

Q4: Quarterly Industry Update

AS OF December 31, 2019

cogent valuation
FINANCIAL OPINIONS

Aerospace and Defense

INDUSTRY SUMMARY

COGENT VALUATION identified Aerospace and Defense publicly traded companies, IPOs, and recent M&A transactions within the Aerospace and Defense industry, which provides a basis for market and transaction pricing that can be used by your firm in estimating market sentiment and its impact on your firm's value. Over the last year since September 30, 2018, the median 52-week share price return of the Aerospace and Defense industry was 47.6%. Between September 30, 2017 and December 31, 2019, the median EV/EBITDA multiple increased from 11.7 to 14.3. Furthermore, the median price-to-earnings multiple increased from 22.9 to 31.0 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 1.9% and 10.4%, respectively

Public Company Key Statistics

Median 52-Week
Return

7.5%

Median Year to Date
Return

7.7%

Median EV/Revenue
Multiple

1.5x

Median EV/EBITDA
Multiple

14.3x

Median Price/Earnings
Multiple

31x

Median EV/Gross CF
Multiple

31x

Comparable Public Company Market Price Returns as of December 31, 2019

	2019	3 Month	1 Year	2 Year	3 Year	2018	2017	2016
AAR Corp.	12.3%	12.3%	31.2%	4.4%	8.0%	-5.0%	18.9%	25.7%
Ability Inc.	-25.5%	-25.5%	-83.4%	N/A	N/A	-56.8%	-84.1%	-72.0%
Aerojet Rocketdyne Holdings, Inc.	-10.4%	-10.4%	28.9%	0.5%	2.9%	12.9%	73.8%	14.6%
DigitalGlobe, Inc.	-19.0%	-19.0%	62.4%	9.5%	6.2%	21.0%	109.3%	-9.0%
Ducommun Incorporated	-8.9%	-8.9%	-57.8%	10.9%	6.5%	-57.7%	-46.3%	-61.3%
Elbit Systems Ltd.	-21.4%	-21.4%	N/A	25.3%	26.0%	-55.3%	N/A	N/A
Embraer S.A.	-15.4%	-15.4%	-12.5%	-22.5%	-20.7%	-38.1%	47.0%	N/A
Engility Holdings, Inc.	-14.1%	-14.1%	3.4%	6.2%	-9.5%	-26.2%	1.4%	71.6%
Esterline Technologies Corporation	-10.1%	-10.1%	17.6%	-0.3%	-6.3%	-15.6%	22.5%	-4.4%
Northrop Grumman Corporation	-20.9%	-20.9%	-59.5%	27.2%	29.0%	42.4%	-55.3%	-2.0%
Orbital ATK, Inc.	48.3%	48.3%	72.5%	15.8%	-9.8%	65.1%	9.3%	40.2%
Raytheon Company	8.9%	8.9%	44.4%	29.9%	20.5%	14.0%	28%	-4.9%
Rockwell Collins, Inc.	8.2%	8.2%	20.5%	6.7%	10.4%	0.5%	9.3%	1.5%
SIFCO Industries, Inc.	-17.9%	-17.9%	48.0%	-33.2%	-40.3%	-19.5%	-67.4%	13.4%
Sparton Corporation	4.8%	4.8%	1.0%	-10.3%	-7.5%	19.3%	-29.5%	1.4%
Spirit AeroSystems Holdings, Inc.	0.0%	0.0%	34.7%	2.5%	19.8%	16.5%	16.3%	26.3%
TAT Technologies, Ltd.	4.1%	4.1%	39.9%	22.5%	11.6%	18.2%	10.8%	-16.1%
Teledyne Technologies Incorporated	0.9%	0.9%	28.9%	10.0%	9.5%	38.7%	-13.7%	11.8%
Median of Industry Public Companies	2.5%	2.5%	26.1%	6.7%	6.5%	14.9%	-14.4%	3.8%

■ Highest Return
 ■ Lowest Return
 ■ Median Return

Multiple year periods are calculated as the average annual return.

Public Company Median Multiples by Quarter

	12/31/19	9/30/19	6/30/19	3/31/19	12/31/18	9/30/18	6/30/18	3/31/18
EV/Revenues Multiple	1.5x	1.6x	1.5x	1.5x	1.6x	1.3x	1.4x	1.4x
EV/EBITDA Multiple	14.3x	13.6x	14.3x	14.0x	13.0x	12.3x	11.6x	12.1x
Price/Earnings Multiple	31.0x	30.2x	29.8x	28.1x	26.8x	25.1x	24.3x	23.8x
EV/Gross Cash Flows Multiple	31.0x	27.0x	28.1x	24.8x	23.5x	24.4x	22.8x	19.0x

■ Highest Multiple
 ■ Lowest Multiple
 ■ Median Multiple

Industry Initial Public Offerings – Aerospace and Defense

(dollars in millions, except share prices)

Offer Date	Company Name	Offer Price	Shares Offered	Amount Raised	Total Assets	Debt	LTM Revenues	LTM EBITDA	LTM Net Income	LTM Cash Flows
12/17/19	Velocity Composites plc	\$1.10	16.5	\$18.7	\$10.6	\$2.9	\$21.8	\$0.0	(\$0.3)	\$0.4
11/26/19	UUV Aquabotix Limited	\$0.15	35.0	\$5.2	\$4.7	\$0.2	\$0.8	N/A	\$0.1	\$0.2
6/20/18	DroneShield Limited	\$0.15	35.0	\$5.2	\$4.7	N/A	N/A	N/A	N/A	N/A
6/7/18	GomSpace Group AB (publ)	\$1.54	8.0	\$12.3	\$4.0	\$1.2	\$4.9	\$0.6	\$0.2	\$0.8
11/18/17	Hizeaero Co., Ltd.	\$15.42	4.4	\$67.5	N/A	\$30.9	N/A	N/A	\$2.5	\$7.1
9/30/15	LIG Nex1 Co., Ltd.	\$64.19	6.9	\$442.9	\$1,569	\$136.2	\$1,427.5	\$126.3	\$58.8	\$153.2
2/23/15	Martin Aircraft Company Limited	\$0.30	67.5	\$20.3	\$1.1	\$0.0	\$0.0	(\$3.2)	(\$3.2)	(\$3.1)
12/22/14	AeroSpace Technology of Korea Inc.	\$8.66	2.9	\$24.7	N/A	N/A	N/A	N/A	N/A	N/A
11/16/14	Remote Monitored Systems plc	\$0.13	8.1	\$1.0	N/A	N/A	N/A	N/A	N/A	N/A
7/9/14	Starburst Holdings Limited	\$0.25	50.0	\$12.5	\$35.8	\$6.0	\$16.7	\$8.4	\$6.9	\$8.7
6/24/14	FACC AG	\$12.91	20.4	\$263.3	\$819.3	\$292.3	\$769.3	\$114.4	\$39.9	\$129.6
12/22/13	Figeac Aero Société Anonyme	\$12.59	1.9	\$24.0	\$291.5	\$113.1	\$180.3	\$39.3	\$15.3	\$50.5
6/27/13	Delta Drone SA	\$6.37	0.6	\$3.8	\$6.7	\$1.8	\$2.7	(\$0.8)	(\$0.6)	(\$0.7)
4/10/12	Erickson Incorporated	\$8.00	3.8	\$38.4	\$245.5	\$131.9	\$160.0	\$25.0	\$15.9	\$32.3
11/28/11	AVTECH Sweden AB (publ)	\$0.86	2.5	\$2.2	N/A	\$1.1	\$0.0	\$0.1	\$0.0	\$0.2
Median of all IPOs		nm	nm	\$18.7	\$10.6	\$4.4	\$21.8	\$3.2	\$1.3	\$3.9

Size of Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	LTM EBITDA	EV/ Revenues	EV/ EBITDA
9/2/19	Applied Defense Solutions, Inc.	L3 Technologies, Inc.	\$50.0	100%	\$21.3	\$34.3	1.2x	12.5x
7/2/19	Beaver Aerospace & Defense, Inc.	Héroux-Devtek Inc.	\$23.5	100%	\$7.4	N/A	N/A	N/A
6/6/19	Orbital ATK, Inc.	Northrop Grumman Corp.	\$9,429.0	100%	\$6,074.0	N/A	2.2x	N/A
4/24/19	Extant Components Group	TransDigm Group	\$525.0	100%	N/A	N/A	N/A	N/A
7/2/18	Zodiac Aerospace	Safran SA	\$9,763.8	100%	\$30.0	N/A	N/A	N/A
6/6/18	Tenax Aerospace, LLC	NTC Group, Inc.	\$9,429.0	100%	\$4,515.0	N/A	N/A	N/A
4/24/18	Extant Components Group	Zhejiang Science and Technology Investment Co., Ltd.	\$525.0	100%	N/A	\$606.3	2.8x	13.3x
3/2/18	Zodiac Aerospace	Littelfuse, Inc.	\$9,763.8	100%	\$5,773.4	N/A	N/A	N/A
1/9/18	Tenax Aerospace, LLC	Advanced Energy Industries, Inc.	\$220.0	100%	N/A	\$22.4	1.3x	15.6x
12/31/17	Acro Aircraft Seating Ltd.	Sonaca SA	\$73.7	100%	\$40.2	N/A	N/A	N/A
7/10/17	U.S. Sensor, Corp.	Liberty Hall Capital	\$24.0	86%	N/A	N/A	N/A	N/A
7/5/17	Excelsys Technologies Ltd.	Rockwell Collins, Inc.	\$365.7	100%	\$11.6	N/A	N/A	N/A
12/9/16	IPI Solutions Ltd.	Ideagen PLC	\$8.9	100%	\$2.1	\$0.4	3.3x	16.5x
12/1/16	Camber Corporation	Huntington Ingalls	\$380.0	100%	\$364.0	N/A	1.0x	N/A
11/16/16	The Radiant Group, Inc.	DigitalGlobe, Inc.	\$140.0	100%	N/A	N/A	N/A	N/A

■ USA ■ International

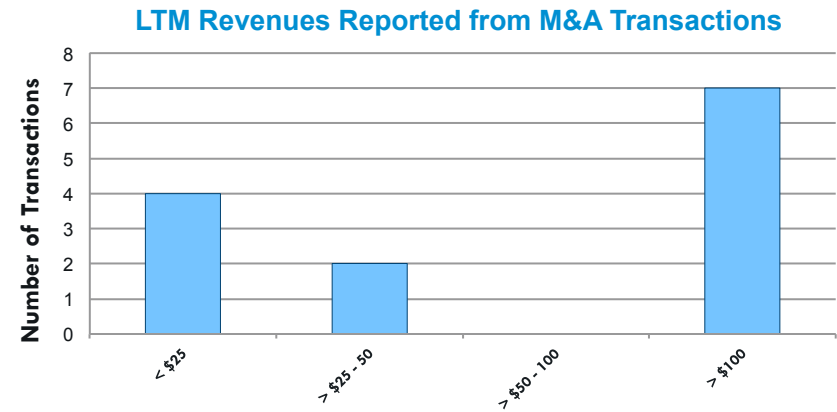
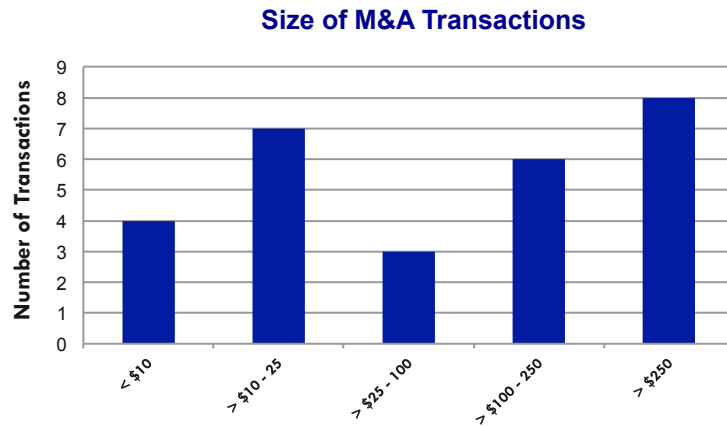
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Size of Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

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Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	LTM EBITDA	EV/ Revenues	EV/ EBITDA
10/17/16	NanoSpace AB	GS Sweden AB	\$11.9	100%	\$364.0	N/A	1.0x	N/A
9/16/16	Honeywell Technology	KBR Holdings, LLC	\$67.4	100%	N/A	N/A	N/A	N/A
1/9/17	American Science	OSI Systems, Inc.	\$8.9	100%	N/A	N/A	N/A	N/A
1/4/17	Crimson Trace Corporation	Smith & Wesson	\$380.0	100%	N/A	N/A	N/A	N/A
12/22/16	Explomo Technical Services	N/A	\$140.0	100%	\$103.0	(\$0.4)	1.8x	N/A
12/21/16	Kreisler Manufacturing	United Flexible, Inc.	\$140.0	100%	\$44.0	N/A	2.2x	N/A
12/9/16	Sarl Techno-Meca	Tecnoquark Trust, S.A.	\$2.2	100%	N/A	N/A	N/A	N/A
12/1/16	Kent Periscopes Ltd.	Gooch & Housego plc	\$34.5	100%	\$34.4	\$3.7	0.8x	7.6x
Median of the 24 M&A Transaction Targets			\$2.8	100%	\$3.3	\$0.7	0.8x	4.2x

Size of Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)



Definitions of Financial Terms Used in this Quarterly Industry Update:

Enterprise Value (EV): Market Value of Equity + Market Value of Debt —Cash

Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA): Profitability metric sometimes also referred to as operating profit or operating earnings.

Gross Cash Flows: Net Income + Depreciation and Amortization Expense Latest Twelve Months (LTM): Financial information is as of the latest twelve months through the date of this Quarterly Industry Update.

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