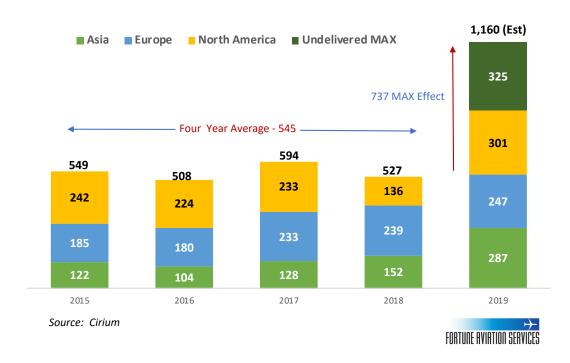


Pending Commercial Aircraft Market Surplus 2020 may prove to be a difficult year for airlines and some aircraft lessors

The next 12 to 24 months likely will be remembered as a turning point for the commercial aircraft market, particularly narrowbody passenger aircraft – unfortunately not in a positive way. In addition to the well-publicized 737 MAX MCAS and related issues (383 aircraft grounded with more being produced and parked every day), the A320/321 NEO is experiencing weight and balance issues causing a decrease in available seats and the 737-800 fleet is impacted by a structural issue ("pickle fork") that is limiting fleet availability and requires an expensive repair. The next generation of narrowbody engines is also experiencing problems, most notably the Pratt & Whitney GTF which powers the A320NEO family, A220 as well as several regional jets. Taken together these issues have created significant problems in the availability and performance of the narrowbody fleet. Furthermore, passenger traffic growth is declining in the principal markets of Asia, Europe and North America. Given these factors, next year promises to be difficult for many aircraft investors and airlines while providing opportunities for others who recognize the impact of aircraft market changes and take appropriate actions.

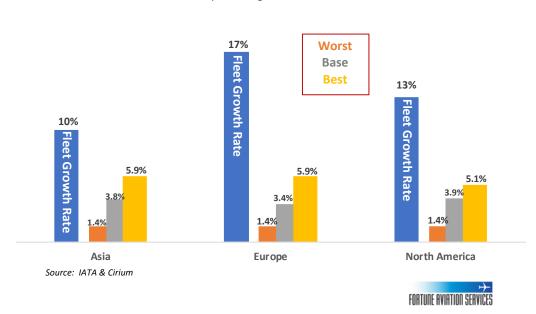


Airbus & Boeing Narrowbody Storage 2015-2019

As indicated in the graph below, the most noticeable impact of the 737 MAX grounding is a 53% rise in stored narrowbody aircraft in 2019 compared to the average of the four previous years. While the raw number of stored aircraft may seem high, they only represent 4-5% in the 2015-

2018 period climbing to 8% in 2019 due to the Max grounding which includes estimated undelivered aircraft. The number of stored/undelivered aircraft likely will continue to grow until the MAX is recertified by the FAA, EASA and other national aviation authorities, not likely until the first quarter of 2020 by which time an additional 150-175 aircraft will have been produced and parked. It is interesting to note that in 2019 the number of stored aircraft other than the MAX did not decline – in some cases an indication that demand was so soft that the capacity represented by the stored aircraft was not needed to replace the unavailable MAX aircraft.

The large overhang in narrowbodies resulting from the 737 MAX grounding and issues discussed previously will be felt acutely in all major global markets. Culprits including aircraft overordering, airline bankruptcies, a slowdown in passenger traffic growth and the MAX return to service will create a significant imbalance between capacity and demand. As indicated in the graph below, narrowbody growth rate (expressed as aircraft units) in Asia, Europe and North America dwarfs the passenger growth rate, even under IATA's best-case scenario.

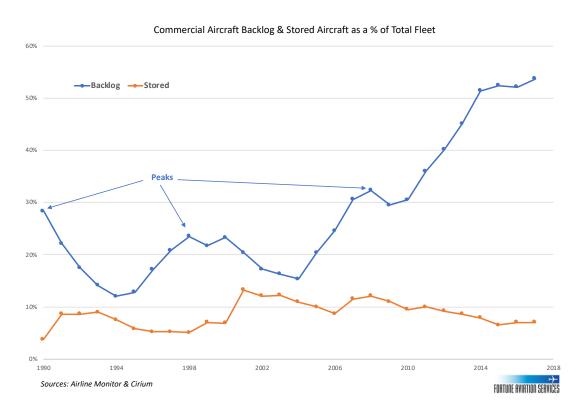


Narrowbody Passenger & Fleet Growth - 2020

The consequences of this imbalance will be felt by all parties including those who manufacture, operate and finance narrowbody commercial aircraft:

- OEMs face the likelihood of order deferrals and cancellations
- With passenger traffic declining, airlines need to consider cancellation or deferral of new deliveries and/or disposition of older aircraft in their fleet
- Since 50% or more of in service or on order aircraft are owned by financial lessors, they
 will need to deal with defaults, early returns, reduced demand and underperforming
 securitizations.

Looking at historical data for commercial aircraft backlogs and surplus, the outlook appears even more uncertain. As depicted in the graph below, there have been three distinct cycles in the aircraft market between 1990 and 2008, with an eight to ten-year interval. When the backlog as a percentage of the fleet peaks, the surplus aircraft as a percentage of the fleet is in a trough. After 2008 this cyclical pattern has not occurred and the backlog as a percentage of the then current fleet which peaked in the previous cycles has ballooned to 54% in 2017. While the reasons for this significant jump in orders has been debated and, in some cases, justified by parties with a vested interest, the fact remains that there is no clear reason why the cycle will not be repeated and the downturn may turn out to be as dramatic as the increase.



In short, it appears that the market will experience a long overdue correction.

Conditions underlying this correction have been building for the better part of a decade. How well prepared are the market participants to manage a correction? The low cost of capital has drawn new entrants into the aircraft financial markets, many of whom do not have history in dealing with a rapid and negative market shifts. Some investors who paid premium prices to enter the market and made aggressive assumptions with respect to residual values and maintenance reserves face a particular challenge.

Unlike the longstanding leasing companies who have experienced one or more market cycles, many new entrants probably do not have the resources to manage repossessions, unfunded maintenance obligations, reduced demand for returned or repossessed aircraft and lower lease

rates. In addition, down cycle disruptions have historically affected yields and liquidity of asset backed securities. Early aircraft securitizations such as AFT, LIFT and PALS were unable to continue servicing principal and ultimately interest on the respective tranches.

While timing and events that precipitate a downturn might be camouflaged by market dynamics, historical market behavior illustrates what might be anticipated. Down cycles present challenges and the potential for substantial losses, which many recent participants are not prepared to address. Excess capacity causes ticket prices to fall as in any supply/demand relationship. Airlines with less than stellar balance sheets will face liquidity issues. Resulting airline insolvencies will bring about bankruptcies, debt and financial restructuring, fleet rationalizations, and aircraft repossessions in the financial/supplier industries supporting these airlines.

Understanding the impact of bankruptcies on factors such as aircraft condition and values requires resources that are different than those used to build portfolios in periods of strong growth. Managing investor assets through the process of airline restructuring requires seasoned experience and knowledge in aircraft technical issues and financial structuring.

The best time for investors with portfolios at risk is to take action before market conditions become more acute. Although a correction of this sort will be challenging, there are strategies and tools available to assist investors in managing their way to the market recovery. For those investors looking for buying opportunities, the next two years will be an excellent time to enter the market.

Fortune Aviation and its affiliated companies have experience in assisting investors deal with adverse market conditions. We would welcome the opportunity to discuss these options with you know, so that we can help you prepare effectively for the challenging market conditions.

Fortune Aviation Services LLC
Stephen J. Fortune
T +1.240.401.3115
sfortune@fortuneaviation.com
Fortune Aviation.com