



HOULIHAN  
CAPITAL

*Value. Added.*



Industry Observations – June 30, 2019

## Aerospace, Defense and Other Government-Contracted Industries

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

(USD in millions, except per share data)

Company Name	Ticker	Market Data					LTM Operating Data			Forward Estimates	
		Price at 06/30/19	% 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	\$181.82	87.5%	\$52,397.81	\$67,852.78	52.0%	\$48,074.00	\$38,288.00	\$5,342.00	\$38,848.79	\$5,389.88
Juniper Networks, Inc.	JNPR	\$26.63	86.5%	\$9,169.39	\$7,871.15	29.2%	\$9,137.90	\$4,566.60	\$791.90	\$4,466.85	\$931.08
Kratos Defense & Security Solutions, Inc.	KTOS	\$22.89	99.6%	\$2,424.36	\$2,735.52	37.4%	\$1,168.90	\$635.40	\$54.90	\$740.41	\$76.01
MasTec, Inc.	MTZ	\$51.53	95.8%	\$3,871.10	\$5,619.83	56.4%	\$4,860.39	\$7,030.92	\$720.59	\$7,654.19	\$796.55
Motorola Solutions, Inc.	MSI	\$166.73	98.5%	\$27,475.44	\$33,262.13	122.3%	\$9,993.00	\$7,532.00	\$1,940.00	\$7,857.46	\$2,142.62
QUALCOMM Incorporated	QCOM	\$76.07	84.2%	\$92,478.22	\$96,180.60	80.9%	\$34,023.00	\$21,301.00	\$6,552.00	\$21,703.29	\$7,157.75
Teledyne Technologies Incorporated	TDY	\$273.87	100.0%	\$9,924.05	\$11,112.49	24.3%	\$4,200.20	\$3,000.90	\$576.50	\$3,105.12	\$576.00
Information Technology and Consulting Contractors											
CACI International Inc	CACI	\$204.59	96.1%	\$5,088.31	\$6,938.01	43.0%	\$5,133.02	\$4,782.55	\$461.26	\$5,393.37	\$512.40
Fortinet, Inc.	FTNT	\$76.83	79.2%	\$13,119.54	\$13,197.94	3.6%	\$3,205.70	\$1,874.80	\$307.40	\$2,089.12	\$542.72
L3Harris Technologies, Inc.	LHX	\$189.13	94.2%	\$22,341.09	\$46,271.51	49.5%	\$9,792.00	\$6,611.00	\$1,569.00	\$17,962.59	\$3,136.31
ManTech International Corporation	MANT	\$65.85	96.7%	\$2,626.17	\$2,787.40	13.8%	\$2,023.65	\$1,987.25	\$166.86	\$2,175.23	\$179.76
NetApp, Inc.	NTAP	\$61.70	70.0%	\$14,809.37	\$12,073.31	62.2%	\$8,741.00	\$6,146.00	\$1,344.00	\$6,133.45	\$1,554.54
NIC Inc.	EGOV	\$16.04	88.9%	\$1,073.29	\$995.43	5.6%	\$349.13	\$343.36	\$78.77	\$340.97	\$80.38
Tyler Technologies, Inc.	TYL	\$216.02	85.6%	\$8,282.54	\$8,448.16	7.5%	\$1,909.30	\$961.17	\$190.10	\$1,083.59	\$306.80
Verint Systems Inc.	VRNT	\$53.78	84.1%	\$3,537.29	\$4,151.22	41.5%	\$2,957.54	\$1,255.80	\$186.88	\$1,373.26	\$335.17
Viasat, Inc.	VSAT	\$80.82	83.1%	\$4,897.51	\$6,218.50	42.4%	\$3,915.29	\$2,068.26	\$204.59	\$2,212.96	\$428.51
VSE Corporation	VSEC	\$28.69	56.6%	\$312.86	\$592.85	47.6%	\$804.05	\$690.24	\$79.74	\$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

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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 June 30, 2019

(USD in millions, except per share data)

Company Name	Ticker	Market Data				Debt / Total Capital	LTM Operating Data			Forward Estimates	
		Price at 06/30/19	% of 52 Week High	Equity Value	Enterprise Value		Total Assets	LTM Revenue	LTM EBITDA	CY 2019 Revenue Estimate	CY 2019 EBITDA Estimate
Aerospace and Defense Contractors											
AAR Corp.	AIR	\$36.79	71.4%	\$1,264.93	\$1,548.41	13.5%	\$1,517.20	\$2,051.80	\$154.50	\$2,106.72	\$169.27
OSI Systems, Inc.	OSIS	\$112.63	98.4%	\$2,039.14	\$2,305.18	42.0%	\$1,284.12	\$1,161.06	\$150.57	\$1,190.11	\$192.81
Ball Corporation	BLL	\$69.99	99.4%	\$23,428.74	\$30,880.93	66.8%	\$16,923.00	\$11,635.00	\$1,797.00	\$11,899.57	\$1,949.37
Cubic Corporation	CUB	\$64.48	83.4%	\$2,009.03	\$2,501.74	32.0%	\$1,733.10	\$1,318.52	\$97.53	\$1,468.19	\$157.57
FLIR Systems, Inc.	FLIR	\$54.10	84.7%	\$7,326.28	\$7,926.17	28.6%	\$3,244.69	\$1,810.10	\$413.32	\$1,928.10	\$473.46
Hexcel Corporation	HXL	\$80.88	99.6%	\$6,865.75	\$8,257.44	45.3%	\$3,195.10	\$2,320.40	\$546.80	\$2,428.93	\$582.72
Huntington Ingalls Industries, Inc.	HHI	\$224.74	85.7%	\$9,338.45	\$11,198.48	51.8%	\$7,000.00	\$8,382.00	\$1,164.75	\$8,620.36	\$1,020.69
Northrop Grumman Corporation	NOC	\$323.11	99.3%	\$54,863.97	\$70,742.40	61.8%	\$39,584.00	\$32,886.00	\$5,410.00	\$33,968.03	\$4,700.53
Raytheon Company	RTN	\$173.88	82.5%	\$48,432.73	\$54,552.07	32.0%	\$31,576.00	\$27,520.00	\$3,936.00	\$28,879.02	\$5,363.41
The Boeing Company	BA	\$364.01	81.6%	\$204,803.10	\$218,086.53	134.6%	\$126,261.00	\$92,155.00	\$7,183.00	\$88,115.82	\$5,078.67
TransDigm Group Incorporated	TDG	\$483.80	96.5%	\$25,728.44	\$41,148.22	109.3%	\$17,797.16	\$4,219.34	\$2,001.94	\$5,988.21	\$2,487.80
Triumph Group, Inc.	TGI	\$22.90	88.1%	\$1,142.82	\$2,488.43	162.6%	\$2,854.57	\$3,364.93	\$200.85	\$2,979.00	\$263.72
United Technologies Corporation	UTX	\$130.20	90.2%	\$112,350.33	\$159,462.50	52.4%	\$138,990.00	\$72,553.00	\$11,813.00	\$77,049.66	\$13,735.12

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 June 30, 2019

(USD in millions, except per share data)

		LTM Operating Statistics						Trading Multiples			
		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
Company Name	Ticker										
Diversified Contractors											
General Dynamics Corporation	GD	5.9%	26.7%	10.6%	17.5%	13.9%	14.0%	1.8x	1.7x	12.7x	12.6x
Juniper Networks, Inc.	JNPR	4.0%	12.3%	5.5%	-6.6%	-22.9%	17.3%	1.7x	1.8x	9.9x	8.5x
Kratos Defense & Security Solutions, Inc.	KTOS	2.1%	1.2%	2.7%	3.4%	39.3%	8.6%	4.3x	3.7x	49.8x	36.0x
MasTec, Inc.	MTZ	6.9%	19.6%	10.2%	2.7%	28.5%	10.2%	0.8x	0.7x	7.8x	7.1x
Motorola Solutions, Inc.	MSI	10.3%	N/A	21.4%	14.7%	11.3%	25.8%	4.4x	4.2x	17.1x	15.5x
QUALCOMM Incorporated	QCOM	6.4%	18.2%	9.4%	-5.5%	1.1%	30.8%	4.5x	4.4x	14.7x	13.4x
Teledyne Technologies Incorporated	TDY	7.2%	15.8%	9.2%	7.4%	11.4%	19.2%	3.7x	3.6x	19.3x	19.3x
	Mean	6.1%	15.6%	9.9%	4.8%	11.8%	18.0%	3.0x	2.9x	18.8x	16.0x
	Median	6.4%	17.0%	9.4%	3.4%	11.4%	17.3%	3.7x	3.6x	14.7x	13.4x
Information Technology and Consulting Contractors											
CACI International Inc	CACI	5.3%	12.2%	6.7%	7.8%	12.9%	9.6%	1.5x	1.3x	15.0x	13.5x
Fortinet, Inc.	FTNT	5.6%	39.9%	17.4%	20.7%	58.7%	16.4%	7.0x	6.3x	42.9x	24.3x
L3Harris Technologies, Inc.	HRS	8.2%	27.0%	11.3%	9.3%	16.1%	23.7%	7.0x	2.6x	29.5x	14.8x
ManTech International Corporation	MANT	3.8%	6.0%	4.7%	12.2%	18.9%	8.4%	1.4x	1.3x	16.7x	15.5x
NetApp, Inc.	NTAP	7.9%	69.5%	20.9%	3.8%	22.0%	21.9%	2.0x	2.0x	9.0x	7.8x
NIC Inc.	EGOV	14.5%	27.2%	22.1%	1.0%	-5.5%	22.9%	2.9x	2.9x	12.6x	12.4x
Tyler Technologies, Inc.	TYL	5.3%	10.5%	6.8%	11.5%	-3.8%	19.8%	8.8x	7.8x	44.4x	27.5x
Verint Systems Inc.	VRNT	2.9%	6.2%	3.9%	7.9%	54.5%	14.9%	3.3x	3.0x	22.2x	12.4x
Viasat, Inc.	VSAT	-1.2%	-3.5%	-1.4%	29.7%	56.2%	9.9%	3.0x	2.8x	30.4x	14.5x
VSE Corporation	VSEC	4.7%	10.8%	5.9%	-6.7%	3.1%	11.6%	0.9x	N/A	7.4x	N/A
	Mean	5.7%	20.6%	9.8%	9.7%	23.3%	15.9%	3.8x	3.3x	23.0x	15.9x
	Median	5.3%	11.5%	6.8%	8.6%	17.5%	15.6%	3.0x	2.8x	19.5x	14.5x

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 June 30, 2019

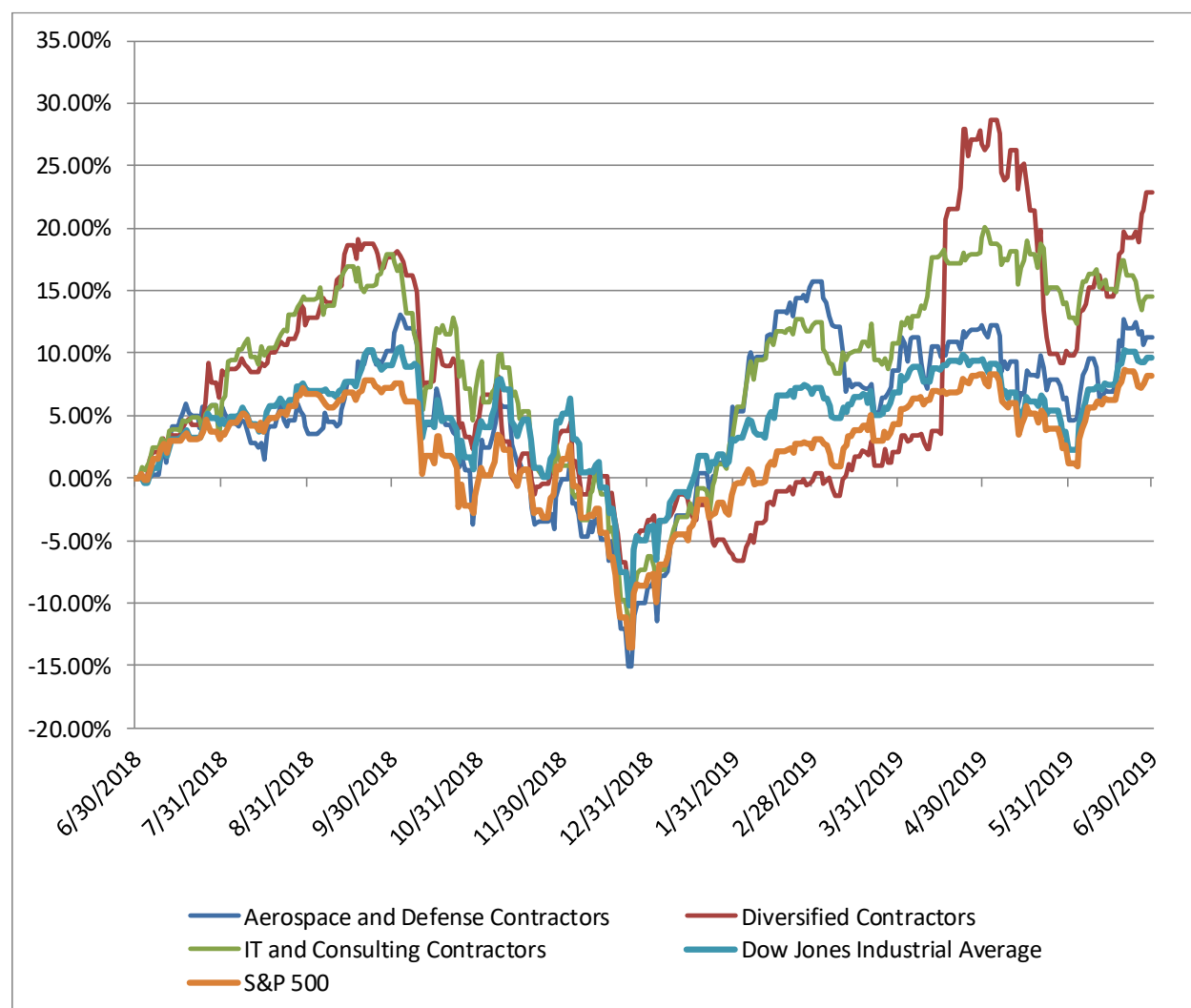
*(USD in millions, except per share data)*

Company Name	Ticker	LTM Operating Statistics						Trading Multiples			
		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
Aerospace and Defense Contractors											
AAR Corp.	AIR	4.6%	9.1%	6.5%	17.4%	22.1%	7.5%	0.8x	0.7x	10.0x	9.1x
OSI Systems, Inc.	OSIS	4.7%	10.6%	6.8%	10.1%	-10.2%	13.0%	2.0x	1.9x	15.3x	12.0x
Ball Corporation	BLI	4.0%	11.4%	6.1%	3.0%	-2.0%	15.4%	2.7x	2.6x	17.2x	15.8x
Cubic Corporation	CUB	1.7%	0.3%	2.2%	15.4%	96.0%	7.4%	1.9x	1.7x	25.7x	15.9x
FLIR Systems, Inc.	FLIR	7.0%	15.1%	8.5%	-2.3%	0.4%	22.8%	4.4x	4.1x	19.2x	16.7x
Hexcel Corporation	HXL	8.5%	21.1%	10.3%	11.0%	14.9%	23.6%	3.6x	3.4x	15.1x	14.2x
Huntington Ingalls Industries, Inc.	HII	9.0%	48.6%	19.2%	10.4%	5.8%	13.9%	1.3x	1.3x	9.6x	11.0x
Northrop Grumman Corporation	NOC	7.2%	39.3%	11.6%	21.9%	0.8%	16.5%	2.2x	2.1x	13.1x	15.0x
Raytheon Company	RTN	6.9%	26.5%	12.8%	7.4%	1.9%	14.3%	2.0x	1.9x	13.9x	10.2x
The Boeing Company	BA	2.6%	N/A	25.0%	-4.0%	-45.0%	7.8%	2.4x	2.5x	30.4x	42.9x
TransDigm Group Incorporated	TDG	8.2%	N/A	9.2%	17.1%	17.8%	47.4%	9.8x	6.9x	20.6x	16.5x
Triumph Group, Inc.	TGI	2.2%	N/A	5.3%	5.2%	-19.8%	6.0%	0.7x	0.8x	12.4x	9.4x
United Technologies Corporation	UTX	4.5%	14.6%	7.1%	15.7%	15.8%	16.3%	2.2x	2.1x	13.5x	11.6x
	Mean	5.5%	19.7%	10.0%	9.9%	7.6%	16.3%	2.8x	2.5x	16.6x	15.4x
	Median	4.7%	14.8%	8.5%	10.4%	1.9%	14.3%	2.2x	2.1x	15.1x	14.2x

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 June 30, 2019



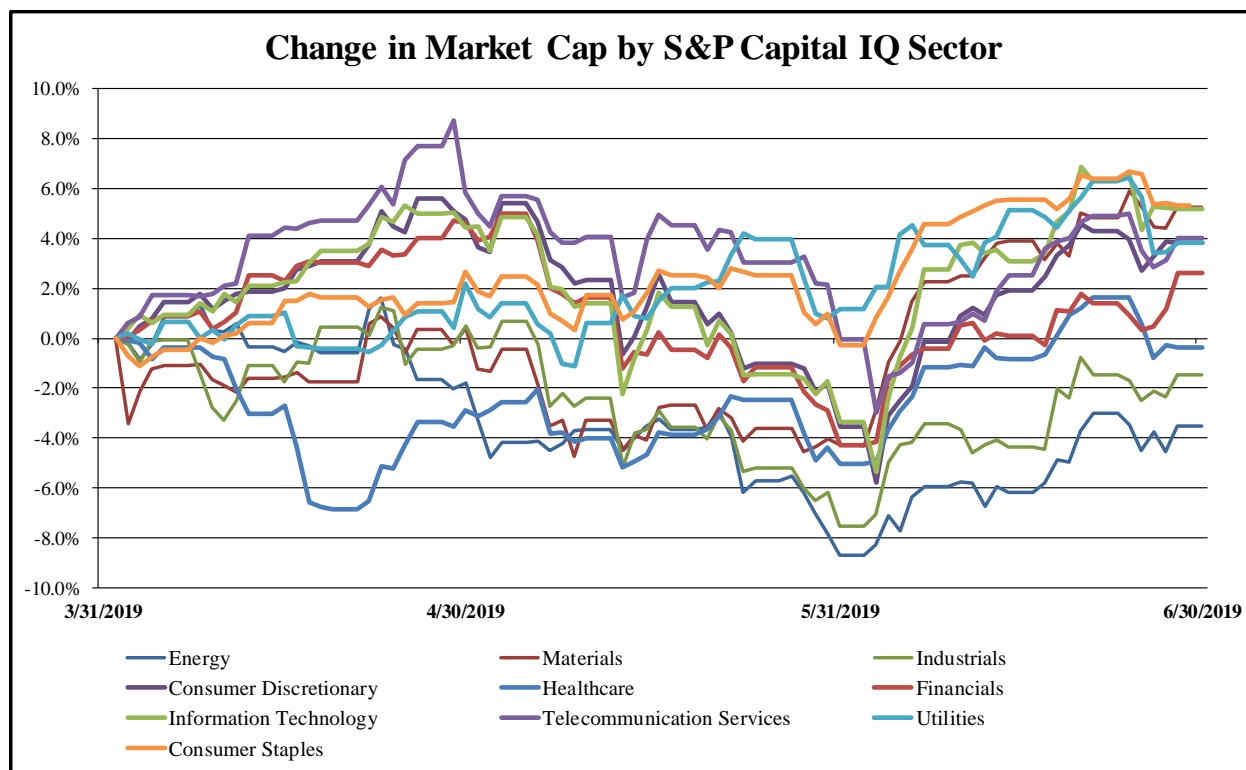
Note: The indices are derived from the equity performance of the previously listed companies. Source: Capital IQ

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

(USD in millions)

Close Date	Target	Acquirer	Target Company Primary Industry	Implied 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, Inc.)	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
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
1/7/2019	OGSystems, LLC	Parsons Corporation	Aerospace and Defense	\$300.30
3/4/2019	Sparton Corporation	Cerberus Capital Management, L.P.	Aerospace and Defense	\$255.25
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
11/26/2018	Firstmark Corporation	Ontic Engineering and Manufacturing, Inc.	Aerospace and Defense	\$97.00
7/13/2018	SKANDIA, Inc.	TransDigm Group Incorporated	Aerospace and Defense	\$84.00
2/27/2019	Florida Turbine Technologies Inc./ FIT Core LLC	Kratos Defense & Security Solutions, Inc.	Aerospace and Defense	\$78.88
7/2/2018	Applied Defense Solutions, Inc.	L3 Technologies, Inc.	Aerospace and Defense	\$50.00
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
7/31/2018	Aitech Defense Systems, Inc.	First Israel Mezzanine Investors Ltd.	Aerospace and Defense	\$30.00
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	Syston Donner Inertial, Inc.	EMCORE Corporation	Aerospace and Defense	\$25.75
6/10/2019	Pulse Aerospace, Inc.	AeroVironment, Inc.	Aerospace and Defense	\$25.65
7/2/2018	Beaver Aerospace & Defense, Inc.	Héroux-Devtek Inc.	Aerospace and Defense	\$23.50
11/28/2018	Avborne Accessory Group, Inc.	AerSale Inc.	Aerospace and Defense	\$22.30
7/5/2018	CAD Enterprises, Inc.	Hickok Incorporated (nka:Crawford United	Aerospace and Defense	\$21.00
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 Co.	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
6/27/2019	Ianic Engineering, Inc./Gardena Specialized Processing	Spectra Aerospace Inc.	Aerospace and Defense	NA
6/25/2019	Qwest Air Parts, Inc.	AerSale Inc.	Aerospace and Defense	NA
6/25/2019	Aera Aerospace, LLC	NOVARIA HOLDINGS LLC	Aerospace and Defense	NA
6/20/2019	Dakota Moon Enterprises LLC	QuEST Global Services Pte. Ltd.	Aerospace and Defense	NA
6/17/2019	MRO Services Division	StandardAero, Inc.	Aerospace and Defense	NA
6/1/2019	Global Aerospace Operations of Jardine Lloyd Thompson Group plc	Arthur J. Gallagher & Co.	Aerospace and Defense	NA
5/30/2019	Hydra-Electric Company	Loar Group, Inc.	Aerospace and Defense	NA
5/10/2019	Private Jet Management Business of Elliott Aviation, Inc.	Jet Linx Aviation LLC	Aerospace and Defense	NA
5/9/2019	API Technologies Corp.	AEA Investors LP	Aerospace and Defense	NA
5/7/2019	Zircon Precision Products, LLC	CLM Equity Partners	Aerospace and Defense	NA
5/2/2019	Assets of LAI International's operations in Scarborough and Arizona	Whitcraft LLC	Aerospace and Defense	NA
4/24/2019	Precision Aerospace LLC	Curran Companies, LLC; Willcrest Partners	Aerospace and Defense	NA
4/22/2019	Trowbridge & Trowbridge, LLC	Enlightenment Capital	Aerospace and Defense	NA
4/4/2019	Automated Business Power, Inc.	Medallion Capital, Inc.; Rockmont Capital Partners,	Aerospace and Defense	NA
4/4/2019	StandardAero, Inc.	The Carlyle Group L.P.; Carlyle Partners VII, L.P.	Aerospace and Defense	NA
3/31/2019	Fabrications Business Of Triump Group (nka:Radius Aerospace, Inc.)	Arlington Capital Partners LP	Aerospace and Defense	NA
3/26/2019	Syston Donner Inertial, Inc.	Resilience Capital Partners LLC	Aerospace and Defense	NA
3/22/2019	LifePort, Inc.	N/A	Aerospace and Defense	NA
3/22/2019	Alytica LLC	CieloGov, LLC	Aerospace and Defense	NA
3/15/2019	Schafer Intermediate Holdings, LLC	Gryphon Technologies LC	Aerospace and Defense	NA

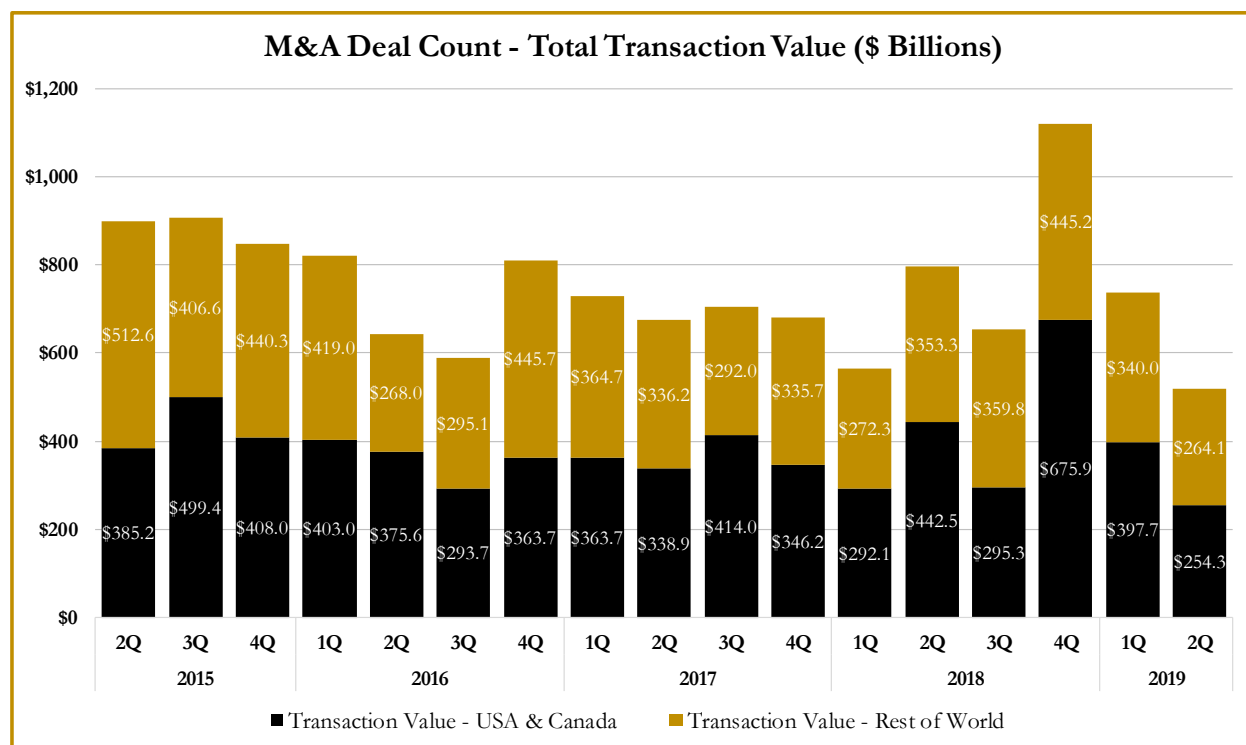
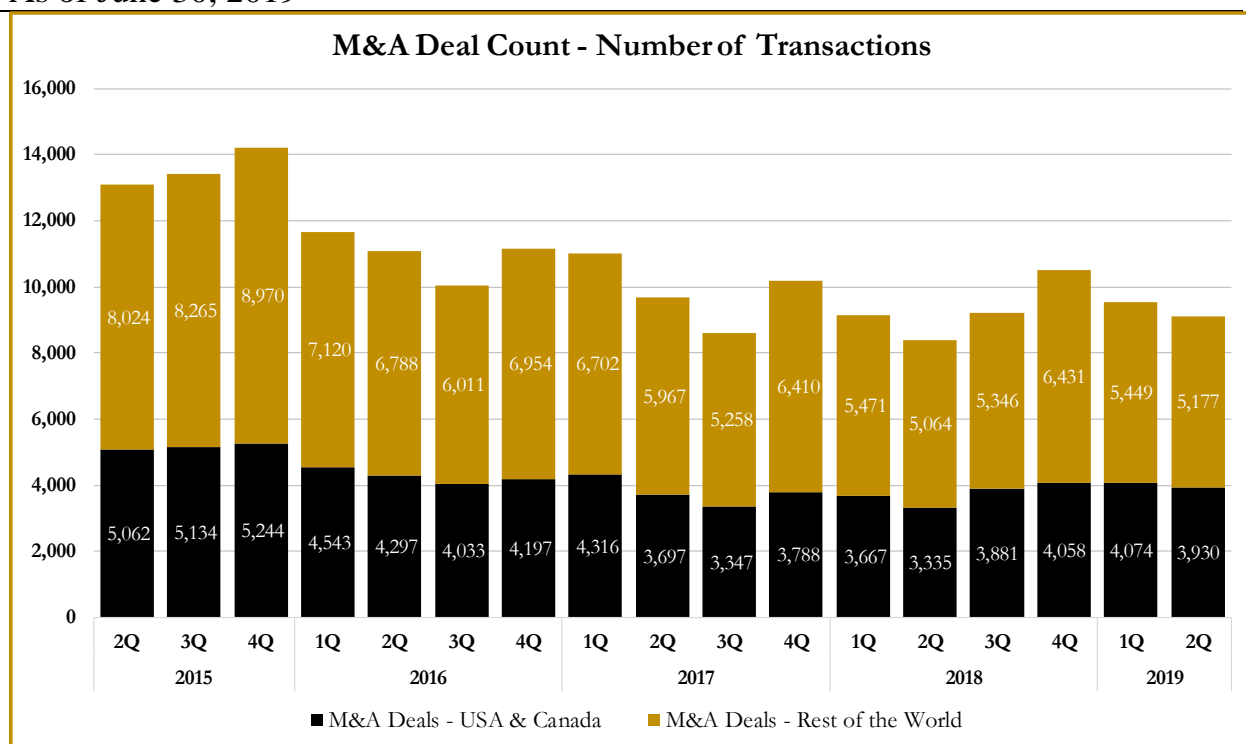
## S&P Capital IQ - Sector Last 3 Month Equity Performance As of June 30, 2019



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

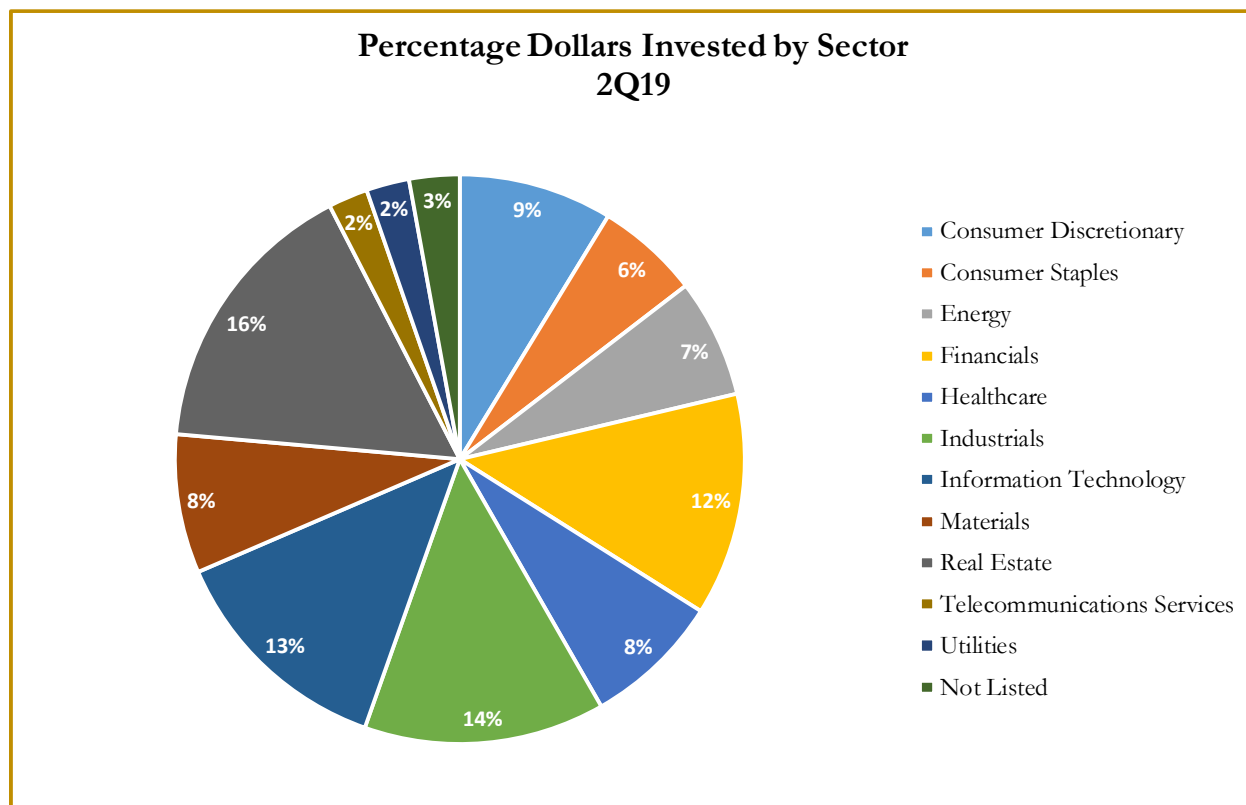


## M&A Deal Flow Statistics by S&P Capital IQ Sector As of June 30, 2019



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

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## 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.

### Investment Banking

Through our Investment Banking Group, we offer sell side/buy side advisory, private placement and capital raises.

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Through our Special Situations desk, we provide services that fit outside the archetypal verticals, including liquidity solutions, transactional advisory, and secondary market advisory and trading.

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