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SOLUTION

Industry Observations – December 31, 2019

Business Services Industry

Select Business Services Public Company Industry Data As of December 31, 2019

(USD in millions, except per share data)

Company Name	Ticker	Market Data					LTM Operating Data			Forward Estimates	
		Price at 12/31/19	% 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
Advertising											
Omnicom Group Inc.	OMC	\$ 81.02	95.3%	\$ 17,640.6	\$ 22,744.9	67.9%	\$ 23,653.5	\$ 14,899.2	\$ 2,317.4	\$15,125.94	\$2,391.05
The Interpublic Group of Companies, Inc.	IPG	\$ 23.10	96.3%	\$ 8,956.6	\$ 13,966.8	66.4%	\$ 15,997.6	\$ 8,605.8	\$ 1,397.7	\$8,800.34	\$1,480.89
Lamar Advertising Company (REIT)	LAMR	\$ 89.26	99.5%	\$ 8,964.5	\$ 13,207.5	78.5%	\$ 5,931.7	\$ 1,718.9	\$ 746.7	\$1,826.74	\$808.18
Clear Channel Outdoor Holdings, Inc.	CCO	\$ 2.86	49.6%	\$ 1,322.9	\$ 8,193.5	142.3%	\$ 6,267.1	\$ 2,686.2	\$ 567.2	\$2,741.28	\$621.33
Consumer Credit Reporting, Mercantile Reporting, and Adjustment and Collection Agency											
S&P Global Inc.	SPGI	\$ 273.05	99.0%	\$ 66,733.4	\$ 71,210.4	64.4%	\$ 10,188.0	\$ 6,501.0	\$ 3,256.0	\$7,087.63	\$3,646.90
Moody's Corporation	MCO	\$ 237.41	98.8%	\$ 44,811.3	\$ 49,590.5	89.2%	\$ 9,477.8	\$ 4,656.3	\$ 2,172.9	\$5,053.82	\$2,461.31
Equifax Inc.	EFX	\$ 140.12	94.3%	\$ 16,966.2	\$ 20,151.4	56.4%	\$ 7,430.7	\$ 3,437.1	\$ 719.9	\$3,710.68	\$1,274.21
DNB ASA	DNB	\$ 18.66	95.4%	\$ 29,300.8	\$ -	0.0%	\$320,879.7	\$ 6,017.2	NA	\$56,971.07	\$0.00
Services to Dwellings and Other Buildings											
Rollins, Inc.	ROL	\$ 33.16	75.5%	\$ 10,858.0	\$ 11,277.3	39.4%	\$ 1,764.8	\$ 1,954.1	\$ 387.1	\$2,157.28	\$441.32
Healthcare Services Group, Inc.	HCSG	\$ 24.32	54.3%	\$ 1,802.6	\$ 1,711.3	6.0%	\$ 726.4	\$ 1,895.0	\$ 104.4	\$1,822.89	\$121.67
ABM Industries Incorporated	ABM	\$ 37.71	88.4%	\$ 2,511.1	\$ 3,276.1	34.8%	\$ 3,692.6	\$ 6,498.6	\$ 329.6	\$6,543.60	\$333.90
Miscellaneous Equipment Rental and Leasing											
United Rentals, Inc.	URI	\$ 166.77	98.1%	\$ 12,533.8	\$ 24,833.8	77.2%	\$ 19,405.0	\$ 9,201.0	\$ 2,648.0	\$9,576.73	\$4,536.38
Aaron's, Inc.	AAN	\$ 57.11	72.6%	\$ 3,835.0	\$ 4,406.3	27.9%	\$ 3,219.6	\$ 3,937.2	\$ 634.3	\$4,444.95	\$496.20
TAL Education Group	TAL	\$ 48.20	98.3%	\$ 28,522.0	\$ 28,106.9	29.8%	\$ 4,726.2	\$ 2,951.9	\$ 416.6	\$4,249.83	\$692.44
Apollo Power Ltd	APLP	\$ 0.36	71.5%	\$ 4.5	\$ 3.3	11.0%	\$ 2.2	\$ -	\$ (2.6)	\$0.00	\$0.00
Rent-A-Center, Inc.	RCII	\$ 28.84	99.6%	\$ 1,579.1	\$ 2,029.0	54.8%	\$ 1,497.9	\$ 2,663.7	\$ 228.6	\$2,733.78	\$266.04
Personnel Supply Services											
ManpowerGroup Inc.	MAN	\$ 97.10	99.1%	\$ 5,725.2	\$ 6,383.9	34.8%	\$ 8,753.2	\$ 21,060.1	\$ 822.7	\$20,925.24	\$797.51
Robert Half International Inc.	RHI	\$ 63.15	91.4%	\$ 7,202.0	\$ 7,161.4	19.7%	\$ 2,311.6	\$ 6,018.7	\$ 686.8	\$6,336.11	\$716.72
ASGN Incorporated	ASGN	\$ 70.97	97.7%	\$ 3,747.2	\$ 4,756.5	44.7%	\$ 2,831.6	\$ 3,828.4	\$ 406.9	\$4,181.41	\$475.58
Korn Ferry	KFY	\$ 42.40	85.6%	\$ 2,341.8	\$ 2,404.2	29.4%	\$ 2,486.3	\$ 1,942.2	\$ 275.8	\$2,115.84	\$336.63
TrueBlue, Inc.	TBI	\$ 24.06	93.4%	\$ 905.6	\$ 964.9	11.8%	\$ 1,131.0	\$ 2,427.9	\$ 123.1	\$2,322.73	\$101.63

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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Select Business Services Public Company Industry Data

As of December 31, 2019

(USD in millions, except per share data)

Company Name	Ticker	Market Data					LTM Operating Data			Forward Estimates	
		Price at 12/31/19	% of 52 Week	Equity Value	Enterprise Value	Debt / Total	Total Assets	LTM Revenue	LTM EBITDA	CY 2019 Revenue	CY 2019 EBITDA
Computer Programming, Data Processing, and Other Computer Related Services											
Alphabet Inc.	GOOG	\$ 1,337.02	98.0%	\$ 922,946.3	\$ 816,642.3	7.1%	\$263,044.0	\$155,058.0	\$44,069.0	\$190,849.42	\$68,894.96
Microsoft Corporation	MSFT	\$ 157.70	98.8%	\$1,203,062.6	\$1,152,023.6	44.7%	\$278,955.0	\$129,814.0	\$57,424.0	\$148,055.15	\$65,033.20
International Business Machines Corporation	IBM	\$ 134.04	87.6%	\$ 118,710.8	\$ 179,516.8	79.8%	\$149,620.0	\$ 77,131.0	\$16,664.0	\$79,381.80	\$19,102.48
Facebook, Inc.	FB	\$ 205.25	98.2%	\$ 585,321.0	\$ 542,184.0	8.9%	\$124,418.0	\$ 66,529.0	\$28,446.0	\$85,936.92	\$43,731.17
Oracle Corporation	ORCL	\$ 52.98	87.6%	\$ 169,941.2	\$ 197,041.2	76.9%	\$ 98,443.0	\$ 39,583.0	\$16,190.0	\$40,463.60	\$18,749.30
eBay Inc.	EBAY	\$ 36.11	86.0%	\$ 29,376.4	\$ 34,702.4	72.0%	\$ 18,714.0	\$ 10,856.0	\$ 3,112.0	\$10,978.20	\$3,775.50
Booking Holdings Inc.	BKNG	\$2,053.73	98.6%	\$ 85,960.3	\$ 87,632.3	60.5%	\$ 21,446.0	\$ 14,940.0	\$ 5,790.0	\$16,178.70	\$6,290.13
VMware, Inc.	VMW	\$ 151.79	73.4%	\$ 62,220.2	\$ 65,836.2	49.2%	\$ 22,002.0	\$ 9,752.0	\$ 2,479.0	\$11,357.36	\$4,129.64
Automatic Data Processing, Inc.	ADP	\$ 170.50	97.7%	\$ 73,775.0	\$ 75,254.7	54.5%	\$ 37,714.7	\$ 14,360.6	\$ 3,567.7	\$15,477.21	\$4,082.43
Adobe Inc.	ADBE	\$ 329.81	99.1%	\$ 159,080.2	\$ 159,041.5	28.2%	\$ 20,762.4	\$ 11,171.3	\$ 3,856.2	\$13,170.10	\$6,129.83
Cognizant Technology Solutions Corporation	CTSH	\$ 62.02	82.9%	\$ 33,960.0	\$ 32,583.0	13.7%	\$ 15,844.0	\$ 16,628.0	\$ 3,169.0	\$17,271.95	\$3,335.78
Intuit Inc.	INTU	\$ 261.93	88.6%	\$ 68,182.1	\$ 66,702.1	17.6%	\$ 6,183.0	\$ 6,933.0	\$ 2,078.0	\$7,831.51	\$2,827.12
Cerner Corporation	CERN	\$ 73.39	96.0%	\$ 23,051.6	\$ 23,590.8	21.0%	\$ 6,937.4	\$ 5,616.0	\$ 1,109.7	\$5,917.97	\$1,874.79
Fidelity National Information Services, Inc.	FIS	\$ 139.09	98.4%	\$ 85,484.8	\$ 104,943.8	29.7%	\$ 83,718.0	\$ 9,158.0	\$ 2,830.0	\$13,551.15	\$6,071.72
Fiserv, Inc.	FISV	\$ 115.63	98.0%	\$ 78,616.3	\$ 101,985.3	40.7%	\$ 77,864.0	\$ 7,693.0	\$ 2,540.0	\$16,532.74	\$6,113.66
Carrefour SA	CA	\$ 16.78	82.3%	\$ 13,384.8	\$ 34,134.5	63.3%	\$ 57,424.9	\$ 87,812.9	\$ 3,882.6	\$74,870.12	\$4,465.07
TripAdvisor, Inc.	TRIP	\$ 30.38	49.9%	\$ 4,234.7	\$ 3,470.7	9.3%	\$ 2,468.0	\$ 1,571.0	\$ 244.0	\$1,630.09	\$460.96
Symphony Communication Public	SYMC	\$ 0.10	56.6%	\$ 43.7	\$ 74.3	40.9%	\$ 138.4	\$ 43.1	\$ 19.0	\$0.00	\$0.00
Activision Blizzard, Inc.	ATVI	\$ 59.42	99.5%	\$ 45,650.0	\$ 43,661.0	19.4%	\$ 17,805.0	\$ 6,884.0	\$ 2,335.0	\$6,906.52	\$2,597.41
Miscellaneous Business Services											
Alliance Data Systems Corporation	ADS	\$ 112.20	61.3%	\$ 5,167.5	\$ 23,203.9	93.8%	\$ 27,157.8	\$ 7,709.5	\$ 1,712.2	\$5,727.30	\$1,533.51
InnoTec TSS AG	TSS	\$ 11.33	75.9%	\$ 108.5	\$ 106.4	16.6%	\$ 119.1	\$ 112.3	\$ 16.7	\$0.00	\$0.00
BidEnergy Limited	BID	\$ 0.57	46.2%	\$ 72.9	\$ 70.0	0.0%	\$ 5.3	\$ 3.7	\$ (4.6)	\$10.45	-\$2.60
Cardtronics plc	CATM	\$ 44.65	99.8%	\$ 1,991.6	\$ 2,811.2	70.9%	\$ 1,829.1	\$ 1,338.5	\$ 277.8	\$1,403.94	\$327.15
TTEC Holdings, Inc.	TTEC	\$ 39.62	78.5%	\$ 1,841.8	\$ 2,153.7	49.9%	\$ 1,181.9	\$ 1,601.5	\$ 193.8	\$1,750.73	\$225.41

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 Business Services Public Company Valuation Metrics As of December 31, 2019

(USD in millions, except per share data)

		LTM Operating Statistics						Trading Multiples			
Company Name	Ticker	Return	Return	Return	Revenue	EBITDA	EBITDA	TEV/	TEV/	TEV/	TEV/
		On	On	On				LTM	CY 2018	LTM	CY 2018
		Assets	Equity	Capital	Growth	Growth	Margin	Revenue	Revenue	EBITDA	EBITDA
Advertising											
Omnicom Group Inc.	OMC	5.6%	44.3%	14.4%	-3.1%	-1.4%	15.6%	1.5x	1.5x	9.8x	9.5x
The Interpublic Group of Companies, Inc.	IPG	4.7%	26.9%	10.2%	11.1%	23.6%	16.2%	1.6x	1.6x	10.0x	9.4x
Lamar Advertising Company (REIT)	LAMR	6.2%	32.2%	6.9%	7.6%	9.8%	43.4%	7.7x	7.2x	17.7x	16.3x
Clear Channel Outdoor Holdings, Inc.	CCO	3.0%	NM	4.0%	-0.6%	-1.5%	21.1%	3.1x	3.0x	14.4x	13.2x
	Mean	4.9%	34.5%	8.9%	3.7%	7.6%	24.1%	3.5x	3.3x	13.0x	12.1x
	Median	5.2%	32.2%	8.6%	3.5%	4.2%	18.7%	2.3x	2.3x	12.2x	11.3x
Consumer Credit Reporting, Mercantile Reporting, and Adjustment and Collection Agency											
S&P Global Inc.	SPGI	19.5%	93.1%	29.5%	3.0%	3.5%	50.1%	11.0x	10.0x	21.9x	19.5x
Moody's Corporation	MCO	13.8%	201.8%	20.4%	2.4%	1.0%	46.7%	10.7x	9.8x	22.8x	20.1x
Equifax Inc.	EFX	3.4%	-13.0%	4.2%	0.6%	-12.1%	20.9%	5.9x	5.4x	28.0x	15.8x
DNB ASA	DNB	1.0%	12.1%	0.0%	8.1%	NM	NM	0.0x	0.0x	N/A	N/A
	Mean	9.4%	73.5%	13.5%	3.5%	-2.5%	39.2%	6.9x	6.3x	24.2x	18.5x
	Median	8.6%	52.6%	12.3%	2.7%	1.0%	46.7%	8.3x	7.6x	22.8x	19.5x
Services to Dwellings and Other Buildings											
Rollins, Inc.	ROL	13.6%	26.4%	19.0%	9.1%	4.3%	19.8%	5.8x	5.2x	29.1x	25.6x
Healthcare Services Group, Inc.	HCSG	8.4%	17.7%	13.0%	-5.6%	2.1%	5.5%	0.9x	0.9x	16.4x	14.1x
ABM Industries Incorporated	ABM	3.8%	8.5%	5.8%	0.9%	10.4%	5.1%	0.5x	0.5x	9.9x	9.8x
	Mean	8.6%	17.5%	12.6%	1.5%	5.6%	10.1%	2.4x	2.2x	18.5x	16.5x
	Median	8.4%	17.7%	13.0%	0.9%	4.3%	5.5%	0.9x	0.9x	16.4x	14.1x
Miscellaneous Equipment Rental and Leasing											
United Rentals, Inc.	URI	7.8%	32.8%	9.5%	20.1%	13.3%	28.8%	2.7x	2.6x	9.4x	5.5x
Aaron's, Inc.	AAN	11.5%	11.0%	14.6%	5.8%	18.1%	16.1%	1.1x	1.0x	6.9x	8.9x
TAL Education Group	TAL	4.8%	8.8%	6.8%	34.9%	22.6%	14.1%	9.5x	6.6x	67.5x	40.6x
Apollo Power Ltd	APLP	-76.8%	-150.8%	-88.1%	0.0%	NM	0.0%	N/A	N/A	-1.3x	N/A
Rent-A-Center, Inc.	RCH	7.3%	37.7%	11.7%	1.0%	95.5%	8.6%	0.8x	0.7x	8.9x	7.6x
	Mean	-9.1%	-12.1%	-9.1%	12.4%	37.4%	13.5%	3.5x	2.7x	18.3x	15.6x
	Median	7.3%	11.0%	9.5%	5.8%	20.4%	14.1%	1.9x	1.8x	8.9x	8.3x

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

Source: Capital IQ

Select Business Services Public Company Valuation Metrics As of December 31, 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										
Personnel Supply Services											
ManpowerGroup Inc.	MAN	5.3%	17.6%	11.6%	-5.3%	-12.7%	3.9%	0.3x	0.3x	7.8x	8.0x
Robert Half International Inc.	RHI	17.9%	40.8%	31.0%	6.2%	9.3%	11.4%	1.2x	1.1x	10.4x	10.0x
ASGN Incorporated	ASGN	7.2%	14.7%	8.4%	21.6%	16.7%	10.6%	1.2x	1.1x	11.7x	10.0x
Korn Ferry	KFY	6.5%	15.0%	9.5%	3.1%	3.8%	14.2%	1.2x	1.1x	8.7x	7.1x
TrueBlue, Inc.	TBI	4.6%	11.5%	7.5%	-3.6%	-1.2%	5.1%	0.4x	0.4x	7.8x	9.5x
	Mean	8.3%	19.9%	13.6%	4.4%	3.2%	9.0%	0.9x	0.8x	9.3x	8.9x
	Median	6.5%	15.0%	9.5%	3.1%	3.8%	10.6%	1.2x	1.1x	8.7x	9.5x
Computer Programming, Data Processing, and Other Computer Related Services											
Alphabet Inc.	GOOG	8.5%	17.9%	10.8%	19.4%	7.3%	28.4%	5.3x	4.3x	18.5x	11.9x
Microsoft Corporation	MSFT	10.6%	42.8%	15.6%	13.0%	20.8%	44.2%	8.9x	7.8x	20.1x	17.7x
International Business Machines Corporation	IBM	5.1%	40.6%	8.9%	-4.0%	-1.7%	21.6%	2.3x	2.3x	10.8x	9.4x
Facebook, Inc.	FB	13.2%	20.7%	15.6%	28.2%	0.2%	42.8%	8.1x	6.3x	19.1x	12.4x
Oracle Corporation	ORCL	8.1%	46.3%	11.0%	0.3%	5.0%	40.9%	5.0x	4.9x	12.2x	10.5x
eBay Inc.	EBAY	7.2%	39.2%	10.9%	2.6%	4.3%	28.7%	3.2x	3.2x	11.2x	9.2x
Booking Holdings Inc.	BKNG	14.5%	54.6%	19.8%	5.8%	2.8%	38.8%	5.9x	5.4x	15.1x	13.9x
VMware, Inc.	VMW	5.5%	78.4%	9.6%	13.3%	3.9%	25.4%	6.8x	5.8x	26.6x	15.9x
Automatic Data Processing, Inc.	ADP	5.2%	47.2%	20.7%	5.9%	13.3%	24.8%	5.2x	4.9x	21.1x	18.4x
Adobe Inc.	ADBE	10.3%	29.7%	14.5%	23.7%	21.0%	34.5%	14.2x	12.1x	41.2x	25.9x
Cognizant Technology Solutions Corporation	CTSH	10.7%	19.3%	13.8%	5.1%	-4.1%	19.1%	2.0x	1.9x	10.3x	9.8x
Intuit Inc.	INTU	21.1%	49.3%	30.8%	13.1%	14.7%	30.0%	9.6x	8.5x	32.1x	23.6x
Cerner Corporation	CERN	6.0%	10.7%	7.4%	5.7%	-11.7%	19.8%	4.2x	4.0x	21.3x	12.6x
Fidelity National Information Services, Inc.	FIS	1.8%	2.6%	2.2%	8.7%	12.7%	30.9%	11.5x	7.7x	37.1x	16.7x
Fiserv, Inc.	FISV	2.4%	5.3%	3.3%	32.9%	36.2%	33.0%	13.3x	6.1x	40.2x	16.7x
Carrefour SA	CA	2.5%	1.0%	4.5%	0.5%	-4.1%	4.4%	0.4x	0.5x	8.8x	7.4x
TripAdvisor, Inc.	TRIP	5.2%	7.6%	7.4%	-1.2%	13.0%	15.5%	2.2x	2.1x	14.2x	7.5x
Symphony Communication Public	SYMC	1.9%	1.9%	2.1%	-2.3%	27.5%	44.1%	1.7x	N/A	3.9x	N/A
Activision Blizzard, Inc.	ATVI	7.1%	14.2%	8.6%	-3.9%	8.7%	33.9%	6.3x	6.3x	18.7x	16.8x
	Mean	7.7%	27.8%	11.4%	8.8%	8.9%	29.5%	6.1x	5.2x	20.1x	14.2x
	Median	7.1%	20.7%	10.8%	5.8%	7.3%	30.0%	5.3x	5.1x	18.7x	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

Select Business Services Public Company Valuation Metrics As of December 31, 2019

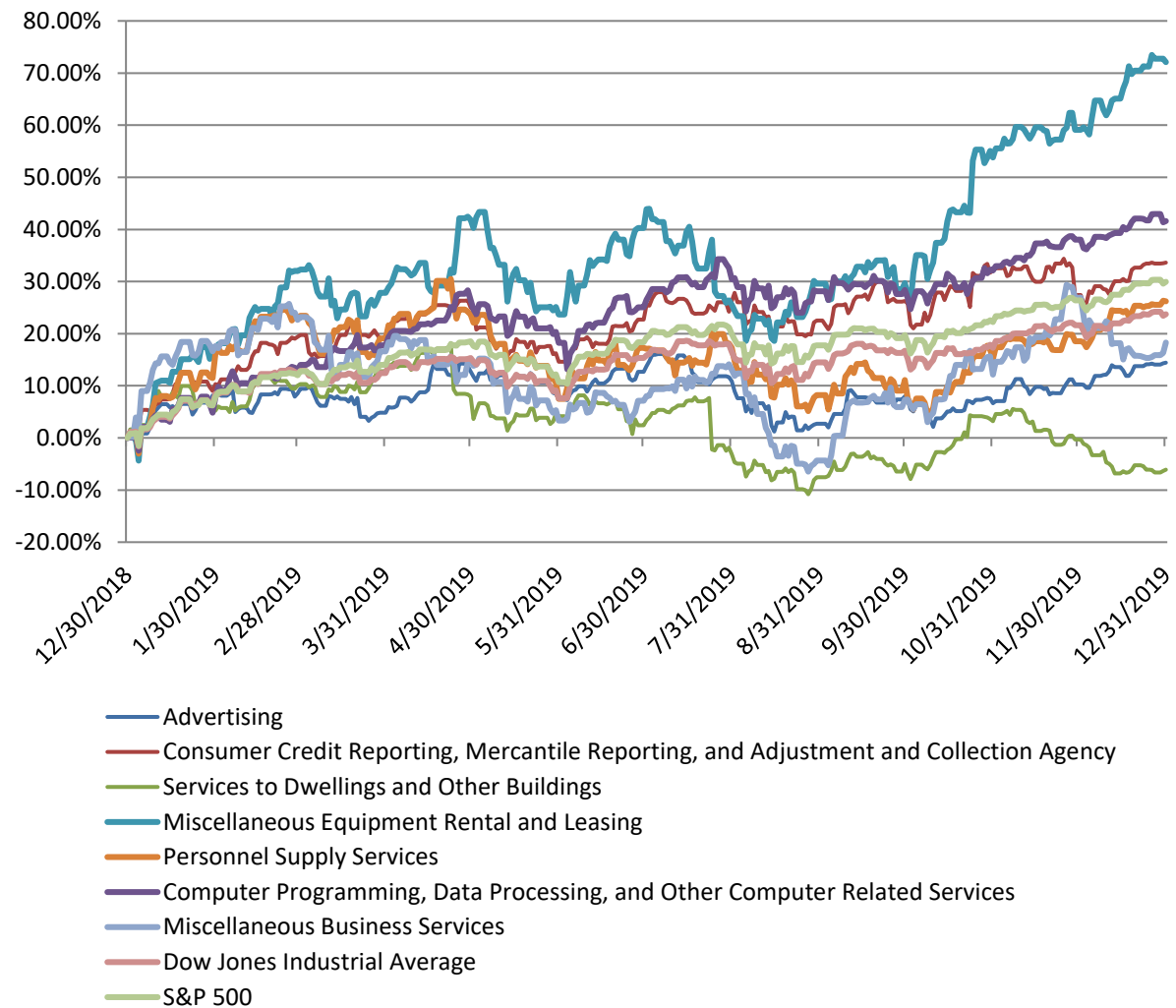
(USD in millions, except per share data)

		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										
Miscellaneous Business Services											
Alliance Data Systems Corporation	ADS	3.0%	37.6%	3.4%	22.2%	14.6%	22.2%	3.0x	4.1x	13.6x	15.1x
ADT Inc.	ADT	1.2%	-12.3%	1.4%	11.4%	-0.3%	46.0%	3.2x	3.1x	6.9x	6.6x
InnoTec TSS AG	TSS	6.6%	10.4%	7.5%	0.7%	-18.5%	14.9%	0.9x	N/A	6.4x	N/A
BidEnergy Limited	BID	-54.8%	-105.1%	-66.5%	30.4%	NM	-123.4%	18.8x	6.7x	-15.2x	-26.9x
Shutterfly, Inc.	SFLY	2.7%	1.4%	3.1%	47.8%	14.1%	10.4%	0.0x	N/A	0.0x	N/A
Cardtronics plc	CATM	3.3%	7.8%	4.9%	-3.0%	-6.6%	20.8%	2.1x	2.0x	10.1x	8.6x
TTEC Holdings, Inc.	TTEC	7.1%	20.9%	11.5%	5.6%	10.8%	12.1%	1.3x	1.2x	11.1x	9.6x
	Mean	-4.4%	-5.6%	-5.0%	16.4%	2.3%	0.4%	4.2x	3.4x	4.7x	2.6x
	Median	3.0%	7.8%	3.4%	11.4%	5.2%	14.9%	2.1x	3.1x	6.9x	8.6x

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

Source: Capital IQ

Business Services Public Company LTM Equity Performance As of December 31, 2019



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

Recent M&A Activity in the Business Services Industry

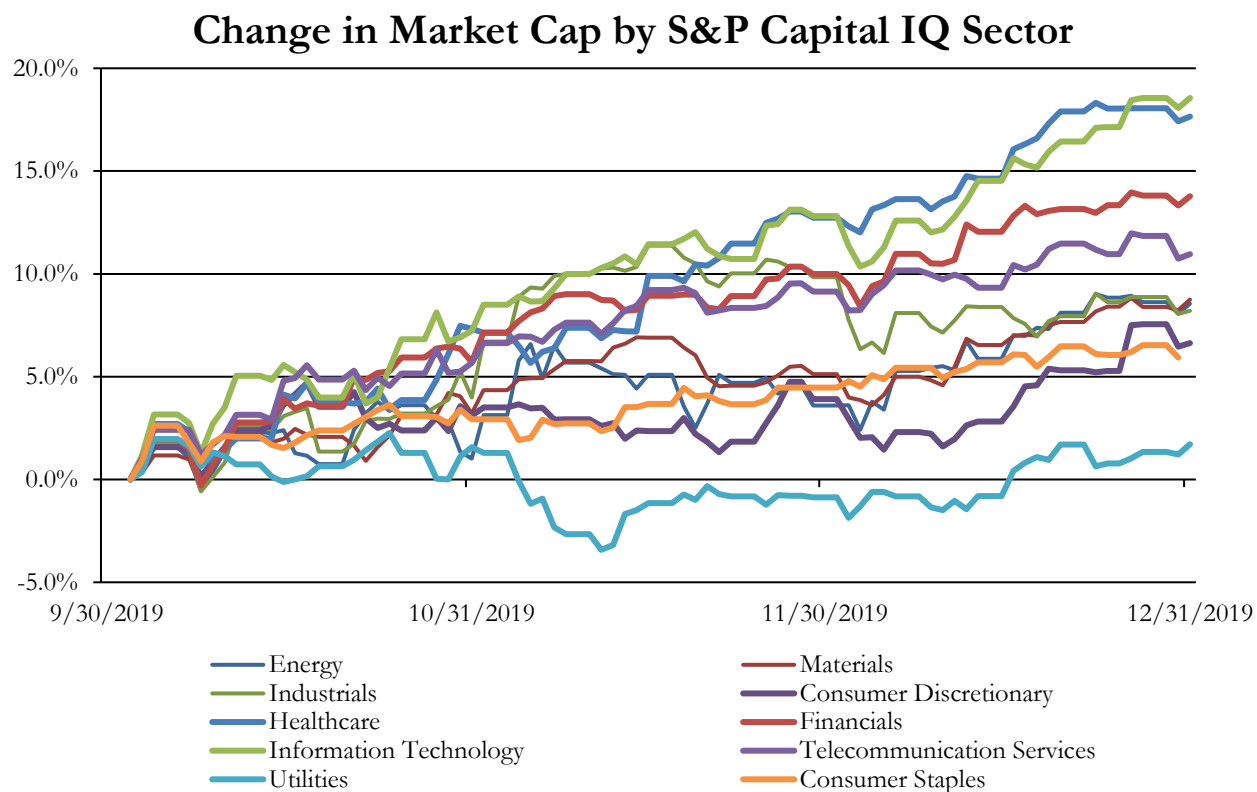
December 31, 2018 to December 31, 2019

(USD in millions)

Close Date	Target	Acquirer	Target Company Primary Industry	Implied Enterprise Value
7/31/2019	Worldpay, Inc.	Fidelity National Information Services, Inc.	Data Processing and Outsourced	\$43,374.84
7/29/2019	First Data Corporation	Fiserv, Inc.	Data Processing and Outsourced	\$41,215.58
9/17/2019	Total System Services, Inc.	Global Payments Inc.	Data Processing and Outsourced	\$26,216.33
7/31/2019	Tableau Software, Inc.	salesforce.com, inc.	Systems Software	\$16,322.49
5/3/2019	The Ultimate Software Group, Inc.	Hellman & Friedman LLC; JMI Management, Inc.;	Application Software	\$10,822.40
7/1/2019	Epsilon Data Management, LLC	Publicis Groupe Holdings B.V.; MMS USA	Advertising	\$4,400.00
10/10/2019	Assurance IQ, Inc.	Prudential Financial, Inc.	Application Software	\$3,500.00
4/17/2019	Ellie Mae, Inc.	Thoma Bravo, LLC; Thoma Bravo Fund XIII LP	Application Software	\$3,380.72
12/30/2019	Pivotal Software, Inc.	VMware, Inc.	Application Software	\$3,106.42
12/30/2019	Pivotal Software, Inc.	VMware, Inc.	Application Software	\$3,106.42
10/7/2019	Carbon Black, Inc.	VMware, Inc.	Systems Software	\$2,060.31
1/3/2019	Hortonworks, Inc.	Cloudera, Inc.	Application Software	\$2,005.42
10/8/2019	Rocket Software, Inc.	Bain Capital Private Equity, LP	Application Software	\$2,000.00
1/10/2019	Apptio, Inc.	Vista Equity Partners LLC	Application Software	\$1,867.17
2/1/2019	SendGrid, Inc.	Twilio Inc.	Application Software	\$1,833.57
2/15/2019	MINDBODY, Inc.	Vista Equity Partners LLC; Vista Equity Partners	Application Software	\$1,829.33
1/10/2019	Imperva, Inc.	Thoma Bravo, LLC	Systems Software	\$1,814.70
6/30/2019	Software Portfolio of International Business Machines Corp.	HCL Technologies Limited	Application Software	\$1,775.00
8/22/2019	iPipeline	Roper Technologies, Inc.	Application Software	\$1,625.00
2/21/2019	Cylance Inc.	BlackBerry Limited	Systems Software	\$1,500.00
7/30/2019	MG LLC	Willis Towers Watson Public Limited Company	Advertising	\$1,334.50
10/1/2019	SignalFx, Inc.	Splunk Inc.	Application Software	\$1,050.00
5/30/2019	Prometheus Group Enterprises, LLC	Genstar Capital, LLC	Application Software	\$1,000.00
10/11/2019	Monotype Imaging Holdings Inc.	HGGC, LLC	Application Software	\$858.28
9/16/2019	Axioma, Inc.	Deutsche Börse AG	Application Software	\$850.00
11/1/2019	Livemore Software Technology Corporation	ANSYS, Inc.	Application Software	\$765.13
5/9/2019	SpeedPay, Inc.	ACI Worldwide, Inc.	Data Processing and Outsourced	\$750.00
3/26/2019	Webroot Inc.	Carbonite, Inc.	Systems Software	\$618.50
12/18/2019	Buildium, LLC	RealPage, Inc.	Application Software	\$580.00
12/18/2019	Buildium, LLC	RealPage, Inc.	Application Software	\$580.00
9/25/2019	Kony, Inc.	Temenos AG	Systems Software	\$580.00
3/13/2019	YOU Technology, LLC	Inmar, Inc.	Application Software	\$565.00
12/9/2019	Scout RFP, Inc.	Workday, Inc.	Application Software	\$540.00
9/6/2019	Verice Technologies, LLC	Vista Equity Partners LLC	Application Software	\$500.00
5/1/2019	PIEtch, Inc.	Envestnet, Inc.	Application Software	\$480.97
2/6/2019	Rogue Wave Software, Inc.	Perforce Software, Inc.	Systems Software	\$473.00
11/1/2019	Onshape Inc.	PTC Inc.	Application Software	\$470.00
3/28/2019	Demisto, Inc.	Palo Alto Networks, Inc.	Systems Software	\$464.54
7/9/2019	Trans-Fast Remittance LLC	Mastercard Incorporated	Data Processing and Outsourced	\$450.00
7/1/2019	Amber Road, Inc.	E2open, LLC	Application Software	\$424.00
7/9/2019	Twistlock Inc.	Palo Alto Networks, Inc.	Systems Software	\$410.00
2/1/2019	Nuance Document Imaging, Inc.	Kofax, Inc.	Application Software	\$400.00
4/30/2019	Samanage Ltd.	SolarWinds Corporation	Application Software	\$335.86
6/12/2019	Simplifile, LC	Intercontinental Exchange, Inc.	Data Processing and Outsourced	\$326.00
4/17/2019	Xevo Inc.	Lear Corporation	Application Software	\$321.70
1/24/2019	Noventis Inc.	WEX Inc.	Data Processing and Outsourced	\$310.00
2/13/2019	IDology, Inc.	GB Group plc	Systems Software	\$302.13
7/10/2019	HotSchedules, Inc./ Fourth Ltd	Insight Venture Management, LLC; Marlin Equity	Application Software	\$300.00
4/2/2019	Figure Eight Inc.	Appen Limited	Application Software	\$300.00
9/30/2019	TransMontaigne Product Services, LLC	1/0/1900	Application Software	\$275.00
2/20/2019	AppRiver, LLC	Zix Corporation	Application Software	\$268.50
7/31/2019	Knight Point Systems, LLC	Perspecta Inc.	Systems Software	\$265.00
5/28/2019	Verodin, Inc.	FireEye, Inc.	Systems Software	\$264.02
5/31/2019	MapAnything, Inc.	salesforce.com, inc.	Application Software	\$261.63
1/3/2019	SiriusDecisions, Inc.	Forrester Research, Inc.	Advertising	\$238.90
4/15/2019	Ipswitch, Inc.	Progress Software Corporation	Systems Software	\$225.30
11/25/2019	ObserveIT LTD.	Proofpoint, Inc.	Systems Software	\$225.00
10/1/2019	Hedvig, Inc.	Commvault Systems, Inc.	Application Software	\$225.00
1/23/2019	Trendkite, Inc.	Cision Ltd.	Application Software	\$224.40
4/1/2019	Nvoicepay, Inc.	FleetCor Technologies, Inc.	Application Software	\$219.00
10/29/2019	SessionM, Inc.	Mastercard Incorporated	Application Software	\$215.00
2/28/2019	MicroPact Inc.	Tyler Technologies, Inc.	Application Software	\$204.22
1/9/2019	One Sixty Over Ninety, Inc.	Endeavor, LLC	Advertising	\$200.00
6/13/2019	Ushr Inc.	Dynamic Map Planning Co., Ltd.	Application Software	\$199.09

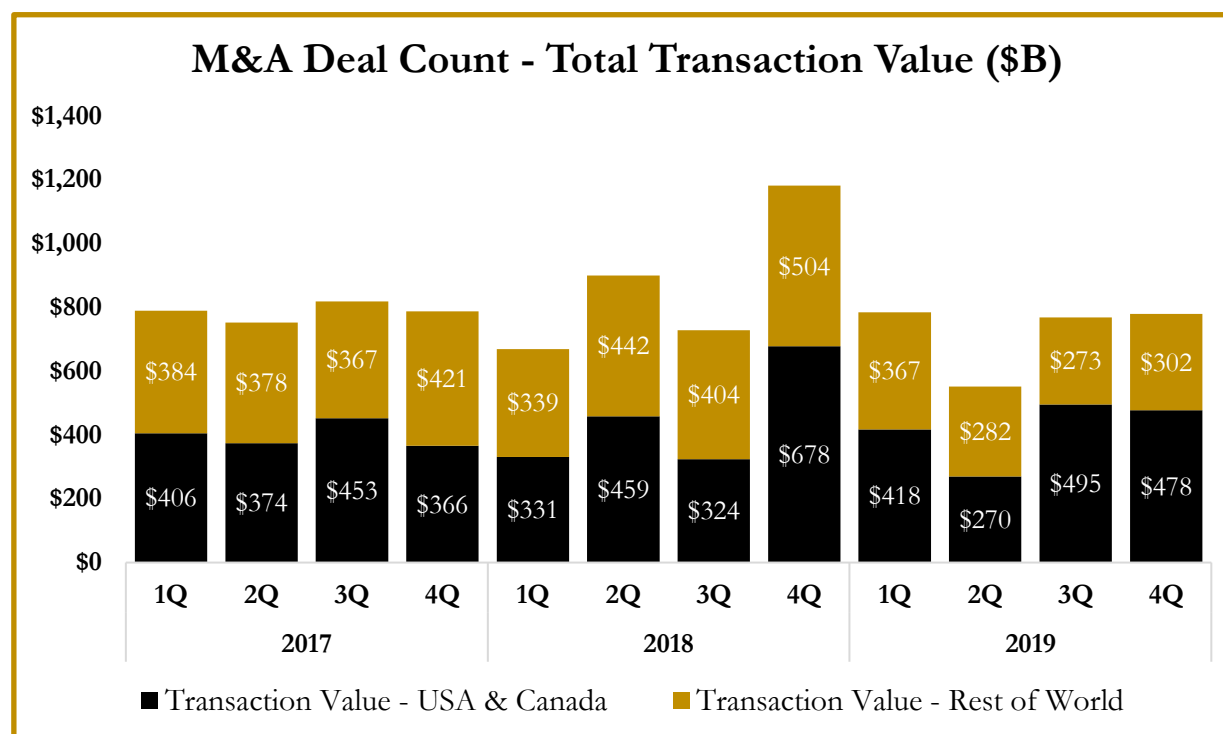
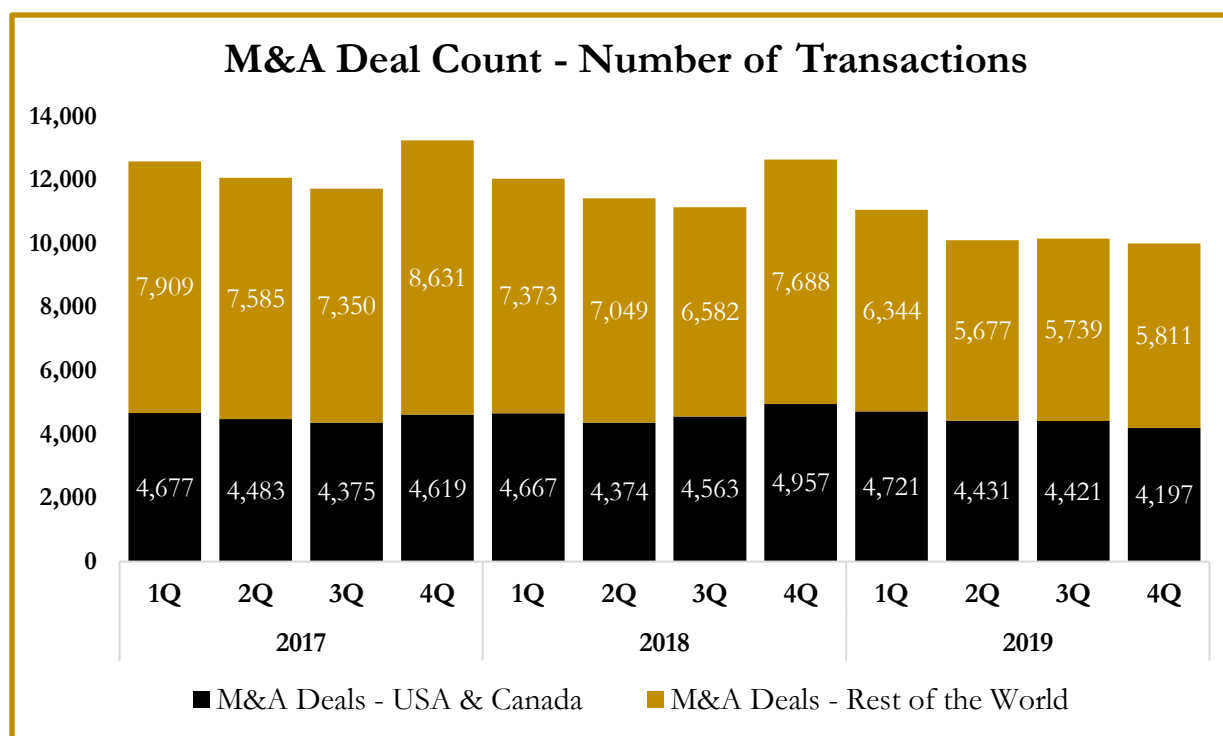
Source: Capital IQ

S&P Capital IQ - Sector Last 3 Month Equity Performance As of December 31, 2019

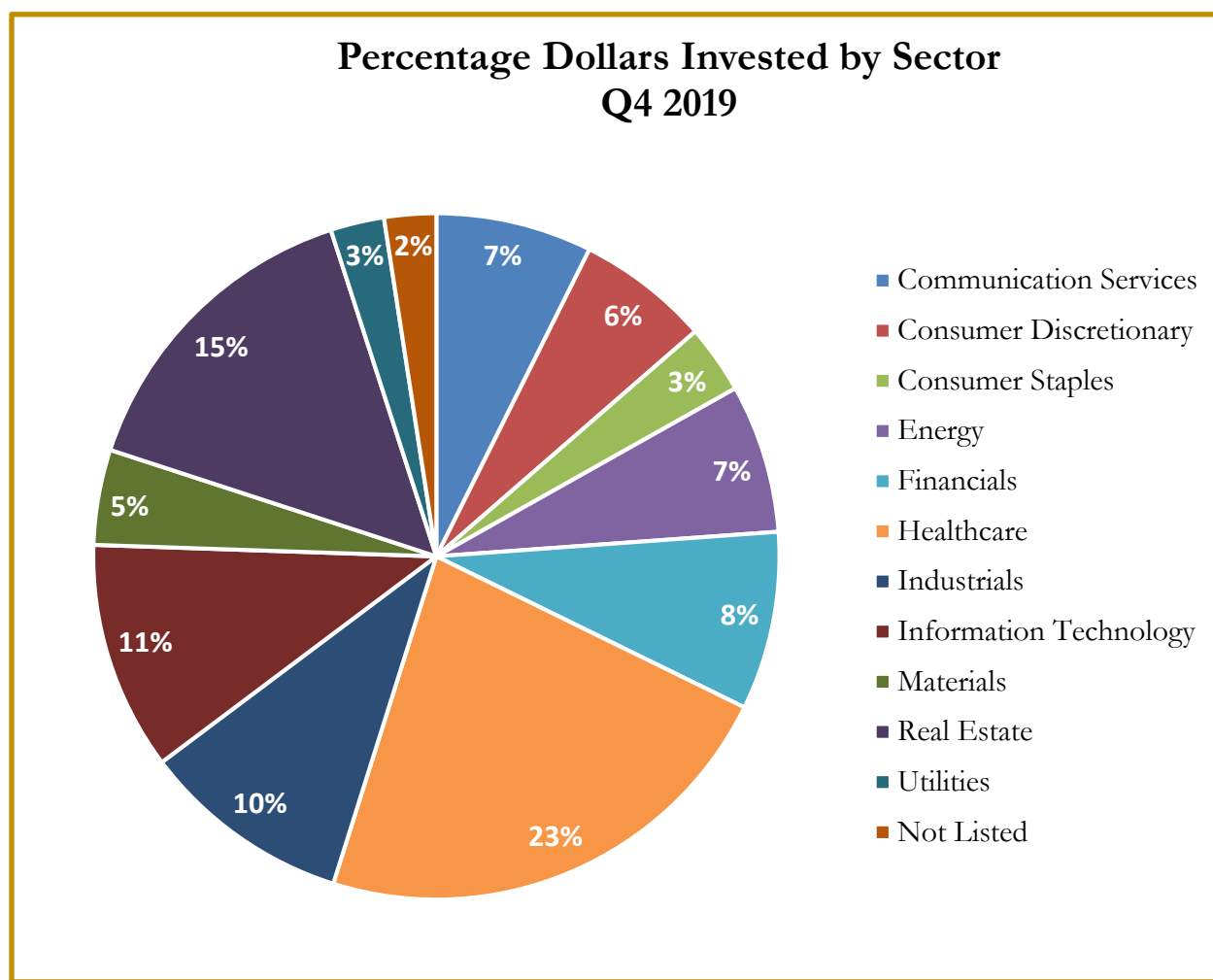


Note: The indices are derived from the equity performance of the S&P Capital IQ Sectors. Source: Capital IQ

M&A Deal Flow Statistics by S&P Capital IQ Sector As of December 31, 2019



M&A Deal Flow Statistics by S&P Capital IQ Sector
As of December 31, 2019





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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