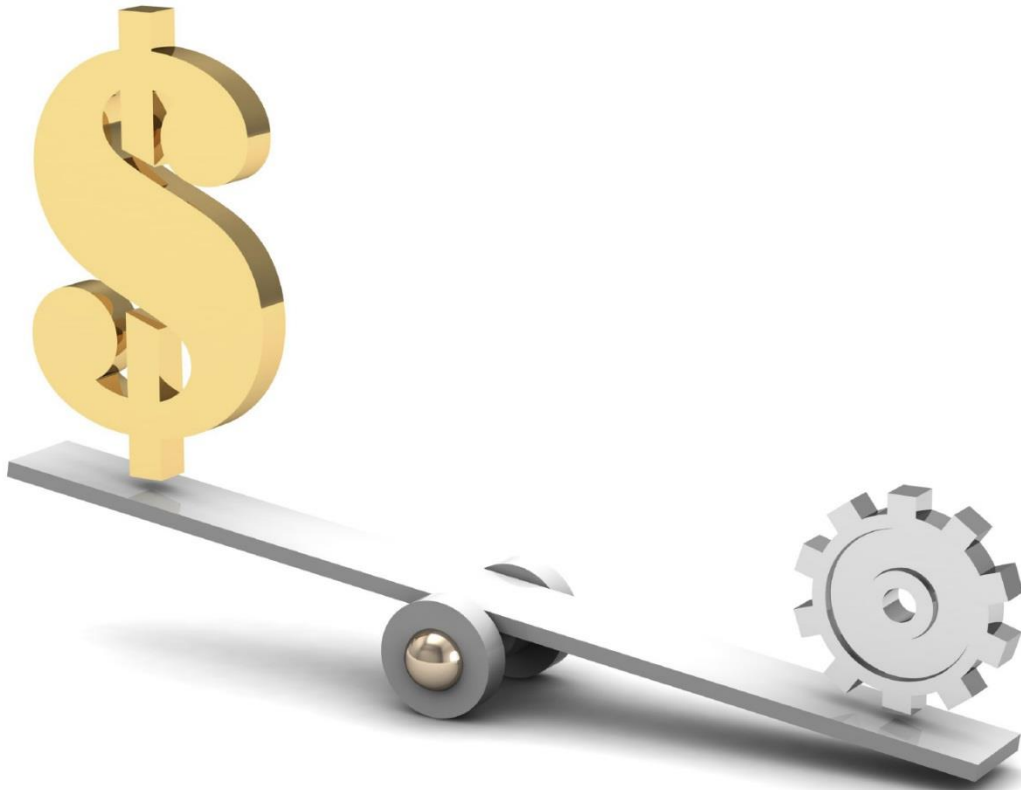




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*Value. Added.*



Industry Observations – December 31, 2018

## Asset Management Industry

## Select Asset Management Public Company Industry Data As of December 31, 2018

(USD in millions, except per share data)

		Market Data					LTM Operating Data			Forward Estimates	
		Price at	% of 52	Equity	Enterprise	Debt /	Assets	LTM	LTM	CY 2018	CY 2018
Company Name	Ticker	12/31/18	Week High	Value	Value	Total Capital	Under Management	Revenue	Earnings	Revenue Estimate	Earnings Estimate
Traditional Asset Management											
Apollo Global Management, LLC	APO	\$24.54	65.7%	\$4,943.04	\$0.00	42.8%	\$270,180.00	\$1,917.05	\$366.15	\$2,427.83	\$596.62
Artisan Partners Asset Management Inc.	APAM	\$22.11	53.3%	\$1,194.37	\$1,389.01	53.3%	\$96,224.00	\$828.60	\$158.30	\$744.33	\$129.08
Eaton Vance Corp.	EV	\$35.18	57.7%	\$3,950.47	\$4,655.04	50.8%	\$439,303.00	\$1,702.25	\$381.94	\$1,675.74	\$346.31
Federated Investors, Inc.	FII	\$26.55	72.2%	\$2,668.25	\$2,923.91	11.5%	\$459,860.00	\$1,135.68	\$220.30	\$1,246.91	\$233.96
GAMCO Investors, Inc.	GBL	\$16.89	55.5%	\$490.91	\$570.04	71.5%	\$34,354.00	\$341.46	\$117.20	\$0.00	\$0.00
Janus Henderson Group plc	JHG	\$20.72	49.8%	\$3,996.88	\$3,792.15	6.0%	\$328,500.00	\$2,306.40	\$523.80	\$2,085.09	\$471.14
Legg Mason, Inc.	LM	\$25.51	54.1%	\$2,181.83	\$4,387.97	33.9%	\$727,200.00	\$2,995.71	-\$68.73	\$2,789.97	\$212.06
Waddell & Reed Financial, Inc.	WDR	\$18.08	75.9%	\$1,416.00	\$604.08	9.6%	\$65,809.00	\$1,160.30	\$183.59	\$1,025.46	\$112.81
Alternative Asset Management											
Ares Management Corporation	ARES	\$17.78	68.5%	\$1,805.21	\$9,891.74	83.17%	\$125,079.00	\$1,021.69	\$84.68	\$1,228.88	\$148.65
Oaktree Capital Group, LLC	OAK	\$39.75	84.9%	\$2,842.55	\$5,260.85	17.78%	\$119,560.00	\$1,386.08	\$223.42	\$1,562.44	\$229.56
Och-Ziff Capital Management Group LLC	OZM	\$9.20	31.89%	\$176.29	\$1,401.05	37.24%	\$32,994.59	\$770.02	-\$16.74	\$585.84	\$63.98
Virtus Investment Partners, Inc.	VRTS	\$79.43	57.5%	\$567.65	\$2,535.17	73.02%	\$0.00	\$552.24	\$75.53	\$521.47	\$76.02
Private Equity/ Venture Capital											
BlackRock Capital Investment Corporation	BKCC	\$5.29	81.0%	\$368.90	\$660.15	30.0%	\$0.00	\$87.55	\$26.61	\$93.69	\$50.24
Capital Southwest Corporation	CSWC	\$19.22	79.5%	\$327.57	\$559.81	38.3%	\$0.00	\$47.45	\$37.54	\$60.68	\$27.99
Hercules Capital, Inc.	HTGC	\$11.05	80.7%	\$1,063.42	\$2,002.39	44.3%	\$0.00	\$201.06	\$112.00	\$243.35	\$128.17
Main Street Capital Corporation	MAIN	\$33.81	82.9%	\$2,062.20	\$3,179.69	38.6%	\$0.00	\$229.87	\$220.15	\$252.37	\$156.75
Prospect Capital Corporation	PSEC	\$6.31	83.0%	\$2,306.19	\$4,822.07	43.6%	\$0.00	\$705.17	\$182.57	\$678.51	\$291.18
The Carlyle Group L.P.	CG	\$15.75	60.8%	\$1,697.03	\$7,491.92	69.3%	\$216,470.00	\$2,427.20	\$116.50	\$2,353.70	\$220.05

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 Asset Management Public Company Valuation Metrics As of December 31, 2018

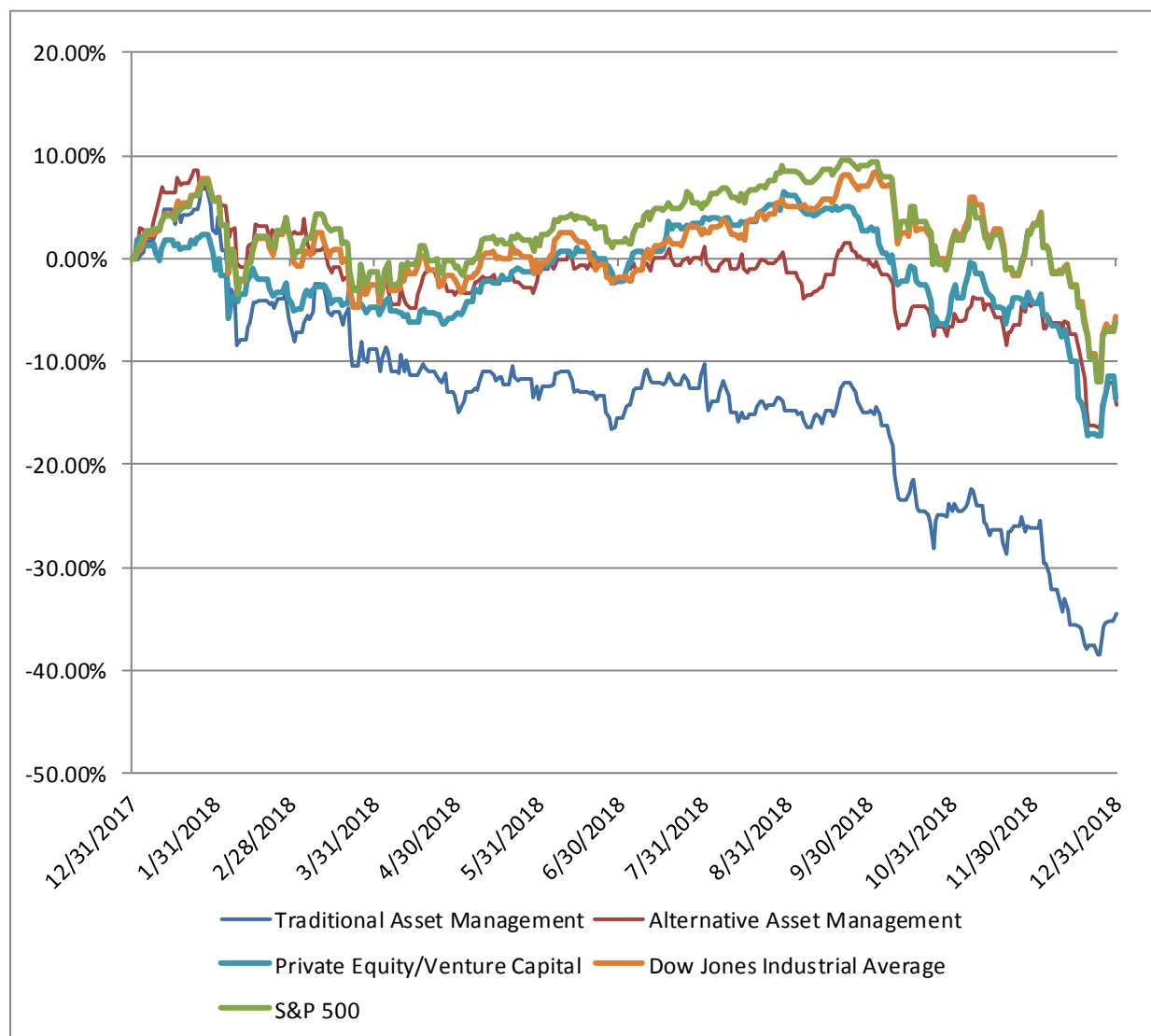
(USD in millions, except per share data)

		LTM Operating Statistics						Trading Multiples		
Company Name	Ticker	Return On Assets	Return On Equity	Return On Capital	Revenue Growth	Net Income Growth	Net Income Margin	TEV/ LTM Revenue	TEV/ CY 2018 Revenue	Price/ LTM Earnings
Traditional Asset Management										
Apollo Global Management, LLC	APO	12.4%	30.7%	0.0%	-22.6%	-39.7%	19.1%	0.0x	0.0x	21.1x
Artisan Partners Asset Management Inc.	APAM	23.2%	147.2%	51.2%	4.1%	219.2%	19.1%	1.7x	1.9x	4.0x
Eaton Vance Corp.	EV	11.7%	29.4%	14.4%	11.3%	35.4%	22.4%	2.7x	2.8x	13.7x
Federated Investors, Inc.	FII	14.9%	24.3%	19.3%	3.0%	-24.4%	19.4%	2.6x	2.3x	12.4x
GAMCO Investors, Inc.	GBL	88.8%	N/A	739.1%	-5.3%	50.6%	34.3%	1.7x	N/A	4.6x
Janus Henderson Group plc	JHG	5.7%	9.9%	7.5%	32.3%	-20.1%	22.7%	1.6x	1.8x	7.9x
Legg Mason, Inc.	LM	3.9%	-0.7%	4.5%	-2.7%	N/A	-2.3%	1.5x	1.6x	9.7x
Waddell & Reed Financial, Inc.	WDR	10.2%	20.5%	13.5%	0.3%	29.9%	15.8%	0.5x	0.6x	8.6x
	Mean	21.4%	37.3%	106.2%	2.6%	35.9%	18.8%	1.5x	1.6x	10.2x
	Median	12.1%	24.3%	14.0%	1.6%	29.9%	19.3%	1.7x	1.8x	9.1x
Alternative Asset Management										
Ares Management Corporation	ARES	0.4%	18.6%	0.5%	-30.2%	19.9%	8.3%	9.7x	8.0x	NM
Oaktree Capital Group, LLC	OAK	2.5%	14.7%	4.0%	-5.7%	-3.5%	16.1%	3.8x	3.4x	19.8x
Och-Ziff Capital Management Group LLC	OZM	7.9%	10.3%	14.0%	10.0%	N/A	-2.2%	1.8x	2.4x	1.0x
Virtus Investment Partners, Inc.	VRTS	0.0%	11.5%	2.8%	29.8%	104.1%	13.7%	4.6x	4.9x	7.1x
	Mean	2.7%	13.8%	5.3%	1.0%	40.2%	9.0%	5.0x	4.7x	9.3x
	Median	1.4%	13.1%	3.4%	2.1%	19.9%	11.0%	4.2x	4.1x	7.1x
Private Equity/Venture Capital										
BlackRock Capital Investment Corporation	BKCC	5.0%	4.7%	5.1%	-13.3%	32.6%	30.4%	7.5x	7.0x	12.2x
Capital Southwest Corporation	CSWC	4.4%	12.2%	4.5%	43.9%	23.9%	79.1%	11.8x	9.2x	25.3x
Hercules Capital, Inc.	HTGC	5.5%	12.2%	5.6%	6.9%	49.8%	55.7%	10.0x	8.2x	15.1x
Main Street Capital Corporation	MAIN	5.1%	15.5%	5.2%	16.8%	40.1%	95.8%	13.8x	12.6x	21.2x
Prospect Capital Corporation	PSEC	4.9%	5.5%	5.0%	7.1%	-10.7%	25.9%	6.8x	7.1x	12.0x
The Carlyle Group L.P.	CG	3.0%	11.4%	4.2%	-34.0%	-52.3%	4.8%	3.1x	3.2x	NM
	Mean	4.6%	10.2%	4.9%	4.6%	13.9%	48.6%	8.8x	7.9x	17.2x
	Median	5.0%	11.8%	5.1%	7.0%	28.2%	43.0%	8.7x	7.7x	15.1x

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

Source: Capital IQ

## Asset Management Public Company LTM Equity Performance As of December 31, 2018



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

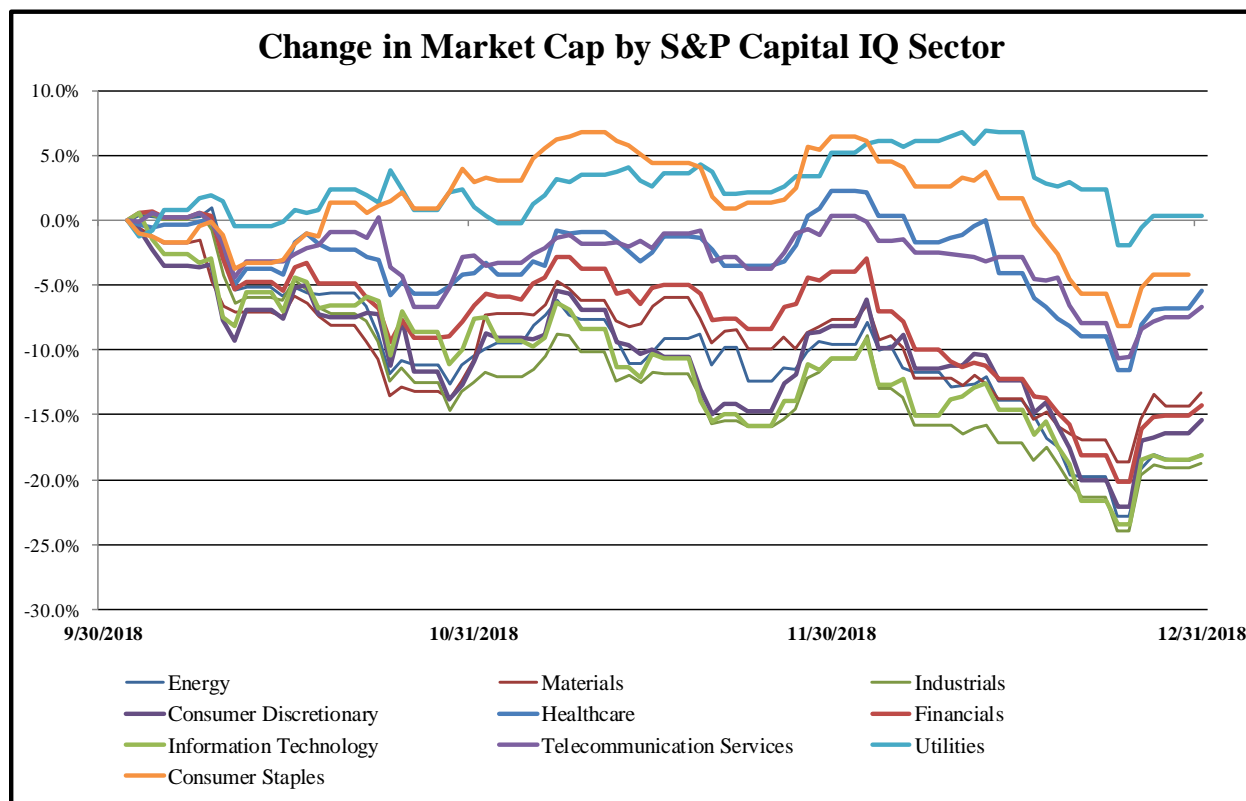
## Recent M&A Activity in Asset Management Industry December 31, 2017 to December 31, 2018

(USD in millions)

Close Date	Target	Acquirer	Target Company Primary Industry	Implied Equity Value
7/19/2018	Financial Engines, Inc.	Edelman Financial Services LLC	Asset Management and Custody Banks	\$2,971.45
4/6/2018	Accretive Asset Management and Guggenheim Specialized	Invesco Ltd.	Asset Management and Custody Banks	\$1,200.00
7/31/2018	December 31, 2017 Investment Portfolio of Triangle Capital	Benefit Street Partners L.L.C.	Asset Management and Custody Banks	\$793.30
7/5/2018	Harrison Street Real Estate Capital, LLC	Colliers International Group Inc.	Asset Management and Custody Banks	\$600.00
1/0/1900	Northstar Real Estate Income II, Inc.	Colony NorthStar, Inc. (nka:Colony Capital, Inc.)	Asset Management and Custody Banks	\$522.33
11/30/2018	Rialto Capital Management LLC	Stone Point Capital LLC; Trident VII, L.P.	Asset Management and Custody Banks	\$340.00
4/9/2018	Trust Company of America Inc.	E*TRADE Savings Bank	Asset Management and Custody Banks	\$275.00
1/0/1900	Heitman LLC	N/A	Asset Management and Custody Banks	\$220.00
11/5/2018	Easterly Acquisition Corp. (nka:Sirius Acquisitions Holding	Sirius International Insurance Group, Ltd.	Asset Management and Custody Banks	\$164.51
11/30/2018	Loring Ward Holdings Inc.	BAM Advisor Services, LLC	Asset Management and Custody Banks	\$148.90
1/0/1900	Cole Capital Advisors, Inc.	CIM Group, Inc.	Asset Management and Custody Banks	\$120.00
12/19/2018	Apollo Aviation Group, LLC (nka:Carlyle Aviation Partners Ltd)	The Carlyle Group L.P.	Asset Management and Custody Banks	\$75.00
1/0/1900	Alta Capital Management LLC	Guardian Capital Group Limited	Asset Management and Custody Banks	\$64.29
5/18/2018	ZAIS Group Holdings, Inc.	N/A	Asset Management and Custody Banks	\$60.49
7/10/2018	\$400 million Safe Harbor Individual Retirement Account Portfolio	Millennium Trust Company, LLC	Asset Management and Custody Banks	\$60.00
1/0/1900	Asset Management Business of MMA Capital Management, LLC	Hunt Companies, Inc.	Asset Management and Custody Banks	\$57.00
1/0/1900	Impax Asset Management LLC	Impax Asset Management Group plc	Asset Management and Custody Banks	\$53.06
12/31/2018	Katonah Debt Advisors, L.L.C./Trimaran Advisors,	LibreMax Capital, LLC	Asset Management and Custody Banks	\$37.90
4/12/2018	JCR Capital	Walker & Dunlop, Inc.	Asset Management and Custody Banks	\$32.00
4/13/2018	Anchor Capital Advisors, LLC	Lincoln Peak Capital Management, LLC	Asset Management and Custody Banks	\$32.00
7/18/2018	Avenida Capital LLC (nka:Ashmore Avenida Investments (Real	Ashmore Group PLC	Asset Management and Custody Banks	\$24.46
8/9/2018	Clearwater Capital Partners, LLC	Fiera Capital Corporation	Asset Management and Custody Banks	\$15.26
1/0/1900	Westwood Holdings Group, Inc., Private Wealth Business in	Bridges Investment Management Inc.	Asset Management and Custody Banks	\$10.50
7/17/2018	Winthrop Corporation	Khandwala Capital Management, Inc.	Asset Management and Custody Banks	\$6.00
10/4/2018	Certain Assets of LHFC Property of Morrison Grove	MMA Capital Management, LLC (nka:MMA	Asset Management and Custody Banks	\$4.50
4/6/2018	Fixed Income & Equity Business of Columbia Partners, L.L.C.	Tristate Capital Holdings, Inc.	Asset Management and Custody Banks	\$1.20
11/30/2018	Punto Group, Corp. (nka:One World Pharma, Inc.)	OWP Ventures, Inc.	Asset Management and Custody Banks	\$0.53
4/23/2018	RISB Properties, Inc.	N/A	Asset Management and Custody Banks	\$0.33
7/11/2018	Finest Acquisition, Inc.	AWC Capital, Inc.	Asset Management and Custody Banks	\$0.05
12/14/2018	Substantially All Assets of Bauer Capital Management, LLC	Foothill Capital Management, LLC	Asset Management and Custody Banks	NA
12/27/2018	Aptitude Investment Management LP	Goldman Sachs Hedge Fund Strategies LLC	Asset Management and Custody Banks	NA
12/12/2018	John Marshall & Associates Investment Center	N/A	Asset Management and Custody Banks	NA
12/6/2018	3 Seeds Wealth Advisors	Sanctuary Wealth Partners	Asset Management and Custody Banks	NA
12/4/2018	Amaces Inc. (nka:MJ Hudson Amaces)	MJ Hudson LLP	Asset Management and Custody Banks	NA
12/4/2018	Sequoia Institutional Services	CBIZ, Inc.	Asset Management and Custody Banks	NA
1/0/1900	First Mercantile Trust Company	Mid Atlantic Capital Group, Inc.	Asset Management and Custody Banks	NA
11/30/2018	CM de Crinis & Co., Inc.	Columbia Capital Management, LLC	Asset Management and Custody Banks	NA
9/30/2018	Assets of McHam Taylor & Co., Inc. (nka:MTM Investment	N/A	Asset Management and Custody Banks	NA
11/19/2018	SOBC Services Company Limited	SOBC DARAG Holdings Ltd	Asset Management and Custody Banks	NA
11/16/2018	Signature Financial Management, Inc.	Brown Advisory Incorporated	Asset Management and Custody Banks	NA
11/15/2018	Financial & Investment Management Group Ltd	Mercer Advisors Inc.	Asset Management and Custody Banks	NA
11/15/2018	Perspective Financial Group, LLC	Pentra, Inc.	Asset Management and Custody Banks	NA
11/12/2018	Sigma Investment Management Company	Mercer Advisors Inc.	Asset Management and Custody Banks	NA
11/9/2018	Investment Planning And Management Practice Of Paul Mehno	The Fragasso Group Inc.	Asset Management and Custody Banks	NA
11/1/2018	Quest IRA, Inc.	Quest Trust Company, Inc.	Asset Management and Custody Banks	NA
11/1/2018	Ferrara-Kampstra, Inc	Stonebridge Financial Group, LLC	Asset Management and Custody Banks	NA
10/30/2018	Arkin Youngentob Associates, LLC	RSC Insurance Brokerage, Inc.	Asset Management and Custody Banks	NA
10/24/2018	Biggers Blackmon, LLC	Atlanta Financial Associates, Inc.	Asset Management and Custody Banks	NA
10/18/2018	Carroll Consultants, Ltd.	Cafaro Greenleaf	Asset Management and Custody Banks	NA
10/16/2018	Retirement Plan Consulting and Financial Services Business of	Hub International Investment Services Inc.	Asset Management and Custody Banks	NA
10/15/2018	FCE Group, Inc.	CAPTRUST	Asset Management and Custody Banks	NA
12/4/2018	Nuance Investments, LLC	N/A	Asset Management and Custody Banks	NA
12/3/2018	Greer Anderson Capital LLC	Rockefeller Capital Management L.P.	Asset Management and Custody Banks	NA
12/31/2018	Palmer Square Capital Management LLC	N/A	Asset Management and Custody Banks	NA
11/30/2018	Clarus Ventures, LLC	The Blackstone Group L.P.	Asset Management and Custody Banks	NA

Source: Capital IQ

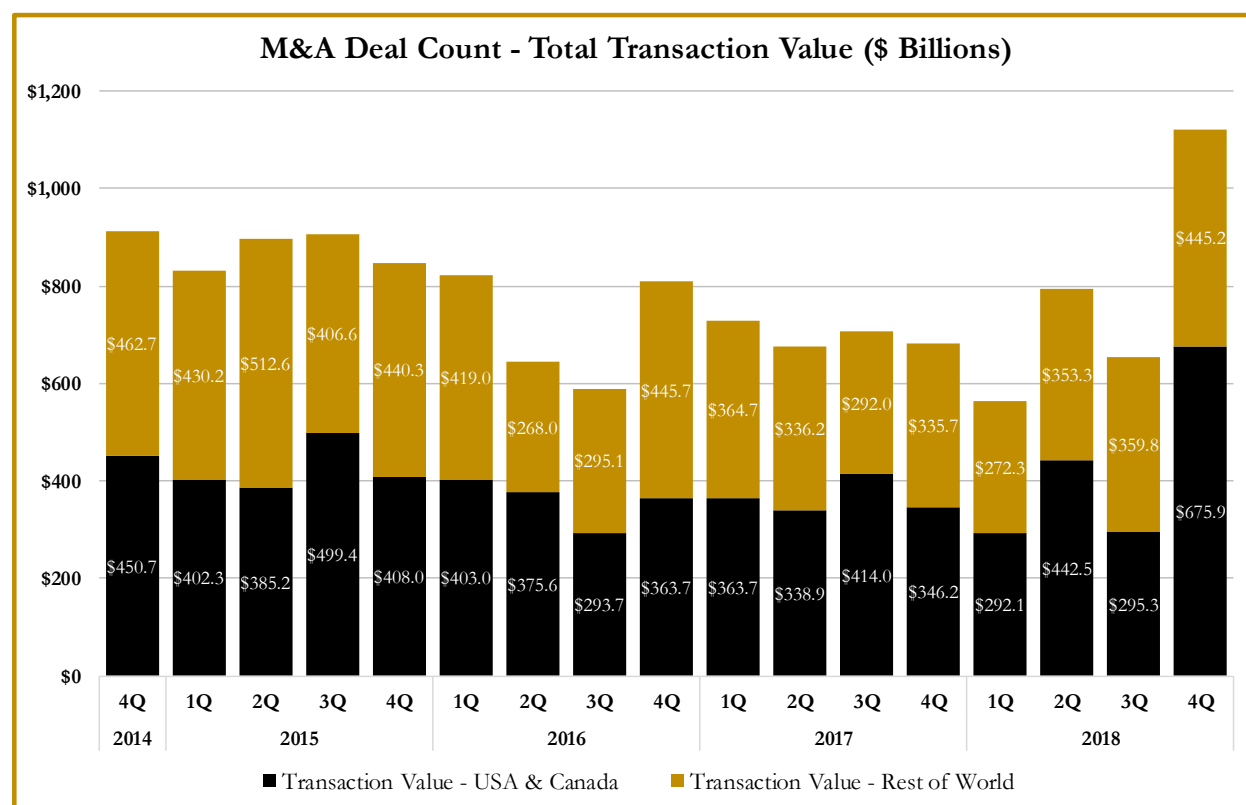
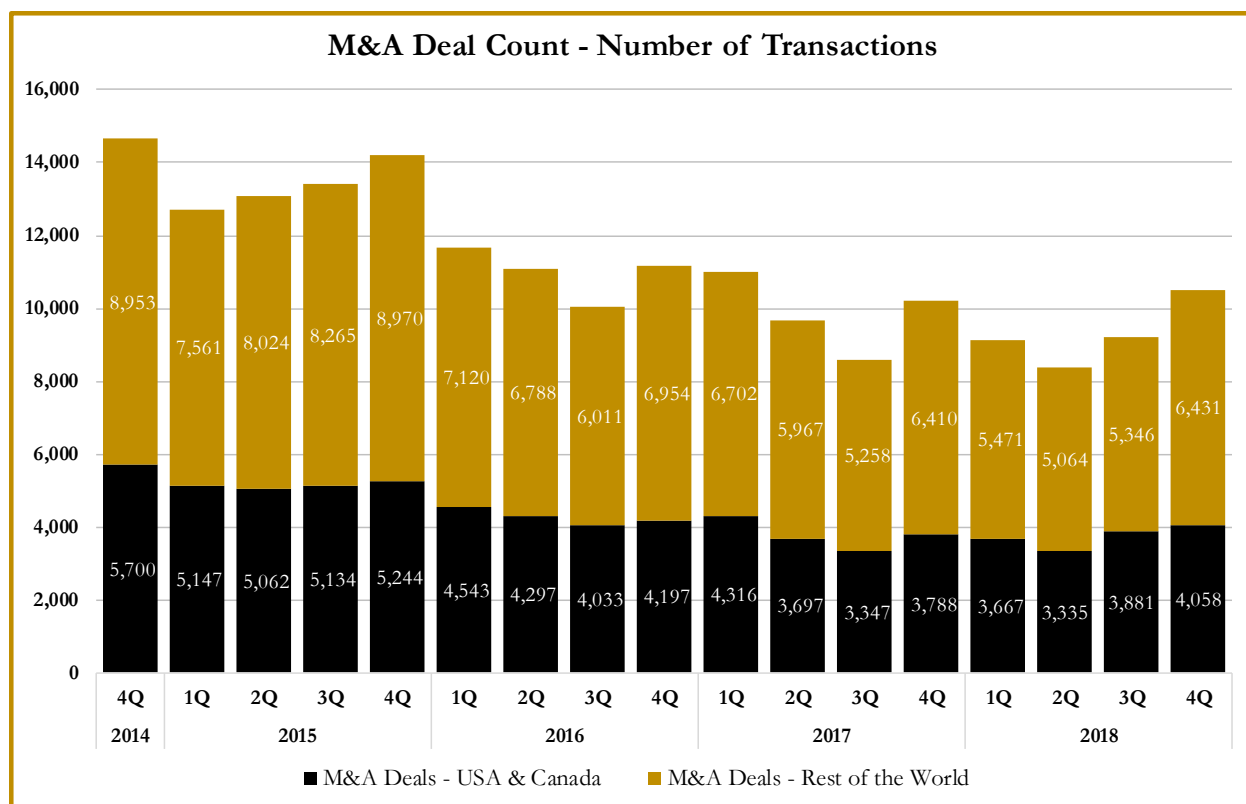
## S&P Capital IQ - Sector Last 3 Month Equity Performance As of December 31, 2018



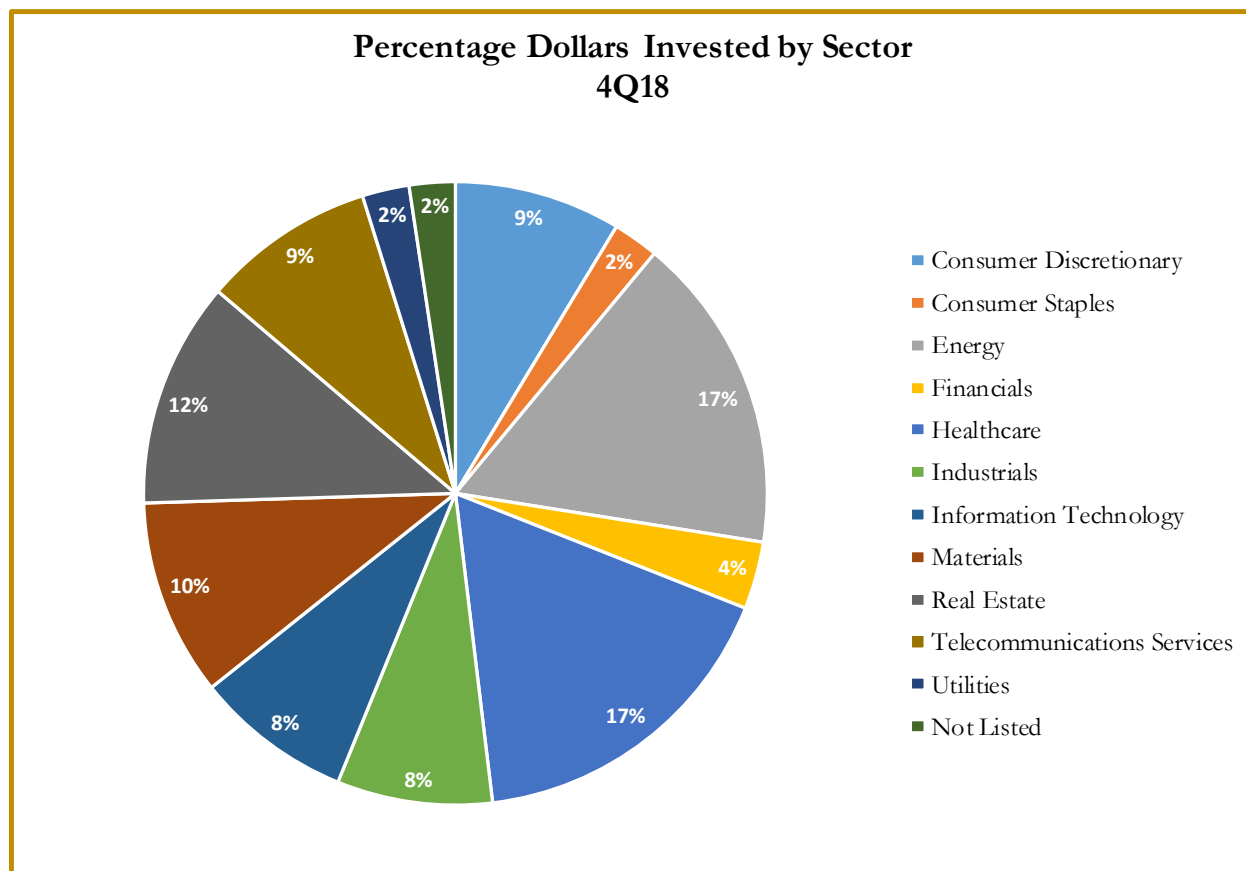
Note: The indices are derived from the equity performance of the S&P Capital IQ Sectors. Source: Capital IQ

## M&A Deal Flow Statistics by S&P Capital IQ Sector

### As of December 31, 2018



## M&A Deal Flow Statistics by S&P Capital IQ Sector As of December 31, 2018







## About Us

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 and capital raises. 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.

## Litigation Support

Our team provides support for a wide variety of situations including commercial and shareholder disputes, derivatives and structured finance litigation, and fraudulent conveyance.

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

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