Mesirow

Aerospace & Defense sector report

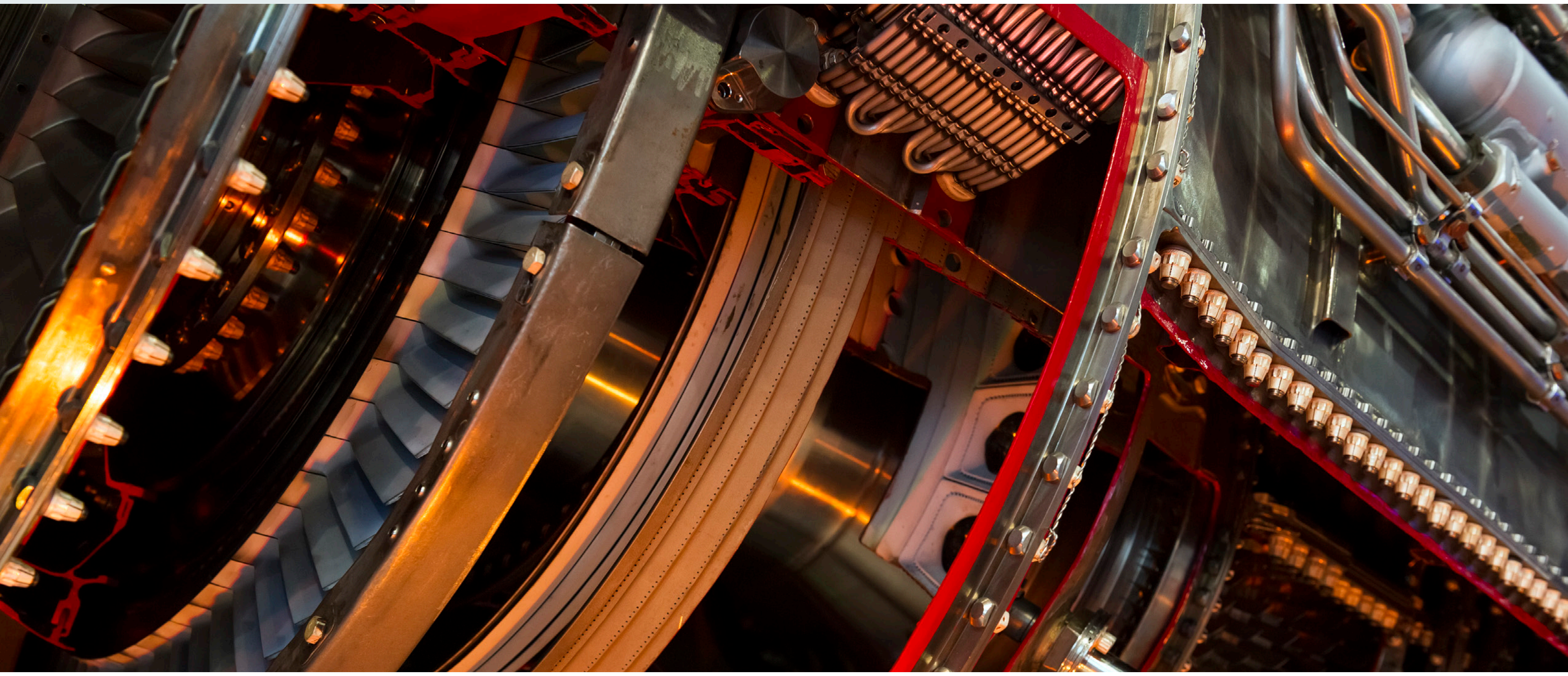
Andrew Carolus
Managing Director
Investment Banking

Adam Oakley
Managing Director
Investment Banking

2021: Year-end update

For the aerospace and defense (A&D) sector, the second half of 2021 was all about rebounding from the depths of the pandemic and building on the recovery that began a year ago. The demand for business jets and large commercial aircraft bounced back; firms focused on maintenance, repair and overhaul (MRO) continued to recover; and the defense budget created clear areas of emphasis. While the emergence of the omicron variant in late 2021 cast an additional pall of uncertainty, early indications are that it will not affect the economy nearly as much as the initial virus. If that forecast holds, we expect M&A activity in the sector to increase substantially in the coming year, supported by four primary drivers:

1. Learning to live with COVID
2. Boeing rebound with help from China
3. Continued industry consolidation
4. Defense emphasizing software over hardware



1. Learning to live with COVID

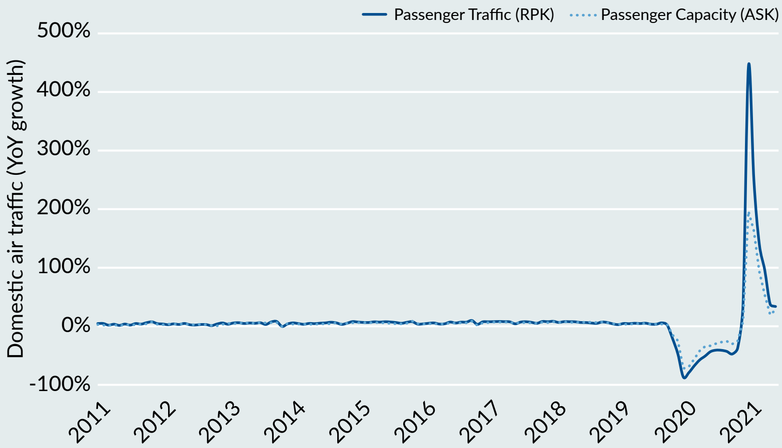
As the pandemic has worn on, travelers seem to have adopted a state of a cautious optimism. To be sure, expectations of a complete return to 2019 normalcy have been lowered, but the response to each new wave has been quicker and less negative than the past one. Perhaps it's just travelers adapting to a new reality, but nearly all metrics point to passenger travel picking up significantly for both commercial and business traffic.

- International air traffic increased 151% in September and 146% in August. Passenger capacity increased 89% and 92% YOY, respectively
- US business jet operations were up 42% in September after 41% YOY in August.
- EU business jet operations were up 48% in October after 45% gain YOY in September

Traveler throughput increased dramatically in 2021 compared to the prior year:[1]

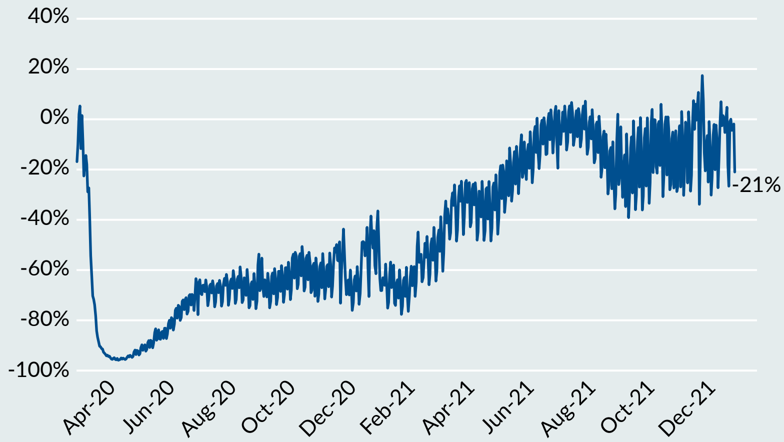
12/13/19: 2,250,386
12/13/20: 752,451
12/13/21: 1,912,915

CHART 1: **DOMESTIC PASSENGER TRAFFIC CONTINUES TO RECOVER**



Source: IATA (September 2021).

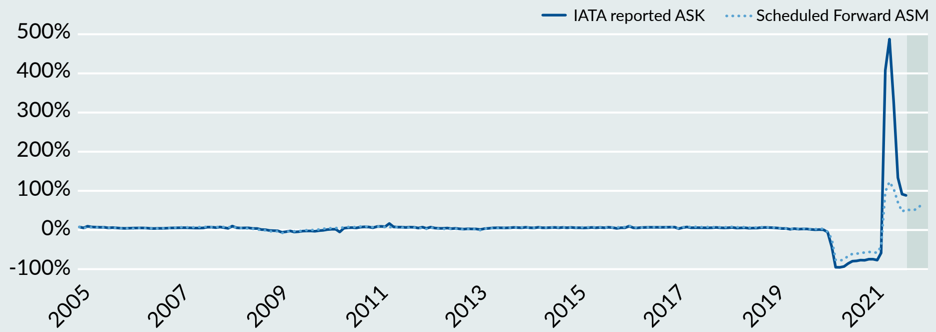
CHART 2: **PASSENGER THROUGHPUT % CHANGE RELATIVE TO MARCH 2020**



Source: TSA Checkpoint Travel Numbers.

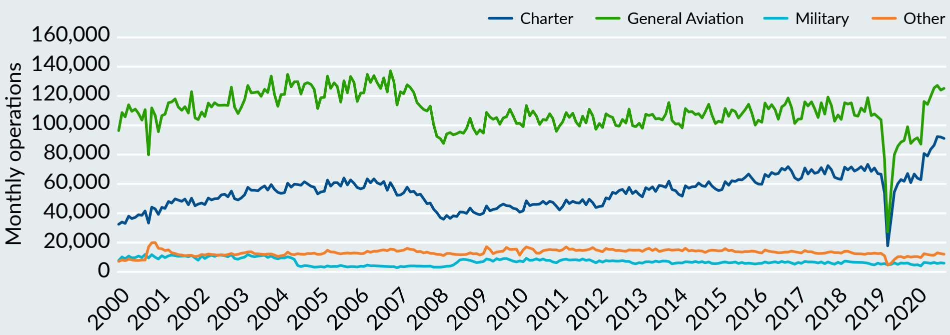
1. Source: Transportation Security Administration

CHART 3: **SCHEDULED CAPACITY EXPECTED TO IMPROVE SUBSTANTIALLY**



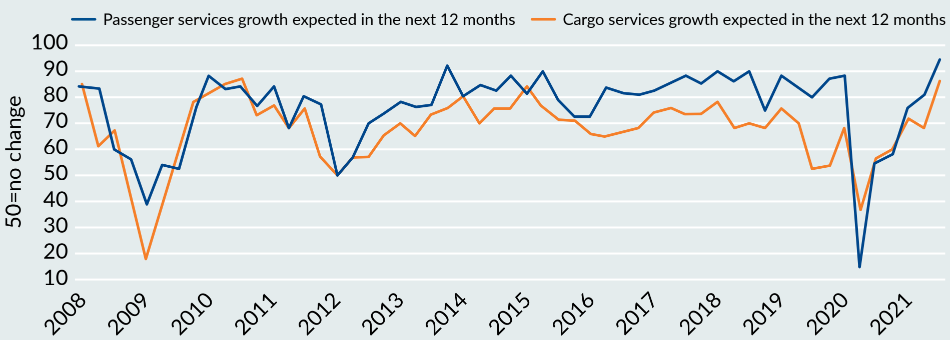
Source: OAG Analyser, November 2021.

CHART 4: **US BUSINESS JET ACTIVITY BUOYANT AND LOOKING TO GET STRONGER**



Source: FAA.

CHART 5: **AIR CARGO VOLUMES ARE EXPECTED TO REMAIN STRONG IN 2022, BACKED BY RECOVERING WORLD TRADE**



Source: International Air Transport Association, WTO, Oxford Economics. © International Air Transport Association, 2019 . Economic Performance of the Airline Industry: 2021 End-year report. All Rights Reserved. Available on IATA Economics page.

From a private aviation standpoint, people who had the means to travel privately generally did so, fueling a dramatic recovery in business aviation and the private market. As the pandemic drags on and new variants emerge, those who resisted flying privately early on now seem to be changing their stance, which bodes well for both business jet OEMs and MRO operators.

The one segment of the airline industry that has managed to recover above 2019 levels is cargo flights. Airline CFOs and heads of air cargo firms are optimistic that this growth will continue, supported by recovering global economies and capacity improvements as passenger volumes pick up. That said, the widely varied nature of COVID outbreaks and uncertainties regarding vaccine penetration rates in various parts of the world are likely to create global imbalances.

2. China's approval of Boeing more than one big deal

Both Boeing and Airbus have been able to hold their production rates in recent months, which indicates that, after having to drop their output or stop it altogether, there's stability on the production side being driven by demand from the airlines. But there's little doubt that the stalled production of the 737MAX has had an adverse effect not only on Boeing, but on the industry in general, including numerous downstream suppliers.

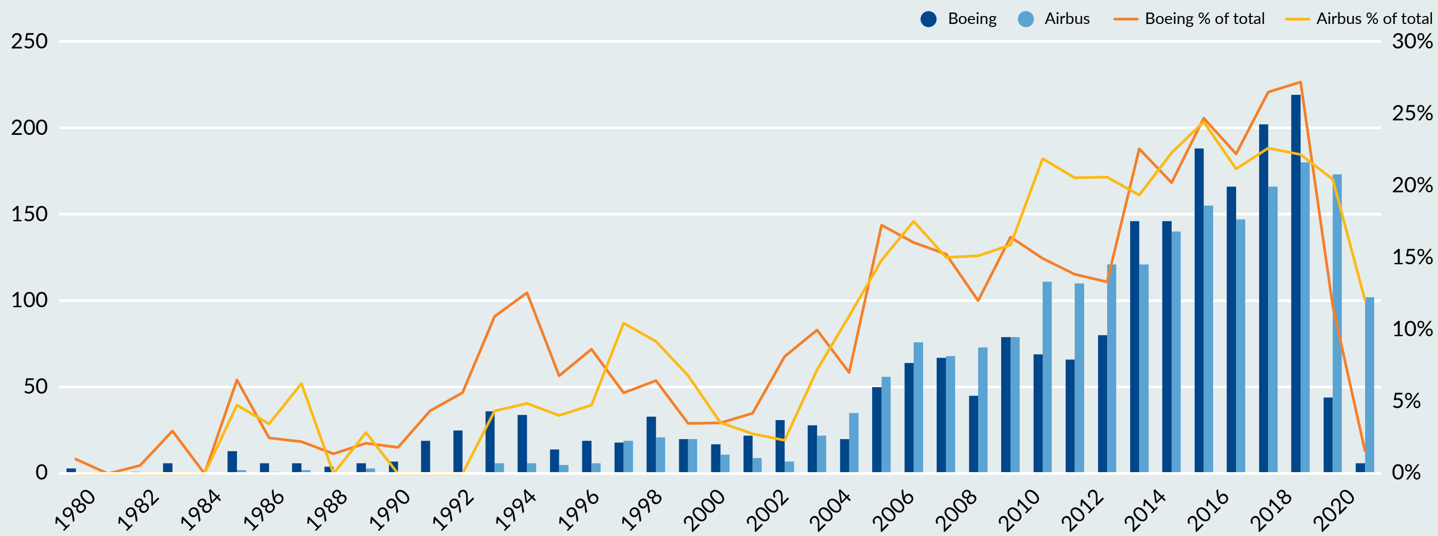
While the FAA and EASA (the European version of the FAA) had cleared the MAX, China was the hold out. According to Goldman Sachs, one third of MAX inventory is for Chinese customers and China took one quarter of annual MAX deliveries pre-grounding. Therefore, it was a significant event when the Civil Aviation Administration of China (CAAC) recently issued an airworthiness directive for the MAX.

Airlines in the Far East weren't going to take a chance on MAX orders until the MAX was blessed by the CAAC. Now that it's happened, the stage is set for production to shoot for 100% capacity, which is a huge deal not only for Boeing but also for all its suppliers and the global supply chain in general.

For Boeing in particular, we feel the approval should allow them to finally focus more resources towards developing either a middle market solution or a clean sheet version of a stretch single aisle aircraft that would serve alongside the 757 and 767. Both are being retired in fleets around the world, and Boeing needs to offer aircraft that can do what they did: longer haul flights and more capacity.

CHART 6: **CHINA DELIVERIES MAKE UP A MAJOR PORTION OF BOEING / AIRBUS TOTAL**

Number of deliveries



Source: Cirium.

3. Fear, opportunity, demand driving M&As and consolidation

The Boeing MAX approval will also likely have a catalytic effect on the aerospace M&A market, particularly for small and mid-size firms.

As we've mentioned in past reports, a lot of companies that supply new and replacement parts for major airframers are small businesses, sometimes family businesses. Often, it's a family business managed by second or third generation owners with a significant 737MAX (or other) platform concentration. Many businesses like this didn't survive the MAX grounding or barely survived. Many got by on PPP loans. A lot of these owners just got the scare of a lifetime.

In order to survive downturns, it's helpful if you have scale. With smaller size comes increased risk from customer concentration and other issues as many of the firms that were major suppliers to Boeing on the MAX found out.

They've held off selling because they were impacted by the pandemic, even if they have a great business.

Now many of those businesses are seeing conditions improve and are considering selling or consolidating. We've seen a lot this and we believe we're going to continue to see a lot more, especially as the markets recover from the pandemic.

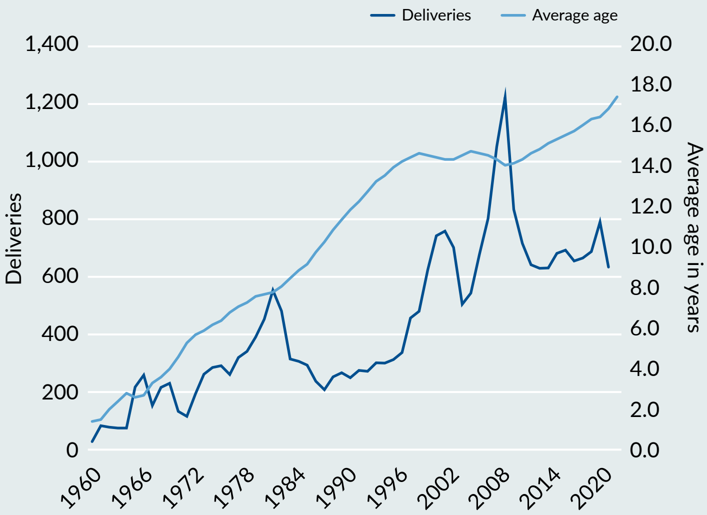
If nothing else, this backlog and sudden surge is a reminder that for better or worse, aerospace is a cyclical industry. It had been in an expansion since early 2009 and was entering year twelve in what normally was a ~7-8 year cycle. Obviously, this wasn't a normal retrenchment. But COVID did have the effect of resetting the market and laying the foundation for a typical "fall back and regroup" recovery.

M&A activity dried up for a while but has now set record pace. For the first time ever, global M&A volumes topped $5 trillion, with the overall 2021 value coming in at $5.8 trillion according to Refinitiv data — a 64% increase from the year prior.

As it relates to aerospace, it's still a seller's market. The $8.8B Parker Hannifin acquisition of Meggitt is an example of the strong M&A market in aerospace, trading at an estimated multiple of 16.3x 2019 pre-COVID adjusted EBITDA. And while we don't necessarily expect a lot of similar mega-cap deals, which are harder to accomplish due to regulatory and other hurdles, we do expect a lot more activity, particularly across the middle market.

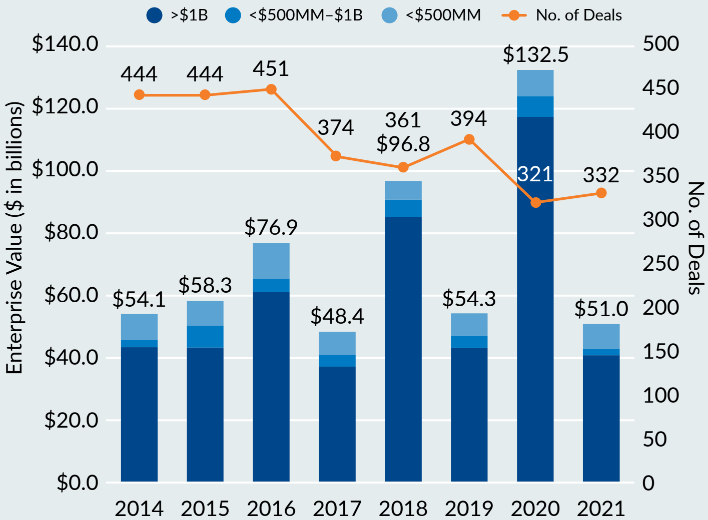
Further, it's not just strategic buyers. We're seeing renewed interest in M&As from private equity firms, many of which are looking to consolidate certain parts of the industry. We've already seen it in structures and composites, and we think the pace is likely to accelerate during at least the next couple years in areas such as electrical systems and metal fabrication / machining.

CHART 7: AGING FLEETS LIKELY TO DRIVE AFTERMARKET DEMAND



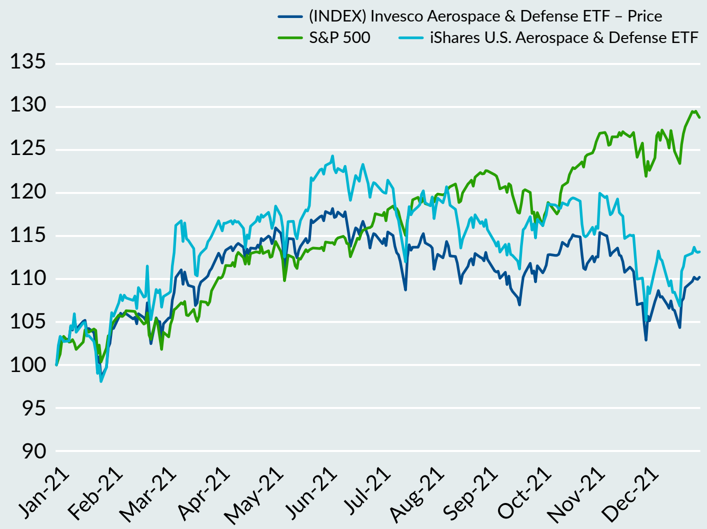
Source: Cirium.

CHART 8: NUMBER OF M&A DEALS BOUNCING BACK AFTER DEPTHS OF THE PANDEMIC



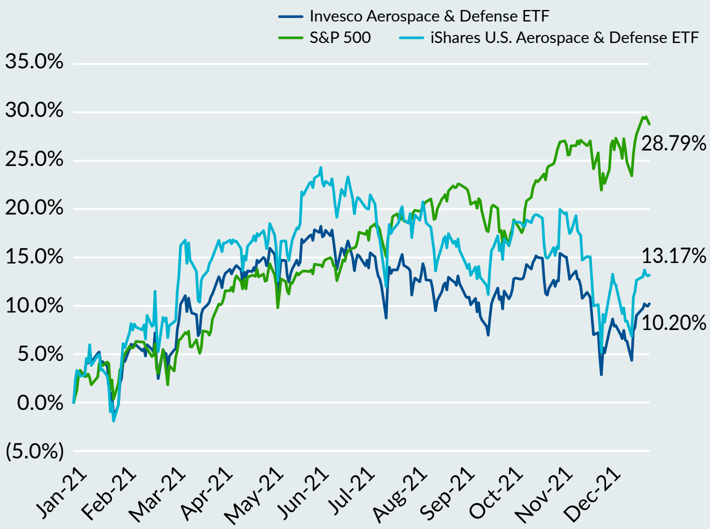
Source: S&P Capital IQ.

CHART 9: A&D SECTOR PRICES HAVE ROOM TO GROW VS THE OVERALL MARKET ($)



Source: S&P Capital IQ as of 12.31.21. Past performance is not indicative of future results.

CHART 10: A&D SECTOR PRICES HAVE ROOM TO GROW VS THE OVERALL MARKET (%)



Source: S&P Capital IQ as of 12.31.21. Past performance is not indicative of future results.

4. Defense emphasizing software over hardware

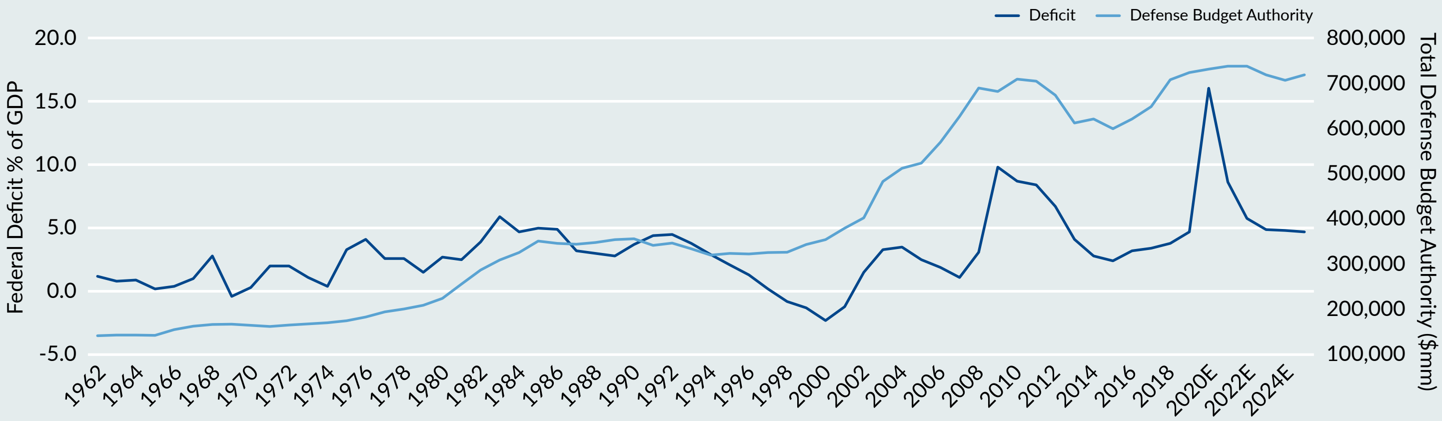
As we discussed in our mid-year update, the last Biden budget focused less on hardware and more on software. Instead of favoring traditional tanks / aircraft / ships, this budget concentrates on getting additional mileage out of the tools we already have and on C4ISR (cybersecurity, command control computer, intelligence, surveillance, reconnaissance). We're seeing more interest from firms focusing on defense electronics, as opposed to firms that supply parts for tanks, for example. Hardware spending is still going to happen, of course, but over the intermediate term the Pentagon's concerns now appear focused more on peer threats than terrorism.

One other factor supporting the market for C4ISR firms is that the defense budget may not have room going forward for large ticket items like carrier groups.

The expectation for the Pentagon to do more with what they have may be why we're starting to see surging interest in technology associated with anything fiber or any kind of electronic surveillance sensors – things that give the US an edge against some of our bigger adversaries. Other areas of interest are weapons systems like directed energy weapons, and strategic deterrents such as upgrading aging nuclear capabilities.

In the middle market, we're seeing interest in companies that have very defined, highly proprietary engineered technologies that fit into C4ISR, firms doing any kind of work around hypersonic, missile defense, directed energy, cyber sensor technologies. Again, interest in these assets is coming both from strategic M&A deals as well as private equity.

CHART 11: **COVID-19 RESPONSE BALLOONED THE DEFICIT, WHILE DEFENSE SPENDING REMAINS HIGH**



Source: CBO, White House, DoD.

SPACs in Space

2021 has been a record year for SPAC (Special Purpose Acquisition Company) deals, with much of the activity focused on space-based applications. Some market observers believe this area will be the fastest growing segment of the aerospace and defense sector. Essentially, a SPAC is a shell company that raises money through an IPO to acquire another firm. Space infrastructure conglomerate Redwire Space went public by merging with SPAC Genesis Park in 2021. SPACs have been around for some time, but have more recently become a popular vehicle to acquire certain businesses.

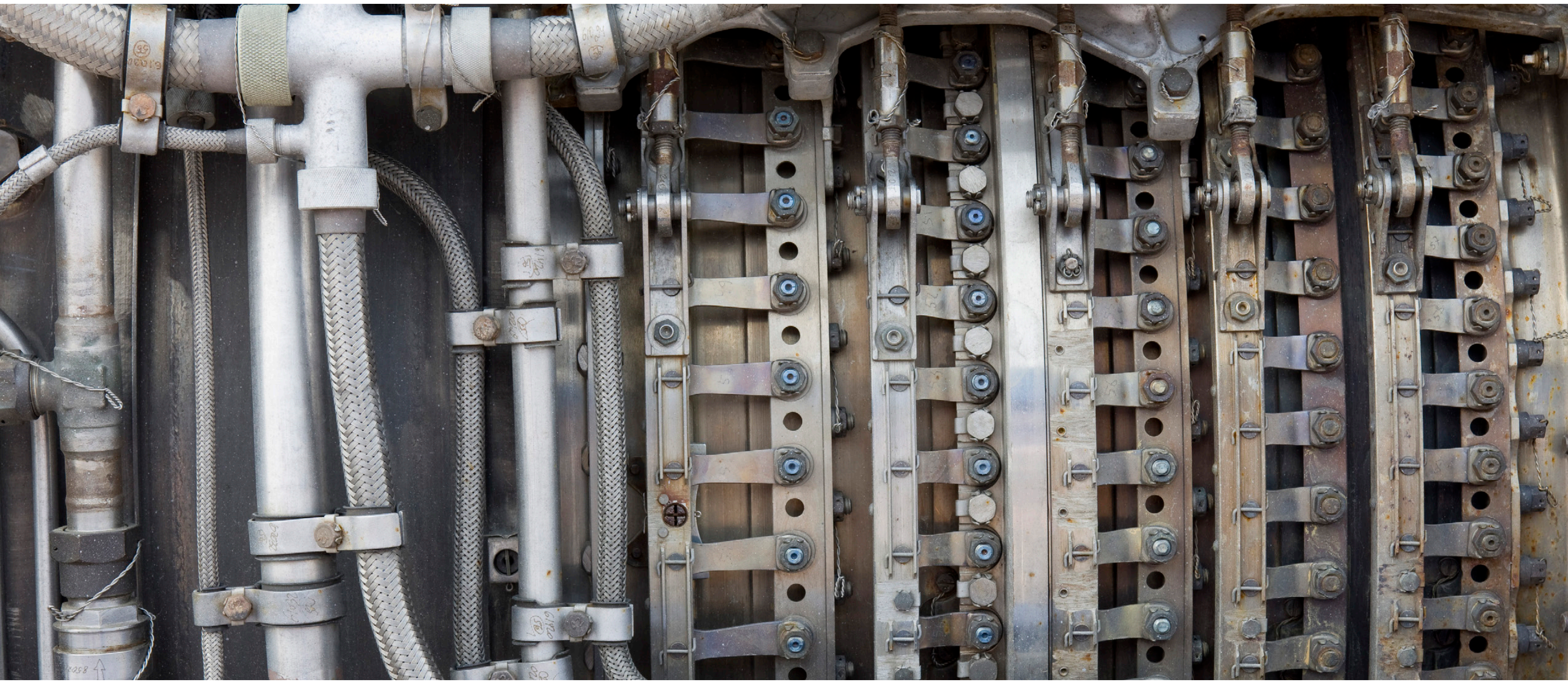
While most people are familiar with Blue Origin and SpaceX when it comes to the privatization of space, that's actually a more mature part of the sector financed from more traditional sources. SPACs are likely to be concerned with things that are farther in the future. That part of the space economy is still in the venture stage but it's an area of increasing interest and one, frankly, in which we see a bright future as the market for private space ventures continues to mature.

Positive outlook for 2022

While COVID-19 poleaxed M&A activity for a large part of 2020, pent-up demand is poised to surge as the industry recovers. Even if we do have a bit of a slowdown next year, most reports are still calling for about a 4.5% GDP growth in 2021. We think it's going to be closer to 5%, driven largely by the second half of the year.

Also supporting the M&A market is that the Federal Reserve will tighten rates – there's nowhere to go from zero but up. For now, rates are still at historic lows and credit remains easily accessible — both factors promote M&A activity. That's a theme that weaves across all the various sectors. Whether we're talking about suppliers to big airframers and the commercial arena, or about people that supply the private aviation markets or even defense players, now looks to be the most beneficial time to try to get deals done.

While findings are preliminary, it appears the omicron variant may spread more easily but that vaccines still offer good protection, particularly against hospitalization. It also appears that an effective pill will be available soon that could be a game-changer as far as limiting the virulence of all the variants and increasing the percentage of the population protected against them. There's likely to be some impact on commercial travel with the new uncertainty, but in general the M&A environment remains incredibly bullish for the commercial and the private sides of the A&D sector.



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Contact us

Andrew Carolus
312.595.7802
andrew.carolus@mesirow.com

Adam Oakley
312.595.6692
adam.oakley@mesirow.com

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