Mesirow

Aerospace & Defense sector report

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2022: Mid-year update

At the beginning of 2022, Aerospace & Defense (A&D) sector participants and observers were focused on the return of commercial travel along with the Russian-Ukrainian war. The latest data indicates that both commercial and business travel continue to propel the Aerospace industry while increased military spending by governments boost the Defense industry. In the Space industry, both public and private users' reliance on satellite capabilities, particularly satellite imagery, continues to expand rapidly. Some highlights from the past 6 months include:

- Global air traffic growth year-over-year in May was estimated to be above 85%
- Business travel remains strong, growing 12% in the U.S. and 32% in Europe year-over-year
- Defense spending has increased across the world, highlighted by the U.S. Congress increasing military spending almost 4% beyond the initial White House request
- Space investments continue to grow, capturing over $13 billion in capital so far this year

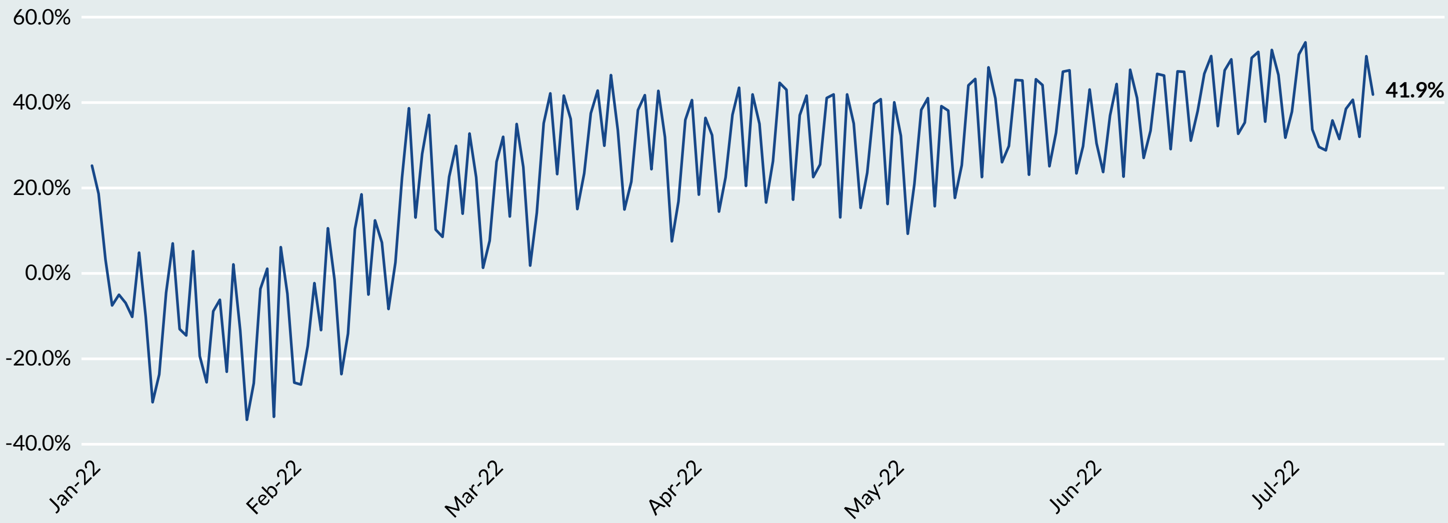
However, well known macroeconomic headwinds do exist. Although we believe that many A&D companies are well positioned to continue strong performance through economic challenges, worldwide pressures keep unbridled optimism in check:

- Inflationary pressures are everywhere, with the U.S. CPI jumping 9.1% year-over-year
- Supply chain disruptions continue to limit manufacturing outputs
- Geopolitical tensions are slowing the global economy
- Public market volatility is driving uncertainty

Overall, we believe that A&D companies occupy a critical position for both governments and private enterprises, thereby creating organic and inorganic business growth opportunities. Although some transactions are now taking slightly longer to complete because of prolonged due diligence, we are still seeing meaningful transaction activity with both motivated buyers and sellers.

Author's note: A&D and space inherently go together, and thus our past reports have always incorporated space-related insights. However, given the increased focus and importance of space, beginning with this report, we will dedicate specific sections in each subsequent report to the space industry.

CHART 1: **PASSENGER THROUGHPUT % CHANGE RELATIVE TO JANUARY 2022**



Source: TSA Checkpoint Travel Numbers.

Business and commercial travel are booming

This time last year we highlighted the return of business travel. Fast forward twelve months and business travel remains strong. The pandemic changed the way day-to-day businesses operate, but, as we wrote in 2Q21, those involved in complex deals still prefer to review and negotiate details face-to-face. According to the FAA, U.S. business jet operations were up ~36% year-over-year. Additionally, Goldman Sachs reports that U.S. business jet utilization has surpassed peak levels not seen since 2007.

The increase in utilization for business purposes has coincided with a significant increase in commercial travel as well. With COVID-19 restrictions easing, particularly in the Americas and Europe, commercial travel has returned in force. IATA data shows that international air traffic has exploded with passenger traffic increasing 332% and capacity 147% year-over-year in April.

Unsurprisingly, the explosion of travel has led to some inefficiencies and headwinds for the industry, most notably supply chain disruptions, pilot and crew shortages, and rising prices.

In a recent interview with Aviation Week, Boeing's CEO, Dave Calhoun, stated that a lack of supply chain stability makes it difficult to establish a consistent production cadence. He noted that the demand is there, as evidenced by Delta and Boeing's agreement announced at the recent Farnborough Air Show for an order of up to 130 737 MAX jets. Yet, despite present demand, issues within the supply chain have caused fluctuations in manufacturing capabilities thereby dampening production output.

Coinciding with aircraft manufacturing challenges, the airline industry is also faced with a personnel shortage after furloughing many pilots in 2020. In fact, American Airlines CEO Robert Isom recently stated that it could take two to three years for aircraft and pilot supply to resync and equilibrate.

Moreover, geopolitical tensions have sent oil prices significantly higher and, with it, aircraft fuel prices. IATA data on RPK indicates that U.S. domestic RPK is down 23% and international RPK down 36% when compared to 2019. This along with global regulatory forced has served to focus the aviation industry on green initiatives to reduce their carbon footprint and lessen their dependency on oil.

Nevertheless, RPKs are significantly up from lows in 2020 and continue steady growth year-over-year. Additionally, pilot and aircraft shortages have begun showing signs of easing, with the number of flight cancellations reduced month-over-month. Thus, overall, we anticipate continued tailwinds for the commercial airline industry, with our expectations for air travel to remain strong. Pent-up demand from COVID-19 along with voluntary unemployment are expected to continue to support high demand.

Russia-Ukraine war buoys defense spending globally

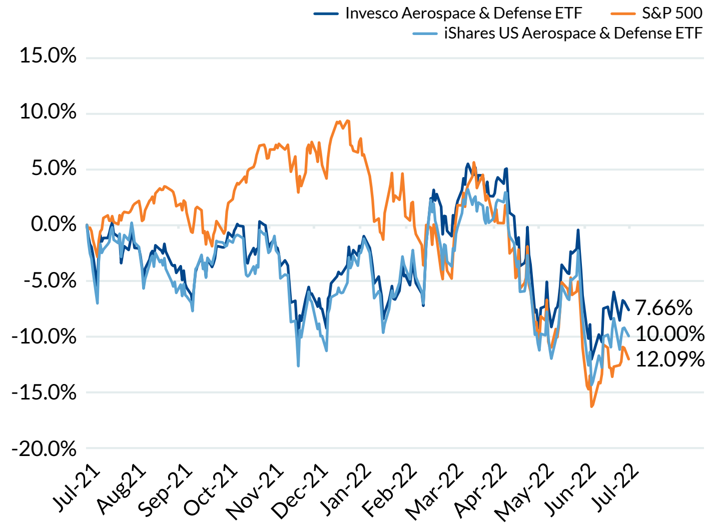
In February 2022, Russian forces invaded Ukraine. Since the invasion, nations are re-examining their defense capabilities, with many choosing to increase spending and/or seek partnership arrangements with the U.S., E.U., and/or NATO. In the U.S., Congress is in the process of authorizing a new Defense spending budget to bolster national security. Although still needing to be reconciled with the U.S. Senate's budget, the U.S. House of Representatives' budget authorized roughly $840 billion in military spending, almost $40 billion more than the White House requested.

While the U.S. government has made its stance on large-scale consolidation clear – there will likely not be support for such transactions, best seen in the aborted Lockheed/Aerojet Rocketdyne transaction – small manufacturers and suppliers are unlikely to face the same level of scrutiny. For example, renewed Pentagon focus on artificial intelligence, unmanned vehicles, cybersecurity, and space are documented areas of interest for the U.S. military and likely areas of near-term transactions.

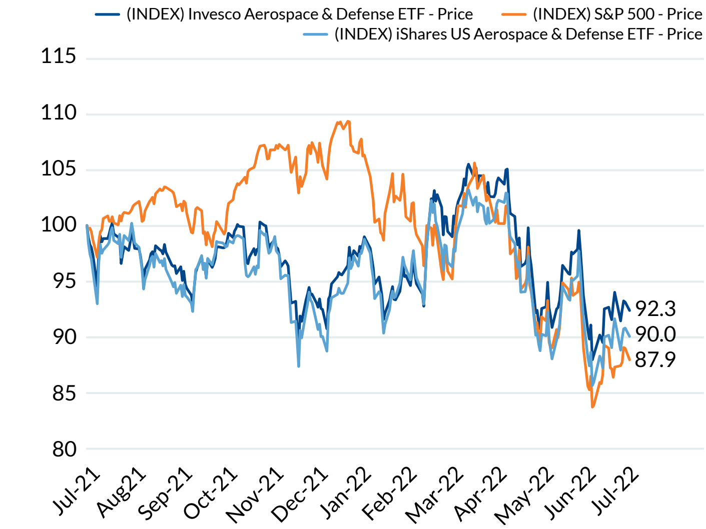
In the U.S., investors have taken note of the increase in defense spending. In the immediate aftermath of Russia's invasion, capital poured into defense securities. Since then, defense stocks have returned to a more normalized level. However, compared to other indexes, defense stocks are outperforming despite choppy market conditions and slowed mega-deal transaction volume. This outperformance is underpinned by government dollars continuing to support the overall defense industry.

Some commentators have questioned whether defense spending will be impacted by rising inflation – as inflation continues, the purchasing power of the government could be decreased. In our view, this is not a near-term concern. Given the geopolitical landscape, it is apparent to us that defense spending will continue to be prioritized by governments, irrespective of the inflationary environment.

CHARTS 2&3: **THE AEROSPACE & DEFENSE SECTOR BETTER THAN THE OVERALL MARKET (%) AND ($)**



Source: S&P Captial IQ as of 7.12.22. Past performance is not indicative of future results.



Source: S&P Captial IQ as of 7.12.22. Past performance is not indicative of future results.

A growing interest in space

During 2021, much attention was paid to the space industry – specifically companies that went public through SPAC mergers. Halfway through 2022, many of these companies are now trading well below their initial value. Add in some potential for SEC scrutiny and, unsurprisingly, the SPAC market has cooled significantly for space companies.

On the other hand, private space funding is booming. Space Capital reports that through the first half of 2022 there has been over $13 billion invested into space companies; over the past ten years, more than $260 billion of capital has been invested into over 1,700 unique space businesses. Now, with both the Pentagon and Congress pushing for greater adoption of private enterprise solutions, space is becoming increasingly attractive to entrepreneurs and investors alike.

Of the capital being invested, two areas in particular garner much of the attention: launch systems and satellites. With launch systems, SpaceX is still the dominant player. However, NASA's Space Launch System is expected to turn operational this year and other well-known start-ups like Rocket Lab and Relativity are also capturing headlines and market share.

Even more is happening in the world of satellites, especially as next-generation technology becomes available. From small-satellite constellations through granular imaging and remote sensing, communities are becoming further connected and real-time data is allowing for improved organizational insights across industries. Governments, too, are taking note as satellite imagery provides valuable data to many, from military personnel to farmers. Accordingly, the NRO's largest satellite imagery contracts ever were announced this year.

As expected, the military is also taking a keen interest in the space sector, with the U.S. Congress directing military personnel to work more closely with the private sector. This comes at a time when the Defense Intelligence Agency issued a new report that finds, from 2019 to 2021, China and Russia have both increased their combined space assets by 70%. Other countries are also competing in space; the UAE announced it would spend $820 million to boost its domestic space abilities.

Macro headwinds may hinder some space start-ups from getting funded, but, overall, we believe that many of the businesses in the industry would be capable of surviving an economic slowdown. Some may even benefit given their counter-cyclical characteristics. Space assets are inherently becoming critical infrastructure – GPS, communication systems, and national intelligence all rely on space-based assets. We believe that in the near-term more essential services are likely to become space-reliant.

6.4%
YoY growth in the commercial space sector

19%
YoY increase in government spending

1,022
Spacecraft placed in orbit 1H2022

1,700+
Space companies currently operating

Macroeconomic headwinds stirring market concerns

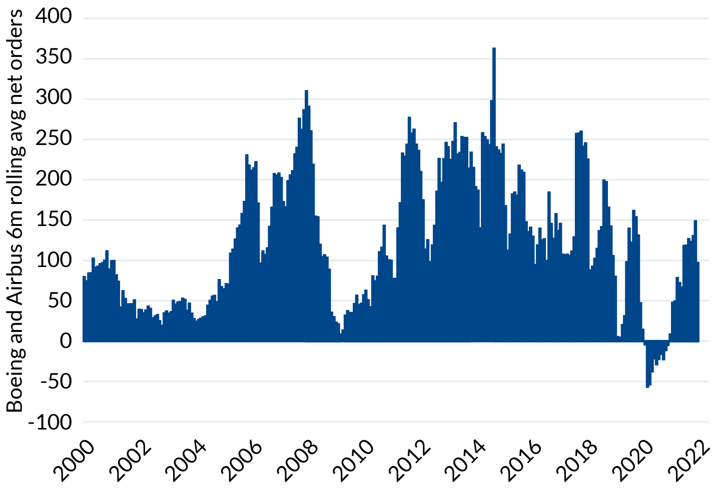
As discussed throughout, the A&D sectors are not immune to the well-known and notable headwinds – geopolitical tensions, rising U.S. interest rates and supply chain issues – that may ultimately slow the ongoing recovery.

Although strict COVID-19-related lockdowns mute the demand for travel across Asia, Goldman Sachs reports that Boeing and Airbus cancellations as a percent of their backlog are continuing to decrease from 2020 highs. Indeed, Boeing has seemingly successfully navigated its internal issues as the company has successfully ramped up production of its 737 to meet ongoing industrywide demand for narrowbody aircraft.

Moreover, Boeing's CEO believes that although widebody aircraft demand lags that of the narrowbody, the lack of demand has been overstated and the widebody's recovery is forthcoming. Such potential equates to impending demand for Boeing's 787. Overall, IATA data shows that despite headwinds, aircraft deliveries have risen through 2022 reaching or exceeding pre-COVID-19 levels.

From investors' view, particularly private equity, many firms are recognizing that despite noted headwinds, the sustained backlog for aircrafts and the demand for travel positions the commercial aviation industry well. Accordingly, Tier 1 and 2 suppliers remain well-situated to capture profitable contracts. In particular, some are examining the use of U.S.-based suppliers as an option to mitigate supply chain risk and, as such, interest in these businesses remains strong.

CHART 4: **BOEING AND AIRBUS NET ORDERS (ORDERS - CANCELLATIONS)**



Source: Cirium, May 2022

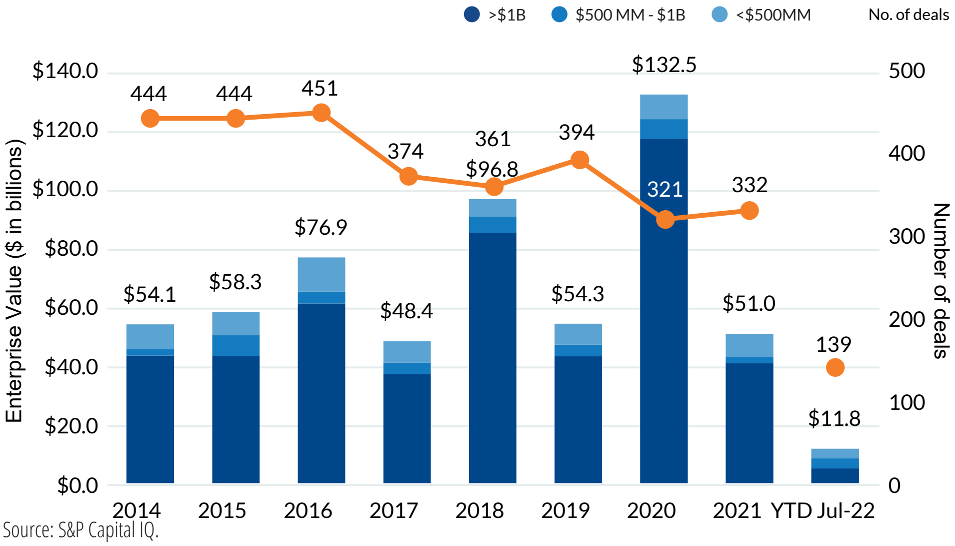
M&A Overview

As we anticipated in our last update, M&A activity in the A&D sectors significantly increased throughout 2021 due to COVID-19 restrictions easing and manufacturing returning to a level of normalcy. By contrast, in 2022, M&A has slightly slowed off 2021 highs given the previously mentioned headwinds.

However, there are also noteworthy tailwinds propelling the industry forward. For instance, continued demand for business and commercial travel keeps sellers and buyers of related businesses coming to the market. Moreover, rising defense spending establishes strong market conditions for associated companies, particularly those within emerging technologies. In space, start-ups are continuing to find funding and the number of overall space businesses continues to grow year-over-year.

Within the middle market, there remains a strong appetite for A&D businesses. Over the next 6 to 12 months, we anticipate interest in defense-oriented companies to maintain; in commercial aerospace we believe companies that can help mitigate supply chain disruptions will be extremely valuable assets; in the space industry we foresee some consolidation with transactional focus being to acquiring talent and technology, particularly in support of earth observation offerings.

CHART 5: **M&A ACTIVITIY IN 2022**



Source: S&P Capital IQ.

Recent deals

Mezzo

Founded in 2000, Mezzo Technologies is a leading designer and manufacturer of custom, high-performance advanced thermal solutions and microtube heat exchanger products

Mesirow acted as Mezzo's exclusive financial advisor, highlighting Mesirow's expertise in the Aerospace and Defense markets

"Mesirow provided exemplary guidance throughout this process, demonstrating the value of Mezzo's high-performance products while underscoring significant growth potential driven by the Company's heritage of research and development into applications that require the highest level of performance." (Kevin Kelly, Mezzo CEO)

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Mesirow acted as STG's exclusive financial advisor, representing another successful outcome for Mesirow's Aerospace and Defense group

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Dedicated advisor to the Aerospace & Defense sector

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