



Covid-19: Implications for the commercial aviation industry

A playbook for navigating turbulence

While the worst may be behind us, recovery remains far off in the distance. The industry must now prepare for a long, turbulent journey towards an ambiguous “New Normal.”

The surest way out of this crisis is for all of players – and governments – to work in tandem to put airlines back in the air and get revenues flowing again.

Stakeholders that plan well and act decisively have the opportunity to emerge as winners.

Aviation has braced for turbulence

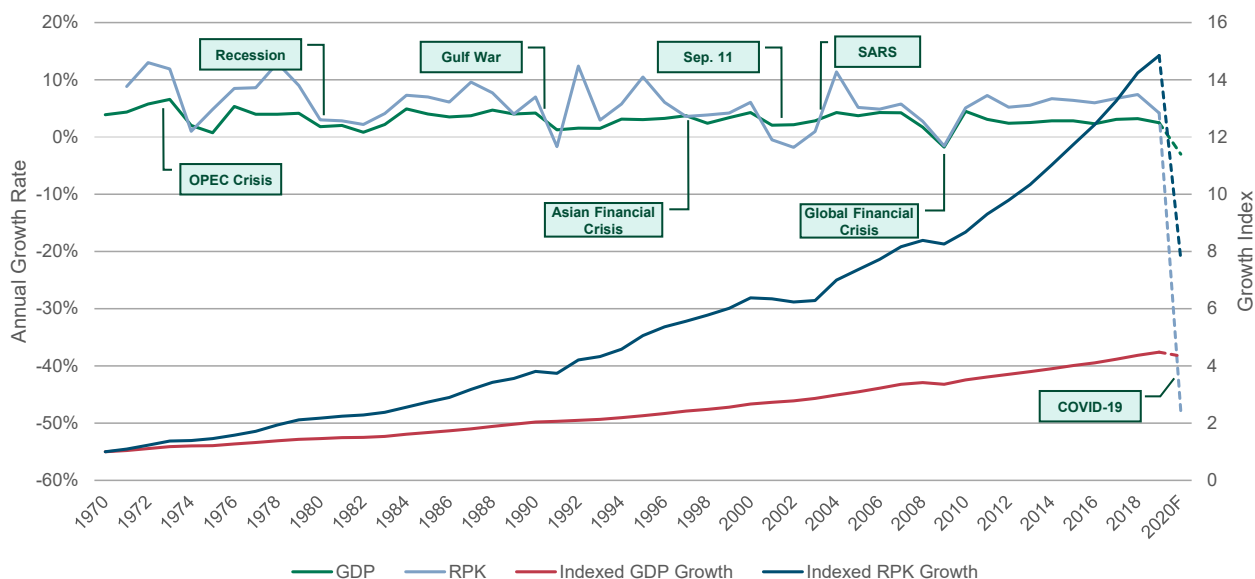
The Great Aviation Pause

Since the beginning of the pandemic, Covid-19 has devastated air travel demand, with the number of scheduled flights down by 65% in the first week of June 2020 as compared to the same week last year.

This crisis is unlike anything else the industry has seen before, challenging the 50-year paradigm of air traffic being resilient to shocks of all sorts.

Covid-19 Outbreak has had a Dramatic Impact on the Global Aviation Industry

Gross Domestic Product (GDP) and Revenue Passenger Kilometres (RPK) growth rates



Source: IATA, IMF, USDA ERS, Fitch Ratings, The Airline Monitor

Note: RPK = Revenue Passenger Kilometres, a common measure of air traffic demand

Nevertheless, as with previous shocks, we can all take comfort knowing that there will be an eventual recovery. Whether it will take a U, an L or a W shape will largely depend on:

- Public healthcare responses to virus containment, especially in subsequent waves of virus propagation and population immunity
- The state of the economy and disposable incomes once lockdowns and travel restrictions have been lifted, particularly after economic stimulus packages for businesses and individuals have taken effect
- Domestic and international healthcare policies affecting travel and tourism, and how well different governments will coordinate their efforts, and
- Public perception of air travel safety, and whether demand will undergo any fundamental shifts.

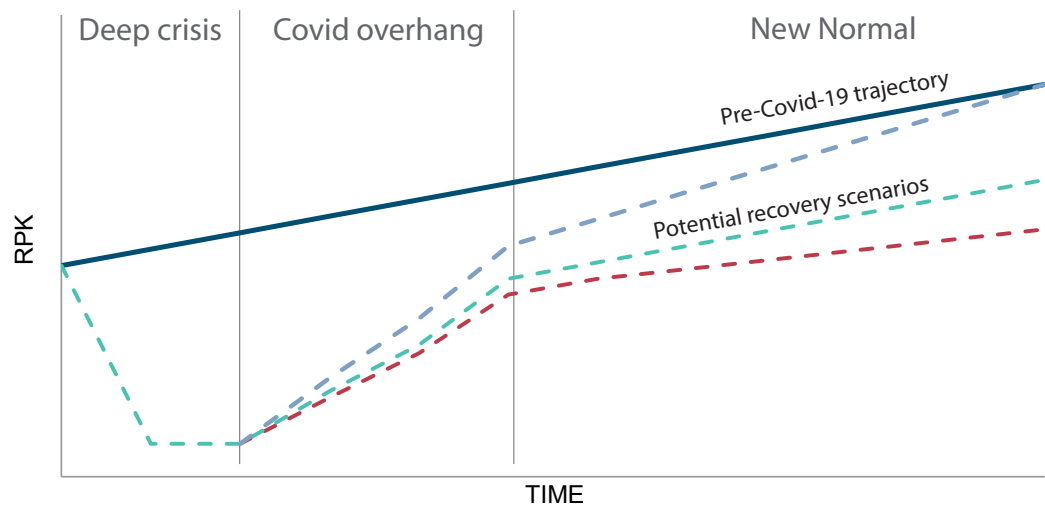
The Path to Recovery

Irrespective of the recovery shape, the industry will eventually follow a three-phase recovery path:

1. The current phase of a deep crisis
2. A period of somewhat resumed activities with a large “Covid overhang”, and
3. An eventual “New Normal.”

How well industry players weather the turbulent Covid overhang period will determine in what state they will arrive at the New Normal – if at all.

Several Possible Demand Recovery Trajectories



Source: Alton Aviation Consultancy



Light at the End of the Tunnel?

As countries gradually lift quarantine measures and selectively resume domestic and international travel, we are cautiously optimistic that the deep crisis phase may come to an end in the not-too-distant future.

In the Covid overhang phase, expect further dips and rebounds as various global regions get hit by recurring waves of virus until a vaccine is widely available. While it is unclear how long this period will last, we expect at least 18-24 months until air travel settles down into the New Normal.

For industry stakeholders, this means bracing for challenging times and managing ambiguity – but also an opportunity to restructure and come out of the crisis stronger than before.

Industry Needs a Better Plan

Companies have taken drastic measures to address immediate challenges. Now they need a more robust medium-term plan.

Key considerations facing industry stakeholders

- Managing health safety issues for employees and customers – a new consideration going forward, much like security measures implemented after terrorist attacks
- Getting cash in the door – ways to capture a fair share of demand in a shrunk market
- Continuous cost and cash outflow control and resource re-allocation
- Keeping operations running smoothly in times of significant uncertainty
- Addressing the next level of strategic questions and evaluating restructuring alternatives in preparation for the New Normal



The following approach may be useful when planning for a period of Covid overhang

Design a set of plausible recovery scenarios

Plan for the next 6, 12, 18, and 24 months and evaluate financial stance in each of the scenarios. Events evolve and this will help minimize the impact. Scenarios should incorporate external and internal factors, including levels of travel demand, fleet profiles, oil prices, financial support, changes to competitive landscape, etc.

Identify a long list of interventions

They should consist of no-regret moves (e.g. capacity rationalization), more aggressive actions triggered as specific scenarios unfold, and big strategic moves (e.g. spin-offs) that need to be planned in advance so the company can move fast once it has a green light.

Identify specific triggers that would “activate” interventions

This can include cash flow position, performance of resumed operations or competitor moves.

Develop tracking mechanism and dashboards

Best practice is to set up a separate intelligence task force that is 100% dedicated to following the evolving situation.

Embrace agile decision making and rapid “test and learn” approach

As the situation continues to evolve quickly, traditional methods will not suffice.

Airlines have been fighting for survival for the last few months – now is the time to start thinking about longer-term game plans

Airlines were the first in the aviation value chain to be hit by Covid-19, forced to go on an aggressive cash preservation mission, slashing capacity, grounding fleet, furloughing employees, and seeking government support – all while dealing with pressing safety issues. As we approach the end of the deep crisis phase, carriers will now shift their focus from day-to-day crisis management to planning for resumption of operations.

Network Planning During Covid Overhang

As markets begin to reopen, network planning and scheduling teams will be as busy as ever. Processes that typically take weeks to complete now must run on a weekly, if not daily, basis – airlines got a taste of it when cutting capacities but ramping up operations will be even more challenging.

Thanks to the push from the International Air Transport Association (IATA), “use-it-or-lose-it” slot rules have been widely suspended for the northern summer season. However, with no visibility into slot alleviation for the winter season and beyond, airlines must review their slot strategies – they may no longer afford non-profitable flights just to keep the slots in anticipation for demand recovery.

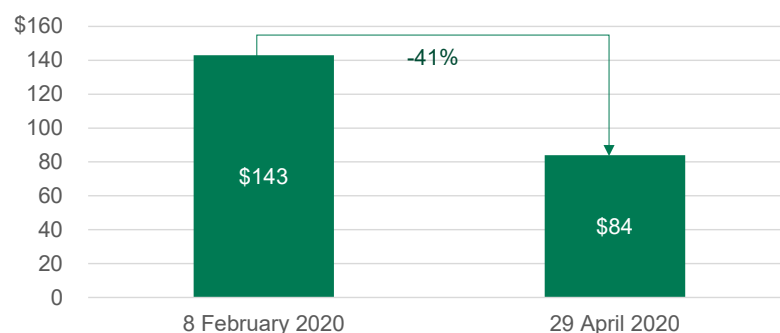
Stimulating Demand for Air Travel

Airlines will realize that what they know about their customers may not hold true in the Covid overhang world and will have to adjust rapidly. Although some of us are eager to resume travelling after months of lockdowns, many will be reluctant to fly, and some businesses have curbed their corporate travel.

Reducing ticket prices may be one way to stimulate demand, even if it means pushing yields even lower – Chinese carriers adopted this approach when domestic market re-opened¹. A promise of superior health safety standards – even at the expense of higher ticket price – could be another. While all airlines need to implement the basics such as new boarding and deplaning procedures, higher cleaning standards and protection for crew, some are taking it further by blocking off middle seats at no extra charge (at least for now) or trialing rapid on-site pre-flight Covid-19 testing².

China Domestic Fares were Cut by 40% as Markets Reopened

China average domestic fares (USD)



Source: IATA

¹ “COVID-19: Cost of air travel once restrictions start to lift”, IATA, May 2020

² Bloomberg news, 21 April 2020

Airlines need clear rules for route re-opening and scheduling, drawing on the insights from their intelligence task forces, closely monitoring competitor actions and taking a hard look at their airport slots. Inevitably, many will emerge from the crisis with much smaller operations

Managing Operations in Times of Uncertainty

Flight operations and frontline teams will need to be well-staffed and well-equipped to run airlines as smoothly as possible during this time. Until the markets stabilize, expect a lot of irregularities as airports and governments update immigration and health safety rules, with some airports and borders potentially closing and re-opening as the situation evolves.

Communication with passengers will be key. While some passengers may be more tolerant to delays and inconveniences, it is critical for airlines to be transparent and keep their customers informed – perhaps even over-informed.

Many operators will need to step up their customer service, which may require additional training for frontline staff to handle new sort of difficult situations and show higher levels of compassion for the customers.

Finding Pockets of Opportunities

This crisis has shown that while historically the cargo market may not have grown as fast as the passenger market, it is more resilient to shocks. In fact, even though IATA data shows that cargo traffic is down 16% in March 2020 compared to March last year, the industry is experiencing a capacity crunch, largely due to sharp reduction in belly hold capacity.

Many airlines including Cathay Pacific and Korean Air managed to reduce bleeding thanks to their existing cargo operations and ability to quickly convert passenger fleet to carry freight¹. For the rest, now may be a time to jump on the cargo train.

¹ Bloomberg news, 25 March 2020

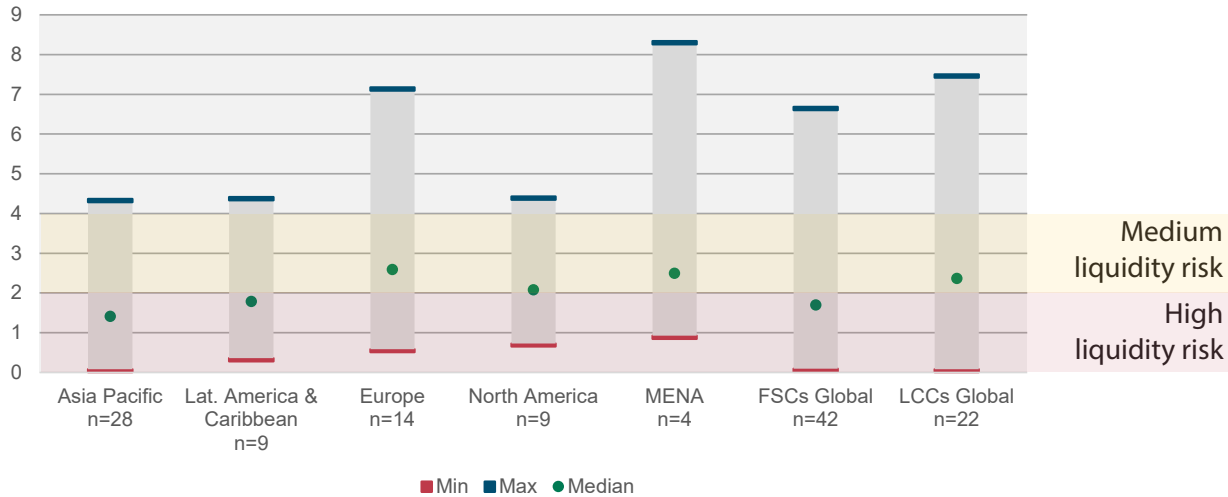


Slashing Costs

Liquidity reserves will be key to surviving the Covid-19 impact, and airlines have already taken drastic cost cutting measures. Now is a time to take a step back and assess if they are sustainable in a longer-term.

Many Carriers Lack Cash Reserves and Financial Resilience to Weather the Crisis

Airline liquidity in months of revenue (as of 18 March 2020)



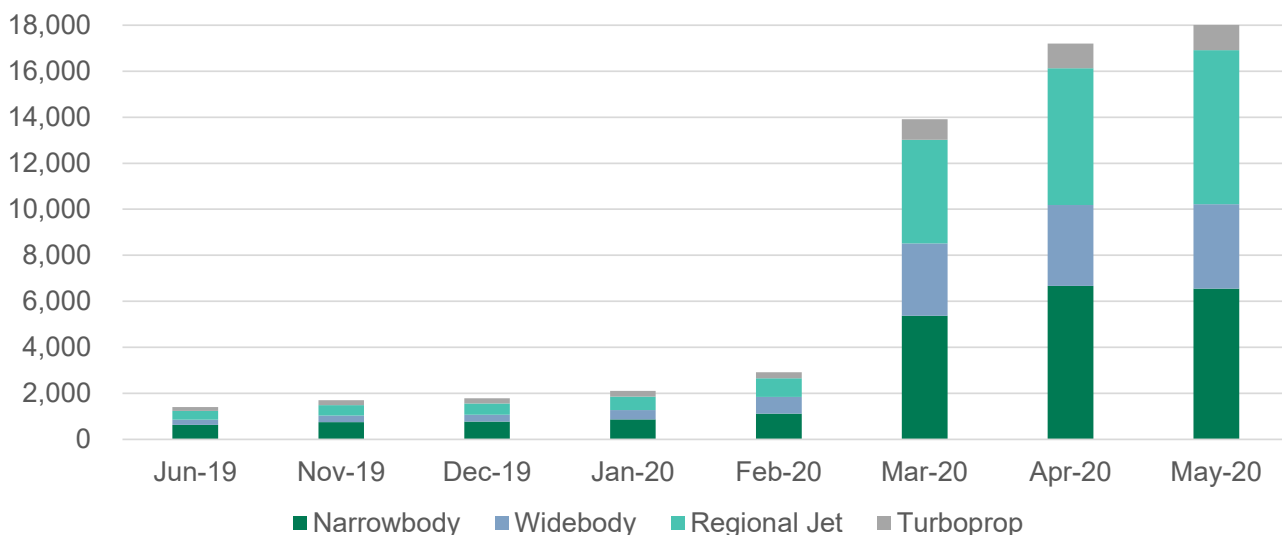
Source: Air Finance Journal, The Airline Analyst, Alton Aviation Consultancy

Note: Liquidity refers to unrestricted cash, FSC - full service carrier, LCC - low cost carrier, n - number of carriers evaluated

Fleet planning is a good place to start. As of 31 May 2020, 68% of the global commercial passenger fleet was inactive due to the impact of Covid-19. Based on the new network plans, airlines must decide what aircraft to bring back to service, what to retire / return, how to restructure aircraft order books and how to leverage unencumbered assets for liquidity. They should use this as an opportunity to simplify fleets, reducing variety of aircraft types and configurations.

There are Currently ~18,200 Parked Aircraft, 13 Times the Number in June 2019

Parked fleet by aircraft type

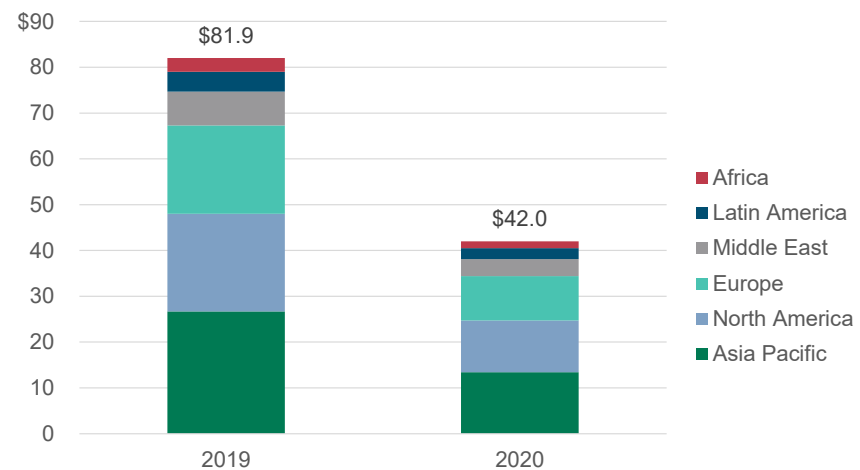


Source: CAPA, Alton Aviation Consultancy

Fleet planning goes hand in hand with engineering and maintenance planning, and airlines can leverage multiple tactics to further reduce costs. This includes deferring non-essential spend, renegotiating maintenance, repair and overhaul (MRO) supplier contracts, outsourcing certain MRO segments, revising maintenance programs, and pursuing alternative materials strategies. In addition, executing green-time programs could help avoid costly shop visits.

Alton Expects Global Airline MRO Spend Decline by 48% in 2020

Global commercial MRO spend forecast by region (USD billion)



Source: Alton Aviation Consultancy

Airlines need a zero-based labor management plan, looking into productivity improvements, new contractual arrangements, process redesign and outsourcing options – all of which will lay a foundation for stronger, leaner operations

Labor is another significant and largely fixed cost for airlines. Many operators have furloughed their employees or put them on reduced hours, some have already made significant permanent job cuts, and plenty – most notably British Airways, SAS and Virgin Atlantic¹ – have announced or warned of imminent retrenchments. As part of a holistic labor management plan, aircraft and crew bases need to be reviewed – while some may no longer be feasible in the New Normal, there may be a business case to keep and even grow others.

Next, airlines will need to re-evaluate their non-aircraft capital expenses and have a hard look at their selling, general, and administrative (SG&A) activities and procurement. The starting point is to develop a complete view of expenses – a “spend cube” – and focus on what is truly necessary vs a historical baseline or budget. No-regret moves include negotiations with key suppliers and putting processes in place to avoid cost creep and ensure savings are re-allocated to critical areas. In the longer-term, airlines may have to revisit their SG&A and procurement approaches, including organizational structures and capabilities.

Thinking Ahead

While operating through Covid overhang, airlines must address the next level of strategic questions, with similar approach: define scenarios and develop options with a clear set of triggers. How will demand change amidst health concerns and people force-exposed to remote work? Should we change our business model and move away from targeting business traffic? What does it mean for our fleet, network, operations, and cost base in the long-term? How do we make sure we can weather another crisis? These are the types of critical questions needed to establish an airline business plan build for the New Normal.

¹ Forbes news, 28 April 2020; CNBC news, 5 May 2020

Lessors have supported struggling airlines with concessions – now they need a structured plan to weather the crisis themselves

With airline revenues in sharp decline, most lessees are seeking commercial concessions from lessors, either in the form of near-term rent deferrals or through broader contract restructurings. When considering the scale of airline revenue deterioration, these concessions are seen as vital mechanisms for airline liquidity preservation, and the absence of such concessions could directly impact the survival prospects of certain operators.

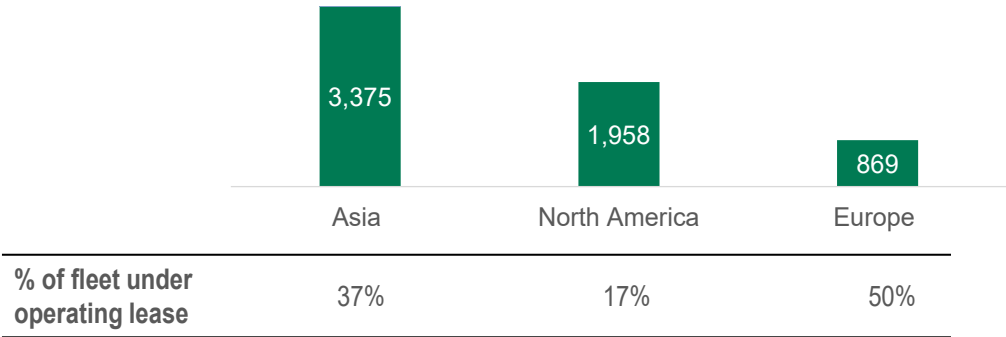
Which Airlines to Support?

While most of airlines globally are severely affected by Covid-19, each operator’s positioning to deal with the crisis varies in terms of existing capital structure, as well as government and shareholder support.

With more restructuring requests coming in the next few months as forward visibility into travel demand improves, lessors should not shy from digging deeply into airlines’ business plans and forecasts to make objective decisions on who to support.

Over 6,000 Aircraft are Operated by “High Risk Carriers”

Global “high risk” fleet by operator region (as of 18 March 2020)



Source: CAPA, TAA, Alton Aviation Consultancy
Note: “High Risk” fleet is aircraft operated by airlines with reported cash and cash equivalents worth two months of revenues or less

Today, lessors grant deferrals as an interim bandage solution, but it is important for them to invest in understanding the positioning of each lessee with respect to both survivability during the current crisis as well as sustainability during and beyond the Covid overhang phase



What Support to Provide

For most lessees, initial relief has come in the form of lease deferrals, typically for a period of 2-3 months. However, this may not be enough, and lessors may be forced to provide further rent relief or early lease termination, leading to revenue reductions and increased exposure to deferred income from riskier lessees.

To mitigate these effects, lessors look for win-win solutions:

- **Accept lower lease rates in exchange for lease extensions beyond the current term.** As a result, airlines can achieve short- to medium-term liquidity relief, while lessors secure further lease terms and avoid future remarketing and reconfiguration expenses
- **Replace cash maintenance reserves with Letter of Credit guarantees** for airlines with good credit standing
- **Accept lease rate reduction or prolonged payment deferral in exchange for sale-leaseback arrangements on airlines' forward orders.** There lies opportunity for well-backed lessors. As evidenced by several high profile sale-leaseback deals over the past months, including Delta Air Lines, United Airlines, American Airlines, Air France, and Cathay Pacific¹, airline demand for liquidity created the opportunity for lessors to gain exposure to top-tier credits at reportedly better yields compared to the pre-Covid-19 environment.

Managing liquidity

Many lessors have an immediate concern to service current debt obligations amidst reduced revenues – especially those who financed aircraft acquisitions on a secured basis and may risk breaching covenants and triggering defaults.

Revising aircraft orders is another area of focus for lessors, and some have deferred or cancelled their orders from aircraft manufacturers. Additionally, certain lessors may also seek to place some of their aircraft orders with lessees in exchange for restructuring current leases.

Lessors are Looking to Right-size their Fleets

| MONTH | COMPANY NAME | QUANTITY | AIRCRAFT FAMILY | DEFERRED/ CANCELLED |
|---------------|--------------------------|----------|-----------------|---------------------|
| FEBRUARY 2020 | Air Lease | 9 | 737 MAX | Converted to 3 787s |
| | Japan Investment Adviser | 10 | 737 MAX | Cancelled |
| MARCH 2020 | ALAFCO | 40 | 737 MAX | Cancelled |
| | Avolon | 75 | 737 MAX | Cancelled |
| | | 9 | A320neo | Deferred |
| | | 4 | A330neo | Cancelled |
| APRIL 2020 | GECAS | 69 | 737 MAX | Cancelled |
| | CDB Aviation | 29 | 737 MAX | Cancelled |
| | | 20 | 737 MAX | Deferred |
| MAY 2020 | AerCap | 37 | Unspecified | Deferred |

Source: Reuters, FlightGlobal, Aviation International News, Airbus and Boeing Orders & Deliveries, Alton Aviation Consultancy

¹ FlightGlobal news, 9 and 16 March 2020, 19 April 2020, 19 May 2020; Reuters news, 30 April 2020

We expect to see an increased portfolio consolidation, with well-capitalized lessors acquiring assets or full portfolios from smaller players and investors looking to rationalize their holdings or forced to sell

Adjusting to Reality

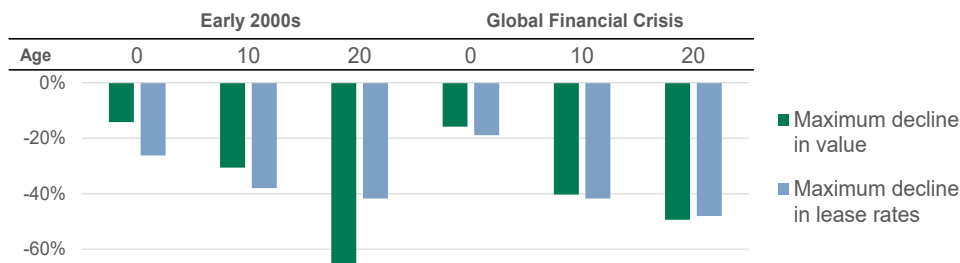
In the medium-term, lessors face a number of challenges and need to prepare mitigation strategies.

Aircraft Valuations and Leasing Rates

In the last 20 years, the aviation industry has persevered through the early 2000s recession surrounding 9/11 and the Global Financial Crisis of 2007-08. During these downturns, appraised aircraft values and leased rates moved significantly even amidst far less severe aircraft demand / supply imbalance than presently observed.

Aircraft Values and Lease Rates Tend to Move Significantly During Downturns

Industry average peak-to-through value and lease rates in prior downturns, by aircraft age



Source: AVAC, Airline Monitor, Alton Aviation Consultancy

Aircraft operating leasing has historically played an increasingly important role in the development of the industry and today remains a mainstream channel for financing aircraft

While risks are always present throughout the aviation industry, and amplified in the current Covid-19 environment, continued growth and expansion of aircraft operating leasing over the long-term is assured

Given pressure on values and rates and limited market for remarketing, it is not surprising that lessors are reluctant to initiate aircraft repossessions. However, as more airlines enter bankruptcy / administration, repossessions will become more frequent and lessors will face significant costs and revenue impact as even new aircraft will likely experience “off-lease” periods. When the market comes back, lessors will face a trade-off between getting the aircraft onto lease at low rates and a longer downtime while waiting for rates to improve.

Lessors with obligations to take new aircraft deliveries may see lessees walking away from lease deals. Pressure to place new aircraft could lead lessors to retire some of their mid-life fleet prematurely, before realizing the value they initially assessed. At the same time, oversupply of new aircraft may significantly reduce demand for secondary aircraft, forcing mid-life aircraft lessors to re-assess their asset valuation strategy.

Green Time Leasing Market

Airlines are expected to retire significant portion of their fleet and execute green time programs, leading to increased aftermarket supply of engines and parts. This could negatively impact the green time leasing market and calls for lessors to re-assess their strategies.

Availability of Financing

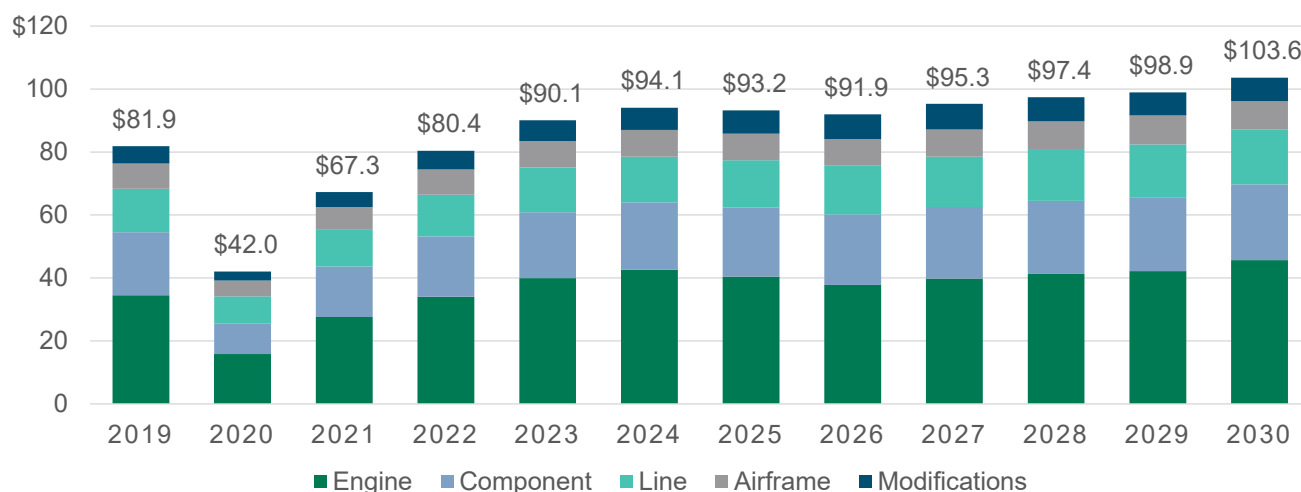
Some of the pre-Covid-19 funding options may disappear, at least for a medium term, while others will have increased risk premiums. For example, while we have seen a large number of Asset-Backed Security (ABS) deals in recent years, this option may be closed in the near to medium term – based on experience from global financial crisis, the market did not return for more than five years. This will ultimately affect lessor profitability, unless increased costs can be passed on to operators in the form of increased lease rates.

MROs must prepare for a low demand / revenue environment, but be ready to expand capacity when demand returns

Only a year ago, we were predicting that the global commercial aviation MRO industry would hit more than US\$82B in revenues in 2020, with skilled labor shortages, limited hangar capacity, and engine overhaul material shortages keeping MRO leaders up at night. Fast forward to today, we project an almost 50% drop in MRO spend in 2020 to US\$42B.

MRO Demand is Not Expected to Reach 2019 Levels until 2022 / 2023

Global commercial MRO spend forecast by category (USD billion)



Source: Alton Aviation Consultancy

The MRO Industry is Highly Dependent on Airline Fleet Planning Decisions

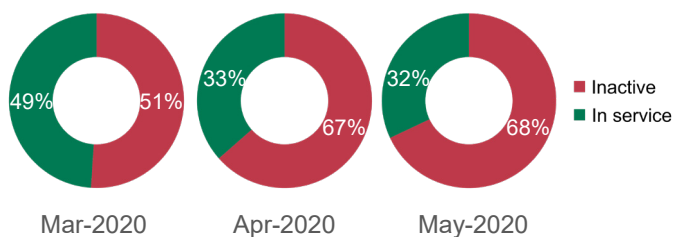
As airlines have grounded fleets, maintenance requirements decline to reflect the reduced wear and tear on aircraft. In addition, airlines are retiring the oldest and least efficient aircraft before maintenance events, reducing the demand for high dollar value checks.

Pre-Covid-19, airlines shifted many of their MRO contracts to variable fee structures, on a per hour or per activity basis – under these contracts, if aircraft do not fly, there are limited to no payments to suppliers, adding another burden on MROs that have invested in capabilities, tooling, inventory, and infrastructure to support those aircraft.

On top of lower volumes, airlines are negotiating MRO fees to further reduce the costs.

68% of Global Passenger Fleet is Grounded, Leading to Significant Drop in MRO Spend

Global commercial passenger fleet



Source: CAPA, Alton Aviation Consultancy

Identifying Pockets of Revenue Opportunities

In the low-demand environment, large volume, high-dollar value opportunities that were a feature in the pre-Covid-19 world may be out of reach. There exist, however, pockets of opportunities to support in the near-term, while positioning for longer-term growth.

- Short-term opportunities with lessors include those that may have to re-possess aircraft and require [lease return / transition check packages](#) to ready aircraft for the next lessee. For airlines that are grounding aircraft, there are [temporary storage maintenance activities](#) to keep aircraft in airworthy condition, in preparation of a return to service.
- In a medium-term, there are opportunities to deepen cooperation with airlines. Well-backed MROs could look into [sale-leaseback deals on aircraft parts or engines to help airlines with their liquidity](#), while entering into long-term MRO contracts to support the airline. There may still be scope to win new contacts as well, as some airlines may be looking to convert their fixed MRO costs to variable.
- As airlines seek to reduce their cost base, adoption of [Used Serviceable Material \(USM\) parts](#), [Designated Engineering Representative \(DER\) repairs](#), and [Parts Manufacturer Approval \(PMA\) parts](#) that cost a fraction of Original Equipment Manufacturers' (OEM) new parts into maintenance and procurement procedures will be the new norm. MROs with service offerings that incorporate an array of alternative materials offerings will benefit from providing their customers with choices.
- Airlines may require [aircraft retrofits](#), either for reversible cargo configurations involving seat removals or permanent freighter conversions. In addition, airlines may request [seating configuration changes](#) to enhance health safety.
- In an effort to diversify, MROs can [look into business aviation and defense](#), even if these markets may not provide the volume and topline dollars of commercial MRO. Defense, in particular, is fairly resilient across business cycles – albeit some countries plan defense budget cuts on the back of Covid-19 related spending.
- And looking ahead at what the New Normal portends for air travel, [innovative products that will be retrofitted onto aircraft present another opportunity](#) – from better high-efficiency particulate air (HEPA) filters to capture and eliminate germs, to anti-microbial coatings and materials, and to innovation in seating configuration and design.



Increasing Flexibility to Weather Covid Overhang

During times of crisis, MRO has typically been seen as low hanging fruit: first spend category to be cut going into the crisis, and last to be restored coming out. This creates a whip-saw demand effect and calls for agile plans that provide flexibility in workforce structures and infrastructure capacity:

- Plan for the whipsaw effect and determine how would demand come back – a key question to drive demand planning horizons and the necessary cost cuts for MRO.
- Develop minimum viable operating models that leverage zero-based approaches to define what the New Normal operating model should look like. For MROs, the key is to understand workforce structures given the high labor content for most MRO categories.
- Focus on infrastructure and workforce rationalization by making no-regret, deep cuts to drive down operating cost run-rates. At the same time, introduce buffers and flexibility that, upon changes to certain pre-defined leading indicators, can turn on or off additional production flexibility in the New Normal business plan.
- Lastly, build a liquidity buffer and tap liquidity sources, including government support programs and credit facilities. If necessary, monetize or securitize assets, including aircraft and engines, that may still attract reasonable lending rates during the Covid overhang.

Thinking Ahead for the New Normal

For MROs, the New Normal will largely be defined by the aircraft types that will continue into the future. Older-generation types will see accelerated phase-out, while current and new-generation types will likely return to the skies after a temporary period in storage.

There are several key considerations for MROs as they adjust to the new normal:

- First, define capability sets to retain and develop, as core capabilities in the pre-Covid era may not be applicable.
- Second, define the working relationships with OEMs that have continuously exerted control in the aftermarket – independence and alignment may not need to be mutually exclusive options.
- Lastly, consider Mergers and Acquisitions (M&A) – there will be inevitable consolidation in the industry, and it is important to define if M&A participation is essential for survival or growth in the New Normal.

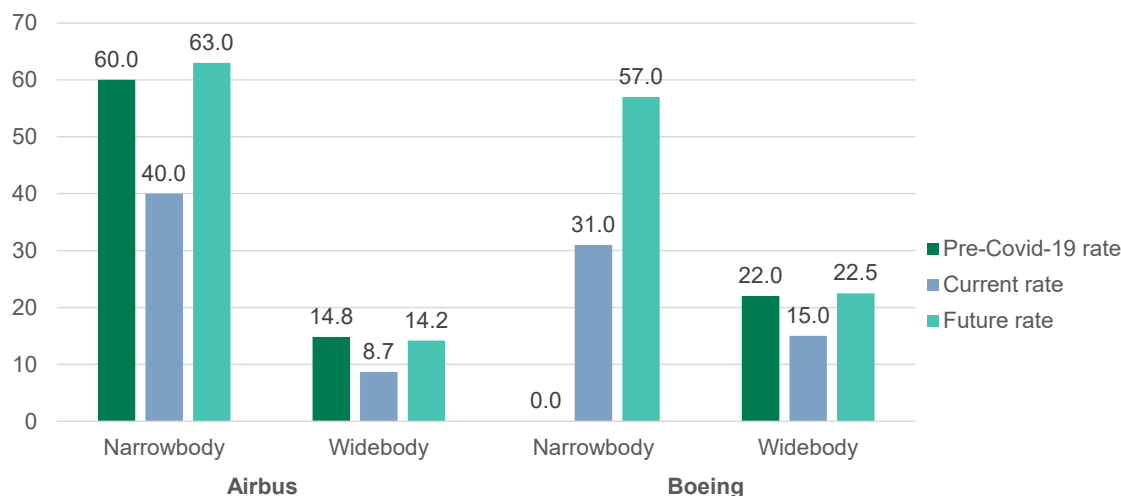
Aerospace manufacturers must focus on protecting their supply chain

The current crisis has led to an oversupply of aircraft in the market, well in excess of what is needed to accommodate air travel demand. Airlines are deep in their fleet restructuring plans, looking at aircraft to retire or ground, and deferring new aircraft to stave off capital expenditures.

Airframe OEMs are working hard to preserve orders by offering financing options, working with credit expert agencies, and reshuffling their skylines. Inevitably, however, all-time high aircraft production rates must come down. Airbus cut production of A320, A330 and A350 by one-third, and signaled further cuts in June. Boeing is cutting production of 787 and 777/777X and plans to resume 737MAX production at low rates.

Airbus and Boeing Have Cut Production Rates, with no Definitive End Date to Return to Future Rates Planned before Covid-19

Current and planned future production rates (aircraft per month)



Note: Since January 2020, Boeing has suspended production of narrowbody aircraft due to the grounding of the 737 MAX. Production is expected to resume in 2020

Source: Boeing, Airbus, November 2019 and April 2020; Alton Aviation Consultancy

A decade of OEMs pressuring sub-tier manufacturers to make investments and tool up for production rate increases, coupled with relentless cost cutting through Boeing's Partnership for Success and Airbus' internal efficiency SCOPe / SCOPe+ programs has left the aerospace supply chain capital starved.

"We see that the airlines are badly hit, and we are badly hit, and the next wave is going to be the supply chain"

– Guillaume Faury, Airbus CEO

Restoring the Balance of Power of the Aerospace Supply Chain

The aerospace supply chain has a hierarchical structure, with OEMs at the top, 10+ Tier 1s at the next level, and a wide base of Tier 2 to Tier 4 companies.

Given that airframe OEMs outsource significant work packages and are highly dependent on their supply chain partners, it is important for them to understand the positions of all key suppliers and work out a solution to ensure uninterrupted supply chains amidst reduced production rates.

Notably in the past, Boeing 787 production was stopped because of \$1 fasteners, and Trent 900 engine issues were due to a problematic part costing less than \$500. Supplier health dashboards that track not only performance metrics, but also organizational and financial health, may be key to avoiding problems with suppliers.

OEMs should also evaluate insourcing options and alternative suppliers as contingency in case disruptions do occur in the next 18-24 months. In the longer-term, OEMs will need to evaluate alternative supply chain strategies, finding a balance between cost reduction and resilience, which may include vertical integration, reducing dependence on solo providers and working with core suppliers to rationalize their own procurement and supply chains.



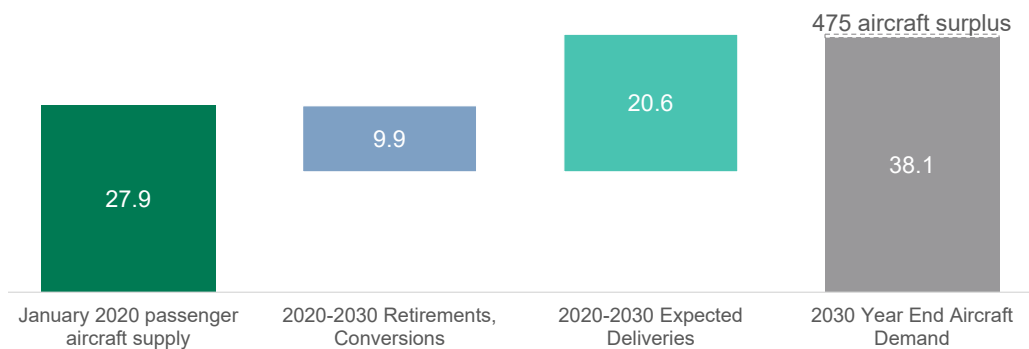
Increasing Flexibility to Weather Covid Overhang

With revenues taking a hit, aerospace manufacturers will have to make deep expense cuts, even if they manage to emerge from the crisis with contracts and supply chains largely intact. They should focus on infrastructure and workforce rationalization by making no-regret cuts to drive down operating cost run-rates – this may include “mothballing” some of the facilities and reconsidering non-essential capital expenditures. They should also have a hard look at SG&A, starting with building a holistic view of expenses and focusing on what is truly necessary vs. a historical baseline or budget.

In the medium term, production rates will pick up again, following closely, with some lag, the increase in air traffic demand. Our forecasts indicate that narrowbody and widebody aircraft supply-demand balance observed in the beginning of 2020 will be reached again in end-2021 and end-2022, respectively.

Once the Markets Stabilize, Passenger Fleets are Expected to be in Balance in the Long-Term

Global commercial passenger fleet development 2020-2030 (thousands of aircraft)



Note: Full recovery scenario
Source: Alton Aviation Consultancy

During this period, several key trends may play out in the aerospace manufacturing space. Firstly, various recovery scenarios predict that narrowbody aircraft will pick up faster than widebody. The Boeing 737MAX overhang will persist – and may be an excuse to delay or cancel orders. Further, the Boeing / Embraer breakup may also have an impact on future sales.

Aerospace manufacturers therefore need to ensure that they introduce buffers and flexible options, that, upon changes to certain pre-defined leading indicators, can turn on or off additional production flexibility in the New Normal business plan.

A New Day, a New Normal

Aerospace supply chains shift, and along with it so does the supplier leverage. Well-positioned suppliers will invest in capability sets to improve value propositions, including advances in materials, design, and manufacturing.

The recent trend of insourcing at Boeing (seats, avionics, auxiliary power units) and Airbus (nacelles) may reverse as OEMs reduce research and development spend due to cashflow pressures. There is a scope for new suppliers to work closer with the OEMs on various in-development programs, although those may see a shift in entry-into-service towards the right.

Players with the financial backing may also choose to engage in M&A activity as the industry consolidates and / or players exit the market. Capital may also be spent on program acquisitions to get sole-source manufacturing or aftermarket contracts that can provide guaranteed revenue streams through the life of the aircraft program.

Airports have only limited control over demand and revenues – government support and aggressive cost cutting may be required to keep the lights on and provide a safe travel experience

Stimulating Demand for Air Travel

As airlines are working on plans to resume their operations and are developing stringent health safety policies, airports will have to demonstrate that they can deliver an equal – or higher – degree of safety, possibly beyond government-imposed requirements. Ultimately, airlines and airports will need to work hand in hand to co-create and communicate their health protection measures to the public and rebuild passenger confidence.

In addition to baseline expectations around cleaning, disinfection and temperature screenings, airports need to adapt operations to cater to pre-/post-flight virus testing, new boarding / deplaning and luggage handling procedures, new immigration and clearance procedures for departing and arriving passengers, and safe distancing, etc.

Airports Trialing and Deploying Technology to Step Up Health Safety

AIRPORT

SELECT TECHNOLOGIES BEING TRIALED / DEPLOYED



- New full-body disinfection booth that involves a temperature check and a 40-second disinfection procedure
- Autonomous cleaning robots using ultraviolet (UV) light to sterilize 99% of surfaces and air



- Facial recognition thermal screening technology
- Contact-free security screening equipment
- UV sanitation for security trays



- Infrared screening technology
- Unmanned ground vehicle with remote control for disinfection of airport facilities and aircraft cabins, using combination of UV and liquid cleaning agents

Source: Press releases

It is currently unclear to what extent and when these additional costs can be passed over to passengers or airlines – if anything, airlines are focused on cutting their own costs, which includes negotiation of aircraft and passenger-related airport fees and property charges. This is further aggravated by airlines' liquidity issues and risks of payment defaults.

Many airports have already provided relief packages to airline partners and need a clear plan for what level of support they may be able to provide going forward – if at all. While all airports are heavily reliant on passenger traffic, those who borrowed heavily to invest in infrastructure and those subject to steep fixed concession fees are especially vulnerable, and need to ensure that resumed passenger flows translate into revenues they can use to meet their obligations.

New Normal for Non-Aviation Operations?

With non-aeronautical revenues making up 40% of their income, airports surely need to protect this revenue stream. Airport concessioners are experiencing a serious crunch due to the lack of passenger footfall and are seeking ways to reduce or defer their rent payments and avoid minimal annual guarantees. While there are several ways to deal with these requests depending on airport financial stance, applicable regulations (e.g. FAA guidance on concession closures) and individual circumstances, a starting point will be to develop several possible scenarios for the next 18-24 months not only around passenger traffic per se, but also around health safety regulations and their effect on airport concessioners.

Taking retail for example, while some airports have resumed operations of shops and food and beverage outlets, there is a high probability that only essential service providers and only small shops will be allowed to operate in an attempt to minimize crowds and passenger movements. Airports and their tenants may have to come up with new ways to service passengers, including re-planning their retail spaces and introducing self-service kiosks. They must be agile and deploy a rapid “test and learn” approach to determine what formats will work.

In the longer-term, airports will need to evaluate fundamental shifts to travel demand and supply as well as broader consumer purchasing behaviors and define what it means for their concessions. For instance, traditional concessionary contracts with minimal annual guarantees may no longer work in the New Normal.

Capacity Management

Given that airports operate on a high fixed asset base, capacity management is one critical lever in preserving cash outflows, alongside asking for relief on concessions / rental fees. While many regulators have suspended “use-it-or-lose-it” airport slot rules for the northern summer season, the lack of visibility into the winter season and beyond makes it hard for both airlines and airports to plan – although it is clear that airlines may no longer afford non-profitable flights just to keep the slots in anticipation for travel demand recovery. The situation is further complicated by the fact that airlines will be ramping up operations gradually and potentially erratically, and hence airports need to be able to quickly remove, add or reassign terminal and runway capacities.

As part of capacity management, airports need to evaluate both operating and capital expenses and determine what spending may be deferred, cancelled or actually brought forward – for instance, some of the more profitable players including Singapore Changi and Hong Kong International have taken a downtime as an opportunity to accelerate their development projects¹.

On a similar note: much like for airlines, cargo handling capabilities and associated cargo traffic have been a welcomed – if reduced – source of revenue for the airports, with ground handling agents in some of the airports working round the clock to support increased workload. While this trend is likely to sustain in the near-term, the longer-term business case for new cargo facilities or expansion of existing facilities will need to be carefully evaluated.

¹ Forbes news, 7 April 2020

Slashing Operating Costs

Labor is another significant and largely fixed cost for airports. While many have furloughed their employees and made plans to re-deploy them in support of cargo operations or increased health safety procedures, the next step is to devise a more holistic plan, balancing between preserving cash, savings jobs and having enough employees to sustain the recovery. This calls for a zero-based approach, with a hard look into productivity improvements, new contractual arrangements, and both outsourcing and in-sourcing options – all of which will lay a foundation for stronger, leaner operations.

Next, airports will need to have a hard look at SG&A and procurement. The starting point is to develop a holistic view of expenses – a “spend cube” – and focus on what is truly necessary vs historical baseline or budget. No-regret moves include negotiations with key suppliers and putting processes in place to avoid cost creep and ensure savings are re-allocated to critical areas (e.g. protective gear for staff). In a longer-term, airports may have to revisit their SG&A and procurement approaches, including organizational structures, budgeting processes and required capabilities.



Conclusions

Weathering the Covid Overhang

While the fight for survival continues, it is important for industry players to carry on with their medium-term planning and look for ways to bring cash in the door, reduce costs and keep operations running – all while managing a plethora of health safety issues for customers and employees.

Business-as-usual planning will not suffice. Companies have to develop several plausible recovery scenarios and evaluate their financial stance and survivability in each of them. For each of the scenarios, they need a clear action plan incorporating no-regret moves, strategic bets, and a set of triggers to activate these actions as the situation evolves.

The aviation industry is going through unprecedented changes, and undoubtedly many players will emerge with much smaller operations or will not survive the crisis at all. At the same time, we are confident that players who can take advantage of the shakeout to restructure will emerge leaner, more efficient and resilient.

About Alton

Alton Aviation Consultancy is a global advisory firm serving the aviation and aerospace industries. The firm was founded by veteran aviation industry executives, globally recognized for their thought leadership, quantitative analytics, and innovative solution development. The firm offers full value chain coverage, with clients including airlines, manufacturers, MRO and aftermarket service providers, lessors and the broader financial and investment community.

With offices in New York, Dublin, Hong Kong, Beijing, Tokyo, and Singapore, Alton's diverse team of professional advisors bring a global perspective with deep regional expertise across the entire aviation value chain to its client engagements. Typical client engagements include strategy and business plan development, operational performance improvement, restructuring, and transaction support.

<https://altonaviation.com/>

Report Authors



Adam Cowburn

Managing Director
Hong Kong
adam.cowburn@altonaviation.com



John Mowry

Managing Director
New York
john.mowry@altonaviation.com



Laetitia Achille

Managing Director
New York
laetitia.achille@altonaviation.com



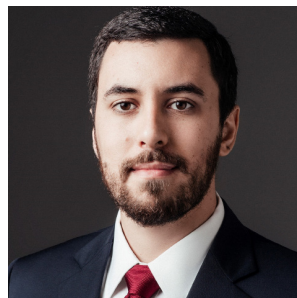
Jonathan Berger

Managing Director
New York
jonathan.berger@altonaviation.com



Leah Ryan

Managing Director
Dublin
leah.ryan@altonaviation.com



Adam Guthorn

Director
New York
adam.guthorn@altonaviation.com



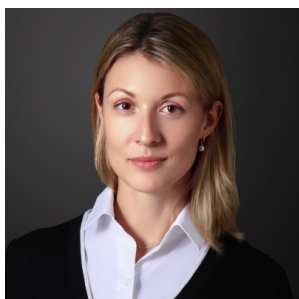
Bradley Dailey

Director
Hong Kong
bradley.dailey@altonaviation.com



Joshua Ng

Engagement Manager
Singapore
joshua.ng@altonaviation.com



Katya Bulatova

Engagement Manager
Singapore
katya.bulatova@altonaviation.com

