

**Insights**

## **ENGINE LEASING AND FINANCING – WHAT IS THE ATTRACTION?**

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### **The attraction**

In recent years there has been an increased interest by investors (as owners and financiers) in investing in aircraft engines as a stand-alone asset class. Considerations that have attracted investor interest in aircraft engine ownership include:

- the fact that aircraft engine rentals have traditionally been more robust than aircraft rentals. Engine manufacturers generally manage to supply spare aircraft engines to match aircraft deliveries and forecast of fleet utilisation. Thus, the supply of spare aircraft engines tends to be consistent with demand, resulting in generally stable levels of availability\*\*
- that aircraft engines can be very easily removed and transferred from one aircraft to another of the same type
- unlike aircraft, aircraft engines will not need reconfiguration work before being placed with other operators. Thrust rating adjustments and customary maintenance to align with the next operators commercial (or fleet) requirements may be necessary, but would not usually involve extensive maintenance work
- the homogeneity of aircraft engines means that they are easier to remarket to subsequent lessees or purchasers (in contrast, aircraft are usually configured to a specific airline's requirements and need to be reconfigured at significant cost and time)
- leased spare aircraft engines are now essential to the operations of an airline. In recent years, there have been an increased number of airline operators (particularly in new and emerging markets) and the growth of Low Cost Carriers (LCCs), which has led to airline fleet fragmentation from legacy carriers. Smaller airlines prefer to lease aircraft engines to avoid cash investments being trapped and legacy carriers now use leased aircraft engines to exercise flexibility (for supply and return) and divesting residual value risks with aircraft engine lessors.

Notwithstanding the above considerations investors have also had to factor in the commercial and technical aspects of civil aircraft operations, and the relevance of varied jurisdictional, regulatory and environmental pressures that might upset historic life cycles and values of any aircraft engine type into their assessment of asset risk.

\*\* It has to be said that this is probably not always true in respect of certain new technology engines where there have been significant delays caused by developmental issues.

## **The economics**

The economic life of an aircraft engine is limited by the market for the airframe types it supports as it can achieve longer life than any given airframe. Subject to proper overhaul maintenance, aircraft residual values tend to depreciate over time and during that time the proportion of the overall value of the aircraft (as a complete unit) shifts within its constituent parts such that the engines (properly maintained) form an increasing part of that overall value.

At any given time a high proportion of the value of an aircraft engine lies in its condition/maintenance status and in the records that evidence that status. The service life/value of an engine can be restored through the installation of new life limited parts (LLPs). Indeed, following a full refurbishment, the value of an aircraft engine can exceed that same engine's value on delivery, as a result of inflation in the value of parts installed. There will come a tipping point in an engine's economic life (usually once the aircraft engine type or aircraft they support begins to be retired from the global fleet) at which it is no longer sensible to restore the engine and at that point the engine (like the airframe) is likely to have little more than a scrap value.

Customary factors used by investors to evaluate a lease-end or investment-end residual value are:

- the entry purchase price level
- the depreciation policy
- engine maintenance status
- in the case of a secured lender, the loan to value periodic appraisals
- the Original Equipment Manufacturer (OEM) aftermarket support
- the relevance of maintenance reserves (absent power-by-the-hour arrangements)
- airline utilisation
- regional environment severity
- operator (lessee) creditworthiness

Investing in aircraft engines (whether as an owner/lessor or a secured lender) requires periodic monitoring of maintenance-adjusted values. To be able to understand changes in those values requires a good technical understanding of aircraft engine conditions and an ability to review records and modification status. Data-enabled technologies are available that allow an owner/lender or airline to do this, as well as to know the location of an aircraft engine and to determine fleet plan strategies for aircraft engine swaps to maximise each aircraft engine's life.

## **Conclusion**

Investment in aircraft engines holds a broad appeal to those investors and financiers interested in mobile assets with robust returns. Any successful investment in this asset class will require financiers and investors to have a strong grasp of the underlying economics and in particular the factors impacting rental returns and residual values.

Knowing your engine, its operating environment and maintenance status is as relevant as knowing the operator. Engines are highly moveable assets and warrant a granular and not just a high level understanding.

In the next instalment of "*Engine Leasing and Financing, the Fundamentals*" BCLP's global aviation finance team will consider the legal risks associated with engine leasing and the mitigating impact that the Cape Town Convention/Aircraft Protocol has had on those risks.

## **RELATED PRACTICE AREAS**

- Aviation Finance
- Transport & Asset Finance

## MEET THE TEAM



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