by 156 aircraft operated by 45 airline operators located in 29 jurisdictions.

The portfolio comprised of 116 loans across 26 facilities and included a diversified base of strong borrowers and lessees, a complex structure to accommodate loans with borrowers from a broad number of jurisdictions and a large array of financing structures. The underlying credit counterparties in the portfolio include top-tier leasing companies and airlines.

The transaction represented the successful refinancing of the first joint investment made by Stonepeak and Bellinger since the launch of the firms' diversified, independent aviation investment platform in May 2021.

The firms said the transaction utilised a traditional aircraft ABS structure and rating methodology but adopted CLO technology to offer investors enhanced structural features and protections.

The offering was more than three times oversubscribed.

Sustainability Financing Deal of the Year: British Airways $553m EETC for seven aircraft

Borrower/issuer: British Airways

Structure: Sustainability-linked Japanese operating lease with call option and combined enhanced equipment trust certificates

Assets: Three Airbus A320neo, one A350-1000 and three Boeing 787-10 aircraft

Banks: Citigroup acted as the structuring lead in the transaction. Bank of America Merrill Lynch, Credit Agricole-CIB, Credit Suisse, Mitsubishi UFJ Financial and SMBC Nikko Capital Markets acted as joint bookrunners of the transaction. A liquidity facility was provided by Credit Agricole-CIB, SMBC acted as depositary and Wilmington Trust Company was the security trustee and pass through trustee

Law firms: Allen & Overy advised British Airways. Vedder Price advised the initial purchasers

Amount: $553.61 million

Date mandated: 28 June 2021

Date closed: 20 July 2021

British Airways issued a market-first sustainability-linked enhanced equipment trust certificates (EETC) transaction for seven aircraft in June 2021.

This transaction was the first EETC to use a sustainability-linked structure. The equipment notes are subject to a key performance indicator in respect of the flight fuel efficiency of British Airways and its subsidiaries measured by the average grammes of gross carbon dioxide emitted per equivalent passenger per kilometre (gCO2/pkm) of flights during 2025. This was a highly structured multi-tranche, multi-aircraft type transaction, which required considerable innovation to launch in Covid times.

Moody's noted the EETC transaction features a sustainability mechanism whereby if the average carbon emissions per passenger kilometre emitted by BA is not below a specified level for the financial year ending 31 December 2025, interest rates on the certificates will increase by 25 basis points.

The target contemplates a reduction of 8.1% in this metric versus 2019 levels.

NBB acted as Japanese operating lease with call option equity arranger.

The EETC encompassed three classes of aircraft: Airbus A320neos, A350-1000s and Boeing 787-10s.

It pegs the aggregate market value of the seven aircraft at about $742 million at the issuance date, depreciating to $576 million in June 2026, $443 million in June 2030 and about $292 million six months before the final scheduled payment in March 2035.

The transaction was more than six times oversubscribed, with a $461.42 million senior tranche attracting $2.9 billion in bookings from investors. Initial price talk started at about 3.25%. The tranche priced at a 2.9% coupon. The spread was treasury to 182 basis points.

The $92.19 million B tranche attracted $450 million in bookings from investors. Initial price talk started at 4.125% area. The tranche priced at 3.9% coupon. The spread was treasury to 310 basis points.

Environmental/ESG Leadership Deal of the Year: Air France **$111m A350-900 Balthazar-backed sustainability-linked senior secured loan**

Borrower/issuer: Air France

Structure: Sustainability-linked aircraft secured term loan

Assets: One Airbus A350-900

Bank: Societe Generale acted as sole arranger, sustainability structurer, lender and agent

Law firms: Norton Rose Fulbright acted as Societe Generale's legal counsel, Stephenson Harwood as Air France's counsel and Clifford Chance as Balthazar Insurers' counsel

Guarantor: Balthazar structure

Tenor: 12 years

Amount: $111 million

Date mandated: 10 June 2021

Date closed: 17 December 2021

This was the first sustainability-linked aircraft secured term loan transaction closed for an airline.

It supports Air France in its strategy to implement a very ambitious environment-linked strategy by incorporating a margin adjustment mechanism if mutually agreed sustainability performance targets (SPT), in respect of sustainability-linked key performance indicators (KPI), are met.

The terms of the financing are linked to Air France achieving certain sustainability-linked performance targets.

The KPIs selected for the transaction are focusing on the proportion of new-generation and fuel-efficient aircraft in Air France's fleet and the future usage of sustainable aviation fuel as part of Air France Group's daily operations.

The SPTs for each KPI were set at levels that reflect the ambition of Air France's environmental strategy. The expertise of Societe Generale's ESG specialist team was key in assessing such ambition. The transaction is the first long-term sustainability-linked financing in the aviation industry, which reflects and confirms the long-term commitment of Air France to reduce its environmental footprint.

The transaction is the second Airbus A350-900 aircraft financing arranged by Societe Generale for Air France in less than two years. It was also supported by a Balthazar non-payment insurance policy provided by a consortium of leading private insurance companies through insurance broker Marsh France.

Best ESG Initiative of the Year: Aviation Working Group's **Carbon Calculator (ACC)**

Watson Farley & Williams (WFW) advised the Aviation Working Group (AWG) on the implementation and build of the AWG carbon calculator (ACC), which launched on 31 March 2021.

The ACC has been developed to provide accurate, reliable and consistent aircraft carbon dioxide emissions data to aviation industry participants. Using original equipment manufacturer source data provided by Airbus, ATR, Boeing and Embraer, the ACC will generate and compare carbon dioxide emissions data for aircraft and aircraft portfolios.

The source data is determined by and provided for operational aircraft models under consistent standards, assumptions and methodology, ensuring that it is both accurate and directly comparable. All data, graphs and certificates are exportable, enabling ACC users to include them for internal committee meetings, corporate reporting, investor presentations and offering documents, and as evidence of compliance in green financing.

The AWG is a not-for-profit legal entity whose members comprise major aviation manufacturers, leasing companies and financial institutions that contribute to the development of policies, laws and regulations to facilitate advanced international aviation financing and leasing.

The launch of the ACC forms part of the AWG's wider environmental, social and governance initiative, on which WFW is one of two legal advisers alongside Clifford Chance. Innovation users of the AWG carbon calculator can provide aircraft-specific operational inputs, to generate accurate, reliable and consistent carbon dioxide emissions data for aircraft and aircraft portfolios, with the data presented visually through various tabular and graphical outputs. Default inputs for annual hours and cycles are also available as an option for users.

The AWG carbon calculator will make it easy for its users to generate and compare accurate, reliable and consistent carbon dioxide emissions data for aircraft and aircraft portfolios.

News Event of the Year: RISE programme

Airfinance Journal's news event of the year is the launch of RISE (Revolutionary Innovation for Sustainable Engines), a bold technology development programme targeting more than 20% lower fuel consumption and CO_2 emissions compared with today's engines.

The RISE engines will be developed in jet fuel/sustainable aviation fuel (SAF) and hydrogen burning versions.

General Electric Aviation and Safran will fully develop this concept in their CFM joint venture. The move is impressive coming from CFM, which is the largest engine original equipment manufacturer around, both in terms of delivered engines (more than 30,000) and engine deliveries (several thousand CFM56 and LEAP engines a year).

The CFM RISE programme will demonstrate and mature a range of new, disruptive technologies for future engines that could enter service by the mid-2030s.

The companies also signed an agreement extending the CFM International 50/50 partnership to the year 2050, declaring their intent to lead the way for more sustainable aviation in line with the industry's commitment to halve CO_2 emissions by 2050.

Technologies matured as part of the RISE programme will serve as the foundation for the next-generation CFM engine that could be available by the mid-2030s.

A demonstrator engine is scheduled to begin testing at GE and Safran facilities around the middle of this decade and flight test soon after.

The programme goals include reducing fuel consumption and CO_2 emissions by more than 20% compared with today's most efficient engines, as well as ensuring 100% compatibility with alternative energy sources such as sustainable aviation fuels and hydrogen.

Central to the programme is propulsive efficiency for the engine, including developing open fan architecture. This is a key enabler to achieving significantly improved fuel efficiency while delivering the same speed and cabin experience as current single-aisle aircraft.

The programme will also use hybrid electric capability to optimise engine efficiency while enabling electrification of many aircraft systems.

The launch deserves *Airfinance Journal*'s news event of year award because it is a vital step towards the ambitious 2050 goals for lowered emissions for air transport, and no doubt will alter the way the entire aviation sector from the airlines to the maintenance, repair and overall shops, to the lessors to the type of capital and investors we attract to fund this industry.

Editor's Deal of the Year: Delta Air Lines Jol for eight A220-100s

Borrower/issuer: Delta Air Lines

Structure: Japanese operating lease

Assets: Eight Airbus A220-100s

Law firms: Hughes Hubbard & Reed acted for the lessee. Holland & Knight and Vedder Price were counsel for the seller

Lessor: ABL Aviation (Ireland) Limited. Bank of Utah as owner and trustee

Date closed: 13 January 2021

ABL Aviation was first to bring the Airbus A220 to the Japanese market. It proved a huge success because all of the aircraft were sold very quickly.

The A220-100 was a more challenging asset to present to the Nin'i Kumiai (NK) investors than the A220-300. The confidence of the equity investors in the airline to survive such difficult times was a fundamental obstacle faced by ABL Aviation; however, the Japanese operating lease (Jol) structure and the long-term reputation of the airline helped to overcome these concerns.

ABL Aviation closed the acquisition of eight A220 aircraft on lease to Delta Air Lines. It managed the lease transfer processes with sellers and NK transfers, with leases negotiated with the major US airline to make a more sellable Jol product in Japan during the process.

The deal helped to support the airline and the industry's sustainability agenda, with the engine efficiency of the A220 having significantly lower carbon emissions compared with other airlines.

These Jols are fully funded by equity investors as access to capital markets was limited because of the Covid-19 pandemic. Completed against the backdrop of growing airline demand for newer, more fuel-efficient regional/narrowbody aircraft, the transaction highlights the resilience of ABL Aviation because the deal closed during a period of widespread economic uncertainty and turbulence for the aviation industry.

Innovative Deal of the Year: American Airlines **$70m cargo receivables securitisation**

Borrower/issuer: American Airlines

Structure: Receivables securitisation facility

Assets: Air cargo receivables denominated in USD, GBP and EUR from seven distinct jurisdictions

Bank: BNP Paribas as administrative agent

Law firms: Latham & Watkins acted as borrower's counsel. Mayer Brown was lender's counsel

Amount: $70 million

Tenor: One year

Date closed: 15 January 2021

The American Airlines cargo receivable securitisation is a $70 million securitisation whose underlying collateral is made up of a pool of cargo receivables from seven jurisdictions and denominated in US dollars, euros and the British pound.

Discussions regarding the facility began during the height of the pandemic, when American Airlines and BNP Paribas engaged in dialogue surrounding the most effective strategies for working capital monetisation. BNP Paribas and American Airlines selected cargo receivables from American's current assets as a cost-efficient securitisation method. This position was validated in both the pick-up of cargo volumes, rates and balance of cargo receivables throughout 2021.

The transaction is unique in the market as the only extant cargo receivable securitisation and demonstrates unique ways that lenders can offer airlines credit on very attractive terms, even during the height of the pandemic.

The transaction was highly complex. It involved underlying collateral from several jurisdictions, in several currencies, and cleared through IATA CASS, IATA CNS, and directly through American Airlines.

Additionally, the seamless integration between the American Airlines treasury, cargo, IT, and accounting teams provided the flexibility necessary to calibrate the transaction to the variability in the receivables base.

The transaction's complexity led to the development of a robust legal and risk framework. Given the geographical breadth of the receivables, BNP Paribas, American Airlines and counsel undertook significant due diligence to guaranty the perfection of first lien security interest and true sale of cargo receivables in all included jurisdictions.

Aviation Person of the Year: Aengus Kelly, **CEO Aercap**

Airfinance Journal's aviation person of the year is Aengus Kelly, the chief executive officer of Aercap.

Not many chief executive officers can claim two mega acquisitions in the aircraft leasing industry, especially in less than eight years, but Aercap's Kelly can.

After years of sales talks and denials, General Electric (GE) finally secured an exit from aviation leasing on 9 March 2021.

Kelly led Aercap in its $30 billion acquisition of GECAS and doubled the size of the aircraft leasing company.

This marked the second major M&A transaction for Aercap in eight years. In 2013, Aercap agreed to buy International Lease Finance Corp (ILFC) from American International Group (AIG) for $5 billion. The purchase of ILFC's fleet gave Aercap just under 1,400 aircraft, still well shy of GECAS's 1,750 units at the time.

However, the acquisition of GECAS has created the world's largest aircraft lessor. Aercap now has a portfolio of more than 2,000 aircraft, over 900 engines and more than 300 helicopters, as well as an orderbook of about 450 aircraft. The aircraft fleet represents about 90% of the assets of the combined company. New-technology aircraft are expected to make up 75% of the aircraft fleet by 2024.

Aercap became a sort of goldilocks buyer with the "just right" exit strategy for GE by checking three key boxes: certainty, confidentiality and the ability to take back public stock.

The transaction allowed GE to exchange 100% of its ownership in GECAS for 46% of pro-forma Aercap, while adding $25 billion in cash. Crucially, GE owns stock allowing it to participate in synergies and scale that the pro-forma company will bring.

Speaking to *Airfinance Journal*, Kelly said that, while there have been other platforms for sale over the past two years, the GECAS strategy was similar to Aercap's on the portfolio side.

Kelly says the principal integration tasks – the processes, the IT systems, the structure and the people – will occur during 2022.

Like in 2014, the market expects some asset sale activity from the GECAS portfolio. Post the ILFC transaction, Aercap sold $2 billion-worth of assets versus $1 billion initially anticipated.

He tells *Airfinance Journal* that there are certain assets Aercap wants to dispose of, but also insists this is part of the lessor's business of recycling capital.

Kelly has been Aercap's executive director and chief executive officer since May 2011. Previously, he served as chief executive officer of Aercap's US operations from January 2008 to May 2011 and was Aercap's group treasurer from 2005 through December 2007.

Overall Deal of the Year: American Airlines AAdvantage loyalty programme financing

Borrower/issuer: American Airlines

Structure: Bond issuance and term loan

Assets: American Airlines AAdvantage loyalty programme

Banks: Goldman Sachs acted as sole structuring agent. Citibank and Barclays as joint lead arrangers and bookrunners

Law firm: Milbank acted as counsel to Goldman Sachs, Barclays and the other underwriters and lenders

Amount: $10 billion

Tenor: Five and eight years for senior secured notes. Seven years for secured term loan

Date closed: 3 August 2021

The American Airlines AAdvantage programme was valued between $19.5 billion and $31.5 billion, as of 2020. American Airlines raised $10 billion in aggregate debt facilities split across $6.5 billion senior secured notes due 2026 and 2029 and $3.5 billion senior secured term loan due 2028 backed by the intellectual property and cash flows associated with the airline's customer loyalty programme, AAdvantage Financing.

The proceeds were used to pay back federal loans that Congress had passed to help the struggling airline industry, other debt or other uses.

American Airlines used cash flows from its frequent-flyer loyalty programmes as collateral.

As counsel to the investment banks serving as lead underwriters for the transactions, Milbank was tasked with creating a structure that had never been implemented in the airline industry.

Historically, airlines looking to raise money had used their aircraft, engines, or their rights to certain slots, gates and routes as collateral, because they never had to raise money against cash flows from frequent-flyer loyalty programmes. It was a challenge that created thorny legal questions. For example, what happens if the airlines file for bankruptcy? What were the loyalty programmes worth? What were the claims that creditors would have against the bankrupt estate?

In the case of American Airlines, the Milbank team also had to create a new company that could make the financing efficient. To satisfy creditors, Milbank needed to develop a bankruptcy-proof financing structure – meaning that even in a bankruptcy, the noteholders and lenders would be paid in full. The Milbank team did that in part by adding a provision that would make it uneconomical for the airlines to walk away from their obligations to the lenders.

Aviation Finance House of the Year: Societe Generale-CIB

Societe Generale Corporate & Investment Banking spearheaded the aeronautical finance market in 2021, both in quantitative (number and volume of financings) and qualitative (innovation and structuring track-record) terms.

Despite the severe downturn that the industry has been facing since last year, and the aviation bank sector remaining globally in wait-and-see mode, Societe Generale-CIB demonstrated its seamless, unwavering, timely and reliable financing support to the industry throughout 2021.

Societe Generale-CIB's active involvement in the aviation sector last year was $143 billion.

Beyond the only quantitative dimension (Societe Generale-CIB having been the most active bank in the sector in 2021 in terms of number, volume, diversity, market share and sophistication of transactions closed), the bank also illustrated its capacity to accommodate client needs with innovative and tailor-made solutions and this in the most challenging environment ever known by the aviation industry.

The bank's unique innovation capabilities and structuring skills in the field of asset finance counted many firsts in 2021 – in particular, Societe Generale-CIB was at the forefront of the shift towards sustainability in deal-making and has been a pioneer in introducing key features such as:

- first AFIC-guaranteed financing on a Japanese operating lease for FPG Amentum's Boeing 737 Max on lease to Flydubai;
- first Italian lease with Aviation Capital Group's AFS-cover for Turkish Airlines;
- first aircraft-secured UKEF Export Development Guarantee financing for Easyjet;
- first Balthazar sustainability-linked term loan for an airline (Air France);
- first jumbo-sized lessor secured portfolio financing in the Asia-Pacific region since the onset of the pandemic, with CDB Aviation's $660 million 13-aircraft portfolio financing.

Societe Generale-CIB also confirmed its first-class global asset-backed securities (ABS) franchise and placement capabilities, having been joint bookrunner in four aviation ABS issuances in 2021 (SLAM 2021-1 for Sky Leasing, BBIRD 2021-1 for Air Lease Corp, NAVTR 2021-1 for PIMCO/DAE and AASET2021-1 for Carlyle Aviation Partners) for a total of $2.7 billion issuances representing about a third of the market share.

Like many banks, it had a large presence in the capital markets, but Societe Generale-CIB secured and unsecured pure bank debt participation was more than $44 billion.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Lifetime Achievement: Colm Barrington

Colm Barrington has spent a lifetime in aviation in a career spanning six decades.

In that period, he has demonstrated unique innovation and leadership in both the leasing and airline sectors.

After gaining a Master's degree in economics from University College Dublin in 1968, he joined the economic planning division of Aer Lingus where he worked in route and fleet planning and corporate affairs.

Barrington later moved to Aer Lingus's diversification division with the specific objective of establishing a foothold in the hotel sector. This led to the acquisition of a New England-based hotel company that subsequently became Omni Hotels Corporation.

Following this acquisition, Barrington moved to the US where, as vice-president of development, he oversaw the growth of the company from 3,000 rooms to more than 13,000 in a six-year period.

This growth was based on a strategy of acquisition, equity syndication and management contracts that was to serve him well in his later career in the aircraft leasing sector.

In 1989, Barrington returned to Ireland to join Guinness Peat Aviation, as executive vice-president. After a few years marketing aircraft leases, he established GPA's aircraft and lease sales division. As chief executive officer (CEO) of GPA Capital, and along with colleagues including Patrick Blaney, Garry Burke, Brian Foley, Ed Hansom and the late Mike Dolan, he established a global market for the sale of leased aircraft as financial assets.

In a five-year period between 1987 and 1992, GPA Capital arranged the sale of more than $5 billion of leased aircraft to investors in more than 30 jurisdictions.

These innovations included the establishment of Solitaire Capital, the first public company dedicated to owning leased aircraft, and ALPS 92-1 Limited, the first aircraft asset-backed security (ABS). GPA Capital also specialised in other innovative financing arrangements, including double-dip leases involving the US, Japan and Hong Kong SAR.

Following GPA's acquisition by GECAS in 1993, Barrington was appointed president of GECAS Ireland, but left after six months to establish his own aircraft lease management company, which he subsequently merged into Babcock & Brown.

With Babcock & Brown, his principle activities involved the development of the initial Japanese operating lease with call options (Jolcos) with Nomura Babcock and Brown and the marketing of this product globally. He also took on management of two ABS portfolios, so expanding Babcock & Brown's aircraft management activities beyond Japanese operating leases and Jolcos.

When Babcock & Brown Air (subsequently renamed Fly Leasing) was launched on the New York Stock Exchange in 2007, Barrington took on the role of CEO, a position he held for 14 years until Fly Leasing was sold, in August last year. Following this sale, he stepped down from a full-time executive role and now serves as a senior ambassador to BBAM Aviation Services.

In addition to his leasing roles, Barrington returned to Aer Lingus in 2009 as non-executive chairman at a time when the airline was hemorrhaging cash, had a major deficit in its pension and was facing aggressive takeover bids from Ryanair. After management changes, cost-reduction programmes, the development of a Europe/North American hub at Dublin and staunch rebuttals of Ryanair's predatory bids, the airline was returned to significant profitability.

In 2015, Barrington oversaw the merger of Aer Lingus into IAG, resolving what had become a dysfunctional shareholding structure that included Ryanair, the Irish government, employees and Etihad Airways, leaving only 30% of its shares in a free float.

After the IAG transaction, he was appointed vice-chair of Finnair, where he has recently completed his five-year term.

Barrington has competed successfully in sailing throughout the world, including winning major events in the US, UK and Europe. He has won the Round Island Yacht Race on two occasions, setting a course record in 1998, which stood for 12 years. He also won the UK's prestigious Britannia Cup on two occasions.

In 2015, he established the Irish Sailing Foundation for the purpose of raising philanthropic funding to support Irish high performance and Olympic sailors. He is first vice-president of the Olympic Federation of Ireland.

Many of Barrington's boats have been named on the theme of Velvet Glove, representing his management style of "an iron fist in a velvet glove" – being firm on principle and flexible on detail.

His innovations, efforts and successes have truly merited *Airfinance Journal*'s Lifetime Achievement Award.

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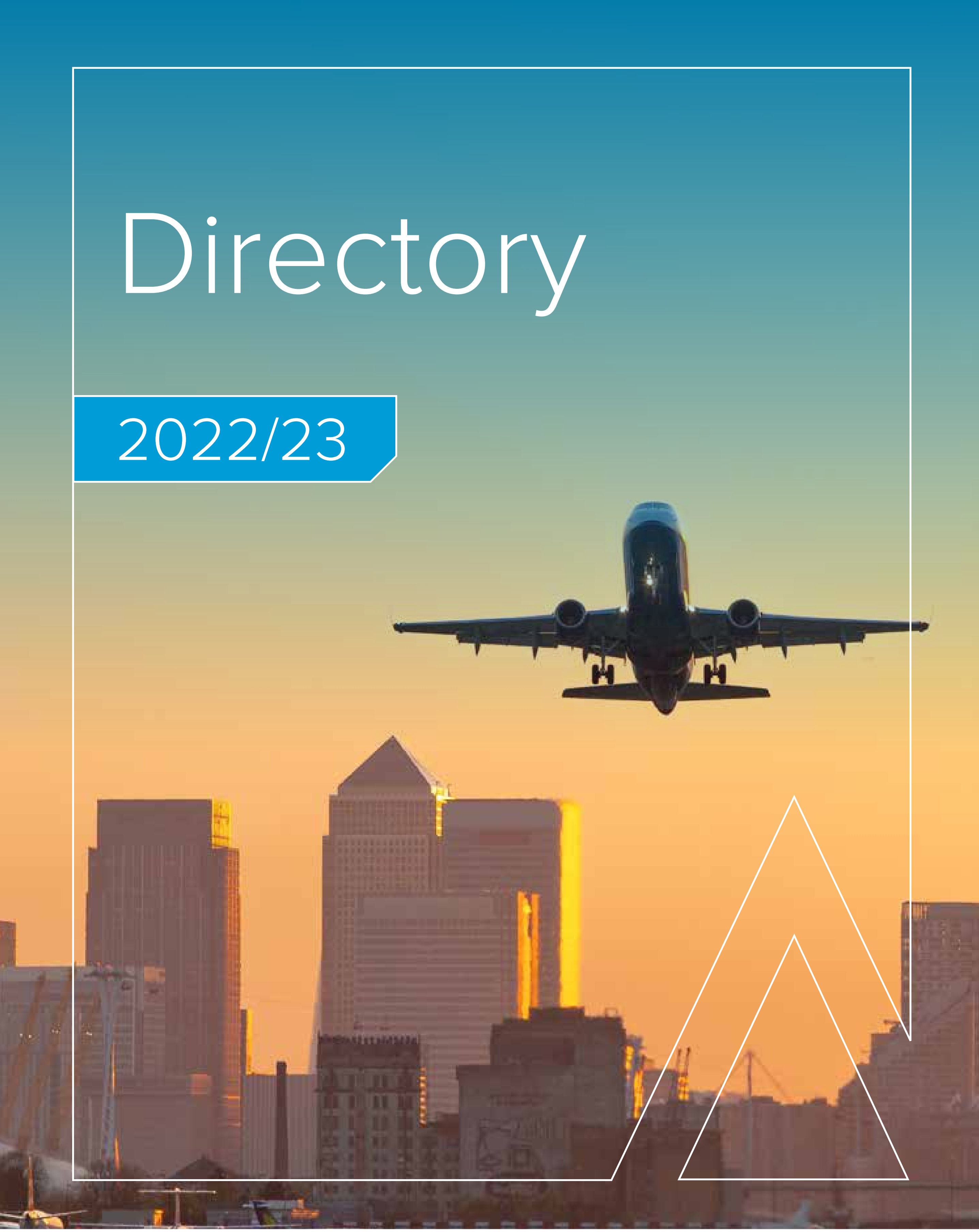

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With aviation experts available globally, and strong corporate, finance, capital markets, restructuring, regulatory, antitrust and litigation practices, Freshfields Bruckhaus Deringer can provide the legal support and advice necessary to master strategic opportunities in the aviation sector on a global scale and can call upon other specialists in the firm.

Our aviation team frequently advises on a broad range of matters in the aviation sector, including M&A (sell side and buy side, auctions, private sales, distressed sales), distressed situations (financial restructurings, advice to airlines in financial distress, advice to creditors), insolvencies (insolvency filings, advice to officeholders, creditors), aircraft and engine sales, leases and financings, capital market transactions and litigious matters. With a deep understanding of the industry, we have been and are advising on a good number of international landmark transactions.

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Among heavy checks, Air Works offers base maintenance services for ATR 42/72, A320 family and B737 NG and Max fleet of aircraft from its EASA and DGCA-certified facilities at Mumbai, Delhi, Hosur and Kochi, supported by duly certified shops for sheet metal and composites, cabin interiors and refurbishments, heat exchangers, batteries, NDT testing, avionics upgrades as well as aircraft painting.

Air Works also undertakes modification and assembly of rotary-wing aircraft and as a partner to several OEMs and an Authorized Service Centre (ASC) for many, the Company engages closely with Airbus, ATR, Boeing, CFM, Collins Aerospace, Dassault Aviation, Embraer, Goodrich, Gulfstream, Honeywell, Leonardo Helicopters, Pratt & Whitney, Textron Aviation, and, Williams International etc..

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Sarin & Co. is one of India's oldest law firms. Originally established in the year 1932, the firm is based in Chandigarh and New Delhi.

Sarin & Co. branched out into the field of aviation with the joining of Mr Nitin Sarin in 2008. It is the only law firm in India to provide complete aviation law services to banks, aircraft lessors, financial institutions, international airlines and Governments.

Since then, the aviation team have handled over $16 billion worth of transactions and have also carried out some of the most complex aircraft repossessions in the country. The Firm has also advised several international airlines in challenging market access transactions. In 2019, the firm successfully paved the way for the first deregistration and export of an aircraft under India's new Cape Town Convention and Aircraft Protocol Regulations.

Sarin & Co's noteworthy clients include the world's top aircraft manufacturers, leasing companies, international airlines, and banks.

The Firm's Managing Partner, Nitin Sarin is a dual qualified Advocate in India and Solicitor in England and Wales.

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Dynam Aviation Ireland Limited (Dynam Aviation) is an Irish based aircraft leasing company with a focus on young, narrowbody aircraft.

Dynam Aviation was established in Dublin in 2019 and is 100% owned by Dynam Japan Holdings Co. Ltd. (DYJH). DYJH is the leading operator and service provider of pachinko halls (a popular form of entertainment in Japan) and is listed on the main board of the Hong Kong Stock Exchange (6889:HK).
DYJH's founder, the Sato family, established a second aircraft leasing company in 2015 - Sato Aviation Capital - which is partnered with Dynam Aviation. The partnership currently owns a fleet of eight aircraft, including two aircraft delivered in Q1 and Q2 of 2020. The short-term plan over the next 2-3 years is for the partnership to build a 30-aircraft portfolio (20-aircraft for Dynam Aviation and 10-aircraft for Sato Aviation). Current lessee's include: Wizz Air, Indigo, Vueling Airlines, Air France-KLM and Volaris. Dynam Aviation has a team of industry experts with over 50 years of combined experience in financing, origination and marketing. It is partnered with leading service providers including: FPG Amentum, Santos Dumont, KPMG and McCann FitzGerald.

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Kellstrom Aerospace offers an unparalleled level of cost-effective aftermarket solutions, including Green time aircraft/engine asset leasing and trading, engine exchanges, OEM parts distribution and OEM services, pre-owned parts distribution, technical consultancy services, consignment management, ,and fleet provisioning programs based on real world experience. Kellstrom Aerospace provides 24/7/365 AOG and JIT support covering all service offerings. For more information on Kellstrom Aerospace.

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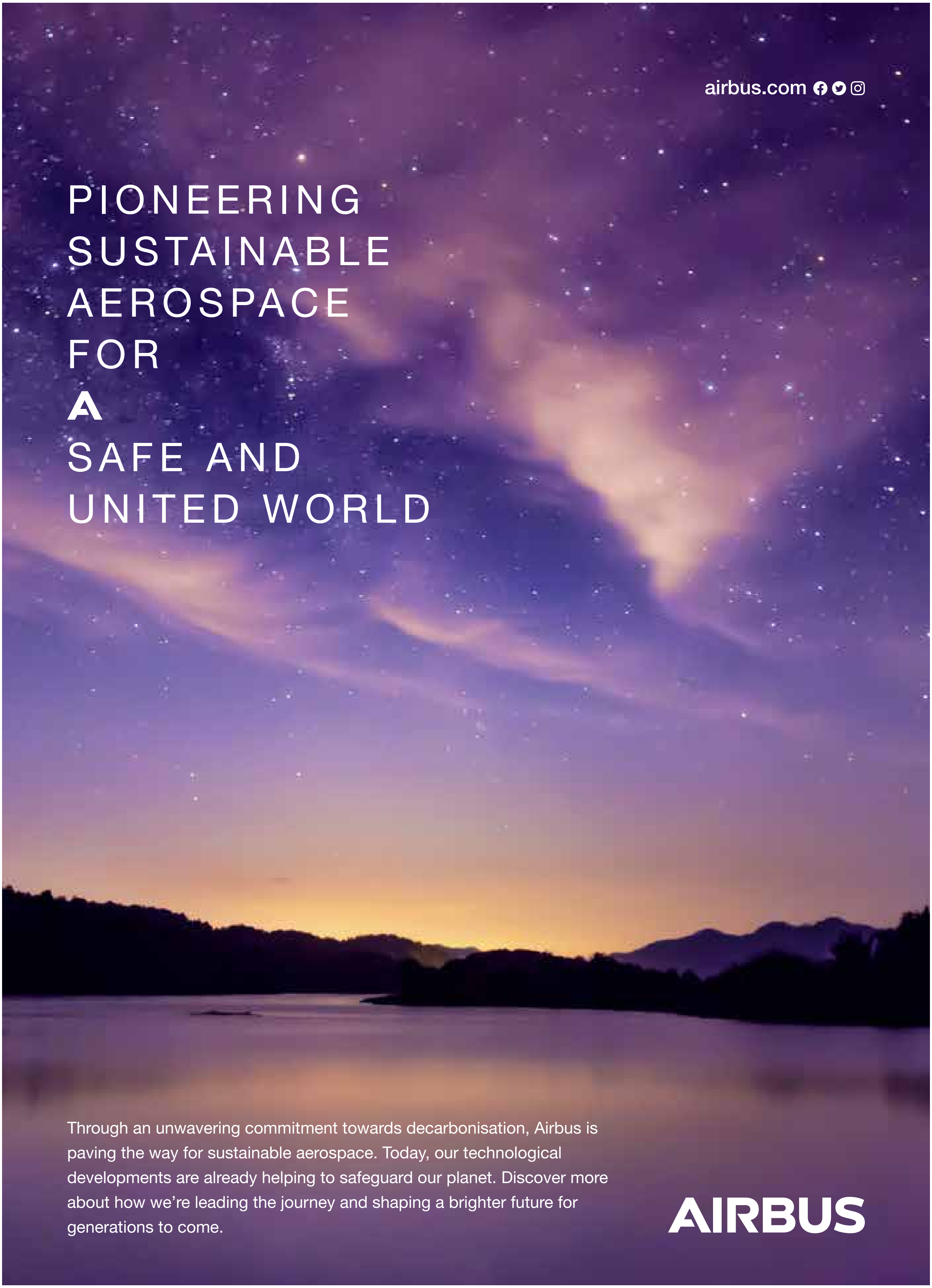
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