



Aerospace, Defense and Other Government-Contracted Industries

Select Aerospace, Defense and Other Government Contractor Public Company Industry Data As of September 30, 2019

(USD in millions, except per share data)

			M			LTM Operating Data			Forward E	Forward Estimates	
Company Name	Ticker	Price at 09/30/19	% of 52 Week High	Equity Value	Enterprise Value	Debt / Total Capital	Total Assets	LTM Revenue	LTM EBITDA	CY 2019 Revenue Estimate	CY 2019 EBITDA Estimate
Diversified Contractors											
General Dynamics											
Corporation	GD	\$182.73	88.0%	\$52,654.97	\$65,273.93	54.8%	\$48,074.00	\$38,288.00	\$5,380.00	\$39,162.43	\$5,433.52
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Juniper Networks, Inc.	JNPR	\$24.75	80.4%	\$8,558.94	\$7,357.11	30.3%	\$8,903.30	\$4,465.00	\$733.90	\$4,470.57	\$972.94
Kratos Defense & Security	У										
Solutions, Inc.	KTOS	\$18.60	74.1%	\$1,973.02	\$2,145.62	40.0%	\$1,173.60	\$672.10	\$60.50	\$730.40	\$74.86
MasTec, Inc.	MTZ	\$64.93	97.5%	\$4,879.98	\$6,297.27	50.8%	\$4,797.37	\$7,352.13	\$771.76	\$7,701.87	\$835.20
Motorola Solutions, Inc.	MSI	\$170.41	93.5%	\$28,382.76	\$32,456.39	119.0%	\$9,974.00	\$7,633.00	\$2,001.00	\$ 7,887.71	\$2,137.85
QUALCOMM											
Incorporated	QCOM	\$76.28	84.4%	\$92,730.37	\$94,129.76	75.0%	\$34,133.00	\$25,358.00	\$11,077.00	\$19,466.03	\$5,928.66
Teledyne Technologies											
Incorporated	TDY	\$321.99	99.2%	\$11,713.76	\$12,206.47	27.4%	\$4,200.20	\$3,000.90	\$578.20	\$3,136.43	\$598.55

Information Technolog	y and Const	ılting Contract	ors								
CACI International Inc	CACI	\$231.26	98.4%	\$5,754.11	\$7,208.58	41.4%	\$5,086.84	\$4,986.34	\$476.14	\$5,354.90	\$493.67
Fortinet, Inc.	FTNT	\$76.76	79.2%	\$13,125.30	\$11,436.91	3.2%	\$3,369.40	\$1,955.20	\$333.50	\$2,113.52	\$558.14
L3Harris Technologies, Inc.	LHX	\$208.64	96.0%	\$46,252.02	\$48,731.33	51.3%	\$10,117.00	\$6,801.00	\$1,601.00	\$17,561.99	\$3,118.58
ManTech International Corporation	MANT	\$71.41	99.2%	\$2,855.84	\$2,879.71	10.7%	\$2,040.01	\$2,033.24	\$172.14	\$2,164.28	\$183.15
NetApp, Inc.	NTAP	\$52.51	60.5%	\$12,492.79	\$10,419.46	66.7%	\$7,811.00	\$5,908.00	\$1,194.00	\$5,678.40	\$1,324.74
NIC Inc.	EGOV	\$20.65	88.1%	\$1,382.72	\$1,180.40	5.1%	\$364.65	\$342.42	\$75.08	\$350.65	\$82.38
Tyler Technologies, Inc.	TYL	\$262.50	99.1%	\$10,127.98	\$10,108.83	2.7%	\$1,949.43	\$1,000.24	\$191.47	\$1,092.81	\$304.83
Verint Systems Inc.	VRNT	\$42.78	66.9%	\$2,856.48	\$3,434.76	41.5%	\$2,931.71	\$1,273.78	\$178.84	\$1,371.27	\$328.13
Viasat, Inc.	VSAT	\$75.32	77.4%	\$4,616.87	\$5,951.46	46.9%	\$4,262.29	\$2,166.43	\$256.62	\$2,238.62	\$426.51
VSE Corporation	VSEC	\$34.09	86.3%	\$373.97	\$663.63	47.3%	\$826.78	\$ 708.96	\$82.43	\$0.00	\$0.00

Notes: LTM (latest twelve months); Enterprise Value (market capitalization less total cash and short-term investments plus short-term borrowings and total long-term debt); EBITDA (earnings before interest, taxes, depreciation and amortization)
Source: Capital IQ

The material contained in this publication is meant to provide general information regarding valuation topics. This publication does not constitute investment advice with respect to the securities of any company discussed herein, is not intended to provide information upon which to base an investment decision, and should not be construed as such. Professional advice should be obtained before taking any action based on the information contained herein.

Publicly available information utilized in this publication has been obtained from sources deemed to be reliable. Houlihan does not guarantee the accuracy or completeness of the information provided within this publication. The material presented reflects information known to the authors at the time this publication was written and this information is subject to change.

Select Aerospace, Defense and Other Government Contractor Public Company Industry Data As of September 30, 2019

(USD in millions, except per share data)

		Market Data					LTM (Operating D	Forward Estimates			
Company Name	Ticker	Price at 09/30/19	% of 52 Week High	Equity Value	Enterprise Value	Debt / Total Capital	Total Assets	LTM Revenue	LTM EBITDA	CY 2019 Revenue Estimate	CY 2019 EBITDA Estimate	
Aerospace and Defense Contractors												
AAR Corp.	AIR	\$41.21	82.6%	\$1,419.20	\$1,616.25	23.3%	\$1,683.10	\$2,127.00	\$156.40	\$2,158.91	\$176.05	
OSI Systems, Inc.	OSIS	\$101.56	86.6%	\$1,850.31	\$2,062.48	38.6%	\$1,264.86	\$1,182.12	\$153.12	\$1,202.97	\$189.50	
Ball Corporation	BLL	\$72.81	88.9%	\$24,173.13	\$30,672.69	67.9%	\$17,109.00	\$11,551.00	\$1,785.00	\$11,846.99	\$1,906.11	
Cubic Corporation	CUB	\$70.43	95.1%	\$2,195.90	\$2,554.52	33.8%	\$1,814.89	\$1,404.99	\$102.15	\$1,495.32	\$157.17	
FLIR Systems, Inc.	FLIR	\$52.59	84.0%	\$7,131.52	\$7,432.48	29.6%	\$3,244.69	\$1,810.10	\$413.32	\$1,932.16	\$475.88	
Hexcel Corporation	HXL	\$82.13	94.4%	\$6,987.87	\$7,729.93	45.3%	\$3,195.10	\$2,320.40	\$546.80	\$2,430.84	\$582.96	
Huntington Ingalls Industries, Inc.	HII	\$211.79	80.7%	\$8,754.24	\$10,272.02	54.0%	\$7,230.00	\$8,550.00	\$1,065.00	\$8,764.61	\$1,008.23	
Northrop Grumman Corporation	NOC	\$374.79	97.6%	\$63,413.78	\$76,563.97	63.5%	\$39,584.00	\$32,886.00	\$5,306.00	\$34,048.36	\$4,712.30	
Raytheon Company	RTN	\$196.19	93.8%	\$54,645.59	\$58,209.18	32.1%	\$32,186.00	\$28,054.00	\$4,104.00	\$29,075.56	\$5,354.06	
The Boeing Company	BA	\$380.47	85.3%	\$214,094.28	\$220,473.51	132.1%	\$126,261.00	\$92,155.00	\$7,317.00	\$85,379.80	\$5,910.83	
TransDigm Group Incorporated	TDG	\$520.67	93.8%	\$27,790.63	\$41,417.08	108.3%	\$17,702.60	\$4,896.99	\$2,174.03	\$6,052.47	\$2,598.69	
Triumph Group, Inc.	TGI	\$22.88	88.0%	\$1,145.36	\$2,500.45	158.0%	\$2,823.27	\$3,262.26	\$216.87	\$3,009.44	\$258.36	
United Technologies Corporation	UTX	\$136.52	94.5%	\$116,510.44	\$156,825.56	52.7%	\$138,990.00	\$72,553.00	\$12,780.00	\$76,973.21	\$13,963.38	

Notes: LTM (latest twelve months); Enterprise Value (market capitalization less total cash and short-term investments plus short-term borrowings and total long-term debt);

EBITDA (earnings before interest, taxes, depreciation and amortization)

Source: Capital IQ

Select Aerospace, Defense and Other Government Contractor Public Company Valuation Metrics As of September 30, 2019

(USD in millions, except per share data)

				LTM Opera	ting Statistics						
Company Name	Ticker	Return On Assets	Return On Equity	Return On Capital	Revenue Growth	EBITDA Growth	EBITDA Margin	TEV/ LTM Revenue	TEV/ CY 2018 Revenue	TEV/ LTM EBITDA	TEV/ CY 2018 EBITDA
Diversified Contractors											
General Dynamics											
Corporation	GD	5.9%	26.7%	10.3%	17.5%	14.4%	14.1%	1.7x	1.7x	12.1x	12.0x
Juniper Networks, Inc.	JNPR	3.7%	11.0%	5.1%	-6.7%	-20.2%	16.4%	1.6x	1.6x	10.0x	7.6x
Kratos Defense & Security Solutions, Inc.	KTOS	2.3%	2.1%	2.9%	8.8%	41.4%	9.0%	3.2x	2.9x	35.5x	28.7x
MasTec, Inc.	MTZ	7.2%	21.2%	10.9%	11.8%	40.0%	10.5%	0.9x	0.8x	8.2x	7.5x
Motorola Solutions, Inc.	MSI	10.8%	N/A	22.2%	11.8%	12.0%	26.2%	4.3x	4.1x	16.2x	15.2x
QUALCOMM	QCOM	12 50/	24.3%	17.8%	11 50/	66.20/	43.7%	2 7	4.8x	8.5x	15.9x
Incorporated Teledyne Technologies	QCOM	12.5%	24.370	17.070	11.5%	66.3%	43.770	3.7x	4.0X	0.JX	13.9X
Incorporated	TDY	7.2%	15.8%	9.0%	7.4%	11.8%	19.3%	4.1x	3.9x	21.1x	20.4x
	Mean Median	7.1% 7.2%	16.8% 18.5%	11.2% 10.3%	8.9% 11.5%	23.7% 14.4%		2.8x 3.2x	2.8x 2.9x	15.9x 12.1x	15.3x 15.2x
Information Technology											
CACI International Inc	CACI	5.3%	11.9%	6.8%	11.6%	15.3%	9.5%	1.4x	1.3x	15.1x	14.6x
Fortinet, Inc.	FTNT	5.8%	39.2%	17.6%	19.9%	54.7%	17.1%	5.8x	5.4x	34.3x	20.5x
L3Harris Technologies, Inc. ManTech International	HRS	8.4%	28.7%	12.0%	10.3%	13.3%	23.5%	7.2x	2.8x	30.4x	15.6x
Corporation	MANT	3.9%	6.2%	5.0%	10.0%	15.2%	8.5%	1.4x	1.3x	16.7x	15.7x
NetApp, Inc.	NTAP	7.7%	71.0%	20.7%	-2.7%	-3.1%	20.2%	1.8x	1.8x	8.7x	7.9x
NIC Inc.	EGOV	12.9%	24.5%	19.6%	-1.4%	-13.2%	21.9%	3.4x	3.4x	15.7x	14.3x
Tyler Technologies, Inc.	TYL	5.0%	9.4%	6.7%	12.4%	-4.0%	19.1%	10.1x	9.3x	52.8x	33.2x
Verint Systems Inc.	VRNT	2.7%	5.2%	3.6%	6.6%	26.9%	14.0%	2.7x	2.5x	19.2x	10.5x
Viasat, Inc.	VSAT	-0.3%	-2.1%	-0.4%	31.0%	140.7%	11.8%	2.7x	2.7x	23.2x	14.0x
VSE Corporation	VSEC	4.8%	10.9%	6.0%	-1.0%	8.5%	11.6%	0.9x	N/A	8.1x	N/A
	Mean Median	5.6% 5.2%	20.5% 11.4%	9.8% 6.7%	9.7% 10.1%	25.4% 14.3%		3.8x 2.7x	3.4x 2.7x	22.4x 18.0x	16.2x 14.6x
NI TOTAL	Median	5.2%	11.4%	0./%	10.1%	14.5%	15.5%	Z./X	∠./X	18.0x	14.0X

Notes: LTM (latest twelve months); NTM (next twelve months); EBITDA (earnings before interest, taxes, depreciation and amortization); TEV (total enterprise value)

Source: Capital IQ

Select Aerospace, Defense and Other Government Contractor Public Company Valuation Metrics As of September 30, 2019

(USD in millions, except per share data)

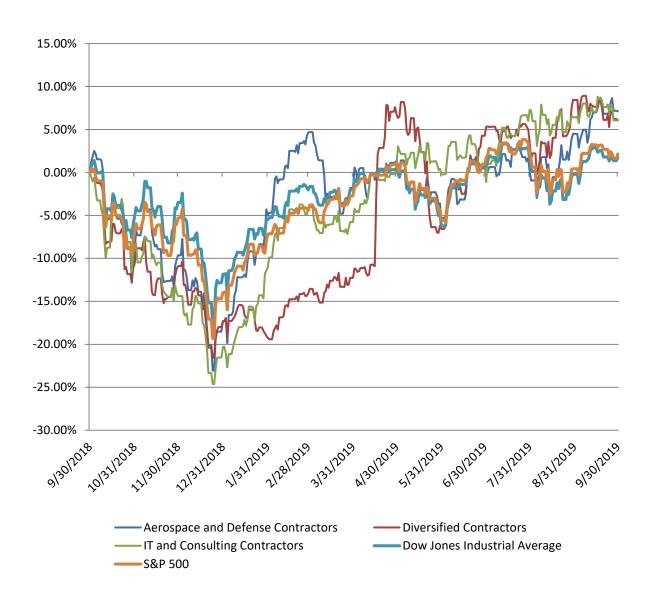
				LTM Opera	ting Statistics						
		Return	Return	Return	_			TEV/	TEV/	TEV/	TEV/
Company Name	Ticker	On	On Equity	On Capital	Revenue Growth	EBITDA Growth	EBITDA Margin	LTM Revenue	CY 2018 Revenue	LTM EBITDA	CY 2018 EBITDA
Company Name	тскег	Assets	Equity	Сарпаі	Growth	Growth	Margin	Revenue	Revenue	EDITUA	EDITUA
Aerospace and Defense	Contractors										
AAR Corp.	AIR	4.4%	9.0%	6.1%	17.1%	18.8%	7.4%	0.8x	0.7x	10.3x	9.2x
OSI Systems, Inc.	OSIS	5.5%	12.4%	7.9%	8.5%	-0.4%	13.0%	1.7x	1.7x	13.5x	10.9x
Ball Corporation	BLL	4.0%	13.8%	6.1%	0.1%	-4.3%	15.5%	2.7x	2.6x	17.2x	16.1x
Cubic Corporation	CUB	1.7%	2.9%	2.2%	19.8%	46.7%	7.3%	1.8x	1.7x	25.0x	16.3x
FLIR Systems, Inc.	FLIR	7.0%	15.1%	8.4%	-2.3%	0.4%	22.8%	4.1x	3.8x	18.0x	15.6x
Hexcel Corporation	HXL	8.5%	21.1%	10.3%	11.0%	14.9%	23.6%	3.3x	3.2x	14.1x	13.3x
Huntington Ingalls Industries, Inc.	НІІ	7.9%	41.3%	16.5%	10.3%	-6.7%	12.5%	1.2x	1.2x	9.6x	10.2x
Northrop Grumman Corporation	NOC	7.0%	38.1%	11.1%	21.9%	-3.1%	16.1%	2.3x	2.2x	14.4x	16.2x
Raytheon Company	RTN	7.1%	25.7%	12.9%	8.1%	5.7%	14.6%	2.1x	2.0x	14.2x	10.9x
The Boeing Company	BA	2.7%	N/A	24.6%	-4.6%	-44.1%	7.9%	2.4x	2.6x	30.1x	37.3x
TransDigm Group Incorporated	TDG	8.4%	N/A	9.4%	32.9%	24.1%	44.4%	8.5x	6.8x	19.1x	15.9x
Triumph Group, Inc.	TGI	2.6%	N/A	7.1%	0.4%	-20.4%	6.6%	0.8x	0.8x	11.5x	9.7x
United Technologies Corporation	UTX	5.0%	14.6%	7.9%	15.7%	25.0%	17.6%	2.2x	2.0x	12.3x	11.2x
	Mean Median	5.5% 5.5%	19.4% 14.8%	10.0% 8.4%	10.7% 10.3%	4.3% 0.4%		2.6x 2.2x	2.4x 2.0x	16.1x 14.2x	14.8x 13.3x

Notes: LTM (latest twelve months); NTM (next twelve months); EBITDA (earnings before interest, taxes, depreciation and amortization); TEV (total enterprise value)

Source: Capital IQ

Aerospace, Defense and Other Government Contractor Public Company LTM Equity Performance

As of September 30, 2019



Note: The indices are derived from the equity performance of the previously listed companies. Source: Capital IQ

Recent M&A Activity in Aerospace, Defense and Other Government Contracted Industries September 30, 2018 to September 30, 2019

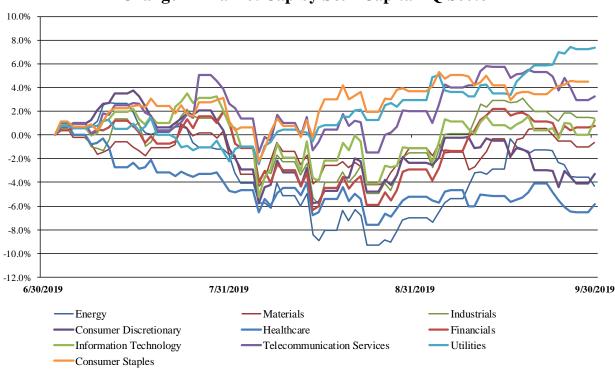
(USD in millions)

			Target Company Primary	Implied
Close Date	Target	Acquirer	Industry	Enterprise Value
11/26/2018	Collins Aerospace	United Technologies Corporation	Aerospace and Defense	\$30,365.22
6/29/2019	L3 Technologies, Inc.	Harris Corporation (nka:L3Harris Technologies,	Aerospace and Defense	\$19,215.95
3/14/2019	Esterline Technologies Corporation	TransDigm Group Incorporated	Aerospace and Defense	\$3,994.74
1/14/2019	Engility Holdings, Inc.	Science Applications International Corporation	Aerospace and Defense	\$2,449.66
9/16/2019	Exotic Metals Forming Company LLC	Parker-Hannifin Corporation	Aerospace and Defense	\$1,725.00
6/11/2019	The KeyW Holding Corporation	Jacobs Engineering Group Inc.	Aerospace and Defense	\$920.75
4/18/2019	MRA Systems, LLC	Vision Technologies Aerospace Incorporated	Aerospace and Defense	\$506.00
9/15/2019	Night Vision business of Harris Corporation	Elbit Systems of America, LLC	Aerospace and Defense	\$350.00
1/7/2019	OGSystems, LLC	Parsons Corporation	Aerospace and Defense	\$300.30
9/30/2019	EDAC Technologies Corporation (nka:Hanwha Aerospace USA)	Hanwha Aerospace Co., Ltd.	Aerospace and Defense	\$295.33
3/4/2019	Sparton Corporation	Cerberus Capital Management, L.P.	Aerospace and Defense	\$255.25
8/1/2019	Naval Systems Business Unit And Certain Related Contracting	Serco Inc.	Aerospace and Defense	\$225.00
1/28/2019	Mastodon Design, LLC	CACI International Inc	Aerospace and Defense	\$225.00
12/31/2018	Navistar Defense LLC	Olive Investor, L.P.	Aerospace and Defense	\$200.00
1/10/2019	1st Choice Aerospace Inc. (Florida) and 1st Choice Aerospace Inc.	VSE Aviation, Inc	Aerospace and Defense	\$152.00
7/22/2019	Pacific Cast Technologies, Inc.	WP CPP Holdings, LLC	Aerospace and Defense	\$127.00
9/4/2019	Pacific Design Technologies, Inc.	AMETEK, Inc.	Aerospace and Defense	\$125.00
9/23/2019	American Panel Corporation	Mercury Systems, Inc.	Aerospace and Defense	\$100.00
11/26/2018	Firstmark Corporation	Ontic Engineering and Manufacturing, Inc.	Aerospace and Defense	\$97.00
2/27/2019	Florida Turbine Technologies Inc./ FTT Core LLC	Kratos Defense & Security Solutions, Inc.	Aerospace and Defense	\$78.88
1/25/2019	DHA Group Inc.	ECS Federal, LLC	Aerospace and Defense	\$46.00
3/8/2019	Metallics Machining Business of Triumph Group Inc.	TECT Aerospace, Inc.; TECT Power, Inc.	Aerospace and Defense	\$43.00
1/29/2019	GECO Inc.	Mercury Systems, Inc.	Aerospace and Defense	\$36.50
3/31/2019	Redstone Aerospace Corporation	II-VI Incorporated	Aerospace and Defense	\$29.96
10/1/2018	All Assets and Technical Data Rights of NavCom Defense	Extant Components Group Holdings, Inc.	Aerospace and Defense	\$27.00
11/1/2018	Jackson Hole Aviation, LLC	Jackson Hole Airport Board	Aerospace and Defense	\$26.00
6/7/2019	Systron Donner Inertial, Inc.	EMCORE Corporation	Aerospace and Defense	\$25.75
6/10/2019	Pulse Aerospace, Inc.	AeroVironment, Inc.	Aerospace and Defense	\$25.65
11/28/2018	Avborne Accessory Group, Inc.	AerSale Inc.	Aerospace and Defense	\$22.30
3/6/2019	Triumph Aviation Services - NAAS Division Inc.	STS Aviation Group, Inc.	Aerospace and Defense	\$18.00
12/20/2018	Welding Metallurgy, Inc.	CPI Aerostructures, Inc.	Aerospace and Defense	\$9.87
4/3/2019	Power Hawk Technologies, Inc.	Snap-on Incorporated	Aerospace and Defense	\$8.00
4/5/2019	Chemring Military Products, Inc.	Global Ordnance LLC	Aerospace and Defense	\$4.00
12/21/2018	Air Rescue Systems Corp	Mammoth Energy Services, Inc.	Aerospace and Defense	\$2.70
6/25/2019	Green Island Operations of LAI International, Inc.	Ross Precision Manufacturing Inc.	Aerospace and Defense	\$2.50
11/30/2018	Substantially All Assets Of American Fuel Cell & Coated Fabrics	LB Advisors, LLC	Aerospace and Defense	\$1.62
12/3/2018	VT Aviation Services, Inc./Aviation Academy of America Inc.	Vaayu Aerospace, Inc.	Aerospace and Defense	\$1.50
9/24/2019	ARGUS International, Inc.	SGS SA	Aerospace and Defense	NA
9/18/2019	Berg Companies, Inc.	HDT Global, Inc.	Aerospace and Defense	NA
9/17/2019	Assets of XJet Holdings, LLC	Modern Aviation Inc.	Aerospace and Defense	NA
9/10/2019	T*T*Cubed, Inc.	dB Control Corp.	Aerospace and Defense	NA
9/9/2019	McNally Industries, LLC	Susquehanna Private Capital, LLC	Aerospace and Defense	NA
9/9/2019	Heads Up Technologies, Inc.	ILL Partners	Aerospace and Defense	NA
9/5/2019	Momentum Services Corporation	Precision Aviation Group, Inc.	Aerospace and Defense	NA
9/4/2019	Engineering Solutions and Products, LLC	Sev1Tech, Inc.	Aerospace and Defense	NA
9/3/2019	Strata-G Solutions, Inc.	The Aleut Corporation	Aerospace and Defense	NA
8/21/2019	Columbia Helicopters, LLC	AE Industrial Partners, LLC	Aerospace and Defense	NA
8/1/2019	Precise Metal Products Co.	Staple Street Capital LLC; Thompson Capital	Aerospace and Defense	NA
7/24/2019	TruTrak Flight Systems, Inc	Honeywell International Inc.	Aerospace and Defense	NA
7/15/2019	Aviation Blade Services, Inc.	First Aviation Services Inc.	Aerospace and Defense	NA
7/10/2019	Bushwacker, Backpack, and Supply Inc.	Tender Corporation	Aerospace and Defense	NA
7/10/2019	TAVCO, Inc.	Kellstrom Defense Aerospace, Inc.	Aerospace and Defense	NA
7/8/2019	Valence Surface Technologies, LLC	British Columbia Investment Management	Aerospace and Defense	NA
7/1/2019	PGFM Solutions, LLC	Gryphon Technologies LC	Aerospace and Defense	NA
6/27/2019	Lanic Engineering, Inc./Gardena Specialized Processing	Spectra Aerospace Inc.	Aerospace and Defense	NA
				

Source: Capital IQ

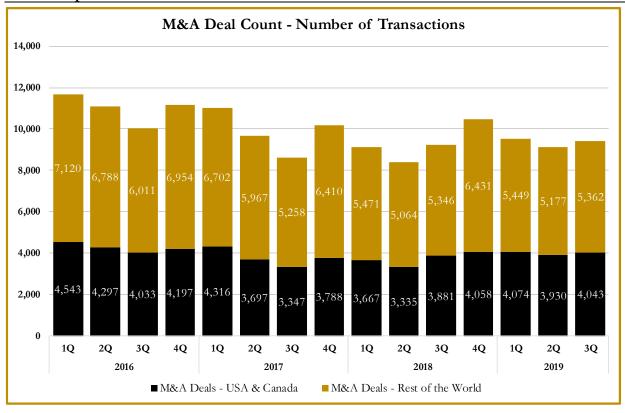
S&P Capital IQ - Sector Last 3 Month Equity Performance As of September 30, 2019

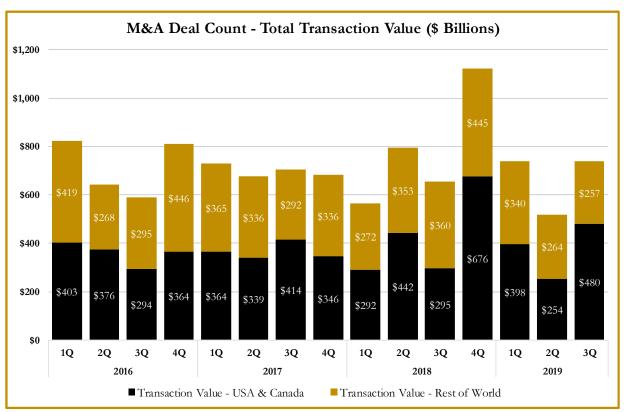
Change in Market Cap by S&P Capital IQ Sector



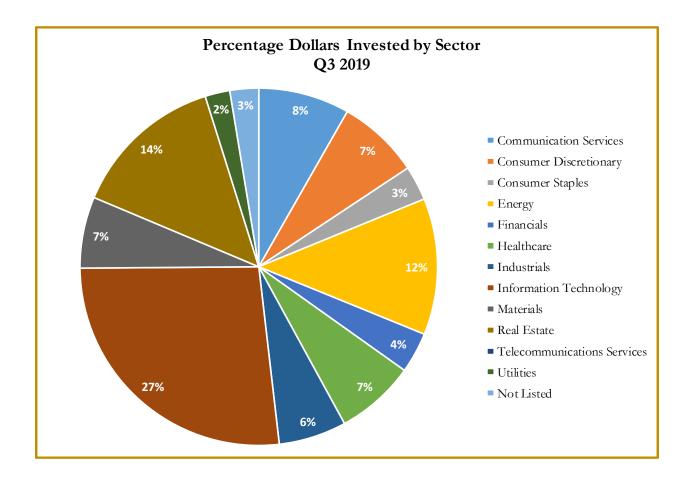
Note: The indices are derived from the equity performance of the S&P Capital IQ Sectors. Source: Capital IQ

M&A Deal Flow Statistics by S&P Capital IQ Sector As of September 30, 2019





M&A Deal Flow Statistics by S&P Capital IQ Sector As of September 30, 2019





About Houlihan Capital

Houlihan Capital is a leading, solutions-driven valuation, financial advisory and boutique investment banking firm. We pride ourselves on being thought leaders in an ever-changing landscape.

Houlihan Capital is SOC-compliant, a FINRA and SIPC member and committed to the highest levels of professional ethics and standards.

Valuation & Financial Advisory

We provide an array of services that include enterprise valuations, portfolio valuation, valuation of carried interest, transaction opinions, tax and financial reporting compliance, purchase price allocations, and a wide variety of consulting services through our Financial Advisory Group.

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For additional information about our industry expertise and services, visit:

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