



# Cassel Salpeter & Co.

INVESTMENT BANKING

## Aviation Investment Banking Q2 2020 Update

Confidential

Member FINRA | SIPC



**James S. Cassel**  
Chairman  
jcassel@cs-ib.com  
305-438-7701

### Relevant Experience:

- Investment banking for over 24 years

### Representative Assignments:



Bankruptcy  
\$363 Sale Airlines



Bankruptcy  
\$363 Sale Airlines



M&A Sale MRO



**Scott E. Salpeter**  
President  
ssalpeter@cs-ib.com  
305-438-7702

### Relevant Experience:

- Investment banking for over 24 years

### Representative Assignments:



Valuation MRO



Valuation MRO



Solvency Opinion Freight & Logistics



Valuation MRO



**Joseph "Joey" Smith**  
Director, Aviation  
Services  
jsmith@cs-ib.com  
305-438-7706

### Relevant Experience:

- Investment banking for over 20 years

### Representative Assignments:



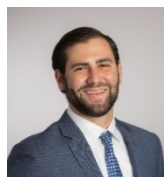
Capital Raise Aviation Services



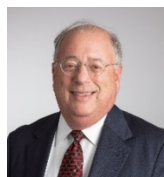
Capital Raise MRO



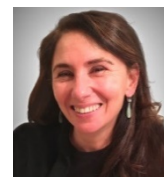
Capital Raise Distribution



Philip Cassel  
Managing Director



Ira Leiderman  
Managing Director



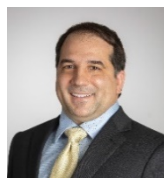
Deborah Aghib  
Managing Director



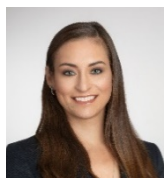
Margery Fischbein  
Managing Director



Marcus Wai  
Vice President



Chris Mansueto  
Vice President



Laura Salpeter  
Vice President



Julian Astrove  
Associate



Edward Kropf  
Associate



Tahz Rashid  
Analyst

Includes projects by our professionals at prior firms.

- In this challenging environment, we are uniquely qualified to assist middle-market aviation companies and their owners with assignments including capital raising, both debt and equity, owner liquidity, full or partial sale, and buy-side acquisition opportunities.
- Our team provides a wide range of restructuring and advisory services, including:
  - Distressed M&A, including §363 sales (Chapter 11 and Chapter 7), out-of-court distressed sales, Article 9 sales, debt sales, and other similar transactions;
  - Out-of-court restructuring services, including refinancing debt, renegotiating senior and/or subordinated facilities, placing junior capital, restructuring equity base or existing debt and/or other obligations, and deleveraging;
  - Bankruptcy services including plans of reorganization, arranging DIP and/or exit financing, formulating plans of reorganization and related financial analysis, expert testimony, and other similar services;
  - Creditor representation; and
  - Board of Director and Special Committee Advisory, including fairness opinions, solvency opinions and related analysis.
- Our restructuring advisory capabilities include:
  - evaluating the financial condition and operations of a company, including any related financial analysis required;
  - exploring, evaluating, and recommending financial and strategic alternatives in efforts to assist a company in the return to profitability or in the salvaging of valuable assets;
  - developing a comprehensive financial restructuring program;
  - leading negotiations with relevant constituencies; and
  - facilitating implementation of the selected restructuring plan.

**I**

## **AEROSPACE & DEFENSE REVIEW**

II

## **M&A & PRIVATE PLACEMENT TRANSACTIONS**

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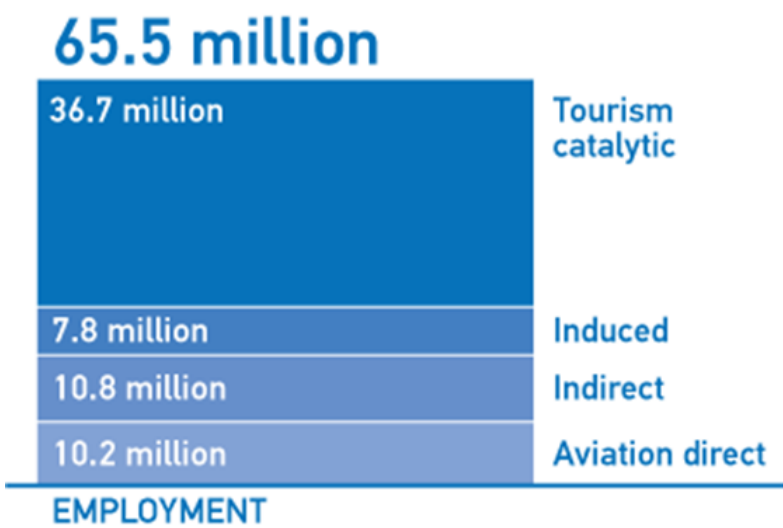
## **PUBLIC MARKETS OVERVIEW**

- What a difference a quarter can make to the global aviation industry when the world literally shuts down. With the airlines still somewhat grounded, it reverberates throughout the aviation ecosystem from OEM manufacturers and their Tier 1-2 suppliers, to MROs and the aftermarket suppliers, to airports and their personnel and contractors, and throughout the massive related business travel, leisure, and tourism industries.
- The International Air Transport Association (IATA) released its financial outlook for the global air transport industry showing that airlines are expected to lose \$84.3 billion in 2020 on a 50% revenue drop to \$419 billion from \$838 billion in 2019. In 2021, losses are expected to be cut to \$15.8 billion as revenues rise to \$598 billion (~28% decline from 2019 revenues).
  - The impact of COVID-19 on the global economy will be severe, with Global GDP expected to contract by 5.0% in 2020.
  - COVID-19 will have an impact on international trade (13% decline) which has been suffering from the US-China trade war.
  - Revenues are expected to fall more than demand, as airlines are discounting ticket prices to help stimulate travel.
  - The sharp fall in airline revenue has led to high cash burn due to fixed costs, creating pressure to reduce operating costs.
  - 32 million jobs supported by aviation (including tourism) are at risk of either short-term furlough and/or termination.
- Provided there is not a second and more damaging wave of COVID-19, the worst of the collapse in traffic has likely occurred. A key to the recovery is universal implementation of the re-start measures agreed through the International Civil Aviation Organization (ICAO) to keep passengers and crew safe. With the help of effective contact tracing, these measures should give governments the confidence to open borders without quarantine measures.
  - That is an important part of the economic recovery because about 10% of the world's GDP is from tourism and much of that depends on air travel and its associated support ecosystem. Getting people safely flying again will be a powerful economic boost for the entire global economy.

- In the near-term, consumers will face lower real travel costs as airlines are discounting ticket prices to stimulate demand. The average return fare (before surcharges/tax) of \$254 in 2020 is forecasted to be 68% lower than in 1998 (adjusted for inflation).
- Expect the share of world GDP spent on air transport to be halved in 2020, totaling \$434 billion (0.5% of GDP) amidst widespread lockdowns. Revenue Passenger Kilometers (RPK) are estimated to plummet by 55% in 2020 versus last year.
- The recovery in the second half of 2020 is predicted to come initially from domestic markets and then via a gradual opening of international markets. However, the global recession and weak consumer confidence will put pressure on the recovery in air travel demand. World trade is also forecasted to fall by 13% in 2020, indicating a steep decline in air cargo volumes.
- Industry sentiment regarding the prospects for both passenger travel and cargo has declined abruptly. The impact of the pandemic on the passenger side is more severe and volumes are not expected to be fully restored within a year. Even though current demand is more resilient on the cargo side with the support of shipments of necessities, such as medical supplies, expectations for air cargo also turned negative for the first time since April 2009. However, trade is expected to rebound strongly next year, which will be supportive for air cargo volumes in 2021.
- For 2020, commercial airlines currently have around 960 new aircraft scheduled for delivery. This is approximately 40% lower than the number originally planned at the beginning of this year, and it should be expected that airlines will consider further cancellations or postponements over the second half of the year. At the end of May, just 235 new aircraft had been delivered, well down from the previous comparable periods. Looking forward, the investment appetite for new aircraft is likely to remain subdued into 2021, with airlines expected to consider the sale of their existing assets.
- In 2020, the in-service fleet is expected to decrease to 20,261 aircraft this year. The average size of aircraft in the fleet will also decline as airlines initially focus on short and medium-haul travel. By the end of 2020, it is estimated that available seats will be 2.8 million, one-third lower than in 2019. In addition, the passenger load factor is expected to ease substantially from 82.5% in 2019 to 62.7%, stemming from potential increased regulatory requirements and decline in passenger confidence.

Sources of information: IATA 2020 Mid-year report – June 9, 2020.

- The aviation industry supports 65.5 million jobs around the world, either directly within the industry or supported through the industry's supply chain, employees' spending, and aviation-enabled tourism sector.
- Around 10.2 million people work in the aviation industry directly. These jobs are:
  - Airport operators: 525,000 (work for the airport operator)
  - Other airport-based roles: 5.6 million (retail, car rental, customs and immigration, freight forwarders, and catering)
  - Airlines: 2.7 million (flight and cabin crews, executives, ground services, check-in, training, maintenance staff)
  - Civil aerospace: 1.2 million (engineers and designers of civil aircraft, engines and components)
  - Air navigation service providers: 233,000 (air traffic controllers, executives)



Sources of information: AviationBenefits.org – Air Transport Action Group.

- Fortune.com calculates the total number of announced major-airline job cuts up to around 70,000, with more surely to come. With looming cuts at suppliers such as Boeing, the coronavirus pandemic now seems set to claim more than 100,000 jobs in the sector. There is one caveat, for the U.S. carriers on this list, the cuts cannot take place before the end of September due to the terms of the airlines' federal coronavirus payroll support deals.
- To that end, United Airlines just announced its intention to lay off up to 36,000 U.S. employees in October as travel activity remains depressed.
- In North America, air transport supports 7.3 million jobs and \$844 billion of economic activity. That represented 4.3% of all employment and 4.2% of all GDP in the U.S. and Canada in 2016, which continued to grow through 2019.



Sources of information: Fortune online – David Meyer, June 6, 2020 and AviationBenefits.org – Air Transport Action Group.



- Expect airlines to still be financially fragile in 2021, with passenger revenues projected to be more than one-third less than in 2019, with airlines expected to lose ~\$5 for every passenger carried. The cut in losses will come from re-opened borders leading to increased volumes of travelers. Strong cargo operations and comparatively low fuel prices will also give the industry a boost. Competition among airlines will be intense with strong incentives for travelers to take to the skies again.
- Although losses are projected to be significantly reduced in 2021 from 2020 levels, the industry's recovery is expected to be long and challenging. Some factors include:
  - Debt levels: Airlines began 2020 in relatively good financial shape. After a decade of profits, debt levels were relatively low (\$430 billion, roughly half annual revenues). Vital financial relief measures by governments (the CARES Act allotted up to \$25 billion in liquidity to aid the aviation industry) have kept airlines from going bankrupt but have ballooned debt by \$120 billion to \$550 billion, which is about 92% of expected revenues in 2021.
  - Operational efficiencies: The global measures agreed upon for the industry re-start, which are being implemented, will significantly change operational parameters. For example, physical distancing during embarkation/disembarking, more deep cleaning, and increased cabin check will all add time to operations, which will decrease overall aircraft utilization.
  - Confidence: Travel patterns are likely to shift. The gradual opening-up of air travel is likely to be progressive, starting with domestic markets, followed by regional, and lastly, international. Research suggests that some 60% of travelers will be eager to recommence travel within a few months of the pandemic coming under control.
- People will want to fly again, provided they have confidence in the measures taken to keep travelers safe. There is no tried and true playbook for a recovery from COVID-19, but it is important that the industry and governments follow the appropriate regulatory guidelines, so travelers will have the maximum reassurance about their safety. Additionally, as the pandemic evolves, and knowledge of the virus deepens, or science improves, the industry and governments will be better prepared for a globally coordinated response.
- Oliver Wyman's "Update on the Impact of COVID-19" has a baseline forecast, assuming multiple waves of contagion, wherein passenger revenue begins its recovery in late summer 2020 and reaches 60% of pre-COVID levels by late fall, when it will plateau as new infection hotspots flair up. Growth will remain suppressed until a vaccine is developed, which is expected sometime between Spring/Summer of 2021, assuming fast-tracking by regulators. Global air travel will finally return to pre-COVID levels by the end of 2021, nearly two years after the initial outbreaks.

Sources of information: IATA and Oliver Wyman 051420.

- Two factors have strongly influenced the growth drivers of the air freight market. The first is the global increase of e-commerce. This has connected retailers and consumers in different geographic locations across both domestic and international markets, driving up the demand for delivery services in the process. Second, is the cost of airline fuel. In 2012, airline fuel prices reached historic highs, which led to slow growth in air freight volumes, while the increasing growth in freight volume seen from around 2016, coincided with a sharp fall in the cost of airline fuel.
- Compared to 2019, overall freight tonnage carried is expected to drop by 10.3 million tons to 51.0 million tons. However, a severe shortage in cargo capacity due to the unavailability of belly cargo on (grounded) passenger aircraft is expected to push rates up by some 30% for the year.
- Cargo revenues will reach a near-record \$110.8 billion in 2020 (up from \$102.4 billion in 2019). As a portion of the overall aviation industry revenues, cargo will contribute approximately 26% in 2020, up from 12% in 2019.
- Cargo's enlarged footprint in the air transport industry will remain. Cargo revenues in 2021 are estimated to reach a record \$138.0 billion (a 25% increase versus 2020). It is expected to represent about 23% of total industry revenues, roughly double its historical share.
- Air cargo demand is expected to be strong as businesses restock at the start of the economic upturn, while a slow return of the passenger fleet will limit the growth of cargo capacity and keep cargo yields steady at 2020 levels.
- Increased market opportunities may result from the ability to become more involved in the cargo sector, whether it be as an operator or supply-chain provider, such as MROs or OEM/after-market distributors.

Sources of information: IATA 2020 Mid-year report – June 9, 2020 and Statista.

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I AEROSPACE & DEFENSE REVIEW

**II M&A & PRIVATE PLACEMENT TRANSACTIONS**

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III PUBLIC MARKETS OVERVIEW

# SELECTED M&A TRANSACTIONS

## Selected Transactions Review

(\$ in millions)

Transaction					Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target Trailing Twelve Months (TTM)			Implied Enterprise Value (EV) /			
Closed	Anncd.				Revenue	EBITDA %	EBIT %	Revenue	EBITDA	EBIT	
2020 2nd Quarter M&A Transactions											
30-Jun-20	1-Jul-20	Meggitt Training Systems, Inc.	Pine Island Capital Partners	\$ 146.0	\$ 137.7	na	na	1.06x	na	na	
26-Jun-20	26-Jun-20	DataWing Global	B3Bar Holdings LLC	na	na	na	na	na	na	na	
23-Jun-20	23-Jun-20	Made In Space, Inc.	Redwire, LLC	na	na	na	na	na	na	na	
31-May-20	25-Jun-19	Canadair Regional Jet Program of Bombardier Inc.	Mitsubishi Heavy Industries, Ltd.	\$ 750.0	na	na	na	na	na	na	
7-May-20	21-Nov-19	Chemring Ordnance, Inc.	Nammo AS	\$ 17.0	na	na	na	na	na	na	
5-May-20	6-May-20	Assets of TTF Aerospace, Inc.	Commercial Aircraft Interiors, LLC	na	na	na	na	na	na	na	
4-May-20	3-Feb-20	L3 Security & Detection Systems, Inc./MacDonald Humfrey (Automation) Ltd.	Leidos Holdings, Inc.	\$ 1,000.0	\$ 500.0	na	na	2.00x	na	na	
2-May-20	20-Jan-20	Airborne Tactical Radios Business of Raytheon Company	BAE Systems plc	\$ 275.0	na	na	na	na	na	na	
1-May-20	1-May-20	Certain Assets of DHPC Technologies Inc.	Perspecta Inc.	\$ 53.0	na	na	na	na	na	na	
27-Apr-20	27-Apr-20	Propius Holdings Limited/Stobart Air Unlimited Company	Stobart Group Limited	\$ 10.7	na	na	na	na	na	na	
15-Apr-20	10-Apr-20	Chengdu Tianke Precision Manufacturing Co. Ltd.	Xi'an Chuangkecun E-Commerce Co., Ltd.	\$ 19.8	na	na	na	na	na	na	
8-Apr-20	28-Jan-20	Kopter Group AG	Leonardo S.p.a.	\$ 185.0	na	na	na	na	na	na	
8-Apr-20	30-Dec-19	Maxar Technologies ULC/MDA GP Holdings Ltd./MDA Systems Inc.	Northern Private Capital Ltd.	\$ 714.3	na	na	na	na	na	na	
3-Apr-20	9-Jun-19	Raytheon Company	United Technologies Corporation (nka:Raytheon Technologies Corporation)	\$ 58,419.6	\$ 27,520.0	18.2%	12.5%	1.97x	11.69x	13.9x	
3-Apr-20	24-Dec-19	Ellison Surface Technologies, Inc	Bodycote plc	\$ 200.0	\$ 59.0	20.3%	na	3.39x	16.67x	na	
na	27-May-20	Hainan Sky Plumage Flight Training Co., Ltd.	HNA Infrastructure Industrial Group Co., Ltd.	\$ 107.0	na	na	na	na	na	na	
				Mean	\$ 4,761.3	\$ 7,054.2	19.2%	12.5%	2.11x	14.18x	13.9x
				Median	\$ 185.0	\$ 318.9	19.2%	12.5%	1.99x	14.18x	13.9x

Sources of Information: S&P Capital IQ and Pitchbook

### Selected Private Placements Review

(\$ in millions)

Close Date	Target	Investors	Raise	Round Type	Round Number
<b>2020 2nd Quarter Private Placements</b>					
30-Jun-20	Tailwind Technologies Inc.	Undisclosed	\$ 1.4	Growth	1
29-Jun-20	Sacheon Aerospace Manufacturing Ind. Co., Ltd	Beijing Motors Co., Ltd.	1.0	PIPE	4
25-Jun-20	Leaf Space-- S.r.l.	RedSeed Ventures; Whysol Investments S.r.l	3.4	Series A	2
10-Jun-20	Milrem AS	Undisclosed	6.2	Growth	1
26-May-20	Magnetic MRO AS	Shenzhen Yongtai Trading Co., Ltd.; Hongkong Yongtai Trading Services Co., Limited	9.8	Venture	1
20-May-20	Xwing, Inc.	Thales Corporate Ventures; Alven Capital Partners SA; ENIAC Ventures; R7 Partners	10.0	Series A	2
16-Apr-20	BAE Systems plc	Undisclosed	80.7	PIPE	11
na	JSC Arzamas research production enterprise TEMP-AVIA	Tactical Missiles Corporation JSC	15.7	Growth	7
na	Mecachrome France SAS	Bpifrance Investissement SAS; Fonds de solidarité FTQ; ACE Management	54.9	Growth	1
na	Joint stock company Smolensk aircraft plant	Tactical Missiles Corporation JSC	9.2	Growth	9
na	HNA Aviation Technic Co.,Ltd.	Hainan Island Linkong Industrial Group Co., Ltd.	350.4	Growth	1
na	Patriot One Technologies Inc.	Digital Technology Supercluster	3.2	PIPE	3
na	AviChina Industry & Technology Company Limited	National Military and Civilian Integration Industry Investment Fund Co., Ltd.; Huihua Fund Management Co., Ltd.	140.9	PIPE	1
na	Sichuan Jiaqirui Aviation Equipment Co., Ltd.	Houpu Clean Energy Co., Ltd.	7.0	Growth	1
na	Delta Drone SA	Ott Ventures S.R.O.	1.1	PIPE	8
na	Honeywell Boyun Aviation System (Hunan) Co., Ltd.	Honeywell (China) Co., Ltd.; Hunan Boyun New Materials Co.,Ltd	18.0	Venture	1
na	Delta Drone SA	Yorkville Advisors Global LP	10.9	PIPE	7
Mean			\$ 42.6		
Median			\$ 9.8		

Sources of information: S&P Capital IQ and Pitchbook

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I AEROSPACE & DEFENSE REVIEW

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II M&A & PRIVATE PLACEMENT TRANSACTIONS

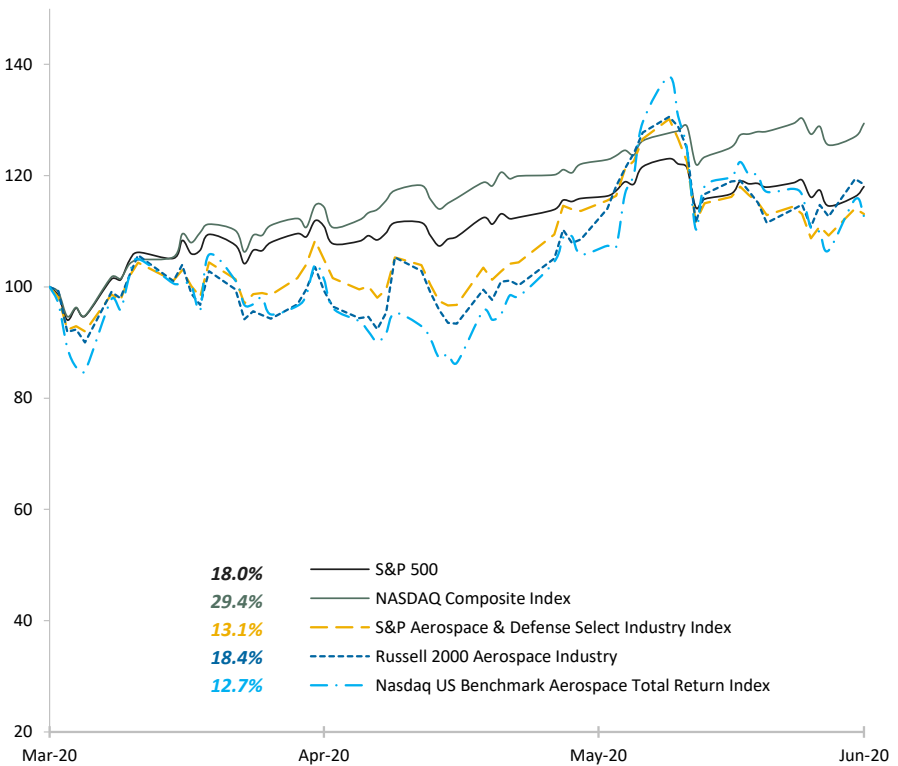
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**III PUBLIC MARKETS OVERVIEW**

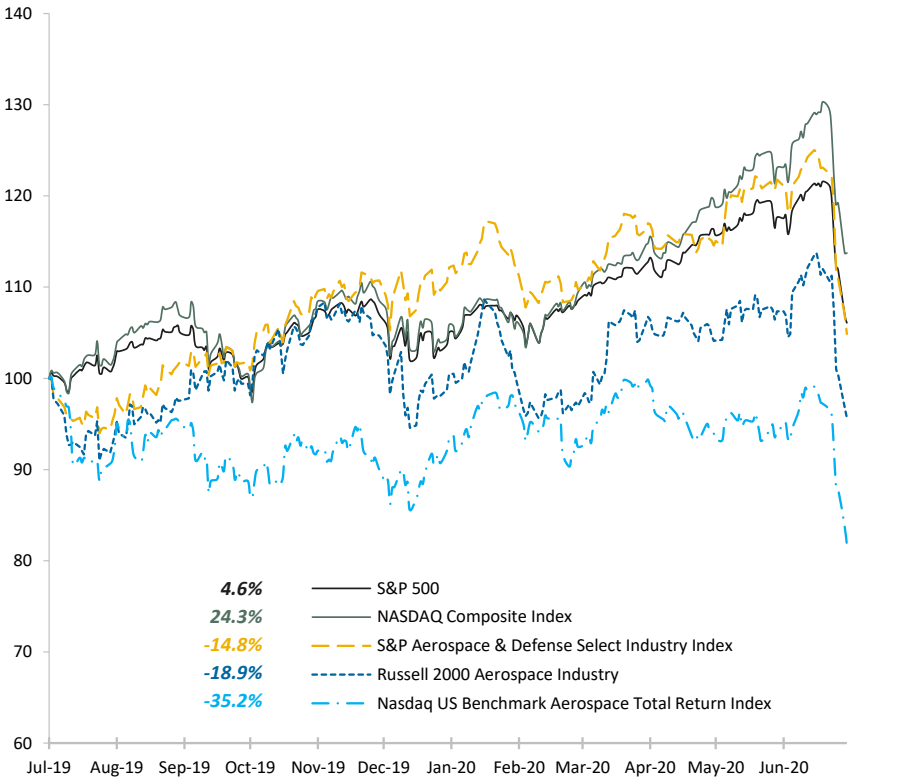
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Relative Performance

Quarterly - March 30, 2020 to June 30, 2020



Annual - July 1, 2019 to June 30, 2020



Sources of information: S&P Capital IQ.

# SELECTED PUBLIC COMPANY TRADING DATA

## Selected Companies Review

(\$ in thousands, except per security)

Company	Ticker	Market Statistics			Metrics				Valuation Benchmarks				
		Closing Price	% of 52-week	Enterprise	Revenue	EBITDA	EBITDA	EBITDA	EV / Revenue		EV / EBITDA		
		30-Jun-20	High-Low	Value	LTM	LTM	LTM Margin	2021 E Growth	LTM	2020 E	LTM	2020 E	
Aerostructures & Component Manufacturers													
Air Industries Group	AIRI	\$ 1.19	35.4% - 198.3%	\$ 64.6	\$ 54.1	\$ 3.3	6.1%	192.7%	1.19x	1.33x	19.6x	29.1x	
Allegheny Technologies Incorporated	ATI	\$ 10.19	39.8% - 205.9%	2,460.9	4,073.2	452.6	11.1%	26.4%	0.60x	0.77x	5.4x	9.2x	
Astronics Corporation	ATRO	\$ 10.56	25.1% - 151.1%	496.7	722.1	67.4	9.3%	49.7%	0.69x	0.99x	7.4x	17.8x	
CPI Aerostructures, Inc.	CVU	\$ 3.29	38.5% - 255.0%	74.9	100.9	11.5	11.4%	19.6%	0.74x	0.65x	6.5x	5.1x	
Hexcel Corporation	HXL	\$ 45.22	52.0% - 184.3%	4,840.1	2,286.8	541.3	23.7%	15.8%	2.12x	2.72x	8.9x	14.0x	
Honeywell International Inc.	HON	\$ 144.59	78.6% - 143.0%	110,384.1	36,288.0	8,677.0	23.9%	8.0%	3.04x	3.46x	12.7x	14.5x	
Ducommun Incorporated	DCO	\$ 34.87	60.3% - 214.3%	712.9	722.0	88.4	12.2%	8.6%	0.99x	1.09x	8.1x	8.9x	
FACC AG	WBAG:FACC	\$ 7.26	49.9% - 129.0%	583.3	863.9	86.9	10.1%	53.9%	0.68x	0.90x	6.7x	20.7x	
Héroux-Devtek Inc.	TSX:HRX	\$ 7.48	47.0% - 118.9%	453.4	432.5	59.4	13.7%	-1.8%	1.05x	1.10x	7.6x	7.6x	
Innovative Solutions and Support, Inc.	ISSC	\$ 5.00	70.4% - 416.7%	63.3	18.7	2.0	10.5%	na	3.38x	na	32.2x	na	
JAMCO Corporation	TSE:7408	\$ 7.14	34.8% - 131.2%	507.9	850.7	43.0	5.1%	na	0.60x	na	11.8x	na	
Kaman Corporation	KAMN	\$ 41.60	61.0% - 141.6%	1,278.1	802.5	116.9	14.6%	28.4%	1.59x	1.63x	10.9x	12.6x	
Latécoère S.A.	ENXTPA:LAT	\$ 2.37	54.1% - 169.6%	384.0	800.8	31.8	4.0%	120.5%	0.48x	0.63x	12.1x	16.9x	
Lisi S.A.	ENXTPA:FII	\$ 20.82	54.7% - 148.0%	1,493.8	1,972.9	294.2	14.9%	34.4%	0.76x	1.04x	5.1x	7.8x	
Magellan Aerospace Corporation	TSX:MAL	\$ 5.31	42.2% - 150.4%	374.2	695.0	95.9	13.8%	1.8%	0.54x	0.64x	3.9x	4.5x	
Meggitt PLC	MGGT	\$ 3.64	41.9% - 150.0%	3,970.8	3,014.6	655.6	21.7%	20.1%	1.32x	1.76x	6.1x	9.6x	
Moog Inc.	MOG.A	\$ 52.98	54.9% - 163.1%	2,798.2	3,026.3	381.5	12.6%	-0.4%	0.92x	1.01x	7.3x	9.8x	
RBC Bearings Incorporated	ROLL	\$ 134.04	72.4% - 172.7%	3,273.3	727.5	189.3	26.0%	4.2%	4.50x	4.87x	17.3x	18.8x	
Senior plc	LSE:SNR	\$ 0.86	30.9% - 154.8%	642.5	1,471.0	154.4	10.5%	28.1%	0.44x	0.65x	4.2x	6.2x	
SIFCO Industries, Inc.	SIF	\$ 4.00	71.2% - 211.6%	65.0	112.7	(0.1)	-0.1%	na	0.58x	na	na	na	
Spirit AeroSystems Holdings, Inc.	SPR	\$ 23.94	25.8% - 174.9%	3,772.1	6,972.6	741.8	10.6%	-462.0%	0.54x	0.99x	5.1x	na	
Triumph Group, Inc.	TGI	\$ 9.01	30.7% - 298.3%	1,857.5	2,900.1	287.4	9.9%	17.1%	0.64x	0.85x	6.5x	10.0x	
TransDigm Group Incorporated	TDG	\$ 442.05	65.6% - 221.0%	40,274.7	5,970.2	2,623.4	43.9%	7.7%	6.75x	8.54x	15.4x	19.0x	
Woodward, Inc.	WWD	\$ 77.55	60.1% - 166.8%	5,934.1	2,929.1	491.8	16.8%	3.4%	2.03x	2.37x	12.1x	14.6x	
		Mean	49.9% - 186.3%	\$ 7,781.7	\$ 3,242.0	\$ 670.7	14.0%	8.4%	1.51x	1.81x	10.1x	12.8x	
		Median	50.9% - 168.2%	\$ 995.5	\$ 857.3	\$ 135.6	11.8%	17.1%	0.84x	1.04x	7.6x	11.3x	

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

Sources of information: S&P Capital IQ.



# SELECTED PUBLIC COMPANY TRADING DATA

## Selected Companies Review

(\$ in thousands, except per security)

Company	Ticker	Market Statistics			Metrics				Valuation Benchmarks				
		Closing Price	% of 52-week	Enterprise	Revenue	EBITDA	EBITDA	EBITDA	EV / Revenue		EV / EBITDA		
		30-Jun-20	High-Low	Value	LTM	LTM	LTM Margin	2021 E Growth	LTM	2020 E	LTM	2020 E	
MRO, Parts & Supply Chain													
AAR Corp.	AIR	\$ 20.67	39.2% - 241.5%	\$ 963.5	\$ 2,218.2	\$ 143.2	6.5%	31.6%	0.43x	0.57x	6.7x	10.0x	
HEICO Corporation	HEI	\$ 99.65	67.4% - 191.6%	12,792.8	2,048.3	549.2	26.8%	13.9%	6.25x	7.29x	23.3x	28.2x	
MTU Aero Engines AG	XTRA:MTX	\$ 173.48	53.3% - 157.7%	9,318.9	5,242.2	828.4	15.8%	23.6%	1.78x	2.31x	11.2x	13.2x	
Singapore Technologies (ST Aerospace)	SGX:S63	\$ 2.37	74.7% - 118.7%	8,928.4	5,850.1	707.9	12.1%	11.3%	1.53x	1.73x	12.6x	13.7x	
TAT Technologies Ltd.	TATT	\$ 3.96	66.0% - 132.0%	27.0	104.1	7.2	7.0%	na	0.26x	na	3.7x	na	
VSE Corporation	VSEC	\$ 31.39	76.3% - 227.0%	647.5	760.1	91.0	12.0%	50.1%	0.85x	1.07x	7.1x	12.8x	
		Mean	62.8% - 178.1%	\$ 5,446.4	\$ 2,703.8	\$ 387.8	13.4%	26.1%	1.85x	2.59x	10.8x	15.6x	
		Median	66.7% - 174.6%	\$ 4,945.9	\$ 2,133.2	\$ 346.2	12.0%	23.6%	1.19x	1.73x	9.2x	13.2x	
Aviation Services													
AerCap Holdings N.V.	AER	\$ 30.80	47.5% - 295.6%	\$ 32,297.8	\$ 4,970.5	\$ 2,760.9	55.5%	-1.3%	6.50x	7.06x	11.7x	8.1x	
Air Lease Corporation	AL	\$ 29.29	58.6% - 348.3%	17,074.7	2,062.2	na	na	16.4%	8.28x	8.28x	na	9.0x	
Air T, Inc.	AIRT	\$ 11.75	48.0% - 129.7%	128.8	236.8	13.0	5.5%	na	0.54x	na	9.9x	na	
Air Transport Services Group, Inc.	ATSG	\$ 22.27	87.0% - 168.7%	2,853.1	1,493.3	451.1	30.2%	10.1%	1.91x	1.83x	6.3x	6.1x	
Atlas Air Worldwide Holdings, Inc.	AAWW	\$ 43.03	90.2% - 287.4%	3,830.5	2,703.0	479.0	17.7%	-10.7%	1.42x	1.30x	8.0x	6.1x	
CAE Inc.	TSX:CAE	\$ 16.19	52.4% - 154.4%	6,110.2	2,556.2	495.0	19.4%	35.5%	2.39x	2.82x	12.3x	13.9x	
Gogo Inc.	GOGO	\$ 3.16	43.7% - 237.6%	1,269.2	820.7	141.3	17.2%	291.7%	1.55x	2.31x	9.0x	45.6x	
		Mean	61.1% - 231.7%	\$ 9,080.6	\$ 2,120.4	\$ 723.4	24.3%	56.9%	3.23x	3.93x	9.5x	14.8x	
		Median	52.4% - 237.6%	\$ 3,830.5	\$ 2,062.2	\$ 465.0	18.5%	13.2%	1.91x	2.56x	9.4x	8.6x	

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

Sources of information: S&P Capital IQ.

# SELECTED PUBLIC COMPANY TRADING DATA

## Selected Companies Review

(\$ in thousands, except per security)

Company	Ticker	Market Statistics			Metrics				Valuation Benchmarks				
		Closing Price	% of 52-week	Enterprise	Revenue	EBITDA	EBITDA	EBITDA	EV / Revenue		EV / EBITDA		
		30-Jun-20	High-Low	Value	LTM	LTM	LTM Margin	2021 E Growth	LTM	2020 E	LTM	2020 E	
Airframe & Engine OEM													
Airbus SE	ENXTPA:AIR	\$ 71.48	45.6% - 132.0%	\$ 62,713.2	\$ 75,340.7	\$ 3,578.0	4.7%	34.8%	0.83x	1.13x	17.5x	9.9x	
The Boeing Company	BA	\$ 183.30	46.9% - 206.0%	127,403.6	70,550.0	(2,481.0)	-3.5%	516.0%	1.81x	1.89x	na	79.7x	
Bombardier Inc.	TSX:BBD.B	\$ 0.31	17.9% - 110.5%	11,578.2	15,932.0	348.0	2.2%	69.7%	0.73x	0.86x	33.3x	17.5x	
Dassault Aviation SA	ENXTPA:AM	\$ 923.36	56.4% - 131.5%	2,716.3	8,277.8	993.1	12.0%	58.9%	0.33x	0.49x	2.7x	5.4x	
Embraer S.A.	BOVESPA:EMBR3	\$ 1.48	39.3% - 137.4%	950.0	2,056.8	68.5	3.3%	458.6%	0.46x	0.25x	13.9x	17.9x	
General Electric Company	GE	\$ 6.83	51.5% - 124.6%	118,533.6	93,536.0	11,086.0	11.9%	65.0%	1.27x	1.49x	10.7x	22.2x	
Rolls-Royce Holdings plc	LSE:RR.	\$ 3.53	31.7% - 121.2%	8,311.2	21,968.1	(275.5)	-1.3%	30.5%	0.38x	0.57x	na	5.2x	
Safran SA	ENXTPA:SAF	\$ 100.41	58.6% - 174.6%	48,139.0	28,351.5	5,666.0	20.0%	26.0%	1.70x	2.44x	8.5x	13.9x	
Textron Inc.	TXT	\$ 32.91	60.7% - 162.4%	10,531.1	13,298.0	1,459.0	11.0%	38.5%	0.79x	0.93x	7.2x	11.6x	
		Mean	45.4% - 144.5%	\$ 43,430.7	\$ 36,590.1	\$ 2,271.3	6.7%	144.2%	0.92x	1.12x	13.4x	20.4x	
		Median	46.9% - 132.0%	\$ 11,578.2	\$ 21,968.1	\$ 993.1	4.7%	58.9%	0.79x	0.93x	10.7x	13.9x	
Defense Contractors													
AeroVironment, Inc.	AVAV	\$ 79.63	98.6% - 177.0%	\$ 1,625.1	\$ 367.3	\$ 56.2	15.3%	12.4%	4.42x	4.04x	28.9x	25.3x	
BAE Systems plc	LSE:BA.	\$ 5.99	71.8% - 112.8%	22,129.0	24,243.4	2,623.7	10.8%	14.1%	0.91x	0.88x	8.4x	7.1x	
Elbit Systems Ltd.	TASE:ESLT	\$ 137.03	80.8% - 112.9%	7,170.8	4,557.9	478.9	10.5%	6.5%	1.57x	1.50x	15.0x	12.6x	
General Dynamics Corporation	GD	\$ 148.36	76.6% - 147.5%	56,921.8	38,838.0	5,451.0	14.0%	5.7%	1.47x	1.46x	10.4x	10.9x	
Herkules S.A.	HRS	\$ 0.32	59.8% - 298.8%	31.9	29.3	3.2	10.9%	na	1.09x	na	9.9x	na	
Huntington Ingalls Industries, Inc.	HII	\$ 174.49	62.4% - 118.6%	8,976.4	9,082.0	1,067.0	11.7%	-21.2%	0.99x	1.00x	8.4x	7.4x	
Kratos Defense & Security Solutions, Inc.	KTOS	\$ 15.63	62.3% - 312.6%	2,152.0	726.0	61.5	8.5%	30.6%	2.96x	2.87x	35.0x	29.0x	
L3Harris Technologies, Inc.	LHX	\$ 169.67	73.5% - 119.5%	44,308.8	21,424.0	4,018.0	18.8%	10.2%	2.07x	2.39x	11.0x	12.2x	
Leonardo S.p.a.	BIT:LDO	\$ 6.64	49.6% - 134.7%	8,986.7	15,000.0	1,594.5	10.6%	19.2%	0.60x	0.62x	5.6x	5.6x	
Lockheed Martin Corporation	LMT	\$ 364.92	82.5% - 137.1%	113,363.1	61,127.0	8,936.0	14.6%	7.9%	1.85x	1.79x	12.7x	11.5x	
Mercury Systems, Inc.	MRCY	\$ 78.66	81.7% - 150.6%	4,240.4	756.2	140.2	18.5%	11.2%	5.61x	5.09x	30.2x	23.0x	
Northrop Grumman Corporation	NOC	\$ 307.44	79.9% - 116.8%	66,086.1	34,272.0	4,082.0	11.9%	8.5%	1.93x	1.88x	16.2x	13.4x	
Raytheon Technologies Corporation	RTX	\$ 61.62	38.9% - 128.2%	136,008.7	76,891.0	13,951.0	18.1%	21.3%	1.77x	2.13x	9.7x	14.6x	
Thales S.A.	ENXTPA:HO	\$ 80.89	64.1% - 136.9%	21,249.1	20,649.8	2,467.2	11.9%	24.6%	1.03x	1.11x	8.6x	8.9x	
		Mean	70.2% - 157.4%	\$ 35,232.1	\$ 21,997.4	\$ 3,209.3	13.3%	11.6%	2.02x	2.06x	15.0x	14.0x	
		Median	72.7% - 135.8%	\$ 15,117.9	\$ 17,824.9	\$ 2,030.8	11.9%	11.2%	1.67x	1.79x	10.7x	12.2x	

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

Sources of information: S&P Capital IQ.

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