

Aerospace & Defense

2020: Fall update

In the final weeks of 2019, the Aerospace & Defense ("A&D") team within Mesirow Investment Banking was busy wrapping up our last M&A transaction advisory assignment of the year. A strong economy supported by low interest rates created an environment conducive to deal making; however, there were some early warning signs of a potential economic slowdown as we headed into 2020.



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New aircraft bookings had begun to slow and well-documented issues surrounding the Boeing 737 Max plane had shuttered the 737 Max production line, putting a spotlight on the FAA aircraft certification process. Despite the deceleration in overall bookings, backlog and passenger traffic growth continued to bolster confidence in the industry's production ramp plans. The question on our minds as 2019 was coming to a close was how long the cycle would continue. As readers of our past updates will know – we were cautiously looking forward to 2020. With the benefit of hindsight, we can only say what a difference a year makes!

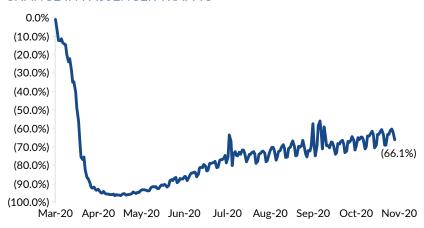
COVID-19 impact on Aerospace & Defense

While we were publishing our 2019 yearend A&D report, across the world in Wuhan, China, a novel virus known as COVID-19 was seeding itself and setting the stage for a rapid spread around the globe. Many in the aerospace industry were initially viewing the virus with caution but were skeptical that it could develop into a pandemic that would ultimately change the way we live and travel. By the end of the first quarter of 2020, our worst fears had become a reality – COVID-19 was officially designated by the World Health Organization as a global pandemic with far-reaching repercussions across every corner of the world.

While the entire global economy has taken a hard hit, the commercial aerospace industry has been particularly impacted.

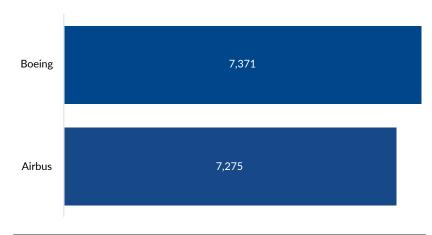
As spring pushed into summer and the global economy grounded to a halt as people around the world were ordered to shelter in place, the commercial aerospace industry found itself in a fight for survival.

CHART 1: TSA CHECKPOINT TRAVEL - YEAR OVER YEAR DAILY CHANGE IN PASSENGER TRAFFIC



Source: TSA Checkpoint Travel Numbers.

CHART 2: TOTAL AIRCRAFT IN STORAGE (AS OF Q1 2020)



Source: Canaccord Genuity 2020 Q1 Commercial Aerospace MRO Survey.

COVID-19 impact on Aerospace & Defense *cont*.

With passenger traffic dropping over 90% in April 2020 (Chart 1), it quickly became clear that without government assistance, many airlines around the world would soon be facing a cash crunch that could ultimately lead to bankruptcy. Similarly, business aviation has experienced a meaningful drop-off in activity during the pandemic, although recent data suggests a rebound in this segment. In contrast, the defense industry has not seen a major impact as global tensions between the U.S. and its Allies and Russia, Iran and China have given impetus for continue prioritization for defense spending.

As depicted in Chart 1, commercial airlines have experienced a steep decline in passenger traffic due to low passenger confidence in flying and traveling since the beginning of the pandemic. The commercial aerospace industry's recovery is highly dependent on how long it will take passengers to regain confidence in travel and start getting back on planes. While the air traffic decline remains steep, traffic appears to have improved sequentially for the fifth straight month in October, breaking over 1 million daily passengers for the first time on October 18, 2020, although the industry is now facing additional fears with new closures in Europe and the U.S.

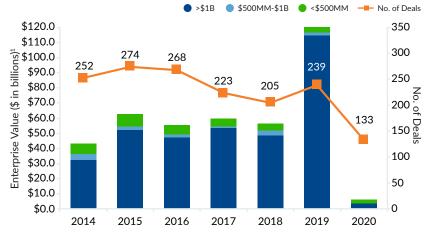
As passenger traffic has not justified the fleet size of many airlines, carriers have made decisions to take aircraft out of service. Looking at the two major airframers individually, 59% of Airbus aircraft are in storage while the Boeing figure is 55%, including the 383 previously grounded 737 Max aircraft. Overall, airlines have grounded more than 15,000 planes.

M&A activity

The current economic disruption coming on the heels of the 737 Max suspension has varying impact across A&D mergers & acquisitions activity. The impact on commercial aerospace has been significant and immediate, while the defense sector has largely been stable. However, given the extensive fiscal measures being taken, we believe the slowdown of M&A activity may be short-lived. Consolidation and contraction in the A&D sector. have arrived, in earnest due to COVID-19, with large strategic players being well-positioned to capitalize on vertical integration up and down the supply chain. Additionally, we expect a strong demand for defense assets, which have remained stable throughout recent disruptions and are expected to continue to behave as such. The industry has experienced a growing cadre of private equity investors: in late September, Blackstone Group's Draken International bought 13 aviation service businesses of Cobham Group, which Advent International had taken private just last year. Additionally, Amentum Holdings acquired Delta Tucker's DynCorp International, a provider of military logistics and aviation services to federal agencies. Most recently, in late November 2020, TransDigm Group (NYSE:TDG) entered into an agreement to acquire Cobham Aero Connectivity, a provider of engineered antennas and radios for the aerospace market, pointing to renewed activity in both private equity and strategic M&A.

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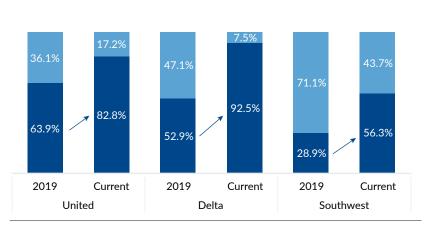


Source: Factset. 1. Only includes deals with disclosed deal value.

Commercial airlines

With increasingly leveraged balance sheets (Chart 4) and months of sizeable losses due to significantly decreased passenger load, commercial airlines made urgent calls for more government bailouts to avoid any additional massive job cuts, after receiving a \$25 billion stimulus in April. "We're very hopeful they [congress] can come to an agreement and get that [bill] passed and help the economy and obviously help the travel industry," Gary Kelly, CEO of Southwest Airlines, told CNBC's "Squawk on the Street" in October 2020. "At a point, if we cut our flights too much then we cut a lot of itineraries and the revenue loss accelerates much faster than the cost cuts do. We have to strike the right balance."

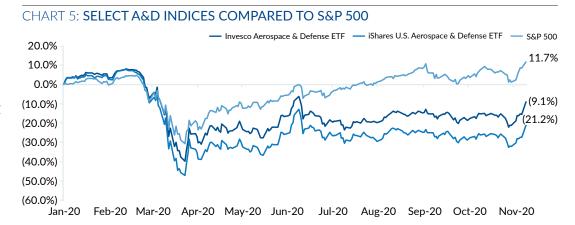
CHART 4: DEBT AND EQUITY AS A % OF TOTAL CAPITALIZATION (2019 - CURRENT)



Sources: Southwest, Delta and United company websites and public information.

Equity

"While the index has still recovered about 15% from its March lows, recent vaccine news suggest potential rebound."



Source: FactSet, as of 11.9.20.

A&D Market performance

The iShares A&D performance index is down 32% on the year, 33% down compared to the S&P 500 index; the stark reality of losing two years' worth of commercial aircraft production over the next half-decade. While the index has still recovered about 15% from its March lows, recent vaccine news suggest potential rebound. This is largely driven by large OEMs and Tier I suppliers in the aircraft industry that have taken a hit (such as Boeing), while defense names such as Lockheed Martin and Northrop Grumman have remained stable and carried the industry.

CHART 6: AIRBUS AND BOEING ORDER BOOK (AS OF JULY 31, 2020)

Boeing	737	747-8	767	777	787	Total
Deliveries	9	1	15	11	38	74
Net orders	(355)	(1)	9	(1)	25	(323)
Gross orders	18	1	9	2	29	59
Backlog	4,178	15	88	371	533	5,185
Airbus	A220	A320	A330	A350	A380	Total
Deliveries	13	204	5	23	0	245
Net orders	42	261	(5)	4	0	302
Gross orders	58	290	0	21	0	369
Backlog	524	6,125	321	560	9	7,539

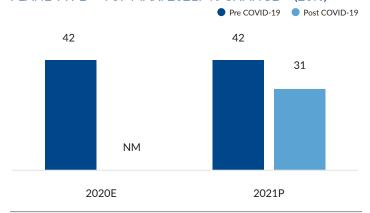
Sources: Boeing & Airbus Websites

Production cuts and orders

New orders for Airbus and Boeing planes have been severely impacted by COVID-19 traffic slowdowns and neither airframer is expecting any new orders this year. The industry experienced a book-to-bill of less than one in 2020, indicating that OEMs are delivering aircraft faster than they are receiving new orders. From an M&A perspective, falling book-to-bill reduces revenue visibility and creates uncertainty surrounding the order book, ultimately putting downward pressure on valuation – a trend Mesirow has been following closely. The fall off in new orders has also resulted in the revision of the 10-year production forecast for both companies, with Boeing announcing an 11% reduction in production rates over the next 10 years as compared to pre-COVID-19 plans and elimination of 18% of its workforce.

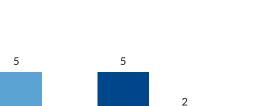
To weather the storm, Boeing raised \$25 billion in a bond offering to help sustain through a severe period of cash burn. While Boeing expects to hit production rate lows in mid-2021, we believe it will slowly ramp back up in 2021, as the pace of order cancellations has slowed down and cancellations for widebody aircrafts have been fairly limited. Nevertheless, further production cuts may be necessary (Chart 10). Additionally, parked aircraft as a percentage of total fleet is now 30%, in line with last month, but well off the March peak of over 50%.

CHART 7: PRODUCTION RATES PER MONTH BY BOEING PLANE TYPE — 737 MAX: 2021P % CHANGE = (26%)



Sources: Defense & Security Monitor Report and Boeing Website. Pre-COVID-19 Forecast as of December 31, 2019 Post COVID-19 forecast as of July 31, 2020.

CHART 8: PRODUCTION RATES PER MONTH BY BOEING PLANE TYPE — 777 & 777X: 2021P % CHANGE = (60%)



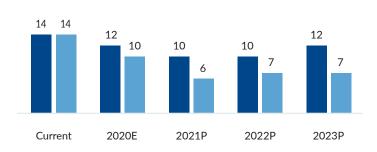
Pre COVID-19
Post COVID-19

2020E 2021P

Sources: Defense & Security Monitor Report and Boeing Website. Pre-COVID-19 Forecast as of December 31, 2019 Post COVID-19 forecast as of July 31, 2020.

CHART 9: PRODUCTION RATES PER MONTH BY BOEING PLANE TYPE — 787: 2021P % CHANGE = (40%)

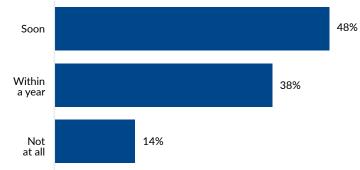




Sources: Defense & Security Monitor Report and Boeing Website. Pre-COVID-19 Forecast as of December 31, 2019 Post COVID-19 forecast as of July 31, 2020.

CHART 10: AIRBUS AND BOEING PRODUCTION SENTIMENT

When will Airbus and Boeing have to make further cuts to aircraft production?



Source: ICF Webinar Quickpoll (October 2020).

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2021 Outlook

While the A&D industry has experienced a turbulent year on the heels of COVID-19 shutdowns, 737 Max groundings, U.S. / China trade discussion and uncertainty around the presidential election, a slow but steady recovery has started to take shape in late 2020. On the commercial aerospace front, aircraft demand is supported by higher retirement, as opposed to new aircraft for fleet expansion and growth and orders are slowly starting to climb back up. Opportunity for a rebound given pent-up demand has risen, with investors focusing on when air travel can recover and on free cash performance during the downturn. In prior downturns, the aftermarket faced headwinds as airlines and lessors increased the use of parting out, inventory pooling and delayed

aftermarket spend. We believe there was pent-up demand heading into this downturn that support aftermarket tracking the recovery in global air travel. In the long term, we expect air traffic to grow in-line with historical levels, which are in the range of two times GDP growth. The defense sector has remained relatively stable and we expect continued favorable climate for defense contractors given the reality of global geopolitics. Although we probably do not expect to see aerospace M&A activity return to the pre-crisis levels immediately, we expect M&A activity to drive realignment of the industry landscape in the post COVID-19 environment, through vertical consolidation and new private equity interest in capitalizing on the rebound.

Dedicated advisor to the Aerospace & Defense sector

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