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ARE FREIGHTER CONVERSIONS GOOD LEASE INVESTMENTS?

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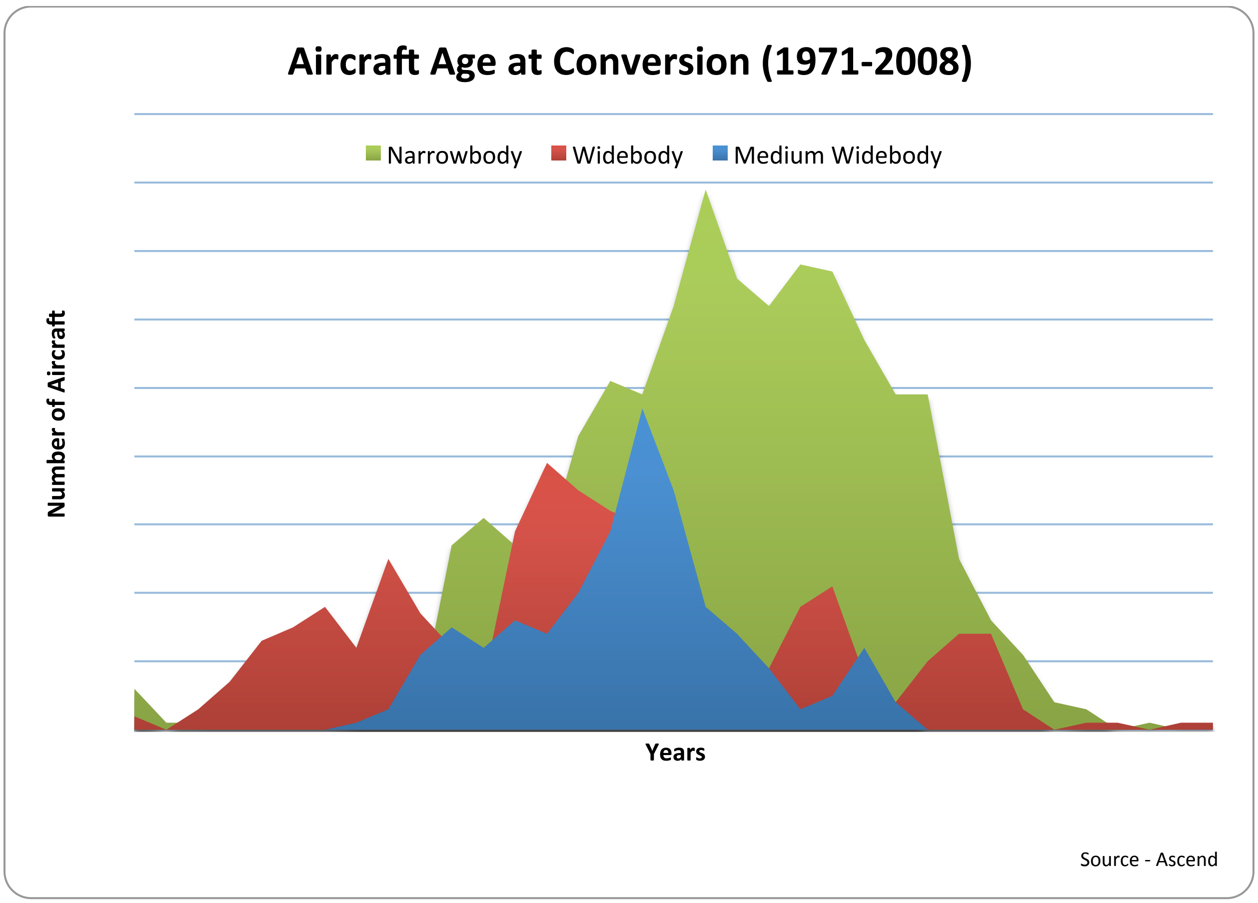
Passenger to freighter conversions are an essential element for a viable commercial air cargo market where cost is king. The air cargo value proposition for shippers is constantly being tested against faster, more reliable ocean, rail and road networks. The cargo airlines' drive to continually drive down cost is manifested in a robust market for converted freighter aircraft. Given that the capital cost advantage of a converted freighter versus a new freighter of the same model is substantial, it is no surprise that three of every four freighters is a converted passenger unit. With a twenty year forecast requirement of almost four thousand additional freighters needed for growth and replacement, there is a compelling and substantial requirement for financing in this vital transportation sector.

Since the overwhelming majority of commercial passenger aircraft are either leased or financed and freighter conversion is a costly and irreversible modification, it is natural to assume that the financial community would be keenly interested in ensuring that a capital outlay for conversion must meet yield a satisfactory return on investment. Unfortunately, many variables in a realistic ROI calculation are difficult to quantify at the time the investment is made. This article will discuss the principal elements that must be considered for a freighter conversion investment and the difficulty inherent in doing so successfully.

Should a lessor invest in a freighter conversion?

Operating lessors continually evaluate their portfolios. Earnings performance is measured against assumptions made at the time of the initial investment, residual value assumptions are updated, changes in lessee credit standing are reviewed and aircraft maintenance and records are inspected. In addition aircraft with leases that will be terminating are evaluated with respect to post lease disposition. Depending on market conditions a lessor has a range of options available from renewing with the existing lessee, finding a new lessee, selling the aircraft, part out and finally freighter conversion. If the lessor determines that the aircraft type is a suitable candidate for conversion, they must then answer a series of questions to decide whether an investment in conversion would be warranted:

1. Will a conversion improve or extend the earning power of the asset? Given the substantial investment for the conversion, if demand still exists for the aircraft in passenger configuration, it is highly unlikely that the investment will improve the ROI enough to justify the expense. Freighter conversion is typically only viable when the passenger customer base is dwindling or exhausted and/or passenger lessee bridging costs are prohibitive (e.g. 747-400). The most obvious reason for erosion in passenger demand is aircraft age. The average age at which aircraft are converted ranges from 16 years for widebodies and 19 years for narrowbodies (see Graph).



The optimal conversion age range is most likely is 12-22 years with aircraft younger than 12 years having more earning power in passenger configuration and aircraft older than 22 years having insufficient useful life remaining to justify the conversion investment. Economic cycles will result in shifting the conversion window with down markets (i.e. full aircraft storage lots) seeing younger conversions and boom times seeing aircraft remaining in passenger service longer. If the lessor's aircraft is in the conversion window during a period of weak passenger market demand and the aircraft is too young to part out, conversion should be considered an option.

2. Is a decline in popularity for the aircraft type likely in the next few years and conversely is demand developing for the aircraft as a freighter? The last five years have seen an unprecedented bull market for certain passenger aircraft types that also are excellent freighter candidates. With the prospect of strong profits for passenger aircraft leases, lessors continued to lease into the passenger market and cargo conversions were delayed. It is now painfully clear that period of prosperity has ended and the time has come for those delayed conversions to be reconsidered.

   For example, the 767-300ER enjoyed an extended period of strong demand as traffic grew rapidly and operators awaited the availability of the next generation of aircraft. Currently, a significant global economic downturn has begun weakening demand for the 767-300ER. Further weakening can be expected once the delayed 787 program is back on track and deliveries begin. This one-two punch combined with developing demand for the freighter variant means that freighter conversion is will become a viable option for the 767-300ER. In fact, had the 787 program not been delayed, 767 values would already be at the point where conversion may be the most desirable course of action. As a result of the 787 however, the 767 lessor with near term lease expirations must weigh the prospect of declining rental rates, shorter leases and weaker credits in the passenger market against a conversion investment that will ultimately yield higher rents and longer leases in the freighter market.

3. Should freighter conversion be considered on a speculative basis? The above example of the 767-300ER provides a good theoretical example, but it remains a thin argument upon which to hang an investment decision. While a conversion and leaseback of a lessor owned asset with an existing lessee seeking to operate the aircraft in freighter configuration requires a reasonably straightforward analysis, the variables with a speculative conversion tend to discourage all but the most courageous lessors. Speculative conversions require assumptions to be made with limited supporting empirical data. These assumptions include but are not limited to post conversion lease rates, expected lease terms (e.g. three 2 year leases or one 6 year lease?), and most critically, revised residual value assumptions. Although there are several reasonable methods to calculate the residual value of a converted aircraft, none have been accurately calibrated due to the lack historical data and as a result conversion residual value assumptions are merely educated guesses. While specific opportunities may provide a rational basis to consider speculative conversion, doing so obligates the lessor

to an investment almost equal to the value of the existing asset and requires a thorough understanding of market dynamics before plunging ahead.

Why not invest?

As indicated previously, one option available to a lessor is an asset part out. If the aircraft type is not a viable conversion candidate or an investment decision is required when the market is not favorable for conversion, then this option may well be the best (or least painful) option for the lessor. The need for capital infusion is avoided and the investor has the ability to write down the asset while the airframe, gear and engines are harvested.

Even if the market conditions are favorable for conversion, the lessor must determine if there is sustainable demand for the aircraft type as a freighter. Converted freighter market demand is largely dominated by the three integrators (FedEx, UPS and DHL) who together operate almost 45% of the current jet freighter fleet. On the other end of the spectrum, 70% of the two hundred or so operators have fleets of less than 10 aircraft. In between these extremes are flag carriers that typically self-finance their aircraft. Therefore when the integrators and flag carriers are excluded as potential lessees, the remaining market is primarily small operators that usually lease for shorter periods, require higher reserve balances and struggle to compete against their larger competitors. While there are exceptions to every rule, the lessor considering a freighter conversion should proceed only with a comprehensive understanding of the risks and rewards of this niche market.

When is the ideal time to invest in a freighter conversion?

Like the ancient rituals that require a precise alignment of the planets to be effective, the ideal time to consider a conversion investment requires the presence of the certain ingredients in the right mixture:

Candidate Aircraft Success in the passenger market does not guarantee success as a freighter conversion. Despite almost identical characteristics in a passenger configuration, aircraft types in the same class may yield vastly different freighter qualities. Fuselage cross section, operating weights, engine variants, fleet dispersion, OEM support, and freighter market payload/range requirements are just a few of the factors that define a successful conversion candidate. Unsuccessful or marginally successful aircraft types abound and include the L1011, 707, and MD80. Alternatively, aircraft types that are suitable candidates must also be at a market price point that is likely to yield a profitable post conversion asset.

Overpaying for the right aircraft type can be just as devastating in the long run as converting the wrong aircraft type. Needless to say, given the cost and finality of the conversion, choosing the right aircraft type at the right price is absolutely essential.

Capital

Debt and equity comes in many shapes and sizes. The mere mention of rendering an aircraft temporarily unfit to fly while a multi-million dollar hole is cut into the fuselage sends many lenders running for the hills. While equity may be readily available to acquire aircraft for conversion and the buyer may already have a post conversion lessee lined up, the investment almost certainly must be leveraged with an adequate ratio of debt to be profitable. Convincing a traditional lender to advance funds using an aircraft slated to undergo conversion during which time it will not be airworthy or generating any income is challenging in the most benign lending environments. The 2009 traditional aircraft lending environment can only be described as bleak. An asset owner planning to convert aircraft near term should already have a debt commitment in hand or make the assumption that 100% equity will be required at least until the conversion is completed. On the positive side, current economic conditions should drive aircraft values low enough that aircraft may be acquired for conversion at prices that will profitably support an all equity investment. Investors with strong liquidity and an understanding of freighter conversion are likely to capitalize on near term favorable market conditions and provide the stimulus to reinvigorate the conversion market.

Conversion Capacity

Given the dramatic movements in the used commercial aircraft and air cargo markets, conversion providers face the daunting task of properly gauging production capacity required to meet the expected demand. As recently as 18 months ago conversion slots less than 12-24 months in advance for popular aircraft types were not available. Fast forward to 2009 sufficient capacity for all popular types is abundantly available and, as the saying goes, priced to move. Potential investors with candidate aircraft and properly priced capital are currently in strong position to achieve favorable contract terms and desirable slots.

Customer

The final and most essential ingredient required in successful conversion investment is a customer willing to pay a compensatory price to lease or purchase the converted aircraft at or near the time the conversion is completed. This is a case where getting three out of the four ingredients is not good enough. As challenging as it is to line up candidate aircraft, capital and conversion capacity in the right amount and at the right time, without a customer ready and waiting at the end of the process, the investment is in trouble from the start. As stated previously, speculative conversions are not for the faint of heart and require a vision of the future few possess. Highly profitable speculative conversion investments have been made over the last 15 years by parties with a higher than average tolerance for risk and a firm belief in the direction of the market, but for the more typical investor, an end user is a prerequisite before a conversion commitment is made.

As is the case with any complex capital decision, asset expertise, sound business practices and an ability to accurately predict the course and timing of key markets are essential elements for a successful conversion investment. It is not the type of investment to be completed and put on the shelf while the returns pile up, but one in which investors must be prepared to roll up their sleeves and actively manage to a successful conclusion. For those with the proper resources and understanding of the risks and benefits, it can be a highly profitable and rewarding experience.

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