

## Aircraft Lessors & The COVID-19 Pandemic

There has been a significant amount of coverage of the impact of the COVID-19 pandemic on airlines. There has been less coverage of the impact of the COVID-19 pandemic on aircraft lessors, the firms that lease aircraft to airlines. The global airline industry is under unprecedented economic strain. It's likely that some airlines will go bankrupt and therefore default on their lease payments to aircraft lessors. Other airlines will look to defer their lease payments to aircraft lessors. So, is the aircraft leasing model more resilient than the airlines industry it serves?

At the outset, we should note that the majority of aircraft lessors are not publicly quoted companies. Thus, the amount of information available on the majority of aircraft lessors is somewhat limited. Despite this, we know that aircraft lessors as a whole were far better capitalised than airlines entering this crisis with many of the top ten lessors having investment grade credit ratings with access to unsecured-borrowing from the capital markets. Many of the large lessors also have access to lines of credit at banks, revolving credit facilities, which helps them navigate tightening liquidity.

Most global airlines prefer leasing aircraft to owning aircraft. The main source of profit in the aircraft leasing business arises from leasing aircraft at rates that are high relative to the cost of borrowing.

Revenue Sources (Approximate index of order of magnitude)	Expenditures (Approximate index of order of magnitude)
Lease revenues (100)	Depreciation and amortisation (100)
Maintenance revenues (13)	Interest expenses (77)
Sales of aircraft (variable)	Leasing expenses (22)
	Selling, General and Administrative Expenses ("SG&A") (16)

### Revenues for Aircraft Lessors

An article on ft.com on 10 May 2020 revealed that 16 well-known European airlines had an average of about 7 months of working capital to survive in an environment where the airlines have no revenue. The range of months of working capital ran from 2 to 17. Airlines that had hedged a rise in the price of oil using long futures positions as opposed to long call options, are experiencing a reduction in their cash balances at a rapid rate due to the fall in oil prices requiring them to post variation margin on long futures positions.

Many airlines are still operating albeit at a small fraction of capacity. Airline travel has suffered serious disruptions before including Sars, 9/11, and the Global Financial Crisis. The assumption of airline operators is that passenger demand will return because it always has in the past.

*Disclaimer: The opinions expressed in this paper are those of the authors and not necessarily those of their employers or the Society of Actuaries in Ireland. Whilst care has been taken to ensure the accuracy of the information in this paper, the Society of Actuaries in Ireland does not accept any responsibility or liability for any errors and/or omissions, including any errors and/or omissions in the data on which this paper is based. This paper does not constitute advice and should not be relied upon as such. The Society of Actuaries in Ireland and the authors do not accept any responsibility or liability for any loss to any person or body as a result of any action taken, or any decision taken not to act, on foot of any statement, fact, figure, expression of opinion or belief contained in this document.*

The demand for air travel is highly correlated to World GDP. In April 2020, the IMF projections suggest that the global economy will contract sharply by 3 percent in 2020. This level of contraction is worse than during the 2008–09 financial crisis. In its baseline scenario, the IMF assumes that the pandemic will fade in the second half of 2020, containment efforts can be gradually unwound, and that in 2021, with policy support, the global economy is projected to grow by 5.8 per cent as economic activity normalises.

Many airlines are therefore likely to seek some level of lease payment deferral or relief. The normal option open to aircraft lessors when an airline fails to make lease rental payments is to repossess the aircraft and then re-lease the aircraft to another airline elsewhere in the world does not exist because of the global nature of the COVID-19 pandemic. Thus lease rental deferrals or renegotiation of the economic terms of leases are inevitable.

Although we do not know the terms of such deferrals or reliefs, it is unlikely that lessors will agree to such requests where airlines are in receipt of financial aid from their government.

The publicly quoted aircraft lessors like AerCap and Air Lease tend to have fleets of new-generation aircraft which have the best fuel efficiency in the industry and long life spans. Where airlines are scaling back their operations to meet likely lower levels of demand over the next four years, they are most likely to wish to retain on lease the newer and more fuel efficient aircraft and, where they can, renege on the leases on older and less fuel-efficient aircraft with pending expensive maintenance costs where it makes no economic sense to stay with older technology aircraft.

Aircraft lessors might classify their debtor airline clients into the following four broad categories:

1. Airlines not expected to require creditor support during COVID-19.
2. Airlines with which lessors might agree a moratorium in lease rental payments for a period of up to four months subject to the deferred amounts being repaid with interest<sup>1</sup> over the twelve months after the end of the moratorium.
3. Airlines with which lessors might agree a moratorium in lease rental payments for a period of between four and eight months subject to the deferred amounts being repaid with interest over a period of twelve to twenty-four months after the end of the moratorium. In some cases, the lessor may seek an extension of the lease term as part of the granting of a moratorium.
4. Airlines which are expected to go into liquidation requiring the aircraft lessor to repossess the aircraft and place it in storage for a period of at least year while the lessor attempts to re-lease the aircraft to another airline at what is likely to be a significantly lower lease rental rate. Storage costs for an aircraft for a year are somewhere in the region of USD250,000 for a narrow-body (single aisle) aircraft. Such costs may only be the tip of the iceberg if the

---

<sup>1</sup> There seems to be some evidence that airlines with stronger balance sheets will be charged a higher rate of interest than those with weaker balance sheets.

aircraft has to subsequently be modified or reconfigured to meet the requirements of a new lessee. For wide-body (twin aisle) aircraft, storage, modification, and reconfiguration costs are a multiple of those of a narrow-body aircraft.

An aircraft lessor faced with a category 4. debtor may suffer significant losses. In some cases, the repossessed aircraft may be relatively old and in a poor maintenance condition. The cost of restoring the aircraft may not justify the expense particularly in an environment of substantially lower lease rental rates. In such cases, the aircraft may be stripped down into its component parts, the more valuable of which may be sold to provide some small return to the lessor. This process is known in the industry as 'part-out'. While the option of converting a relatively old aircraft to a freight aircraft may exist in theory, this would come at a cost of something of the order of USD5.0m. The difficulty here is that slots for such work have to be purchased in advance and there is a lead time of about twelve months. Few aircraft lessors would be prepared to spend USD5.0m as a bet on the demand for freight aircraft one year into the future.

Depending on the age and fuel efficiency of the aircraft on lease, the distribution of airlines across the four categories above, and the average remaining lease term, aircraft lessors are likely to have to forego at least 15% of anticipated lease payments for the remainder of 2020 either as a result of outright default or agreements to defer lease rental payments. According to JPMorgan<sup>2</sup>, in 2021, it is unlikely that more than half of the deferred lease payments will be recovered. Aircraft lessors generally have some cushion against defaults and deferrals of lease payments through the security deposits and maintenance reserves they collect from airlines.

Further, once current leases expire, follow on leases of aircraft are likely to be at substantially discounted lease rental rates because of the impact of the COVID-19 pandemic on passenger demand and the expected excess supply of aircraft.

### **Aircraft Lessors: Sources and Uses of Funds Issues**

The capital expenditure of aircraft lessors is likely to reduce over the remainder of 2020 and certainly not increase during 2021, both of which help in managing short-term cash flow. Lessors with good risk management will have ensured that if an airline cancels its order for the lease of an aircraft it can cancel the corresponding order for the delivery of the aircraft from Boeing or Airbus or other relevant manufacturer.

The major lessors are likely to have access to lines of credit, revolver loans, from banks which provide lessors with access to cash to meet scheduled debt repayments, the expenses of aircraft maintenance, and other contractual commitments. These lines of credit provide lessors with sufficient liquidity to weather the downturn in aviation travel. In recent years, the aviation asset-backed securities ("ABS") market has been a popular vehicle for large lessors to take portfolios of

---

<sup>2</sup> Aircraft Leasing & Airlines - Latest Thoughts on Disaster Aid; Estimates Reduced for Lessors; Equity & Credit Commentary – 21 March 2020.

aircraft off their balance sheets in return for cash and also for smaller lessors to raise debt capital at lower costs than they could otherwise. ABS vehicles will be particularly exposed in the current crisis by nature of their structuring; already, yields on the more highly-rated aviation ABS securities have drifted out from pre-COVID-19 levels of 4% to over 12%. The issuance of new ABS vehicles will be moot for some time.

As at 15 May 2020, none of the credit rating agencies have downgraded the bonds of the major publicly quoted aircraft lessors in the U.S., AerCap (Symbol: AER) and Air Lease (Symbol: AL). However, the yields on 10-year bonds issued by AerCap and Air Lease have increased to levels that reflects a BB rather than a BBB rating.

### **Aircraft Lessors: Balance Sheet Issues**

The COVID-19 pandemic has caused the number trades of aircraft in the secondary market for aircraft sales and purchases to dry up almost completely. This makes the role of aircraft appraisal firms which provide guidance on the current market value of aircraft extremely difficult as there are virtually no transaction data to guide their valuations. Some aircraft appraisers have taken the view that they should retain the value of aircraft at their pre-COVID-19-pandemic levels as there is a dearth of data upon which to base reliable valuations. Others, such as Oriel, have lowered the market value of certain narrow-body (single aisle) aircraft by up to 8% and certain wide-body (double-aisle) aircraft by up to 20%.

The other role performed by appraisers is to forecast the base value of aircraft over their future economic life. This is important for assessing the loan-to-value ratio of aircraft ABS and other debt instruments during the term of a loan. Such appraised base values are calculated on the assumption that there is a balance between the supply and demand for the relevant aircraft. This assumption is unlikely to hold for the foreseeable future as the supply of aircraft is likely to outstrip demand for some time. Over time, the supply-demand equation is likely to be rebalanced to some extent by earlier retirement of existing fleets (e.g. part-out at 18 years instead of 25 years) and potentially lower output from Boeing and Airbus.

### **After the Pandemic**

When the pandemic abates and some semblance of normality returns to the airline industry, there are likely to be fewer airlines. As part of their credit risk management, lessors and other creditors such as banks are likely to consider as part of their stress testing, the scenario where the revenue of an airline collapses to almost zero over a period of a week and remains like that for three months. Such a stress test is likely to lead to loan and lease covenants which restrict the range of actions open to airline management to certain very limited circumstances. Such actions might include: (i) the payment of dividends; (ii) the buying back of shares by airlines; and (iii) fuel cost hedging policies involving the use of long futures contracts as opposed to long call options. In turn, this improved credit risk management by lessors may boost their own credit ratings and allow them to raise debt at a lower cost.

*Disclaimer: The opinions expressed in this paper are those of the authors and not necessarily those of their employers or the Society of Actuaries in Ireland. Whilst care has been taken to ensure the accuracy of the information in this paper, the Society of Actuaries in Ireland does not accept any responsibility or liability for any errors and/or omissions, including any errors and/or omissions in the data on which this paper is based. This paper does not constitute advice and should not be relied upon as such. The Society of Actuaries in Ireland and the authors do not accept any responsibility or liability for any loss to any person or body as a result of any action taken, or any decision taken not to act, on foot of any statement, fact, figure, expression of opinion or belief contained in this document.*

In aggregate there is possibly more risk in this asset class than was perceived previously; global diversification of fleet cannot fully protect from pandemics such as COVID-19. In the future, this extreme risk is likely be priced into the cost of debt and equity.

### **Conclusion**

Compared with airlines, aircraft lessors have a more robust business model to withstand a sharp drop in passenger demand for a short period of time. This is principally due to the long-term contractual nature of their revenues, their ability to reduce capital expenditure on new aircraft when revenues slow by, for example, cancelling orders with aircraft manufacturers, and their access to lines of credit such as revolver loans to meet scheduled debt repayments and maintenance expenses.

***Disclaimer:** The opinions expressed in this paper are those of the authors and not necessarily those of their employers or the Society of Actuaries in Ireland. Whilst care has been taken to ensure the accuracy of the information in this paper, the Society of Actuaries in Ireland does not accept any responsibility or liability for any errors and/or omissions, including any errors and/or omissions in the data on which this paper is based. This paper does not constitute advice and should not be relied upon as such. The Society of Actuaries in Ireland and the authors do not accept any responsibility or liability for any loss to any person or body as a result of any action taken, or any decision taken not to act, on foot of any statement, fact, figure, expression of opinion or belief contained in this document.*