

Canaccord Genuity M&A and Capital Raising Activity Report

Technology, Media, Marketing, and Information Services Industry Sectors

October 2019

cg / Petsky
Prunier
Canaccord Genuity

cg / Canaccord
Genuity
Investment Banking

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/ CG Petsky Prunier – Senior Technology Team

Deep understanding of the global technology market with unrivaled access to the international landscape

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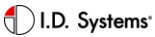


























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/ Strong M&A Advisory Track Record

Agency & Marketing Services	Collaboration Consulting & Digital Transformation	Data & Info Services	<ul style="list-style-type: none"> Advisory credentials across a wide range of outcomes Deep, extensive sponsor & strategic relationships 	E-Commerce	HCM	Media
AI	CRM	Digital/Mobile		FinTech	Infrastructure	Software
				HCIT	MarTech/AdTech	Other Vertical ⁽¹⁾

 Financial Advisor on saleto Genpact Pending	 Financial Advisor on saleto Mastercard October 2019	 Financial Advisor on saleto Infogain (ChrysCapital) October 2019	 \$140,000,000 Financial Advisor on acquisition of Pointer Telocation October 2019	 Financial Advisor on acquisition of XTRACT Technologies September 2019	 Financial Advisor on Investment in Industry Dive September 2019	 Financial Advisor on saleto J55 Capital Enthusiast Gaming September 2019	 Financial Advisor on saleto Dentsu Aegis Network August 2019	 Financial Advisor on saleto MRI Software July 2019
 Financial Advisor on saleto L-GAM July 2019	 Financial Advisor on Investment from HighBar Partners June 2019	 Financial Advisor on saleto Great Hill Partners June 2019	 \$182,000,000 Financial Advisor on saleto Hexaware Technologies June 2019	 Financial Advisor on Investment from New Mountain Capital June 2019	 Financial Advisor on saleto Sitecore June 2019	 \$300,000,000 Financial Advisor on saleto Broadridge Financial June 2019	 Financial Advisor on saleto Better Collective May 2019	 Financial Advisor on saleto AudienceView/Rubicon Technology Partners May 2019
 Financial Advisor on saleto Kofax May 2019	 Financial Advisor on saleto Hardy Capital April 2019	 Financial Advisor on saleto Red Ventures April 2019	 Financial Advisor on saleto HCL Technologies April 2019	 Financial Advisor on acquisition of Cyberbahn & Marque d'or (Thomson Reuters) March 2019	 Financial Advisor on acquisition of Index Property Information March 2019	 Financial Advisor on saleto Millpond Equity Partners February 2019	 Financial Advisor on saleto Tango Card February 2019	 Financial Advisor on investment from Insignia Capital Group February 2019
 Financial Advisor on saleto Ridgmont Equity Partners February 2019	 Financial Advisor on saleto Altamont Capital Partners January 2019	 Financial Advisor January 2019	 Financial Advisor on saleto Dentsu Aegis Network December 2018	 Financial Advisor on saleto Rubicon Technology Partners Morgan Stanley Investment Zoma December 2018	 Financial Advisor on saleto S4 Capital December 2018	 Financial Advisor on saleto CIP Capital November 2018	 Financial Advisor on saleto Quad Graphics November 2018	 \$278,000,000 Financial Advisor on saleto Moody's October 2018

/ Leading Technology Financing Platform

Agency & Marketing Services AI	Collaboration Consulting & Digital Transformation CRM	Data & Info Services Digital/Mobile	<ul style="list-style-type: none"> • 245+ completed transactions⁽¹⁾ • Raised \$45B+ capital⁽¹⁾ • ~110 as bookrunner or lead manager⁽¹⁾ • Unique access to global growth investors 	E-Commerce FinTech HCIT	HCM Infrastructure MarTech/AdTech	Media Software Other Vertical
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 \$65,110,000 IPO Joint Bookrunner October 2019	 A\$23,200,000 Equity Offering Joint-Bookrunner September 2019	 \$1,160,000,000 IPO Co-Manager September 2019	 \$45,000,000 Debt Offering Sole Advisor September 2019	 \$655,216,848 IPO Co-Manager July 2019	 Direct Listing Advisor June 2019	 \$200,000,000 Debt Offering Sole Advisor June 2019	 \$13,955,800 Equity Offering Joint Bookrunner June 2019	 \$26,714,324 Equity Offering Joint Bookrunner June 2019
 \$645,322,500 Equity Offering Joint Bookrunner June 2019	 \$286,898,490 Equity Offering Co-Manager June 2019	 \$244,950,000 Equity Offering Co-Manager June 2019	 \$230,000,000 Convertible Debt Offering Co-Manager June 2019	 \$8,100,000,000 IPO Co-Manager May 2019	 \$159,390,000 Equity Offering Lead Manager May 2019	 So-Young International \$179,400,000 IPO Co-Manager May 2019	 £27,800,000 Equity Offering Co-Manager March 2019	 \$2,555,772,840 IPO Co-Manager March 2019
 \$565,180,000 Equity Offering Co-Manager March 2019	 \$11,511,500 Equity Offering Sole Bookrunner March 2019	 \$135,625,000 Equity Offering Co-Manager March 2019	 \$127,075,000 Equity Offering Co-Manager January 2019	 \$30,529,690 Equity Offering Sole Bookrunner November 2018	 \$455,000,000 Equity Offering Co-Manager November 2018	 \$303,025,000 IPO Co-Manager October 2018	 \$289,800,000 IPO Co-Manager October 2018	 \$50,347,035 Equity Offering Joint Bookrunner September 2018
 \$446,703,125 Equity Offering Co-Manager August 2018	 \$230,000,000 Convertible Debt Offering Co-Manager July 2018	 \$46,230,000 Equity Offering Joint Bookrunner July 2018	 \$51,844,408 IPO Joint-Bookrunner July 2018	 \$373,749,969 Equity Offering Co-Manager June 2018	 \$84,375,000 IPO Co-Manager June 2018	 \$250,000,000 Convertible Debt Offering Co-Manager June 2018	 \$68,999,997 Equity Offering Co-Manager June 2018	 \$50,312,500 Equity Offering Joint Bookrunner June 2018

/ Ranked #1 by PitchBook For Media & Information Services Deal Activity

2018			2016-2018			2014-2018		
Rank	Advisor	# of Transactions	Rank	Advisor	# of Transactions	Rank	Advisor	# of Transactions
1	CG Petsky Prunier	27	1	CG Petsky Prunier	64	1	CG Petsky Prunier	105
2	Houlihan Lokey	12	2	Goldman Sachs	32	2	Goldman Sachs	56
2	JEGI	12	3	JEGI	29	3	Morgan Stanley	49
4	Morgan Stanley	9	4	Bank of America	28	4	Bank of America	47
4	GP Bullhound	9	5	Houlihan Lokey	27	5	JEGI	44
6	Moelis & Company	8	6	Morgan Stanley	26	6	JP Morgan	43
6	JP Morgan	8	6	Credit Suisse	26	7	GP Bullhound	41
8	RBC	7	6	GP Bullhound	26	8	Credit Suisse	38
9	Evercore Group	6	9	JP Morgan	24	9	RBC	36
9	Raymond James	6	10	RBC	23	10	Houlihan Lokey	34
9	KPMG	6	11	Raymond James	19	11	Jefferies Group	28
9	Credit Suisse	6	12	Jefferies Group	17	12	GCA Sawian	27
9	CambonPartners	6	13	Deutsche Bank	16	12	Deutsche Bank	27
9	Oaklins DeSilva & Phillips	6	13	CambonPartners	16	14	Moelis & Company	26
15	Deutsche Bank	5	15	Moelis & Company	15	14	Raymond James	26

- Numbers for CG Petsky Prunier represent total transactions in Media & Information Services as tracked by PitchBook completed for Petsky Prunier LLC and Canaccord Genuity Group Inc., which merged in February 2019.
- On a stand-alone basis prior to its merger with Canaccord Genuity, Petsky Prunier completed more than 90 transactions during 2016-2018 and has closed and more than 200 transactions since 2011 across all industries, including Media & Information Services, as well as Advertising and Marketing, E-commerce, Technology and Software, among other areas.

/ Ranked #1 by Refinitiv For TMT Deal Activity

# of Transactions			# of Transactions		
Rank	Firm Name	2018	Rank	Firm Name	2019 3Q YTD
1	Canaccord Genuity	39	1	Canaccord Genuity	27
1	Raymond James	39	2	Raymond James	26
3	Houlihan Lokey	32	3	William Blair	21
4	William Blair	31	4	JP Morgan	19
5	Moelis	20	5	Evercore	17
5	Robert W Baird	20	5	Jefferies	17
7	Jefferies	18	7	Barclays	16
8	Goldman Sachs	16	8	Houlihan Lokey	15
8	AGC	16	8	Piper Jaffray	15
8	Evercore	16	10	Deloitte	14
8	JP Morgan	16	10	Moelis	14
8	Duff & Phelps	16	12	AGC	13
13	Daiwa	15	12	Goldman Sachs	13
14	KeyBanc	14	12	Robert W Baird	13
14	Citi	14	15	KPMG	12
16	Morgan Stanley	13	15	Morgan Stanley	12

- Numbers for CG Petsky Prunier as tracked by Refinitiv represent total 2018 and 2019 3Q YTD U.S. M&A transactions less than \$500 million in the Technology, Media, and Telecom Sectors for Petsky Prunier LLC and Canaccord Genuity Group Inc., which merged in February 2019.

/ CG Petsky Prunier: Maximizing Shareholder Value

- Top-ranked, global investment bank dedicated to digital advertising and marketing, e-commerce, digital media, technology, information, business services, and healthcare services industries
 - Extensive sell-side M&A and capital raise expertise, with a transaction closing rate unmatched at our level of deal volume
- Founded in 1999, merged with Canaccord Genuity in February 2019
- CG Petsky Prunier, combined with the other members of Canaccord Genuity's investment banking team, has more than 100 focused professionals in offices in New York, Boston, San Francisco, Chicago, Nashville, Charlotte, Las Vegas, and Toronto
- Deep relationships across a broad spectrum of strategic buyers, as well as private equity, growth equity, and VC groups and lenders
- Global reach enhanced through Canaccord Genuity's international network of offices
- Securities transactions are processed through Canaccord Genuity LLC, a registered broker-dealer regulated by the SEC and FINRA. Member SIPC.



- M&A Advisory and Sell-Side Representation
 - Privately-Owned Companies
 - Entrepreneur-Led Businesses
 - Private Equity Portfolio Companies
 - VC-Backed Companies
 - Corporate Divestitures
 - Selected Buy-Side Engagements
- Capital Raising and Private Placements
- Advertising & Marketing
- E-commerce
- Digital Media
- Technology
- Information
- Business & IT Services
- Healthcare Services

Market Environment

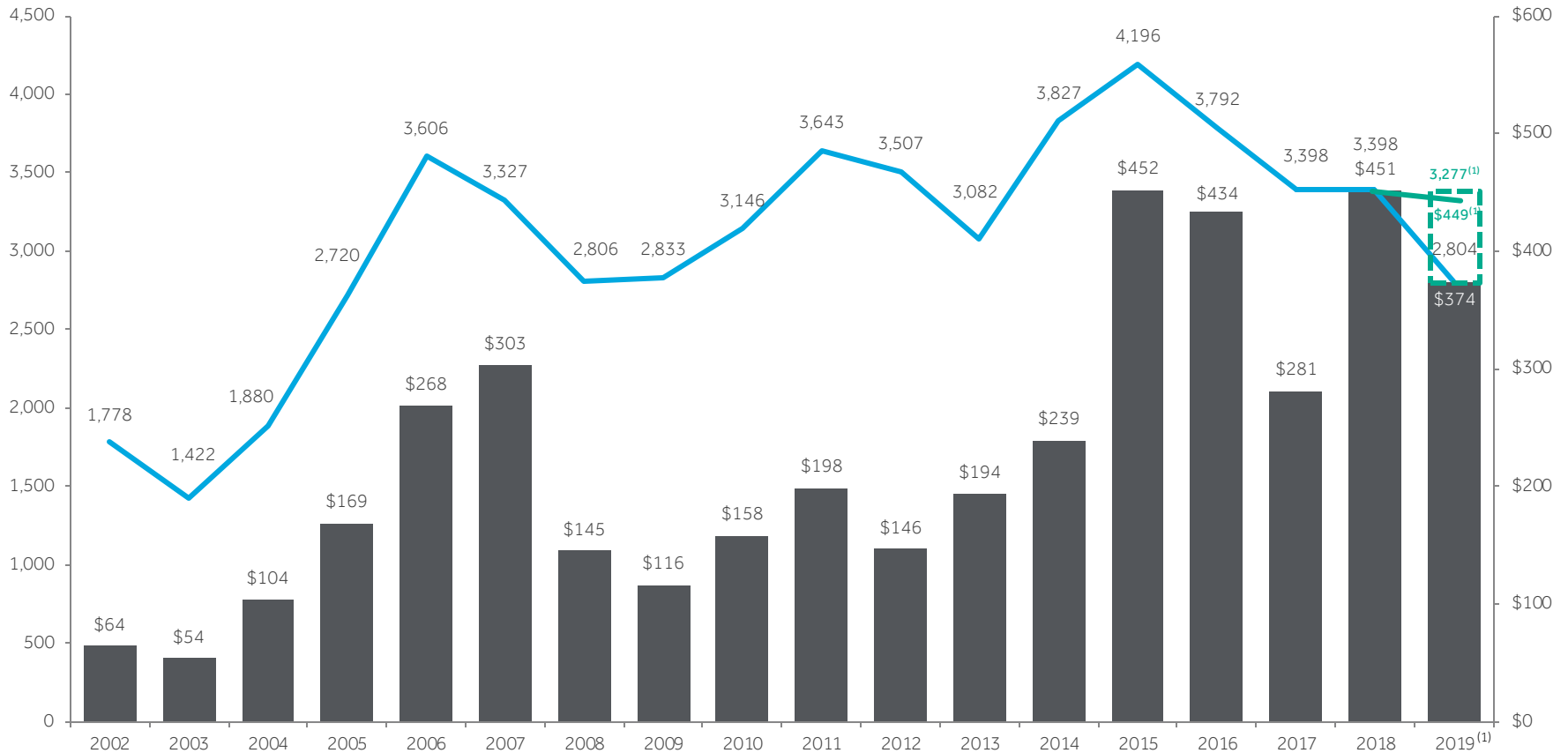


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Investment Banking

cg/Petsky
Prunier
Canaccord Genuity

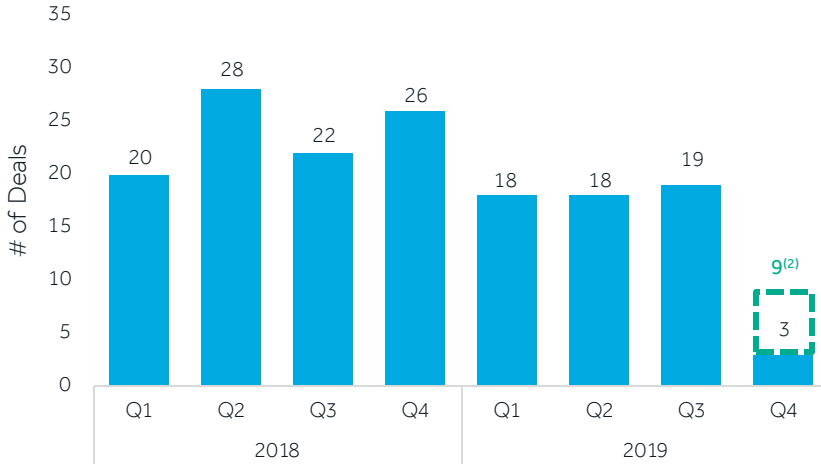
/ Historical Global Technology M&A Volume

Strong Technology M&A volume in Q4 2019 on pace with strong 2018 volume

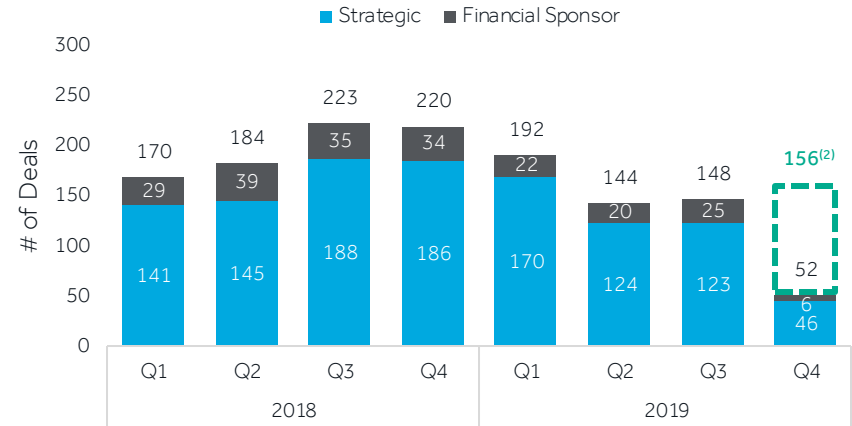


/ Quarterly Technology M&A Activity Trends

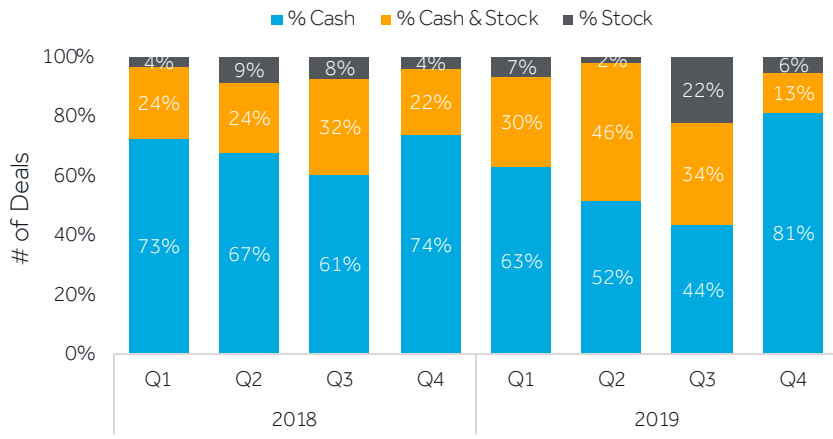
\$1B+ Deals



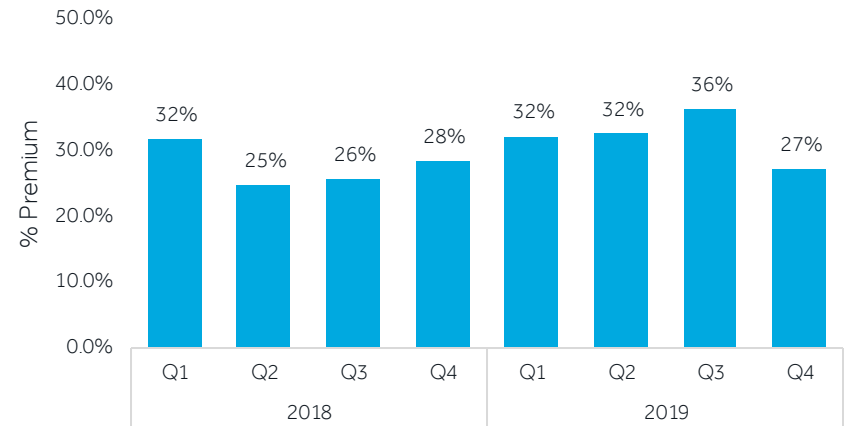
Strategic vs Financial Sponsor Transactions



Consideration Mix⁽¹⁾



Median 30-Day Premium



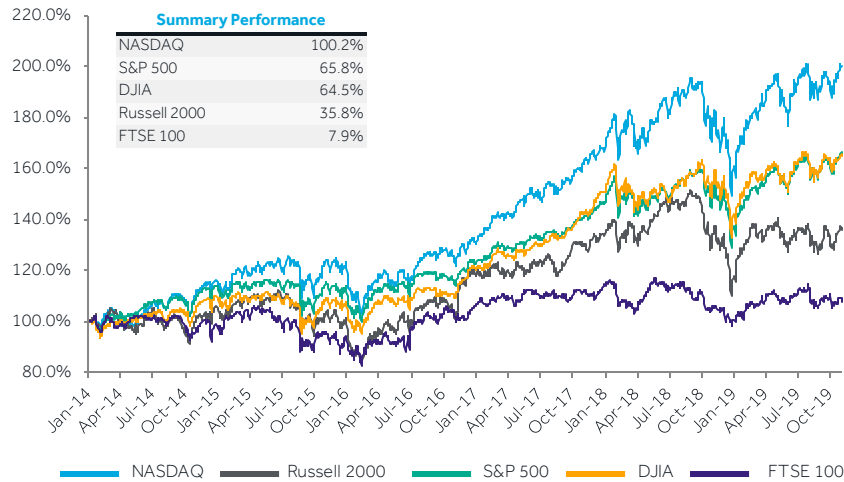
of Deals 113 126 145 156 119 145 147 162⁽²⁾

of Deals 15 11 13 20 17 19 13 15⁽²⁾

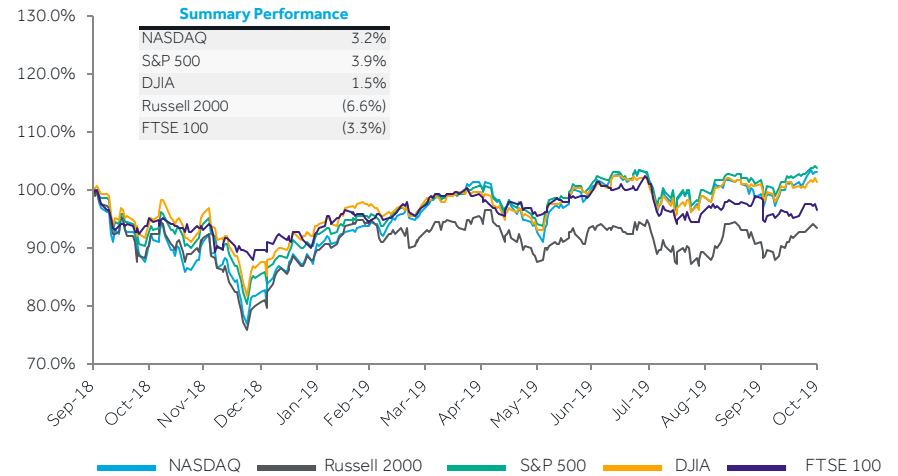
/ Equity Market Backdrop

October 2019 saw continued momentum of long running bull market

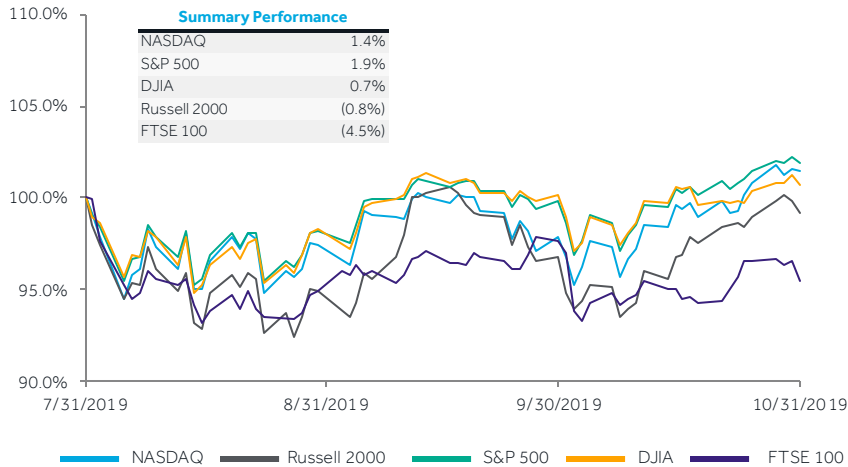
Major Indices 2014 – October 2019



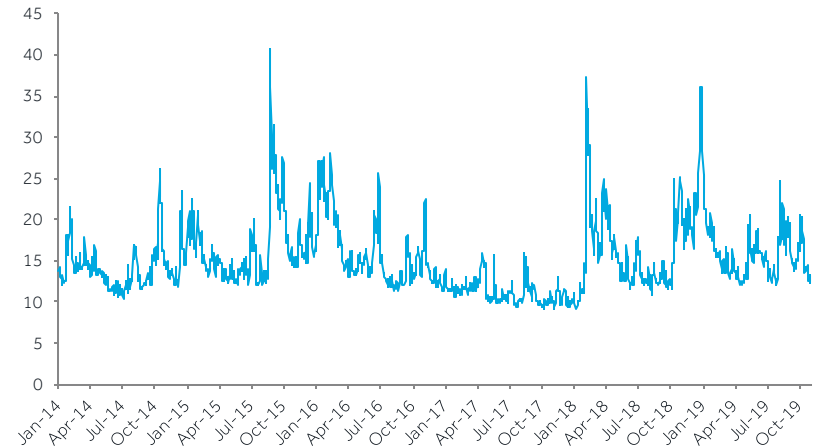
Major Indices October 2019, LTM



Major Indices October 2019, Last 3 Months



VIX 2014 – October 2019



/ Selected Strategic Buyer Transactions in October 2019

	Announced	Acquirer	Target	Segment	Deal Value (\$mm)	EV/LTM Revenue	EV/LTM EBITDA	Premium (1 Month)	Cash Mix %	
>\$100M⁽¹⁾	10/29/19	Digital Realty	Interxion	Technology	\$7,300	12.8x	30.6x		100.0%	
	10/29/19	Future PLC	TI Media Limited	Traditional Media	181	0.6x			100.0%	
	10/29/19	Banjay Group S.A.S	Endemol Shine Group	Traditional Media	2,220				100.0%	
	10/28/19	TOTVS	Supplier Participacoes	Software	114				100.0%	
	10/23/19	PTC	Onshape	Software	470				100.0%	
	10/22/19	Roku	dataxu	Marketing Technology	150	3.3x			100.0%	
	10/16/19	Cognizant	Contino Solutions	Business & IT Services	270	3.9x			100.0%	
	10/16/19	Sabre	Radixx International	Marketing Technology	110				100.0%	
	10/09/19	Liberty Latin America	AT&T Corporation (business units)	Technology	1,950				100.0%	
	10/08/19	Cellnex	Arqiva (telecom division)	Technology	2,465				100.0%	
	10/08/19	Group Nine Media	POPSUGAR	Digital Media/Commerce	300				100.0%	
	10/08/19	S4 Capital	Firewood Marketing	Agency/Marketing Services	150	1.5x	11.2x		100.0%	
	10/07/19	FM:Systems	Asure Software (assets)	Software	120	4.3x			100.0%	
	10/04/19	Equinix	AXTEL (Mexico-based datacenters)	Technology	175				100.0%	
	10/02/19	Aptiv	gabocom	Technology	310	3.1x			100.0%	
	10/02/19	Oracle	CrowdTwist	Marketing Technology	130	8.7x			100.0%	
	10/02/19	QinetiQ	MTEQ	Business & IT Services	105	0.6x	9.2x		100.0%	
	10/02/19	Vice Media LLC	Refinery29	Digital Media/Commerce	400	3.0x			100.0%	
10/01/19	TELUS	ADT Security Services Canada	Software	528				100.0%		
10/01/19	Q2	PrecisionLender	Software	510				100.0%		
10/01/19	CoStar	STR Group	Marketing Technology	450	7.0x	28.1x		100.0%		
					Mean:	\$877	4.4x	19.8x	NA	100.0%
					Median:	\$300	3.3x	19.7x	NA	100.0%
\$50-\$100M⁽²⁾	10/21/19	Teradyne	Heartland Automation (assets)	Technology	58				100.0%	
	10/17/19	discoverIE Group	Sens-Tech	Technology	74				100.0%	
	10/17/19	ASGN	Intersys Consulting	Business & IT Services	67				100.0%	
	10/15/19	Cancom SE	Novosco Group Limited	Software	87	1.9x			100.0%	
	10/07/19	Upland Software	Altify	Software	84				100.0%	
	10/07/19	Dialog Semiconductor	Creative Chips	Technology	80				100.0%	
						Mean:	\$75	1.9x	NA	NA
					Median:	\$77	1.9x	NA	NA	100.0%
					Blended Mean:	\$698	4.2x	19.8x	NA	100.0%
					Blended Median:	\$175	3.2x	19.7x	NA	100.0%

/ Selected Financial Buyer Transactions in October 2019

Announced	Acquirer	Target	Segment	Deal Value (\$mm)	EV/LTM Revenue	EV/LTM EBITDA	Premium (1 Month)	Cash Mix %
10/30/19	PPF Group	Central European Media Enterprises	Traditional Media	2,100	3.0x	8.6x	14.7%	100.0%
10/30/19	Quadrant Private Equity	QMS Media Limited	Traditional Media	291	1.8x	8.1x		100.0%
10/30/19	Vitruvian Partners	Sykes Cottages	Digital Media/Commerce	472	0.4x	8.4x		100.0%
10/30/19	Clayton Dubilier & Rice	Anixter International	IT services & distribution	2,740	5.4x			100.0%
10/22/19	Platinum Equity	Cision	Application software	2,700	3.6x	12.4x	27.1%	100.0%
10/15/19	Wendel Group	Crisis Prevention Institute	Security	910	10.6x	23.3x		
10/15/19	Nordic Capital	iLOQ	Security	210				
10/14/19	Thoma Bravo	Sophos	Security	3,820	5.5x	48.1x	35.4%	100.0%
10/04/19	Silver Lake Partners	Ticketek	IT services & distribution	\$880	0.2x	4.8x		100.0%
Mean:				\$1,569	3.8x	16.3x	25.7%	100.0%
Median:				\$910	3.3x	8.6x	27.1%	100.0%

/ Recent High Profile Private Financings in October 2019

Observations:

- Private markets remain active and open, particularly for the strongest companies
- Exit environment (IPOs, M&A) constructive leading to more favorable private valuation discussions

Company	Segment	Date of Latest Funding	Latest Round of Funding (\$mm)	Latest Valuation (\$mm)	Total Equity Funding (\$mm)	Est. % Sold	Recent Lead Investor(s)
Scopely	Digital Media/Commerce	10/29/19	\$200	\$1,700	\$459	11.8%	NewView Capital
Weave	Marketing Technology	10/24/19	70	970	156	7.2%	Tiger Global Management
Databricks	Software	10/22/19	400	6,200	902	6.5%	Andreessen Horowitz
Instabase	Software	10/21/19	105	1,025	132	10.2%	Index Ventures
Pendo	Software	10/17/19	100	1,025	209	9.8%	Sapphire Ventures
Grammarly	Digital Media/Commerce	10/10/19	92	2,300	202	4.0%	General Catalyst
RigUp	Digital Media/Commerce	10/10/19	300	1,800	489	16.7%	Andreessen Horowitz
Unqork	Software	10/03/19	80	900	107	8.9%	CapitalG

/ Securities in Registration (\$ in Millions)

Date	Company Name	Country	Segment	Aggregate	Last Twelve Months	
				Offering Value	Revenue	EBITDA
Oct-19	Sprout Social	United States	Marketing Technology	100.0	74.6	21.0
May-19	EndeavorGroup Holdings, Inc.	United States	Traditional Media	100.0	3,903.1	350.8
Sep-18	Valtech SE	United Kingdom	Agency & Marketing Services	100.0	298.0	21.0

/ Last Twelve Months Initial Public Offering Activity

Date	Ticker	PLLC Segment	Company Name	Country	Initial Offering Price Range	Final Price Per Share	Stock Price at Close on 1st Trading Day	Stock Price on Oct 31, 2019	% Change from 1st Trading Day
Sep-19	PTON	Software	Peloton Interactive, Inc.	United States	\$26.00-\$29.00	29.00	\$25.10, down 13.4%	23.87	(4.9%)
Sep-19	DDOG	Software	Datadog, Inc.	United States	24.00-26.00	27.00	\$27.55, up 2.0%	33.59	21.9%
Sep-19	NET	Software	Cloudflare, Inc.	United States	12.00-14.00	15.00	\$18.00, up 20.0%	16.84	(6.4%)
Aug-19	SDC	Software	SmileDirectClub, Inc.	United States	19.00-22.00	23.00	\$16.67, down 27.5%	11.70	(29.8%)
Aug-19	DT	Software	Dynatrace, Inc.	United States	13.00-15.00	16.00	\$23.85, up 49.1%	20.23	(15.2%)
Jul-19	HCAT	Software	Health Catalyst, Inc.	United States	24.00-25.00	26.00	\$39.17, up 50.7%	32.16	(17.9%)
Jul-19	MDLA	Software	Medallia, Inc.	United States	16.00-18.00	21.00	\$37.05, up 76.4%	29.08	(21.5%)
Jun-19	WORK	Software	Slack Technologies, Inc.	United States	24.00	38.50	\$38.62, up 0.3%	22.00	(43.0%)
Jun-19	CHWY	Digital Media/Commerce	Chewy, Inc.	United States	19.00-21.00	22.00	\$34.99, up 29.6%	24.67	(29.5%)
Jun-19	FVRR	Digital Media/Commerce	Fiverr International Ltd.	Israel	18.00-20.00	21.00	\$39.90, up 90.0%	22.61	(43.3%)
Jun-19	CRWD	Software	CrowdStrike Holdings, Inc.	United States	28.00-30.00	34.00	\$58.00, up 70.6%	49.91	(13.9%)
Jun-19	RVLV	Digital Media/Commerce	Revolve Group, Inc.	United States	16.00-18.00	18.00	\$34.00, up 88.9%	20.76	(38.9%)
May-19	PSN	Business Services	Parsons Corporation	United States	26.00-28.00	27.00	\$30.07, up 11.4%	35.60	18.4%
May-19	HHR	Business Services	HeadHunter Group PLC	Russia	11.00-13.50	13.50	\$14.75, up 16.7%	17.46	10.9%
May-19	FSLY	Software	Fastly, Inc.	United States	14.00-16.00	16.00	\$24.00, up 50.0%	20.02	(16.6%)
May-19	UBER	Digital Media/Commerce	Uber Technologies, Inc.	United States	44.00-50.00	45.00	\$41.57, down 7.6%	31.50	(24.2%)
Apr-19	PINS	Digital Media/Commerce	Pinterest, Inc.	United States	15.00-17.00	19.00	\$24.40, up 28.4%	25.14	3.0%
Apr-19	ZM	Software	Zoom Video Communications, Inc.	United States	33.00-35.00	36.00	\$72.00, up 72.2%	69.89	12.7%
Apr-19	JMIA	Digital Media/Commerce	Jumia Technologies AG	Germany	13.00-16.00	14.50	\$25.45, up 75.6%	6.45	(74.7%)
Apr-19	PD	Software	PagerDuty, Inc.	United States	21.00-23.00	24.00	\$38.25, up 59.4%	22.99	(39.9%)
Apr-19	TW	Software	Tradeweb Markets Inc.	United States	24.00-26.00	27.00	\$35.81, up 32.6%	41.75	16.6%
Mar-19	LYFT	Digital Media/Commerce	Lyft, Inc.	United States	62.00-68.00	72.00	\$78.29, up 8.7%	41.44	(47.1%)
Mar-19	FHL	Software	Freddie Mac	United States	10.00-12.00	12.00	\$15.32, up 27.7%	2.92	(80.9%)
Dec-18	QFIN	Software	360 Finance, Inc.	China	16.50-18.50	16.50	\$16.49, down 0.1%	8.85	(46.3%)
Dec-18	TME	Digital Media/Commerce	Tencent Music Entertainment Group	China	13.00-15.00	13.00	\$14.19, up 9.2%	13.84	(2.5%)
Dec-18	MOGU	Digital Media/Commerce	MOGU Inc.	China	14.00-16.00	12.00	\$14.00, up 16.7%	2.17	(84.5%)
Nov-18	WEI	Software	Weidai Ltd.	China	9.00-\$11.00	10.50	\$10.25, down 2.4%	6.36	(38.0%)

/ Additional Selected Technology Follow-ons, LTM as of October 2019

Observations:

- Follow-on market activities track broader market direction
- Better known, more liquid issuers using accelerating formats
- Average discount to last sale of (14.0%) for October deals vs. (2.5%) for September deals

Issuer	Pricing Date	Amount Offered (\$mm)	Mkt Cap at Offer	% Mkt Cap @ Offer	% Primary	Premium/Discount to:		Aftermarket Performance	
						Last Sale	Filing Price	Offer + 1 Day	Offer/Current
Internap Corp	10/19/18	\$40.0	\$222.7	18.0%	100.0%	(14.0%)	(14.0%)	(5.8%)	(74.9%)
Opera	09/20/19	75.0	1,165.7	6.4%	100.0%	(5.4%)	(22.8%)	1.0%	0.7%
NCR	09/19/19	299.0	4,281.4	7.0%	0.0%	(2.6%)	(2.6%)	(1.4%)	(10.8%)
International Money Express	09/11/19	76.5	493.8	15.5%	0.0%	(1.9%)	(6.3%)	9.8%	20.2%
Cardlytics	09/10/19	105.3	779.6	13.5%	55.7%	(0.4%)	(11.2%)	10.1%	23.3%
Clarivate Analytics	09/06/19	634.8	4,933.4	12.9%	0.0%	(1.0%)	(9.2%)	8.0%	4.6%
Appian	09/04/19	130.4	3,763.3	3.5%	78.4%	(3.5%)	(3.5%)	(1.3%)	(20.3%)
Workiva	08/13/19	72.4	2,631.0	2.8%	0.0%	(1.4%)	(9.2%)	(8.3%)	(25.9%)
EVO Payments	08/13/19	114.0	2,411.4	4.7%	0.0%	(3.0%)	(3.0%)	0.1%	(0.2%)
Ceridian	08/06/19	497.5	7,136.8	7.0%	0.0%	(1.1%)	(1.1%)	1.4%	(3.0%)
Anterix	07/16/19	100.0	693.9	14.4%	100.0%	(4.4%)	(3.9%)	(1.7%)	(9.9%)
HealthEquity	07/09/19	473.5	3,966.3	11.9%	100.0%	(3.5%)	(3.6%)	10.6%	(6.9%)
InterXion	06/26/19	291.0	5,254.9	5.5%	100.0%	(0.5%)	(3.1%)	3.1%	21.3%
Iteris	06/14/19	28.8	170.2	16.9%	100.0%	(8.8%)	(8.8%)	5.8%	15.3%
Smartsheet	06/12/19	645.3	4,636.0	13.9%	60.5%	(0.2%)	(4.4%)	4.8%	(9.4%)
Q2	06/06/19	210.8	3,114.6	6.8%	95.5%	(1.3%)	(4.6%)	1.2%	2.9%
Avalara	06/05/19	286.9	4,860.9	5.9%	100.0%	(0.1%)	6.0%	3.9%	2.3%
Descartes Systems	06/05/19	245.0	2,828.7	8.7%	100.0%	(3.1%)	(9.0%)	6.2%	9.6%
i3 Verticals	06/05/19	117.5	545.9	21.5%	100.0%	(4.9%)	(7.8%)	0.6%	(10.1%)
Mercury Systems	05/22/19	476.1	3,437.9	13.8%	100.0%	(2.8%)	(5.3%)	(0.3%)	6.8%
SolarWinds	05/22/19	270.0	5,578.0	4.8%	0.0%	(6.0%)	(6.1%)	(1.6%)	5.3%
Veoneer	05/22/19	420.0	1,568.8	26.8%	100.0%	(2.6%)	(7.5%)	0.0%	(9.0%)
Ceridian	05/21/19	404.0	7,211.0	5.6%	0.0%	(1.4%)	(1.4%)	1.1%	(4.5%)
Carvana	05/21/19	273.0	2,959.7	9.2%	100.0%	(3.0%)	(3.3%)	0.2%	24.7%
Waitr Holdings	05/16/19	50.0	546.1	9.2%	100.0%	(5.3%)	(5.3%)	0.7%	(94.1%)
Dasan Zhone Solutions	05/16/19	46.0	165.7	27.8%	100.0%	(2.3%)	(2.3%)	7.5%	(22.7%)
Upland Software	05/08/19	159.4	949.9	16.8%	100.0%	(5.2%)	(9.6%)	10.7%	(10.8%)
Endava	04/17/19	156.7	1,382.4	11.3%	0.0%	(2.3%)	(2.5%)	10.1%	57.8%
EVO Payments	04/03/19	152.4	719.5	21.2%	100.0%	(2.4%)	(9.3%)	5.4%	7.3%
Ceridian	03/19/19	656.5	6,986.4	9.4%	0.0%	(0.6%)	(1.7%)	(1.1%)	(4.5%)
Yext	03/18/19	150.5	2,350.0	6.4%	100.0%	(6.5%)	(6.5%)	2.5%	(23.4%)
eGain	03/14/19	22.0	347.7	6.3%	100.0%	(11.7%)	(11.7%)	0.8%	(31.6%)
ShotSpotter	03/06/19	17.8	517.3	3.4%	64.8%	(2.5%)	(2.5%)	(1.6%)	(56.3%)
Bandwidth	03/06/19	156.0	733.5	21.3%	100.0%	(1.7%)	(6.0%)	12.8%	3.5%
Pluralsight	03/06/19	456.1	4,051.2	11.3%	0.0%	(1.2%)	(11.3%)	(1.0%)	(38.2%)
BlackLine	03/04/19	236.9	2,739.6	8.6%	0.0%	(2.7%)	(2.7%)	(0.5%)	(3.6%)
Benefitfocus	02/28/19	275.3	1,572.7	17.5%	0.0%	(1.8%)	(16.5%)	(4.6%)	(52.9%)
HubSpot	02/14/19	354.8	6,742.5	5.3%	100.0%	(4.0%)	(4.0%)	0.7%	(6.0%)
eHealth	01/23/19	133.9	996.1	13.4%	100.0%	(5.5%)	6.7%	12.6%	42.4%
Everbridge	01/15/19	146.1	1,671.4	8.7%	100.0%	(2.0%)	0.0%	(1.8%)	25.8%
Angi Homeservices	12/11/18	24.7	1,244.3	2.0%	0.0%	(1.3%)	(1.3%)	4.3%	(58.2%)
Sabre Corp	11/26/18	581.5	6,929.6	8.4%	0.0%	(0.9%)	(0.9%)	1.6%	(5.9%)
Mean:		\$239.6	\$2,745.0	11.1%	60.8%	(3.3%)	(5.5%)	2.5%	(7.6%)
Median:		\$158.0	\$2,380.7	9.2%	100.0%	(2.5%)	(4.5%)	1.0%	(4.5%)

■ Indicates Canaccord Genuity Transaction

M&A and Investments by Segment

/ M&A and Investment Summary for All Segments

Transaction Distribution

- A total of 802 deals was announced in October 2019, of which 325 were worth \$28.7 billion in aggregate reported value
- Software accounted for nearly 40 percent of transactions with 313 deals announced – 164 of which reported \$9.6 billion in value
- Business & IT Services was the second most active segment with 153 transactions – 28 of which were valued at \$1.7 billion
- Strategic buyers announced 455 deals (52 reported \$11.0 billion in value)
- VC/Growth Capital investors completed 320 transactions (267 reported \$8.9 billion in value)
- Private Equity buyers announced 27 deals during the month (six reported \$8.8 billion in value)

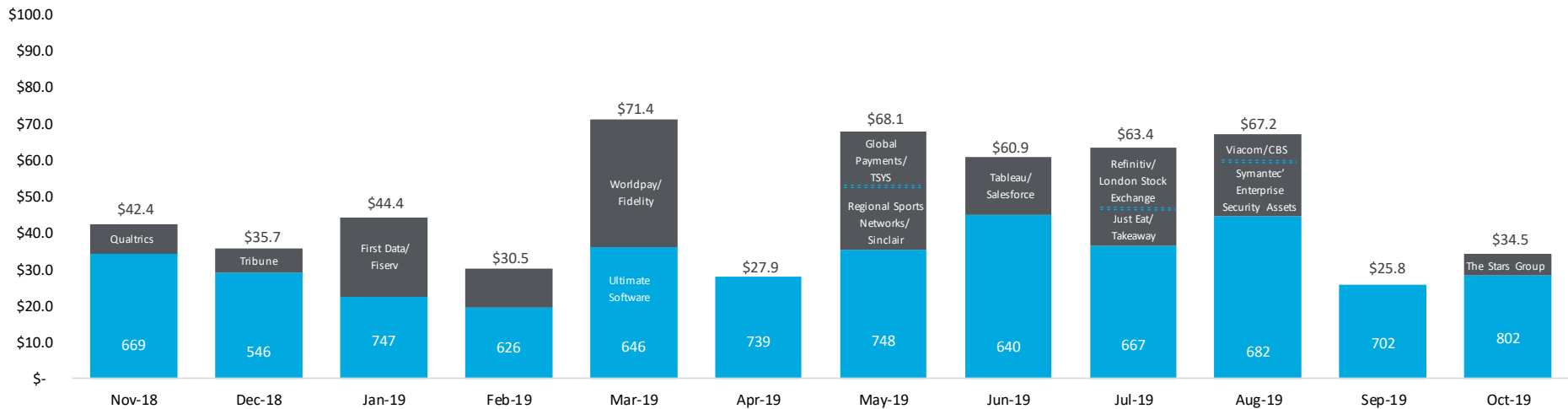
October 2019

	BUYER/INVESTOR BREAKDOWN									
	Transactions		Reported Value		Strategic		Buyout		Venture/Growth Capital	
	#	%	\$MM	%	#	\$MM	#	\$MM	#	\$MM
Software	313	39%	\$9,565.2	34%	131	\$1,546.0	10	\$3,821.0	172	\$4,198.2
Business Services	153	19%	\$1,688.1	6%	122	\$467.6	7	\$910.0	24	\$310.5
Marketing Technology	115	14%	\$5,435.1	19%	63	\$1,663.0	3	\$2,700.0	49	\$1,072.1
Digital Media/Commerce	95	12%	\$5,830.7	20%	38	\$1,830.4	6	\$1,351.3	51	\$2,649.0
Agency & Marketing Services	56	7%	\$410.0	1%	51	\$400.0	0	-	5	\$10.0
Traditional Media	37	5%	\$5,107.6	18%	35	\$5,094.6	0	-	2	\$13.0
Digital Advertising	20	2%	\$540.1	2%	11	\$11.0	0	-	9	\$529.1
Information	13	2%	\$166.8	1%	4	-	1	-	8	\$166.8
Total	802	100%	28,743.6	100%	455	11,012.6	27	8,782.3	320	8,948.7

/ M&A and Investment Summary for all Segments

Transaction Distribution

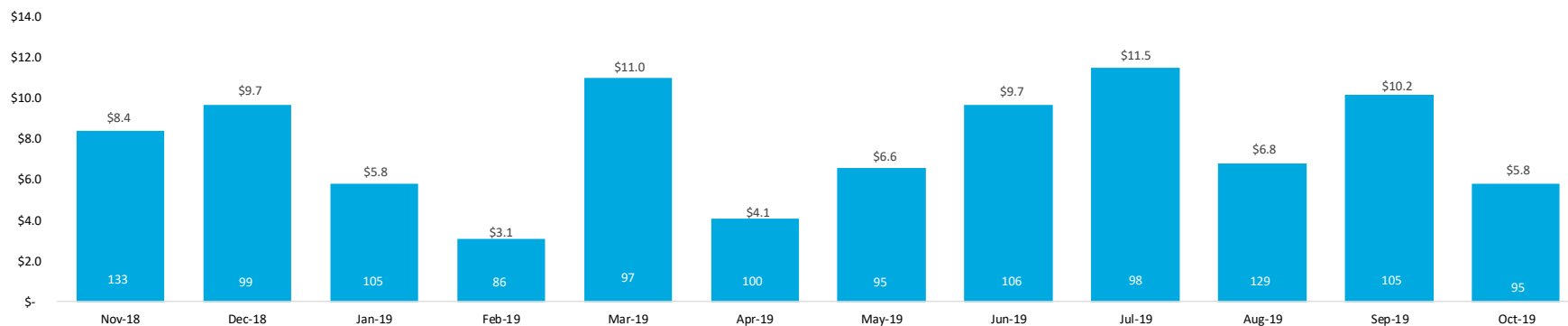
- M&A total deal activity in October 2019 increased 14 percent from September, marking the most active month in the 12 month period
- The largest transactions recorded during the month were:
 - Thoma Bravo's \$3.8 billion acquisition of UK-based cybersecurity company Sophos Group
 - The purchase of marketing communications and public relations platform Cision by Platinum Equity for \$2.7 billion
 - Apollo Global Management's \$2.2 billion sale of Netherlands-based TV production company Endemol Shine by Banijay
 - PPF's acquisition of broadcast company Central European Media Enterprises for \$2.1 billion
 - FFL Partners' sale of behavioral management and violence prevention training services Crisis Prevention Institute to Wendel for \$910 million
 - The acquisition of Australia-based event ticketing company Ticketek by Silver Lake for \$880 million



*Note, transactions valued at \$6 billion or more have been excluded from totals to limit comparative distortions. The aggregate total does not include SAP's \$8 billion acquisition of Qualtrics, Nexstar's pending \$6.4 billion acquisition of Tribune Media, Fiserv's \$22 billion acquisition of First Data Corporation, Ultimate Software's \$11 billion sale to a consortium of buyers, and Fidelity's \$35.2 billion acquisition of Worldpay, Disney's pending sale of 21 regional sports networks to Sinclair Broadcast Group for \$10.6 Billion, TSYS' pending \$22.1 billion acquisition of Global Payments, the \$15.7 billion acquisition of Tableau by Salesforce, the pending sale of Refinitiv to London Stock Exchange for \$27 billion, the pending \$6 billion acquisition of Just Eat by Takeaway, CBS' pending purchase of Viacom for \$11.7 Billion, the \$10.7 billion acquisition of Symantec's enterprise security assets by Broadcom, and the \$6 billion acquisition of The Stars Group by Flutter Entertainment

/ Digital Media/Commerce

- Of the 95 transactions recorded in the Digital Media/Commerce segment in October, 52 were announced for \$5.8 billion in reported value
- Excluding the acquisition of Ticketek, select Digital Media/Commerce transactions include:
 - Vitruvian Partners' acquisition of UK-based vacation home booking platform Sykes from Livingbridge for \$472 million
 - The \$319 million round of funding vacation rental management company Vacasa raised from Silver Lake, Riverwood Capital, Level Equity, and NewSpring
 - Walmart's sale of online women's apparel retailer ModCloth by Go Global Retail
 - Group Nine Media's acquisition of millennial woman-focused online media site PopSugar
 - The purchase of digital media company Refinery29 by Vice



DIGITAL MEDIA/COMMERCE

	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	128	\$8,695.7	158	\$12,656.0	519	\$35,059.0	38	\$1,830.4
Private Equity - Buyout	9	2,604.2	3	124.0	33	7,647.5	6	1,351.3
Private Equity - VC/Growth Capital	164	9,121.7	170	9,782.9	695	44,535.9	51	2,649.0
Total	301	\$20,421.6	331	\$22,562.9	1,247	\$87,242.4	95	\$5,830.7

/ Digital Media

(\$ in Millions, except stock price data)

US-Based Digital Media and Internet

Company Name	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months				Last Twelve Months Multiples	
					Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Alphabet Inc.	\$1,258.80	-3%	\$ 868,628.6	\$ 762,324.6	\$ 155,058.0	\$ 44,069.0	28.4%	19.4%	4.9x	17.3x
Apple Inc.	248.76	-4%	1,105,306.6	1,112,796.6	260,174.0	76,477.0	29.4%	-2.0%	4.3x	14.6x
Facebook, Inc.	191.65	-8%	546,768.0	503,631.0	66,529.0	28,446.0	42.8%	28.2%	7.6x	17.7x
Fitbit, Inc.	6.18	-15%	1,596.6	1,132.6	1,550.2	(96.0)	NM	2.6%	0.7x	NM
Glu Mobile Inc.	5.93	-50%	865.1	800.7	386.4	12.0	3.1%	16.0%	2.1x	66.7x
GoPro, Inc.	4.16	-46%	602.7	690.6	1,198.5	17.0	1.4%	4.2%	0.6x	40.6x
IAC/InterActiveCorp	227.25	-15%	19,156.9	20,170.5	4,501.2	799.5	17.8%	17.4%	4.5x	25.2x
j2 Global, Inc.	94.96	-3%	4,645.2	5,680.3	1,312.5	492.3	37.5%	11.5%	4.3x	11.5x
Leaf Group Ltd.	2.97	-70%	77.4	76.8	156.8	(17.6)	NM	11.0%	0.5x	NM
The Meet Group, Inc.	4.26	-32%	314.0	326.3	199.7	26.7	13.4%	30.7%	1.6x	12.2x
Netflix, Inc.	287.41	-26%	125,957.8	135,062.1	18,875.9	2,460.5	13.0%	26.7%	7.2x	54.9x
Pinterest, Inc.	25.14	-32%	13,765.8	12,201.2	1,016.0	(1,276.7)	NM	54.9%	12.0x	NM
RealNetworks, Inc.	1.62	-52%	61.8	65.3	145.3	(23.2)	NM	102.3%	0.4x	NM
Remark Holdings, Inc.	0.72	-84%	33.2	51.3	77.5	(15.2)	NM	77.0%	0.7x	NM
Roku, Inc.	147.20	-17%	17,109.7	16,844.6	905.9	(18.9)	NM	49.4%	18.6x	NM
Snap Inc.	15.06	-18%	21,083.5	20,037.7	1,544.5	(957.3)	NM	43.5%	13.0x	NM
Twitter, Inc.	29.97	-35%	23,222.5	19,951.2	3,360.8	772.7	23.0%	17.3%	5.9x	25.8x
Upwork Inc.	15.04	-40%	1,666.5	1,584.0	274.6	(8.2)	NM	20.0%	5.8x	NM
Zynga Inc.	6.17	-7%	5,836.3	5,167.9	1,165.9	(28.0)	NM	30.7%	4.4x	NM
Average									5.4x	16.3x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (15.0x) and EBITDA multiples that are 1.0 standard deviations above the mean (47.8x)

/ Digital Media

(\$ in Millions, except stock price data)

Internationally-based Digital Media and Internet

Company Name	Headquarters	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Baidu, Inc.	China	\$101.85	-48%	\$ 35,498.9	\$ 28,236.3	\$ 15,646.0	\$ 3,508.8	22.4%	11.2%	1.8x	8.0x
Bilibili Inc.	* China	15.79	-27%	5,149.5	4,464.9	749.3	(56.6)	NM	53.3%	6.0x	NM
CyberAgent, Inc.	Japan	32.66	-34%	4,114.9	3,864.3	4,196.5	367.7	8.8%	8.1%	0.9x	10.5x
DeNA Co., Ltd.	Japan	17.09	-20%	2,450.4	1,628.0	1,128.0	192.8	17.1%	-11.2%	1.4x	8.4x
Fiverr International Ltd.	* Israel	22.61	-49%	700.8	548.1	90.0	(28.3)	NM	0.0%	6.1x	NM
G5 Entertainment AB (publ)	Sweden	13.29	-48%	119.9	106.9	126.8	8.4	6.6%	-15.0%	0.8x	12.7x
Gree, Inc.	Japan	4.76	-4%	1,097.3	312.3	634.4	54.0	8.5%	-7.9%	0.5x	5.8x
HolidayCheck Group AG	* Germany	2.73	-22%	156.3	135.5	164.3	2.0	1.2%	5.6%	0.8x	68.7x
HUYA Inc.	* China	22.24	-26%	4,851.6	3,541.0	935.4	23.4	2.5%	100.3%	3.8x	NM
International Game Technology PLC	United Kingdom	13.24	-26%	2,706.7	11,579.5	4,799.4	1,395.5	29.1%	-3.5%	2.4x	8.3x
iQIYI, Inc.	China	17.43	-40%	12,638.8	13,062.8	4,083.3	1,213.3	29.7%	34.7%	3.2x	10.8x
mixi, Inc.	Japan	19.40	-27%	1,461.9	181.5	1,208.4	304.7	25.2%	-25.8%	0.2x	0.6x
Meitu, Inc.	* China	0.22	-62%	935.4	600.2	403.2	(108.1)	NM	-1.0%	1.5x	NM
Ncsoft Corporation	South Korea	441.30	-9%	9,094.0	8,123.4	1,359.4	429.7	31.6%	-27.6%	6.0x	18.9x
NAVER Corporation	South Korea	140.26	-4%	20,400.1	21,046.3	5,274.4	876.1	16.6%	0.0%	4.0x	24.0x
NetEase, Inc.	China	285.86	-8%	36,578.9	31,524.2	10,750.0	1,998.4	18.6%	28.3%	2.9x	15.8x
NEXON Co., Ltd.	Japan	11.61	-31%	10,429.3	5,733.9	2,434.1	1,011.7	41.6%	4.4%	2.4x	5.7x
Opera Limited	Norway	10.07	-33%	1,197.5	1,063.5	204.6	36.6	17.9%	31.0%	5.2x	29.1x
Pacific Online Limited	China	0.26	-2%	277.6	234.5	155.0	33.2	21.4%	8.9%	1.5x	7.1x
Phoenix New Media Limited	* China	2.72	-47%	198.3	32.5	205.1	(38.7)	NM	-8.2%	0.2x	NM
Renren Inc.	* China	0.78	-68%	54.3	146.6	474.6	(96.3)	NM	65.0%	0.3x	NM
Sea Limited	* Singapore	29.76	-22%	13,242.2	11,580.0	1,276.2	(939.0)	NM	128.9%	9.1x	NM
Sogou Inc.	China	5.15	-28%	2,015.5	903.0	1,169.0	110.6	9.5%	5.9%	0.8x	8.2x
Spotify Technology S.A.	* Luxembourg	144.30	-11%	25,865.3	24,987.6	6,982.9	143.9	2.1%	30.3%	3.6x	NM
Tencent Music Entertainment	* China	13.84	-31%	22,630.5	19,762.2	3,203.5	530.0	16.5%	45.6%	6.2x	37.3x
Weibo Corporation	China	49.19	-34%	11,069.5	10,408.3	1,773.1	652.7	36.8%	20.3%	5.9x	15.9x
Wemade Co., Ltd.	* South Korea	22.49	-52%	368.9	320.5	107.8	(37.9)	NM	7.2%	3.0x	NM
Yandex N.V.	Netherlands	33.39	-21%	10,968.1	10,267.7	2,504.4	623.7	24.9%	39.3%	4.1x	16.5x
YY Inc.	China	56.84	-36%	4,595.7	2,526.3	2,885.7	328.0	11.4%	44.2%	0.9x	7.7x
Average										3.5x	13.6x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (7.6x) and EBITDA multiples that are 1.0 standard deviations above the mean (31.2x)

/ E-commerce

(\$ in Millions, except stock price data)

US-based e-commerce

Company Name	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
					Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
1-800-FLOWERS.COM, Inc.	\$14.26	-34%	\$ 920.5	\$ 1,060.1	\$ 1,266.4	\$ 77.9	6.1%	8.8%	0.8x	13.6x
Alphabet Inc.	1,258.80	-3%	868,628.6	762,324.6	155,058.0	44,069.0	28.4%	19.4%	4.9x	17.3x
Amazon.com, Inc.	1,776.66	-13%	880,863.1	912,053.1	265,469.0	34,192.0	12.9%	20.1%	3.4x	26.7x
Apple Inc.	248.76	-4%	1,105,306.6	1,112,796.6	260,174.0	76,477.0	29.4%	-2.0%	4.3x	14.6x
Blucora, Inc.	21.63	-42%	1,056.7	1,343.7	616.2	121.9	19.8%	11.7%	2.2x	11.0x
Blue Apron Holdings, Inc.	7.16	-71%	94.3	163.1	501.3	(16.9)	NM	-29.8%	0.3x	NM
Booking Holdings Inc.	2,048.77	-2%	87,097.1	89,598.1	14,749.0	5,666.0	38.4%	7.6%	6.1x	15.8x
CarGurus, Inc.	33.59	-31%	3,748.0	3,660.1	556.9	36.8	6.6%	33.1%	6.6x	99.6x
Carvana Co.	81.08	-6%	4,035.6	5,111.0	2,861.2	(201.8)	NM	115.8%	1.8x	NM
CDW Corporation	127.91	-4%	18,378.2	22,019.7	17,570.3	1,357.1	7.7%	10.4%	1.3x	16.2x
Chegg, Inc.	30.66	-36%	3,668.5	3,746.5	381.1	37.3	9.8%	27.5%	9.8x	NM
Chewy, Inc.	24.67	-40%	9,833.5	9,899.3	4,226.2	(235.7)	NM	0.0%	2.3x	NM
Copart, Inc.	82.64	-3%	19,193.2	19,408.1	2,042.0	793.8	38.9%	13.1%	9.5x	24.5x
eBay Inc.	35.25	-16%	28,676.8	34,002.8	10,856.0	3,112.0	28.7%	2.6%	3.1x	10.9x
Etsy, Inc.	44.49	-39%	5,271.6	5,287.5	748.4	130.6	17.4%	38.6%	7.1x	40.5x
Expedia Group, Inc.	136.66	-5%	22,274.7	23,270.7	11,597.0	1,390.0	12.0%	8.7%	2.0x	16.7x
Grubhub Inc.	34.06	-64%	3,111.5	3,297.7	1,258.6	113.5	9.0%	36.1%	2.6x	29.1x
IAC/InterActiveCorp	227.25	-15%	19,156.9	20,170.5	4,501.2	799.5	17.8%	17.4%	4.5x	25.2x
Liberty TripAdvisor Holdings, Inc.	9.65	-53%	724.5	3,969.5	1,602.0	320.0	20.0%	2.0%	2.5x	12.4x
Liquidity Services, Inc.	6.49	-29%	218.4	152.0	220.4	(13.1)	NM	-5.5%	0.7x	NM
Lyft, Inc.	41.44	-53%	12,331.9	9,663.5	3,268.5	(2,490.4)	NM	0.0%	3.0x	NM
Match Group, Inc.	72.99	-23%	20,508.6	21,897.0	1,961.4	652.8	33.3%	18.8%	11.2x	33.5x
Overstock.com, Inc.	10.53	-65%	371.6	375.0	1,634.6	(130.5)	NM	-9.6%	0.2x	NM
Peloton Interactive, Inc.	23.87	-15%	6,669.1	7,232.1	1,030.9	(181.2)	NM	0.0%	7.0x	NM
PetMed Express, Inc.	23.42	-23%	467.9	373.0	274.6	34.0	12.4%	-4.1%	1.4x	11.0x
Qurate Retail, Inc.	9.54	-62%	3,997.3	11,587.3	13,803.0	1,934.0	14.0%	13.3%	0.8x	6.0x
Revolve Group, Inc.	20.76	-57%	1,429.7	1,384.9	552.9	47.8	8.6%	23.8%	2.5x	29.0x
Shutterstock, Inc.	40.58	-19%	1,432.3	1,229.4	646.2	54.1	8.4%	5.4%	1.9x	22.7x
SmileDirectClub, Inc.	11.70	-45%	1,232.5	1,713.6	586.5	(62.9)	NM	0.0%	2.9x	NM
Spark Networks SE	5.19	-71%	135.0	133.3	114.7	5.8	5.1%	4.4%	1.2x	22.9x
Stamps.com Inc.	84.43	-59%	1,449.2	1,432.6	588.5	174.0	29.6%	13.0%	2.4x	8.2x
Stitch Fix, Inc.	22.86	-39%	2,323.6	2,009.4	1,577.6	37.8	2.4%	28.6%	1.3x	53.1x
Uber Technologies, Inc.	31.50	-33%	53,550.1	47,985.1	13,052.0	(8,013.0)	NM	0.0%	3.7x	NM
U.S. Auto Parts Network, Inc.	1.66	-12%	59.5	72.9	282.3	(4.7)	NM	-3.7%	0.3x	NM
Wayfair Inc.	82.23	-53%	7,658.1	8,692.5	8,607.6	(638.5)	NM	38.7%	1.0x	NM
Average									4.2x	19.1x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (9.0x) and EBITDA multiples that are 1.0 standard deviations above the mean (44.2x)

/ E-commerce

(\$ in Millions, except stock price data)

Internationally-based e-commerce

Company Name	Headquarters	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
58.com Inc.	China	\$52.81	-29%	\$ 7,851.6	\$ 7,043.8	\$ 2,096.7	\$ 440.9	21.0%	26.4%	3.4x	16.0x
Alibaba Group Holding Limited	China	176.67	-10%	459,972.9	465,171.7	62,215.6	17,763.4	28.6%	43.0%	7.5x	26.2x
Cango Inc.	China	6.10	-40%	923.5	896.3	188.5	42.7	22.7%	20.4%	4.8x	21.0x
Cnova N.V.	* Netherlands	2.59	-45%	892.8	1,574.7	2,504.9	43.1	1.7%	2.0%	0.6x	36.5x
Despegar.com, Corp.	Argentina	11.18	-41%	756.8	465.9	542.1	70.8	13.1%	-9.3%	0.9x	6.6x
Farfetch Limited	* United Kingdom	8.93	-72%	2,677.7	2,114.1	713.4	(255.8)	NM	46.9%	3.0x	NM
JD.com, Inc.	* China	31.15	-6%	45,443.8	42,192.6	74,404.1	1,033.4	1.4%	22.7%	0.6x	40.8x
Jumei International Holding Limited	* China	2.06	-26%	244.2	(87.3)	623.6	(13.4)	NM	-26.3%	NM	6.5x
Jumia Technologies AG	* Germany	6.45	-87%	505.7	138.0	169.0	(228.7)	NM	0.0%	0.8x	NM
LightInTheBox Holding Co., Ltd.	* China	0.99	-45%	66.6	109.0	211.1	(30.1)	NM	-28.3%	0.5x	NM
MercadoLibre, Inc.	* Argentina	521.52	-25%	25,924.7	24,157.5	2,050.1	(20.6)	NM	49.7%	11.8x	NM
MOGU Inc.	* China	2.17	-92%	232.1	19.3	155.4	(46.0)	NM	10.6%	0.1x	NM
PChome Online Inc.	* Taiwan	4.33	-20%	507.3	457.2	1,179.9	0.7	0.1%	15.5%	0.4x	NM
Pinduoduo Inc.	* China	40.88	-6%	47,517.2	42,936.1	3,037.8	(1,004.8)	NM	266.2%	14.1x	NM
Rakuten, Inc.	Japan	9.60	-20%	13,003.2	15,353.3	10,910.3	1,737.3	15.9%	15.7%	1.4x	8.8x
Secoo Holding Limited	China	5.99	-47%	300.7	436.5	910.5	33.7	3.7%	41.6%	0.5x	12.9x
trivago N.V.	Germany	3.50	-54%	1,231.5	1,105.0	926.0	60.4	6.5%	-8.6%	1.2x	18.5x
Uxin Limited	* China	3.00	-70%	880.7	1,107.3	533.7	(216.8)	NM	45.1%	2.1x	NM
Vipshop Holdings Limited	China	11.54	-5%	7,704.9	6,976.0	12,810.9	550.7	4.3%	9.9%	0.5x	12.7x
X Financial	China	1.69	-80%	265.0	187.9	477.4	162.8	34.1%	6.0%	0.4x	1.2x

Average

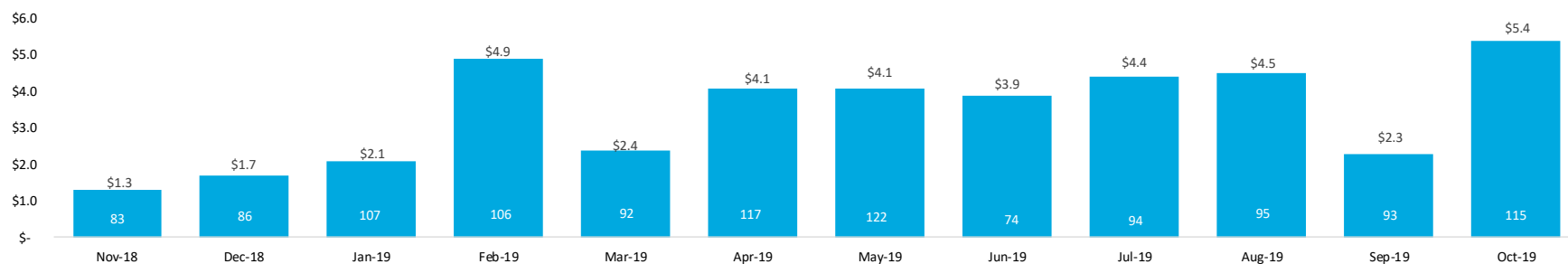
6.5x

25.3x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (10.9x) and EBITDA multiples that are 1.0 standard deviations above the mean (29.4x)

/ Marketing Technology

- The Marketing Technology segment announced 115 transactions in October, of which 52 were reported for \$5.4 billion in value
- Segment activity increased 24 percent in October, compared with September 2019
- In addition to Platinum Equity's purchase of Cision, select Marketing Technology transactions include:
 - The acquisition of customer engagement and loyalty platform SessionM by Mastercard (A CG Petsky Prunier-Led Transaction)
 - The \$510 million acquisition of banking CRM platform PrecisionLender by Q2 Holdings
 - Taboola's purchase of content discovery engine Outbrain for \$250 million in cash plus a 30% share of the combined companies
 - Roku's \$150 million purchase of DataXu, a developer of analytics tools for programmatic ads
 - The \$110 million round of funding search and discovery platform Algolia raised from Accel, Salesforce Ventures, Alven, DAG Ventures, Founders Circle, Owl Rock Capital, SaaStr Fund, and World Innovation Lab



MARKETING TECHNOLOGY

	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	148	\$4,510.0	82	\$3,539.7	556	\$13,999.4	63	\$1,663.0
Private Equity - Buyout	10	2,470.0	13	3,320.0	42	12,890.0	3	2,700.0
Private Equity - VC/Growth Capital	157	3,040.5	141	2,801.8	586	11,343.9	49	1,072.1
Total	315	\$10,020.5	236	\$9,661.5	1,184	\$38,233.3	115	\$5,435.1

/ Marketing Technology

(\$ in Millions, except stock price data)

US-based Marketing Technology

Company Name	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
					Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Adobe Inc.	\$277.93	-11%	\$ 134,539.97	\$ 135,026.67	\$ 10,643.98	\$ 3,566.51	33.5%	24.2%	12.7x	37.9x
AppFolio, Inc.	97.23	-12%	3,311.9	3,343.7	239.0	17.8	7.4%	34.6%	14.0x	188.3x
Blackbaud, Inc.	83.95	-14%	4,022.9	4,597.1	883.8	113.9	12.9%	4.6%	5.2x	40.4x
Brightcove Inc.	9.51	-26%	369.0	362.8	177.7	(2.3)	NM	8.3%	2.0x	NM
Cardlytics, Inc.	41.91	-1%	1,020.2	1,024.4	167.1	(27.8)	NM	20.3%	6.1x	NM
ChannelAdvisor Corporation	9.41	-32%	263.9	232.8	130.6	1.5	1.2%	1.8%	1.8x	152.2x
Cision Ltd.	10.07	-36%	1,495.2	2,786.2	739.9	217.2	29.3%	6.4%	3.8x	12.8x
Eventbrite, Inc.	17.98	-47%	1,488.6	1,077.5	311.6	(33.0)	NM	22.0%	3.5x	NM
eBay Inc.	35.25	-16%	28,676.8	34,002.8	10,856.0	3,112.0	28.7%	2.6%	3.1x	10.9x
Endurance International Group	3.92	-61%	572.9	2,332.8	1,118.5	280.2	25.0%	-3.3%	2.1x	8.3x
Five9, Inc.	55.51	-15%	3,366.6	3,281.0	308.1	19.6	6.4%	28.0%	10.6x	167.3x
GoDaddy Inc.	65.03	-21%	11,508.4	12,998.7	2,822.5	335.4	11.9%	14.3%	4.6x	38.8x
HubSpot, Inc.	155.10	-25%	6,591.8	6,216.3	632.7	(29.1)	NM	33.1%	9.8x	NM
IBM Corporation	133.73	-13%	118,436.3	179,242.3	77,131.0	16,664.0	21.6%	-4.0%	2.3x	10.8x
LivePerson, Inc.	41.05	-4%	2,578.9	2,547.9	267.3	(26.8)	NM	14.3%	9.5x	NM
Marin Software Incorporated	2.02	-83%	13.4	16.6	54.9	(14.7)	NM	-16.3%	0.3x	NM
Medallia, Inc.	29.08	-35%	3,710.4	3,293.0	356.8	(52.4)	NM	0.0%	9.2x	NM
MicroStrategy Incorporated	153.25	-1%	1,573.4	1,109.7	484.7	(1.0)	NM	-3.5%	2.3x	NM
Nuance Communications, Inc.	16.32	-10%	4,661.7	5,912.0	2,041.2	429.9	21.1%	11.6%	2.9x	13.8x
Oracle Corporation	54.49	-10%	178,864.4	200,522.4	39,531.0	16,168.0	40.9%	0.1%	5.1x	12.4x
PayPal Holdings, Inc.	104.10	-14%	122,233.4	117,248.4	17,037.0	3,235.0	19.0%	13.8%	6.9x	36.2x
PROS Holdings, Inc.	51.24	-32%	2,271.9	2,134.7	236.8	(36.5)	NM	24.1%	9.0x	NM
salesforce.com, inc.	156.49	-7%	136,983.3	137,373.3	14,729.0	2,064.0	14.0%	24.3%	9.3x	66.6x
Servion S.A.	0.09	-98%	5.6	270.6	1,676.8	70.0	4.2%	-31.6%	0.2x	3.9x
SharpSpring, Inc.	10.19	-52%	111.5	101.1	20.9	(8.2)	NM	32.0%	4.8x	NM
SVMK Inc.	18.40	-7%	2,448.6	2,600.2	276.9	(118.2)	NM	18.6%	9.4x	NM
Square, Inc.	61.43	-26%	26,238.6	26,105.3	3,948.2	34.5	0.9%	47.1%	6.6x	NM
GlobalData Plc	13.71	-7%	1,617.3	1,738.5	217.4	38.7	17.8%	25.0%	8.0x	44.9x
Teradata Corporation	29.93	-39%	3,415.0	3,441.0	2,060.0	150.0	7.3%	-6.4%	1.7x	22.9x
Verint Systems Inc.	45.39	-29%	3,030.8	3,543.6	1,273.8	178.8	14.0%	6.6%	2.8x	19.8x
Veritone, Inc.	2.60	-74%	57.8	12.5	42.9	(58.8)	NM	171.9%	0.3x	NM
Zoom Video Communications, Inc.	69.89	-35%	19,118.5	18,416.7	463.7	19.8	4.3%	0.0%	39.7x	NM
Zendesk, Inc.	70.65	-26%	7,841.0	7,992.6	758.8	(129.2)	NM	38.4%	10.5x	NM
Adjusted Weighted Average									6.8x	31.1x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (20.7x) and EBITDA multiples that are 1.0 standard deviations above the mean (109.9x)

/ Marketing Technology

(\$ in Millions, except stock price data)

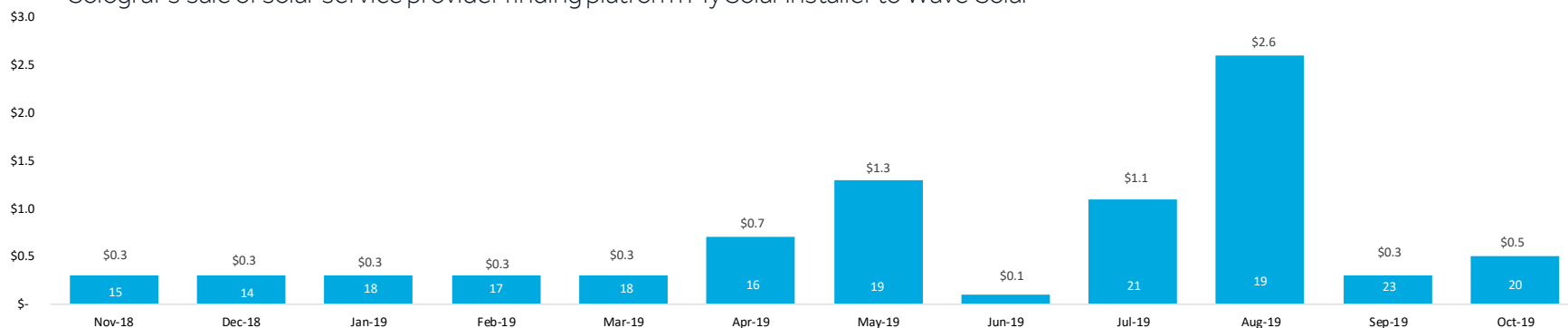
Internationally-based Marketing Technology

Company Name	Headquarters	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Baozun Inc.	China	\$43.52	-23%	\$ 2,711.43	\$ 2,715.48	\$ 917.91	\$ 70.43	7.7%	39.0%	3.0x	38.6x
Bitauto Holdings Limited	China	15.13	-40%	1,061.6	4,619.2	1,655.7	103.7	6.3%	16.4%	2.8x	44.6x
ChinaCache International Holdings Ltd.	China	0.06	-97%	1.47	51.86	130.12	(31.96)	NM	-7.8%	0.4x	NM
MercadoLibre, Inc.	Argentina	521.52	-25%	25,924.7	24,157.5	2,050.1	(20.6)	NM	49.7%	11.8x	NM
Open Text Corporation	Canada	40.26	-10%	10,841.9	12,695.6	2,898.5	903.4	31.2%	2.0%	4.4x	14.1x
Shopify Inc.	Canada	313.57	-23%	36,340.3	33,784.2	1,416.9	(95.6)	NM	48.8%	23.8x	NM
The Sage Group plc	United Kingdom	9.31	-12%	10,136.1	10,681.9	2,479.5	682.4	27.5%	7.3%	4.3x	15.7x
United Internet AG	Germany	30.11	-34%	5,996.8	8,597.9	5,869.1	1,336.6	22.8%	7.4%	1.5x	6.4x
Weborama SA	France	3.41	-64%	13.9	13.1	41.8	(3.1)	NM	-2.1%	0.3x	NM
Wix.com Ltd.	Israel	122.07	-22%	6,244.1	5,901.9	679.5	(34.5)	NM	32.3%	8.7x	NM
Adjusted Weighted Average										4.1x	18.7x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (22.3x) and EBITDA multiples that are 1.0 standard deviations above the mean (40.5x)

/ Digital Advertising

- A total of 20 transactions was announced in the Digital Advertising segment
- Strategic transactions represented more than half of segment activity in October 2019
- Select transactions in the segment include:
 - The \$400 million round of funding mobile marketing company ironSource raised from CVC Capital Partners
 - Samba's acquisition of brand marketing partnerships platform Wove
 - The acquisition of advertising data marketplace OwnerIQ by OMERS Capital Partners -backed Inmar
 - Kubient's acquisition of digital video advertising platform Fidelity Media
 - Solograf's sale of solar service provider finding platform My Solar Installer to Wave Solar



DIGITAL ADVERTISING

	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	33	\$683.0	30	\$958.9	121	\$2,085.9	11	\$11.0
Private Equity - Buyout	1	1,000.0	0	0.0	6	1,035.0	0	0.0
Private Equity - VC/Growth Capital	19	377.7	33	3,013.0	92	4,837.8	9	529.1
Total	53	\$2,060.7	63	\$3,971.9	219	\$7,958.7	20	\$540.1

/ Digital Advertising

(\$ in Millions, except stock price data)

US-based Digital Advertising

Company Name	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
					Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Alliance Data Systems Corporation	\$100.00	-53%	\$ 4,604.7	\$ 22,641.1	\$ 7,709.5	\$ 1,480.3	19.2%	12.8%	2.9x	15.3x
Alphabet Inc.	1,258.80	-3%	868,628.6	762,324.6	155,058.0	44,069.0	28.4%	19.4%	4.9x	17.3x
ANGI Homeservices Inc.	6.85	-70%	3,476.0	3,512.8	1,229.4	220.4	17.9%	28.7%	2.9x	15.9x
AutoWeb, Inc.	2.46	-51%	32.3	34.4	122.7	(14.6)	NM	-6.9%	0.3x	NM
Care.com, Inc.	11.68	-55%	382.7	339.1	203.3	12.8	6.3%	11.7%	1.7x	26.5x
CarGurus, Inc.	*	-31%	3,748.0	3,660.1	556.9	36.8	6.6%	33.1%	6.6x	99.6x
DHI Group, Inc.	3.62	-18%	182.0	201.6	151.4	23.7	15.6%	-19.5%	1.3x	8.5x
EverQuote, Inc.	20.30	-20%	523.9	486.7	214.8	(12.6)	NM	37.7%	2.3x	NM
Facebook, Inc.	191.65	-8%	546,768.0	503,631.0	66,529.0	28,446.0	42.8%	28.2%	7.6x	17.7x
Fluent, Inc.	2.33	-69%	178.9	222.8	274.5	33.0	12.0%	22.3%	0.8x	6.7x
Groupon, Inc.	2.78	-30%	1,578.0	1,364.1	2,406.5	118.1	4.9%	-11.2%	0.6x	11.5x
Inuvo, Inc.	0.28	-84%	13.5	16.1	63.3	(4.4)	NM	-24.2%	0.3x	NM
LendingTree, Inc.	359.85	-17%	4,677.7	5,003.4	1,054.1	135.3	12.8%	45.8%	4.7x	37.0x
QuinStreet, Inc.	12.83	-36%	655.6	593.1	455.2	26.1	5.7%	12.6%	1.3x	22.7x
Quotient Technology Inc.	8.61	-36%	763.7	681.5	413.4	15.0	3.6%	17.7%	1.6x	45.4x
Redfin Corporation	17.39	-26%	1,597.0	1,527.9	572.3	(80.7)	NM	33.8%	2.7x	NM
Snap Inc.	*	-18%	21,083.5	20,037.7	1,544.5	(957.3)	NM	43.5%	13.0x	NM
Telaria, Inc.	7.57	-29%	347.7	320.8	68.1	(11.7)	NM	34.7%	4.7x	NM
The Rubicon Project, Inc.	8.50	-22%	450.4	379.6	141.4	(11.3)	NM	17.7%	2.7x	NM
The Trade Desk, Inc.	*	-31%	9,032.7	8,890.2	560.2	121.5	21.7%	47.4%	15.9x	73.2x
TiVo Corporation	8.14	-35%	1,016.3	1,745.4	667.6	148.4	22.2%	-13.8%	2.6x	11.8x
Travelzoo	10.12	-56%	118.8	126.3	111.6	12.6	11.3%	0.3%	1.1x	10.0x
TripAdvisor, Inc.	40.40	-41%	5,627.7	4,831.7	1,602.0	264.0	16.5%	2.0%	3.0x	18.3x
TrueCar, Inc.	3.28	-72%	348.3	218.5	358.3	(38.2)	NM	7.1%	0.6x	NM
Twitter, Inc.	29.97	-35%	23,222.5	19,951.2	3,360.8	772.7	23.0%	17.3%	5.9x	25.8x
Yelp Inc.	34.51	-24%	2,451.2	2,292.7	967.7	58.8	6.1%	7.4%	2.4x	39.0x
Yext, Inc.	16.46	NA	1,855.9	1,697.3	263.5	(81.4)	NM	32.9%	6.4x	NM
Zillow Group, Inc.	32.39	-36%	6,717.6	6,664.9	1,762.1	(84.4)	NM	48.2%	3.8x	NM
Average									7.3x	18.3x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (11.4x) and EBITDA multiples that are 1.0 standard deviations above the mean (54.0x)

/ Digital Advertising

(\$ in Millions, except stock price data)

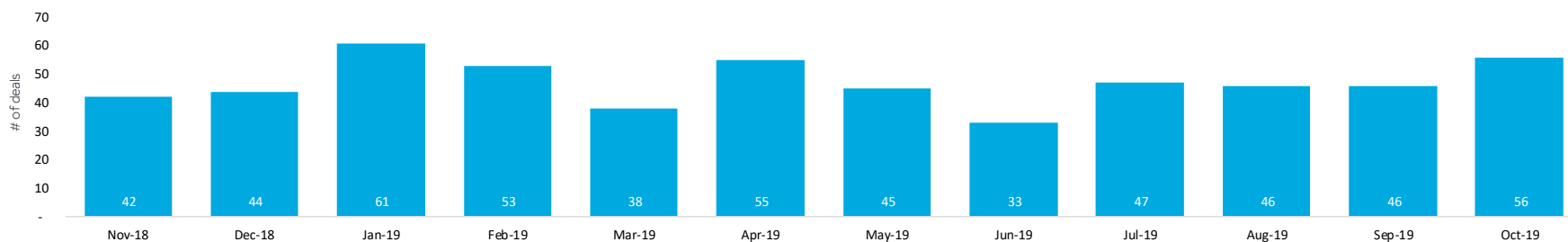
Internationally-based Digital Advertising

Company Name	Headquarters	Stock Price 10/31/19	Change % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months				Last Twelve Months Multiples	
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Clq Digital AG	Germany	\$2.29	-53%	\$ 14.1	\$ 25.4	\$ 63.6	\$ 4.4	6.9%	-15.5%	0.4x	5.8x
Criteo S.A.	France	16.70	-46%	1,070.1	881.3	2,279.0	217.0	9.5%	-1.1%	0.4x	4.1x
iClick Interactive Asia Group Limited	Hong Kong	3.12	-47%	178.0	198.3	170.7	(26.5)	NM	15.7%	1.2x	NM
MakeMyTrip Limited	India	23.02	-29%	2,370.8	2,134.9	504.7	(120.9)	NM	-11.7%	4.2x	NM
Matomy Media Group Ltd.	Israel	0.03	-88%	3.2	16.1	68.0	8.7	12.8%	-36.9%	0.2x	1.8x
Metaps Inc.	Japan	8.84	-58%	119.9	91.7	108.3	32.5	30.0%	-45.6%	0.8x	2.8x
Pacific Online Limited	China	0.26	-2%	277.6	234.5	155.0	33.2	21.4%	8.9%	1.5x	7.1x
Perion Network Ltd.	Israel	5.35	-24%	138.3	142.4	246.6	23.6	9.6%	-7.3%	0.6x	6.0x
Rightmove plc	* United Kingdom	7.74	0%	6,793.6	6,739.8	356.6	269.3	75.5%	10.1%	18.9x	25.0x
Septeni Holdings Co., Ltd.	* Japan	2.48	-37%	313.5	179.6	155.4	3.6	2.3%	10.0%	1.2x	49.5x
Tencent Holdings Limited	China	40.93	-20%	388,736.4	397,686.5	49,476.8	18,014.5	36.4%	21.9%	8.0x	22.1x
TradeDoubler AB (publ)	Sweden	0.32	-31%	14.3	25.5	129.1	3.0	2.4%	6.7%	0.2x	8.4x
XLMedia PLC	Cyprus	0.70	-50%	128.6	100.1	113.1	34.0	30.1%	-3.2%	0.9x	2.9x
Yandex N.V.	Netherlands	33.39	-21%	10,968.1	10,267.7	2,504.4	623.7	24.9%	39.3%	4.1x	16.5x
Average										3.1x	11.6x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (13.2x) and EBITDA multiples that are 1.0 standard deviations above the mean (26.6x)

/ Agency & Marketing Services

- A total of 56 transactions was announced in the Agency & Marketing Services segment
- Strategic transactions accounted for more than 90 percent of segment activity
- Select transactions include:
 - The pending acquisition of digital transformation company Rightpoint Consulting by Genpact (A CG Petsky Prunier-Led Transaction)
 - Infogain's purchase of digital experience consulting company Revel (A CG Petsky Prunier-Led Transaction)
 - The sale of digital marketing agency FireWood to S4 for \$150 million
 - Next Fifteen Communications' acquisition of health communications agency Health Unlimited for \$28 million
 - Accenture's purchase of marketing strategy company Sutter Mills



Note: Deal values are not included in chart, as the majority of Agency & Marketing Services transactions were reported without a value

	AGENCY/MARKETING SERVICES							
	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	115	\$5,897.0	111	\$293.0	492	\$7,485.0	51	\$400.0
Private Equity - Buyout	7	718.9	4	3,170.9	22	4,049.8	0	0.0
Private Equity - VC/Growth Capital	11	62.4	11	939.0	38	1,064.1	5	10.0
Total	133	\$6,678.3	126	\$4,402.9	552	\$12,598.9	56	\$410.0

(\$ in Millions, except stock price data)

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months				Last Twelve Months Multiples	
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Celo Health plc	United Kingdom	\$1.64	-9%	\$ 173.6	\$ 184.3	\$ 213.4	\$ 17.3	8.1%	-0.5%	0.9x	10.7x
Dentsu Inc.	Japan	35.99	-29%	10,104.1	12,899.7	9,592.5	1,528.2	15.9%	NM	1.3x	8.4x
Enero Group Limited	Australia	1.48	-8%	126.5	97.9	161.4	16.0	9.9%	40.7%	0.6x	6.1x
Hakuhodo DY Holdings Inc	Japan	15.06	-16%	5,621.9	5,467.4	13,496.5	604.4	4.5%	7.1%	0.4x	9.0x
Huntsworth plc	United Kingdom	1.16	-24%	429.0	638.3	312.9	55.3	17.7%	20.1%	2.0x	11.5x
M&C Saatchi plc	United Kingdom	2.13	-59%	195.7	243.2	538.5	27.9	5.2%	23.5%	0.5x	8.7x
MDC Partners Inc.	United States	3.13	-11%	225.2	1,627.1	1,427.5	175.4	12.3%	-3.9%	1.1x	9.3x
Next Fifteen Communications Group	United Kingdom	6.43	-25%	556.8	631.8	354.0	52.5	14.8%	14.3%	1.8x	12.0x
Omnicom Group Inc.	United States	77.19	-9%	16,806.7	21,911.0	14,899.2	2,317.4	15.6%	-3.1%	1.5x	9.5x
OPT Holding, Inc.	Japan	15.53	-32%	355.5	313.1	790.1	11.2	1.4%	-1.4%	0.4x	27.9x
Publicis Groupe S.A.	France	42.97	-30%	10,182.6	12,852.3	10,368.7	2,049.4	19.8%	2.0%	1.2x	6.3x
S4 Capital plc	* United Kingdom	2.15	-8%	970.1	1,016.3	119.8	10.3	8.6%	0.0%	8.5x	99.0x
The Interpublic Group of Companies,	United States	21.75	-12%	8,433.2	13,537.4	8,605.8	1,391.7	16.2%	11.1%	1.6x	9.7x
UDG Healthcare plc	Ireland	10.00	-7%	2,492.3	2,560.8	1,296.5	167.2	12.9%	-1.5%	2.0x	15.3x
WPP plc	United Kingdom	12.46	-8%	15,718.7	24,798.3	19,983.6	2,099.0	10.5%	0.5%	1.2x	11.8x
Adjusted Weighted Average										1.3x	9.7x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (5.6x) and EBITDA multiples that are 1.0 standard deviations above the mean (40.3x)

/ Marketing Services

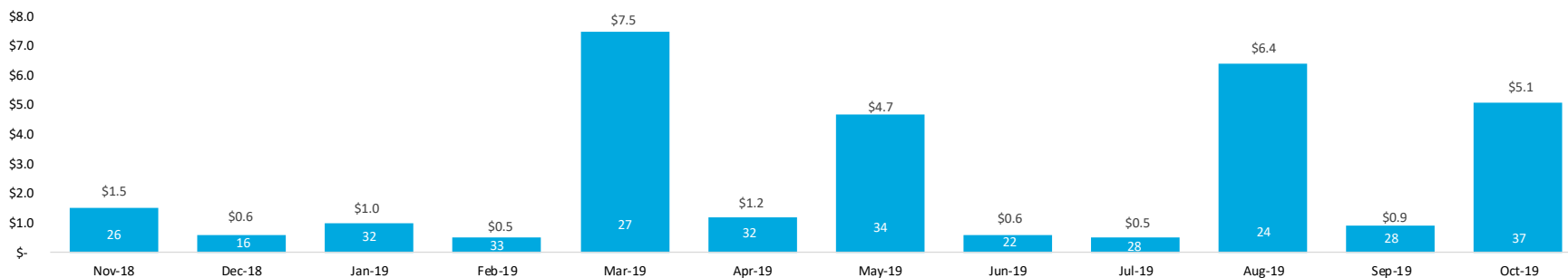
(\$ in Millions, except stock price data)

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months				Last Twelve Months Multiples	
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Aimia Inc.	Canada	2.77	-15%	301.1	99.1	102.6	(42.9)	NM	NM	1.0x	NM
Alliance Data Systems Corporation	United States	100.00	-53%	4,604.7	22,641.1	7,709.5	1,480.3	19.2%	12.8%	2.9x	15.3x
Dolphin Entertainment, Inc.	United States	0.74	-61%	12.8	26.5	24.1	(1.9)	NM	-3.6%	1.1x	NM
Fluent, Inc.	United States	2.33	-69%	178.9	222.8	274.5	33.0	12.0%	22.3%	0.8x	6.7x
CSG Systems International, Inc.	United States	57.64	-1%	1,835.4	2,120.5	989.3	167.6	16.9%	18.8%	2.1x	12.7x
Deluxe Corporation	United States	51.83	-4%	2,182.1	3,077.9	2,011.3	414.2	20.6%	2.2%	1.5x	7.4x
Fair Isaac Corporation	* United States	304.04	-19%	8,785.7	9,529.5	1,160.1	285.2	24.6%	12.4%	8.2x	33.4x
Harte Hanks, Inc.	United States	2.67	-57%	16.8	31.3	247.6	(14.7)	NM	-28.2%	0.1x	NM
High Co. SA	France	6.15	-1%	128.0	82.7	198.7	22.1	11.1%	7.2%	0.4x	3.7x
Pitney Bowes Inc.	United States	4.40	-49%	752.0	3,365.4	3,542.1	473.4	13.4%	0.9%	1.0x	7.1x
Points International Ltd.	Canada	10.91	-22%	146.0	92.1	385.4	18.9	4.9%	5.1%	0.2x	4.9x
Viad Corp	United States	61.02	-16%	1,239.4	1,650.4	1,347.3	124.3	9.2%	5.5%	1.2x	13.3x
Adjusted Weighted Average										2.1x	12.1x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (6.1x) and EBITDA multiples that are 1.0 standard deviations above the mean (20.7x)

/ Traditional Media

- Of the 37 transactions recorded in the Traditional Media segment in October, nine were reported for \$5.1 billion in aggregate value
- Entertainment Media was the most active subsegment, accounting for more than one-third of segment activity
- In addition to the acquisitions of Endemol Shine Group and Central European Media Enterprises, transactions in the segment include:
 - Quadrant Private Equity's purchase of Australia-based outdoor advertising company QMS Media for \$291 million
 - USA Television's sale of 11 TV stations to Entertainment Studios for \$290 million
 - The purchase of UK-based events company FC Business Intelligence by Thompson Reuters from LDC
 - Northstar Travel Group's purchase of UK-based travel-focused events and b-to-b media company TravAlliance media



TRADITIONAL MEDIA

	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	75	\$5,642.3	70	\$7,138.5	292	\$28,255.5	35	\$5,094.6
Private Equity - Buyout	3	740.8	3	470.0	14	822.8	0	0.0
Private Equity - VC/Growth Capital	8	211.0	8	244.5	31	1,177.1	2	13.0
Total	86	\$6,594.1	81	\$7,853.0	337	\$30,255.4	37	\$5,107.6

/ Traditional Media

(\$ in Millions, except stock price data)

Large Cap Diversified Media

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months				Last Twelve Months Multiples	
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
CBS Corporation	United States	\$36.04	-38%	\$ 13,592.2	\$ 23,751.2	\$ 15,263.0	\$ 3,123.0	20.5%	6.6%	1.6x	7.6x
Discovery, Inc.	United States	26.96	-23%	18,360.7	36,335.7	10,993.0	5,056.0	46.0%	26.8%	3.3x	7.2x
Fox Corporation	United States	31.24	-25%	19,672.1	23,389.1	11,389.0	2,681.0	23.5%	12.2%	2.1x	8.7x
Viacom Inc.	United States	21.56	-35%	8,812.6	17,341.6	12,890.0	3,024.0	23.5%	0.9%	1.3x	5.7x
The Walt Disney Company	* United States	129.92	-12%	234,035.2	300,322.2	64,776.0	16,542.0	25.5%	11.9%	4.6x	18.2x
Adjusted Weighted Average										4.1x	7.6x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (5.3x) and EBITDA multiples that are 1.0 standard deviations above the mean (14.4x)

(\$ in Millions, except stock price data)

B-to-B Media

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months				Last Twelve Months Multiples	
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Ascential plc	United Kingdom	\$4.52	-16%	\$ 1,817.2	\$ 1,991.4	\$ 503.0	\$ 124.2	24.7%	25.0%	4.0x	16.0x
Centaur Media Plc	United Kingdom	\$0.42	-45%	60.3	44.4	88.4	7.1	8.0%	24.7%	0.5x	6.2x
Emerald Expositions Events, Inc.	United States	\$9.72	-34%	699.7	1,240.1	379.1	121.6	32.1%	6.7%	3.3x	10.2x
Euromoney Institutional Investor PLC	United Kingdom	\$18.26	-6%	1,964.7	1,926.8	502.8	253.8	50.5%	-1.9%	3.8x	7.6x
Hyve Group Plc	United Kingdom	1.00	-11%	755.4	926.6	271.0	49.6	18.3%	31.4%	3.4x	18.7x
Informa plc	United Kingdom	\$10.02	-14%	12,544.9	16,450.3	3,583.5	1,129.7	31.5%	56.8%	4.6x	14.6x
MCH Group AG	* Switzerland	27.85	-6%	167.3	342.4	442.4	8.4	1.9%	-19.6%	0.8x	41.0x
TechTarget, Inc.	* United States	\$24.40	-4%	674.7	685.2	126.8	22.7	17.9%	8.3%	5.4x	30.1x
Adjusted Weighted Average										4.3x	13.9x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (6.7x) and EBITDA multiples that are 1.0 standard deviations above the mean (30.0x)

(\$ in Millions, except stock price data)

Radio Broadcasting

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months				Last Twelve Months Multiples	
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Beasley Broadcast Group, Inc.	United States	\$2.88	-58%	\$ 80.3	\$ 348.6	\$ 264.1	\$ 44.6	16.9%	12.7%	1.3x	7.8x
Emmis Communications Corporation	United States	4.74	-30%	62.4	177.5	112.6	16.0	14.2%	31.6%	1.6x	11.1x
Entercom Communications Corp.	United States	3.48	-57%	495.9	2,474.0	1,479.6	310.0	21.0%	42.0%	1.7x	8.0x
Salem Media Group, Inc.	United States	1.51	-56%	40.2	360.3	257.9	35.5	13.8%	-1.8%	1.4x	10.1x
Sirius XM Holdings Inc.	* United States	6.72	-2%	29,727.4	38,008.4	7,227.7	2,191.0	30.3%	27.3%	5.3x	17.3x
Townsquare Media, Inc.	United States	6.79	-10%	128.8	669.2	450.6	98.9	21.9%	11.4%	1.5x	6.8x
Urban One, Inc.	United States	2.20	-9%	100.5	1,045.4	444.3	137.0	30.8%	1.9%	2.4x	7.6x
Adjusted Weighted Average										1.7x	8.1x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (5.0x) and EBITDA multiples that are 1.0 standard deviations above the mean (13.5x)

/ Traditional Media

(\$ in Millions, except stock price data)

Broadcast, Cable, and Satellite Television

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Altice Europe N.V.	Netherlands	\$5.71	-5%	\$ 6,819.0	\$ 49,042.8	\$ 16,171.6	\$ 4,251.1	26.3%	-3.6%	3.0x	11.5x
AMC Networks Inc.	United States	\$43.55	-36%	2,419.6	5,330.6	3,048.0	948.6	31.1%	4.2%	1.7x	5.6x
CVC Limited	Australia	1.54	-17%	181.4	167.5	41.5	4.2	10.2%	-4.6%	4.0x	39.7x
CBS Corporation	United States	36.04	-38%	13,592.2	23,751.2	15,263.0	3,123.0	20.5%	6.6%	1.6x	7.6x
Charter Communications, Inc.	United States	467.86	-2%	100,487.0	183,685.0	45,234.0	16,152.0	35.7%	5.2%	4.1x	11.4x
Comcast Corporation	United States	44.82	-5%	203,897.4	308,219.4	108,390.0	33,675.0	31.1%	22.1%	2.8x	9.2x
Discovery, Inc.	United States	26.96	-23%	18,360.7	36,335.7	10,993.0	5,056.0	46.0%	26.8%	3.3x	7.2x
DISH Network Corporation	United States	34.38	-23%	16,946.0	30,560.6	13,100.4	2,591.7	19.8%	-6.3%	2.3x	11.8x
Entertainment Communications Corporation	United States	2.84	-48%	241.3	369.9	290.6	53.6	18.4%	-47.1%	1.3x	6.9x
Gray Television, Inc.	United States	16.41	-35%	1,638.9	6,001.9	1,633.1	593.8	36.4%	75.7%	3.7x	10.1x
Grupo Televisa, S.A.B.	Mexico	2.21	-34%	6,380.3	12,713.4	5,077.6	1,923.8	37.9%	-1.0%	2.5x	6.6x
Liberty Global Plc	United Kingdom	25.15	-12%	17,719.7	47,841.1	11,597.2	4,717.1	40.7%	-2.6%	4.1x	10.1x
Nexstar Media Group, Inc.	United States	97.29	-19%	4,486.0	8,312.0	2,766.7	1,033.7	37.4%	8.9%	3.0x	8.0x
Sinclair Broadcast Group, Inc.	United States	39.84	-40%	3,668.9	6,704.7	3,152.4	870.9	27.6%	14.5%	2.1x	7.7x
TEGNA Inc.	United States	15.03	-9%	3,256.3	6,270.5	2,234.8	772.8	34.6%	12.8%	2.8x	8.1x
The E.W. Scripps Company	United States	13.44	-43%	1,086.5	2,630.0	1,300.5	218.1	16.8%	30.1%	2.0x	12.1x
Adjusted Weighted Average										3.1x	9.7x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (4.6x) and EBITDA multiples that are 1.0 standard deviations above the mean (18.8x)

(\$ in Millions, except stock price data)

Entertainment Media

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Cineplex Inc.	Canada	\$17.06	-38%	\$ 1,080.5	\$ 2,618.9	\$ 1,237.8	\$ 191.3	15.5%	1.4%	2.1x	13.7x
Eros International Plc	United States	2.24	-80%	243.9	523.6	253.4	19.4	7.6%	-2.8%	2.1x	27.0x
Lions Gate Entertainment Corp.	United States	7.99	-62%	1,672.1	4,944.0	3,711.4	344.9	9.3%	-8.5%	1.3x	14.3x
Live Nation Entertainment, Inc.	United States	70.50	-4%	14,856.3	17,689.5	11,260.4	769.2	6.8%	7.2%	1.6x	23.0x
Fox Corporation	United States	31.24	-25%	19,672.1	23,389.1	11,389.0	2,681.0	23.5%	12.2%	2.1x	8.7x
Liberty Global Plc	United Kingdom	25.15	-12%	17,719.7	47,841.1	11,597.2	4,717.1	40.7%	-2.6%	4.1x	10.1x
Village Roadshow Limited	Australia	2.20	-18%	430.2	660.0	690.7	59.9	8.7%	2.4%	1.0x	11.0x
World Wrestling Entertainment, Inc.	United States	56.04	-44%	4,402.3	4,748.7	910.1	115.1	12.6%	4.7%	5.2x	41.3x
Adjusted Weighted Average										2.8x	7.6x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (5.6x) and EBITDA multiples that are 1.0 standard deviations above the mean (31.2x)

/ Traditional Media

(\$ in Millions, except stock price data)

Out-of-Home Media

Company Name	Headquarters	Stock Price	Chg % From	Equity	Enterprise	Last Twelve Months			Last Twelve Months Multiples		
		10/31/19	52WK High	Value	Value	Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
APG/SGA SA	Switzerland	\$294.66	-20%	\$ 883.4	\$ 872.9	\$ 318.7	\$ 67.7	21.3%	5.2%	2.7x	12.9x
Clear Channel Outdoor Holdings, Inc.	United States	2.33	-63%	1,076.4	8,205.0	2,696.5	574.4	21.3%	0.5%	3.0x	14.3x
Clear Media Limited	Hong Kong	0.46	-52%	248.3	532.5	245.9	90.0	36.6%	-6.2%	2.2x	5.9x
JCDecaux SA	France	27.31	-21%	5,814.4	13,137.4	3,851.8	707.3	18.4%	10.7%	3.4x	18.6x
Lamar Advertising Company (REIT)	United States	80.01	-5%	8,031.1	12,189.7	1,718.9	744.6	43.3%	7.6%	7.1x	16.4x
National CineMedia, Inc.	United States	8.40	-6%	663.0	1,825.5	435.0	167.4	38.5%	-2.2%	4.2x	10.9x
NTN Buzztime, Inc.	United States	2.85	-35%	8.2	12.1	20.6	2.4	11.8%	-9.5%	0.6x	5.0x
Outfront Media Inc.	United States	26.31	-7%	3,771.3	7,514.2	1,746.5	447.4	25.6%	12.3%	4.3x	16.8x
Stringray Group Inc.	Canada	5.36	-19%	409.3	698.8	197.7	66.0	33.4%	91.6%	3.5x	10.6x
TOM Group Limited	* Hong Kong	0.16	-38%	630.8	1,034.2	118.4	14.8	12.5%	-3.2%	8.7x	70.1x
Adjusted Weighted Average									4.9x	16.4x	

* Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (8.0x) and EBITDA multiples that are 1.0 standard deviations above the mean (30.8x)

(\$ in Millions, except stock price data)

Publishing

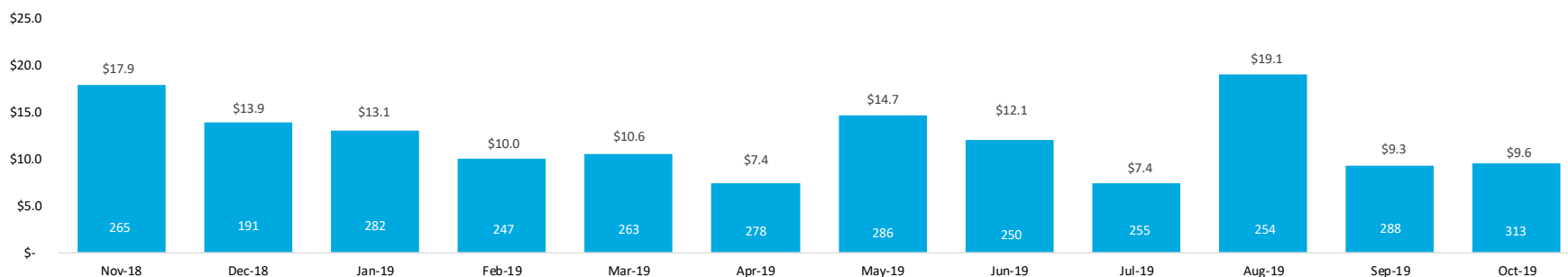
Company Name	Headquarters	Stock Price	Chg % From	Equity	Enterprise	Last Twelve Months			Last Twelve Months Multiples		
		10/31/19	52WK High	Value	Value	Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
A.H. Belo Corporation	United States	\$3.60	-23%	\$ 77.3	\$ 50.6	\$ 196.0	\$ 4.4	2.3%	-13.0%	0.3x	11.4x
Daily Mail and General Trust plc	United Kingdom	11.34	-2%	2,583.5	2,359.3	1,829.0	209.5	11.5%	-7.3%	1.3x	11.3x
Emmis Communications Corporation	United States	4.74	-30%	62.4	177.5	112.6	16.0	14.2%	31.6%	1.6x	11.1x
Gannett Co., Inc.	United States	10.85	-10%	1,244.2	1,784.0	2,710.7	286.6	10.6%	-10.2%	0.7x	6.2x
Glacier Media Inc.	* Canada	0.52	-12%	64.7	107.4	143.1	4.0	2.8%	0.6%	0.8x	26.9x
John Wiley & Sons, Inc.	United States	46.07	-19%	2,602.1	3,413.3	1,812.7	297.8	16.4%	1.0%	1.9x	11.5x
Meredith Corporation	United States	37.70	-40%	1,716.9	4,545.4	3,188.5	687.8	21.6%	40.8%	1.4x	6.6x
News Corporation	United States	13.71	-6%	8,147.6	9,107.6	10,074.0	1,040.0	10.3%	2.4%	0.9x	8.8x
Pearson plc	United Kingdom	8.80	-33%	6,870.9	9,018.8	5,201.2	737.0	14.2%	-5.5%	1.7x	12.2x
Scholastic Corporation	United States	38.50	-20%	1,336.3	1,247.5	1,668.1	68.0	4.1%	0.6%	0.7x	18.3x
The E.W. Scripps Company	United States	13.44	-43%	1,086.5	2,630.0	1,300.5	218.1	16.8%	30.1%	2.0x	12.1x
The McClatchy Company	United States	2.60	-68%	20.6	81.4	763.0	70.0	9.2%	-11.3%	1.1x	11.6x
The New York Times Company	* United States	30.90	-15%	5,129.7	4,745.2	1,767.3	224.2	12.7%	5.2%	2.7x	21.2x
Adjusted Weighted Average									1.3x	10.6x	

(1) All financials are representative of the Reed Elsevier combined businesses, except per stock data, which represents Reed Elsevier (LSE:REL)

* Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (2.6x) and EBITDA multiples that are 1.0 standard deviations above the mean (18.8x)

/ Software

- A total of 313 transactions was announced in the Software segment, of which 164 were valued at \$9.6 billion
- VC/Growth Capital investor transactions represented more than 50 percent of segment activity
- In addition to Thoma Bravo's acquisition of Sophos Group, transactions in the segment include:
 - TELLUS' acquisition of the Canadian unit of ADT Security for \$525 million
 - The purchase of 3D CAD platform Onshape by PTC for \$470 million
 - The \$400 million round of funding data extraction and analysis software Databricks has raised at a \$6.2 billion valuation from Andreessen Horowitz, BlackRock, T. Rowe Price Associates, and Tiger Global Management
 - Asure Software's \$120 million sale of its Workspace Management Business to FM:Systems
 - Amazon's purchase of digital diagnostics and health information system Health Navigator



SOFTWARE

	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	299	\$13,947.2	329	\$15,695.2	1,198	\$60,747.2	131	\$1,546.0
Private Equity - Buyout	24	4,780.0	20	1,473.4	92	24,844.7	10	3,821.0
Private Equity - VC/Growth Capital	491	15,561.9	448	15,948.1	1,879	59,368.4	172	4,198.2
Total	814	\$34,289.1	797	\$33,116.7	3,169	\$144,960.3	313	\$9,565.2

/ Software

(\$ in Millions, except stock price data)

Financial & Credit/Risk Management Software

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Alfa Financial Software Holdings PLC	United Kingdom	\$1.07	-52%	\$ 319.7	\$ 278.1	\$ 87.7	\$ 25.0	28.5%	-8.6%	3.2x	11.1x
Anaplan, Inc.	United States	47.20	-22%	6,222.3	5,919.7	291.6	(145.7)	NM	45.9%	20.3x	NM
Avalara, Inc.	United States	71.00	-25%	5,360.0	4,918.3	351.7	(41.7)	NM	39.1%	14.0x	NM
BlackLine, Inc.	United States	46.74	-17%	2,585.7	2,461.4	254.8	(9.3)	NM	26.0%	9.7x	NM
Coupa Software Incorporated	United States	137.49	-14%	8,640.2	8,587.1	318.8	(46.0)	NM	45.5%	26.9x	NM
Donnelley Financial Solutions, Inc.	United States	11.30	-37%	387.6	882.5	884.7	76.6	8.7%	-10.4%	1.0x	11.5x
Ebiz, Inc.	United States	42.63	-33%	1,299.7	2,045.6	552.2	171.0	31.0%	28.3%	3.7x	12.0x
GreenSky, Inc.	United States	7.65	-53%	456.7	542.6	505.5	144.9	28.7%	28.1%	1.1x	3.7x
Guidewire Software, Inc.	United States	112.74	-2%	9,309.4	8,492.9	719.5	40.4	5.6%	10.2%	11.8x	NM
i3 Verticals, Inc.	United States	20.45	-35%	295.0	492.6	351.8	25.2	7.1%	13.0%	1.4x	19.6x
Intuit Inc.	United States	257.50	-13%	66,969.0	64,665.0	6,784.0	2,059.0	30.4%	12.6%	9.5x	31.4x
ModelN, Inc.	United States	29.79	-3%	974.5	965.1	141.2	(8.2)	NM	-8.7%	6.8x	NM
Performant Financial Corporation	United States	1.03	-64%	55.3	114.0	138.0	(16.1)	NM	-8.8%	0.8x	NM
Q2 Holdings, Inc.	United States	71.49	-24%	3,405.1	3,234.6	276.7	(29.4)	NM	28.6%	11.7x	NM
RealPage, Inc.	United States	60.55	-8%	5,597.5	6,059.8	930.1	154.4	16.6%	20.1%	6.5x	39.2x
SS&C Technologies Holdings, Inc.	United States	52.01	-23%	13,198.0	21,020.8	4,540.4	1,680.2	37.0%	65.2%	4.6x	12.5x
StoneCo Ltd.	* Brazil	36.79	-19%	10,204.3	10,750.6	243.4	1.6	0.6%	95.8%	44.2x	NM
Tradeweb Markets Inc.	United States	41.75	-17%	6,689.2	4,572.3	721.2	159.5	22.1%	0.0%	6.3x	28.7x
Tyler Technologies, Inc.	* United States	268.52	-2%	10,468.6	10,298.8	1,039.6	195.7	18.8%	14.1%	9.9x	52.6x
Zuora, Inc.	United States	14.25	-42%	1,600.2	1,438.4	258.7	(76.2)	NM	25.3%	5.6x	NM
Adjusted Weighted Average										8.8x	28.6x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (30.5x) and EBITDA multiples that are 1.0 standard deviations

(\$ in Millions, except stock price data)

Healthcare Software

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Allscripts Healthcare Solutions, Inc.	United States	\$10.94	-12%	\$ 1,823.2	\$ 2,646.9	\$ 1,763.0	\$ 119.6	6.8%	9.8%	1.5x	22.1x
Cegeadm SA	France	30.93	-3%	428.9	689.5	552.9	57.0	10.3%	5.4%	1.2x	12.1x
Cerner Corporation	United States	67.12	-12%	21,082.2	21,621.4	5,616.0	1,109.7	19.8%	5.7%	3.8x	19.5x
Computer Programs and Systems, Inc.	United States	23.07	-32%	319.0	448.9	276.3	34.5	12.5%	-3.4%	1.6x	13.0x
Craneware plc	United Kingdom	30.71	-30%	809.2	760.7	71.4	20.2	28.3%	6.5%	10.7x	37.7x
HealthEquity, Inc.	United States	56.79	-44%	4,010.6	3,235.0	319.9	109.9	34.3%	23.9%	10.1x	29.4x
McKesson Corporation	United States	133.00	-13%	23,965.0	34,538.0	221,981.0	3,896.0	1.8%	5.2%	0.2x	8.9x
NantHealth, Inc.	United States	0.71	-64%	78.6	288.5	94.6	(27.7)	NM	7.0%	3.1x	NM
NextGen Healthcare, Inc.	United States	16.91	-20%	1,106.2	1,114.8	531.8	28.0	5.3%	0.1%	2.1x	39.9x
Streamline Health Solutions, Inc.	United States	1.26	-40%	37.4	49.7	21.0	1.5	7.0%	-12.7%	2.4x	33.8x
Veeva Systems Inc.	* United States	141.83	-20%	20,988.7	19,578.8	968.7	289.1	29.8%	26.1%	20.2x	67.7x
Adjusted Weighted Average										2.6x	16.2x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (17.3x) and EBITDA multiples that are 1.0 standard deviations

/ Software

(\$ in Millions, except stock price data)

HR Software

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
51job, Inc.	China	\$78.77	-19%	\$ 5,227.5	\$ 3,857.3	\$ 569.1	\$ 198.2	34.8%	19.5%	6.8x	19.5x
Benefitfocus, Inc.	United States	22.74	-63%	743.4	881.4	272.7	(22.1)	NM	10.4%	3.2x	NM
Castlight Health, Inc.	United States	1.51	-64%	220.7	184.9	149.0	(30.0)	NM	-1.7%	1.2x	NM
Ceridian HCM Holding Inc.	United States	48.25	-18%	6,931.2	7,409.3	778.6	142.9	18.4%	9.1%	9.5x	51.8x
Cornerstone OnDemand, Inc.	* United States	58.57	-7%	3,554.1	3,528.3	565.2	21.5	3.8%	6.3%	6.2x	164.1x
DHI Group, Inc.	United States	3.62	-18%	182.0	201.6	151.4	23.7	15.6%	-19.5%	1.3x	8.5x
Domo, Inc.	United States	16.08	-66%	442.3	407.5	158.7	(115.3)	NM	27.4%	2.6x	NM
Paycom Software, Inc.	* United States	211.53	-19%	12,196.3	12,148.0	694.6	236.2	34.0%	31.0%	17.5x	51.4x
Paylocity Holding Corporation	United States	102.60	-9%	5,490.4	5,444.8	493.8	75.5	15.3%	24.5%	11.0x	72.1x
Pluralsight, Inc.	United States	18.08	-49%	1,840.4	1,961.5	295.4	(131.6)	NM	39.2%	6.6x	NM
Workday, Inc.	United States	162.16	-29%	36,972.5	36,588.6	3,244.6	(277.8)	NM	33.6%	11.3x	NM
Adjusted Weighted Average										10.0x	49.5x

* Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (17.0x) and EBITDA multiples that are 1.0 standard deviations

(\$ in Millions, except stock price data)

Security Software

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Absolute Software Corporation	Canada	\$5.90	-16%	\$ 245.6	\$ 210.0	\$ 98.9	\$ 13.7	13.9%	5.6%	2.1x	15.3x
Check Point Software Technologies Ltd.	Israel	112.41	-15%	17,113.2	15,428.8	1,976.4	900.1	45.5%	4.2%	7.8x	17.1x
Cisco Systems, Inc.	United States	47.51	-18%	201,624.4	192,878.4	51,904.0	15,936.0	30.7%	5.2%	3.7x	12.1x
Cheetah Mobile Inc.	China	3.87	-63%	528.4	160.1	697.3	27.5	3.9%	-0.9%	0.2x	5.8x
Cloudflare, Inc.	United States	16.84	-24%	4,939.9	5,154.7	234.7	(72.1)	NM	0.0%	22.0x	NM
CrowdStrike Holdings, Inc.	* United States	49.91	-51%	11,276.9	10,450.1	351.0	(131.4)	NM	0.0%	29.8x	NM
CyberArk Software Ltd.	Israel	101.58	-32%	3,833.7	3,335.1	389.8	74.1	19.0%	32.3%	8.6x	45.0x
FireEye, Inc.	United States	15.84	-23%	3,348.9	3,442.0	871.6	(120.3)	NM	6.4%	3.9x	NM
Forescout Technologies, Inc.	United States	30.76	-34%	1,421.4	1,358.1	324.2	(77.8)	NM	24.9%	4.2x	NM
Fortinet, Inc.	United States	81.56	-16%	13,946.1	12,047.4	2,048.8	371.5	18.1%	19.8%	5.9x	32.4x
Juniper Networks, Inc.	United States	24.82	-19%	8,583.1	8,188.6	4,418.3	712.3	16.1%	-6.1%	1.9x	11.5x
Mimecast Limited	United Kingdom	39.71	-27%	2,460.2	2,510.9	361.2	28.1	7.8%	28.0%	7.0x	89.4x
Palo Alto Networks, Inc.	* United States	227.39	-13%	22,054.2	20,681.1	2,899.6	113.8	3.9%	27.5%	7.1x	181.7x
Proofpoint, Inc.	United States	115.37	-14%	6,513.1	6,260.3	843.2	(24.6)	NM	26.7%	7.4x	NM
Qualys, Inc.	United States	85.33	NA	3,307.6	3,047.8	311.1	95.4	30.7%	16.3%	9.8x	31.9x
Rapid7, Inc.	United States	50.09	NA	2,446.5	2,458.4	304.1	(28.2)	NM	30.5%	8.1x	NM
SecureWorks Corp.	United States	12.16	NA	987.4	900.8	533.2	(3.5)	NM	8.2%	1.7x	NM
Tenable Holdings, Inc.	United States	25.20	-31%	2,468.6	2,213.7	332.8	(77.2)	NM	35.1%	6.7x	NM
Trend Micro Incorporated	Japan	50.89	-19%	7,073.6	5,593.4	1,506.5	482.4	32.0%	4.3%	3.7x	11.6x
Tufin Software Technologies Ltd.	Israel	17.07	-45%	581.1	475.3	96.1	(9.9)	NM	0.0%	4.9x	NM
VenSign, Inc.	United States	190.02	-14%	22,310.1	22,877.3	1,228.6	847.8	69.0%	2.1%	18.6x	27.0x
Varonis Systems, Inc.	United States	71.55	-11%	2,181.2	2,115.7	269.1	(51.5)	NM	5.2%	7.9x	NM
Zscaler, Inc.	United States	43.98	-51%	5,605.5	5,240.8	302.8	(12.8)	NM	59.2%	17.3x	NM
Adjusted Weighted Average										6.0x	15.9x

* Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (22.6x) and EBITDA multiples that are 1.0 standard deviations

/ Software

(\$ in Millions, except stock price data)

Engineering Software

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Altair Engineering Inc.	United States	\$36.87	-15%	\$ 2,641.2	\$ 2,593.1	\$ 424.4	\$ 32.5	7.7%	11.3%	6.1x	79.9x
ANSYS, Inc.	United States	220.15	-4%	18,514.8	17,990.6	1,390.6	554.6	39.9%	19.2%	12.9x	32.4x
Dassault Systèmes SE	France	151.66	-7%	39,381.8	36,976.0	4,210.7	1,235.6	29.3%	15.5%	8.8x	29.9x
PTC Inc.	United States	66.91	-35%	7,706.7	8,048.8	1,255.6	195.1	15.5%	1.1%	6.4x	41.3x
Synopsys, Inc.	United States	135.75	-7%	20,401.4	19,862.4	3,304.7	638.5	19.3%	9.3%	6.0x	31.1x
Trimble Inc.	United States	39.84	-14%	10,031.3	11,707.3	3,225.8	640.9	19.9%	6.7%	3.6x	18.3x
Adjusted Weighted Average										8.3x	29.4x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (14.6x) and EBITDA multiples that are 1.0 standard deviations

(\$ in Millions, except stock price data)

Infrastructure Software

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Adobe Inc.	United States	\$277.93	-11%	\$ 134,540.0	\$ 135,026.7	\$ 10,644.0	\$ 3,566.5	33.5%	24.2%	12.7x	37.9x
Atlassian Corporation Plc	Australia	120.79	-19%	29,492.9	28,862.8	1,306.2	(29.4)	NM	38.1%	22.1x	NM
Appian Corporation	United States	44.64	-29%	2,997.7	2,836.4	256.1	(46.5)	NM	18.0%	11.1x	NM
Alteryx, Inc.	United States	91.50	-38%	5,746.2	5,592.9	350.6	26.3	7.5%	72.7%	16.0x	NM
Bandwidth Inc.	United States	56.15	-38%	1,313.3	1,117.4	212.9	(7.3)	NM	15.0%	5.2x	NM
Cloudera, Inc.	United States	8.48	-45%	2,371.4	2,178.4	647.7	(187.4)	NM	54.5%	3.4x	NM
Commvault Systems, Inc.	United States	49.67	-28%	2,270.5	1,813.6	695.5	50.0	7.2%	-2.1%	2.6x	36.3x
Datadog, Inc.	United States	33.59	-19%	9,856.5	9,993.3	266.0	(16.7)	NM	0.0%	37.6x	NM
Elastic N.V.	United States	72.01	-31%	5,780.4	5,497.4	304.7	(116.8)	NM	64.8%	18.0x	NM
Endurance International Group Holdings, Inc.	United States	3.92	-61%	572.9	2,332.8	1,118.5	280.2	25.0%	-3.3%	2.1x	8.3x
Fastly, Inc.	United States	20.02	-43%	1,871.3	1,676.4	169.3	(21.9)	NM	0.0%	9.9x	NM
Fileinvest Development Corporation	Philippines	0.26	-19%	2,251.1	4,700.3	1,497.3	480.9	32.1%	10.9%	3.1x	9.8x
IBM Corporation	United States	133.73	-13%	118,436.3	179,242.3	77,131.0	16,664.0	21.6%	-4.0%	2.3x	10.8x
MongoDB, Inc.	United States	127.77	-31%	7,195.5	7,061.4	346.0	(104.0)	NM	66.5%	20.4x	NM
Nutanix, Inc.	United States	29.22	-47%	5,614.4	5,164.5	1,236.1	(535.1)	NM	7.0%	4.2x	NM
Okta, Inc.	United States	109.07	-23%	12,733.7	12,615.3	486.8	(144.4)	NM	51.1%	25.9x	NM
PagerDuty, Inc.	United States	22.99	-62%	1,753.8	1,412.7	142.7	(47.5)	NM	0.0%	9.9x	NM
Rapid7, Inc.	United States	50.09	-24%	2,446.5	2,458.4	304.1	(28.2)	NM	30.5%	8.1x	NM
Pivotal Software, Inc.	United States	14.97	-39%	4,120.0	3,455.6	716.1	(127.0)	NM	23.0%	4.8x	NM
Resonance Health Limited	Australia	0.09	-27%	36.8	34.7	2.5	0.7	28.8%	25.1%	13.6x	47.3x
SailPoint Technologies Holdings, Inc.	United States	19.36	-40%	1,725.4	1,674.8	270.0	12.7	4.7%	26.2%	6.2x	132.0x
salesforce.com, inc.	United States	156.49	-7%	136,983.3	137,373.3	14,729.0	2,064.0	14.0%	24.3%	9.3x	66.6x
ServiceNow, Inc.	United States	247.26	-18%	46,623.1	46,276.4	3,224.1	237.8	7.4%	32.0%	14.4x	194.6x
Smartsheet Inc.	United States	39.40	-29%	4,593.0	4,089.9	219.9	(60.5)	NM	55.9%	18.6x	NM
Splunk Inc.	United States	119.96	-17%	18,514.6	17,845.1	2,044.5	(202.3)	NM	36.1%	8.7x	NM
Synchronoss Technologies, Inc.	United States	6.00	-34%	244.2	482.6	300.3	(28.6)	NM	-14.2%	1.6x	NM
GlobalData Plc	United Kingdom	13.71	-7%	1,617.3	1,738.5	217.4	38.7	17.8%	25.0%	8.0x	44.9x
Talend S.A.	United States	35.56	-44%	1,089.2	1,088.4	226.2	(50.5)	NM	28.2%	4.8x	NM
Twilio Inc.	United States	96.56	-36%	13,243.5	11,985.5	1,007.5	(226.2)	NM	79.6%	11.9x	NM
Varonis Systems, Inc.	United States	71.55	-11%	2,181.2	2,115.7	269.1	(51.5)	NM	5.2%	7.9x	NM
Adjusted Weighted Average										10.3x	39.5x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (27.2x) and EBITDA multiples that are 1.0 standard deviations

/ Software

(\$ in Millions, except stock price data)

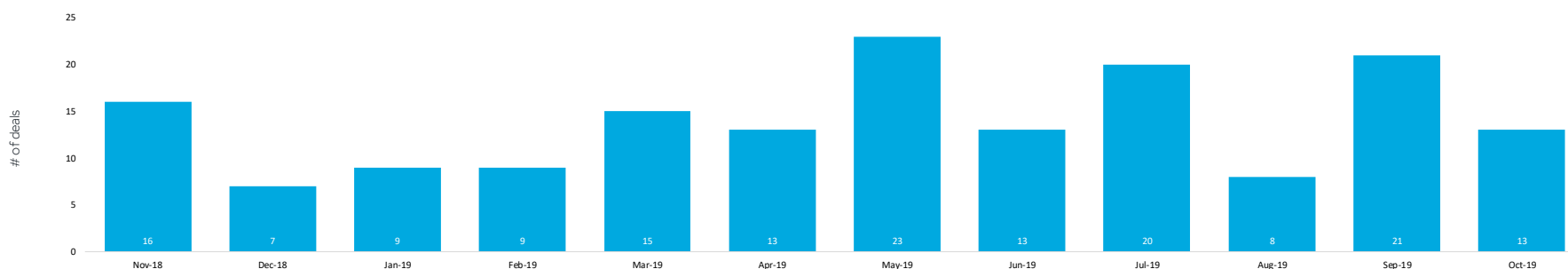
SaaS/Cloud Software

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Adobe Inc.	United States	\$277.93	-11%	\$ 134,540.0	\$ 135,026.7	\$ 10,644.0	\$ 3,566.5	33.5%	24.2%	12.7x	37.9x
Anaplan, Inc.	United States	47.20	-22%	6,222.3	5,919.7	291.6	(145.7)	NM	45.9%	20.3x	NM
Asure Software, Inc.	United States	9.04	-23%	140.5	254.6	99.5	10.3	10.3%	38.4%	2.6x	24.8x
AppFolio, Inc.	* United States	97.23	-12%	3,311.9	3,343.7	239.0	17.8	7.4%	34.6%	14.0x	188.3x
Avalara, Inc.	United States	71.00	-25%	5,360.0	4,918.3	351.7	(41.7)	NM	39.1%	14.0x	NM
Benefitfocus, Inc.	United States	22.74	-63%	743.4	881.4	272.7	(22.1)	NM	10.4%	3.2x	NM
BlackLine, Inc.	United States	46.74	-17%	2,585.7	2,461.4	254.8	(9.3)	NM	26.0%	9.7x	NM
Box, Inc.	United States	16.92	-32%	2,500.4	2,697.5	655.2	(83.7)	NM	18.1%	4.1x	NM
Carbonite, Inc.	United States	17.17	-44%	595.6	1,164.8	357.4	36.1	10.1%	34.8%	3.3x	32.3x
Ceridian HCM Holding Inc.	United States	48.25	-18%	6,931.2	7,409.3	778.6	142.9	18.4%	9.1%	9.5x	51.8x
ChannelAdvisor Corporation	* United States	9.41	-32%	263.9	232.8	130.6	1.5	1.2%	1.8%	1.8x	152.2x
Coupa Software Incorporated	United States	137.49	-14%	8,640.2	8,587.1	318.8	(46.0)	NM	45.5%	26.9x	NM
DocuSign, Inc.	United States	66.19	-5%	11,646.3	11,515.7	827.7	(184.3)	NM	37.4%	13.9x	NM
Dropbox, Inc.	United States	19.82	-27%	8,193.3	8,088.7	1,523.3	107.6	7.1%	22.1%	5.3x	75.2x
Everbridge, Inc.	United States	69.51	-33%	2,333.0	2,208.0	185.6	(35.6)	NM	38.1%	11.9x	NM
HubSpot, Inc.	United States	155.10	-25%	6,591.8	6,216.3	632.7	(29.1)	NM	33.1%	9.8x	NM
Instructure, Inc.	United States	46.73	-7%	1,756.0	1,677.8	245.5	(59.2)	NM	24.0%	6.8x	NM
LivePerson, Inc.	United States	41.05	-4%	2,578.9	2,547.9	267.3	(26.8)	NM	14.3%	9.5x	NM
LogMeIn, Inc.	United States	65.68	-32%	3,206.2	3,396.3	1,247.9	318.8	25.5%	6.7%	2.7x	10.7x
Paycom Software, Inc.	United States	211.53	-19%	12,196.3	12,148.0	694.6	236.2	34.0%	31.0%	17.5x	51.4x
Paylocity Holding Corporation	United States	102.60	-9%	5,490.4	5,444.8	493.8	75.5	15.3%	24.5%	11.0x	72.1x
Pluralsight, Inc.	United States	18.08	-49%	1,840.4	1,961.5	295.4	(131.6)	NM	39.2%	6.6x	NM
Q2 Holdings, Inc.	United States	71.49	-24%	3,405.1	3,234.6	276.7	(29.4)	NM	28.6%	11.7x	NM
RealPage, Inc.	United States	60.55	-8%	5,597.5	6,059.8	930.1	154.4	16.6%	20.1%	6.5x	39.2x
RingCentral, Inc.	United States	161.52	-9%	13,401.3	13,248.2	838.6	9.7	1.2%	34.4%	15.8x	NM
salesforce.com, inc.	United States	156.49	-7%	136,983.3	137,373.3	14,729.0	2,064.0	14.0%	24.3%	9.3x	66.6x
Shopify Inc.	Canada	313.57	-23%	36,340.3	33,784.2	1,416.9	(95.6)	NM	48.8%	23.8x	NM
Smartsheet Inc.	United States	39.40	-29%	4,593.0	4,089.9	219.9	(60.5)	NM	55.9%	18.6x	NM
SolarWinds Corporation	United States	18.95	-11%	5,818.2	7,513.1	906.2	208.1	23.0%	11.8%	8.3x	36.1x
SPS Commerce, Inc.	United States	52.77	-11%	1,838.5	1,656.8	271.6	51.2	18.8%	12.6%	6.1x	32.4x
Veeva Systems Inc.	United States	141.83	-20%	20,988.7	19,578.8	968.7	289.1	29.8%	26.1%	20.2x	67.7x
Workday, Inc.	United States	162.16	-29%	36,972.5	36,588.6	3,244.6	(277.8)	NM	33.6%	11.3x	NM
Workiva Inc.	United States	41.67	-35%	1,920.1	1,823.2	268.8	(20.8)	NM	19.1%	6.8x	NM
Yext, Inc.	United States	16.46	-29%	1,855.9	1,697.3	263.5	(81.4)	NM	32.9%	6.4x	NM
Zendesk, Inc.	United States	70.65	-26%	7,841.0	7,992.6	758.8	(129.2)	NM	38.4%	10.5x	NM
Zuora, Inc.	United States	14.25	-42%	1,600.2	1,438.4	258.7	(76.2)	NM	25.3%	5.6x	NM
Adjusted Weighted Average										12.7x	37.2x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (27.2x) and EBITDA multiples that are 1.0 standard deviations

/ Information

- The Information Segment had 13 transactions in October 2019
- Select transactions from the segment included:
 - The \$53 million round of funding workforce data network Brightfield raised from Sapphire Ventures, MissionOG, CapitalOne Growth Ventures, and Telescope Partners
 - Crunchbase's \$30 million round of funding from OMERS Ventures, Emergence, Mayfield, Cowboy Ventures, and Verizon
 - KnowledgeVision's purchase of collaborative financial information platform OpenExchange
 - The acquisition of fiduciary information and software company Fi360 by Broadridge Financial Solutions
 - Experian's acquisition of Malaysia-based credit bureau company RAM Credit Information



Note: Deal values are not included in chart, as the majority of Information transactions were reported without a value

	INFORMATION							
	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	21	\$8,815.3	18	\$364.0	69	\$11,785.4	4	\$0.0
Private Equity - Buyout	3	325.0	4	1,900.0	11	2,695.0	1	0.0
Private Equity - VC/Growth Capital	25	583.6	24	644.0	86	3,185.7	8	166.8
Total	49	\$9,723.9	46	\$2,908.0	166	\$17,666.1	13	\$166.8

/ Information

(\$ in Millions, except stock price data)

Financial & Credit/Risk Management Information

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Broadridge Financial Solutions, Inc.	United States	\$125.22	-9%	\$ 14,331.7	\$ 15,528.5	\$ 4,362.2	\$ 912.8	20.9%	0.7%	3.6x	17.0x
Computershare Limited	Australia	10.91	-23%	5,901.7	7,324.9	2,346.0	615.3	26.2%	2.5%	3.1x	11.9x
CoreLogic, Inc.	United States	40.49	-18%	3,219.7	4,995.8	1,739.5	357.4	20.5%	-5.4%	2.9x	14.0x
CoStar Group, Inc.	* United States	549.52	-14%	20,131.7	18,879.6	1,340.6	443.7	33.1%	18.6%	14.1x	42.6x
Ervestnet, Inc.	* United States	62.49	-15%	3,260.9	3,886.3	837.3	80.5	9.6%	10.5%	4.6x	48.3x
Equifax Inc.	United States	136.71	-8%	16,553.3	19,738.5	3,437.1	719.9	20.9%	0.6%	5.7x	27.4x
Experian plc	Ireland	31.40	-8%	28,251.6	31,560.3	4,861.0	1,509.0	31.0%	6.0%	6.5x	20.9x
FactSet Research Systems Inc.	United States	253.52	-17%	9,619.7	9,808.3	1,435.4	498.5	34.7%	6.3%	6.8x	19.7x
Fair Isaac Corporation	United States	304.04	-19%	8,785.7	9,529.5	1,160.1	285.2	24.6%	12.4%	8.2x	33.4x
Fidelity National Information Services, Inc.	United States	131.76	-7%	80,827.4	89,746.4	9,158.0	2,659.0	29.0%	8.7%	9.8x	33.8x
IHS Markit Ltd.	United Kingdom	70.02	-1%	28,077.2	33,021.4	4,362.0	1,499.7	34.4%	12.2%	7.6x	22.0x
Moody's Corporation	United States	220.69	-1%	41,754.5	46,303.2	4,656.3	2,172.9	46.7%	2.4%	9.9x	21.3x
Morningstar, Inc.	United States	161.84	-1%	6,928.3	7,286.9	1,109.3	265.9	24.0%	10.9%	6.6x	27.4x
MSCI Inc.	* United States	234.56	-6%	19,868.9	21,750.3	1,512.9	791.7	52.3%	7.5%	14.4x	27.5x
S&P Global Inc.	United States	257.99	-4%	63,052.8	67,529.8	6,501.0	3,256.0	50.1%	3.0%	10.4x	20.7x
SEI Investments Company	United States	59.92	-4%	9,003.4	8,281.2	1,631.7	480.6	29.5%	0.3%	5.1x	17.2x
SS&C Technologies Holdings, Inc.	United States	52.01	-23%	13,198.0	21,020.8	4,540.4	1,680.2	37.0%	65.2%	4.6x	12.5x
Thomson Reuters Corporation	* Canada	67.26	-6%	33,709.3	36,043.4	5,850.0	1,029.0	17.6%	8.6%	6.2x	35.0x
TransUnion	United States	82.62	-3%	15,557.3	19,236.7	2,583.6	944.3	36.5%	16.9%	7.4x	20.4x
Verisk Analytics, Inc.	United States	144.70	-12%	23,712.0	26,341.8	2,544.2	1,068.3	42.0%	8.2%	10.4x	24.7x
Workiva Inc.	United States	41.67	-35%	1,920.1	1,823.2	268.8	(20.8)	NM	19.1%	6.8x	NM
Adjusted Weighted Average										8.1x	24.2x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (13.8x) and EBITDA multiples that are 1.0 standard deviations above the mean (34.6x)

/ Information

(\$ in Millions, except stock price data)

Marketing Information

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Alliance Data Systems Corporation	United States	\$100.00	-53%	\$ 4,604.71	\$ 22,641.11	\$ 7,709.50	\$ 1,480.30	19.2%	12.8%	2.9x	15.3x
comScore, Inc.	United States	2.31	-90%	161.3	373.5	402.8	(26.5)	NM	-2.5%	0.9x	NM
Ebiquity plc	United Kingdom	0.56	-41%	42.7	65.9	88.1	6.5	7.4%	26.2%	0.7x	10.1x
InnerWorkings, Inc.	* United States	4.85	-33%	249.8	427.1	1,116.3	14.9	1.3%	-3.0%	0.4x	28.7x
INTAGE HOLDINGS Inc.	Japan	8.96	-10%	359.7	278.4	508.8	52.0	10.2%	8.5%	0.5x	5.4x
Ipsos SA	France	30.10	-2%	1,321.9	2,218.5	2,124.3	221.2	10.4%	7.7%	1.0x	10.0x
LiveRamp Holdings, Inc.	United States	39.09	-38%	2,644.1	1,663.0	305.7	(171.0)	NM	29.6%	5.4x	NM
Nielsen Holdings plc	United States	20.16	-29%	7,170.4	16,172.4	6,449.0	1,410.0	21.9%	-3.2%	2.5x	11.5x
SVMK Inc.	* United States	18.40	-7%	2,448.6	2,600.2	276.9	(118.2)	NM	18.6%	9.4x	NM
System1 Group PLC	United Kingdom	2.38	-28%	29.9	24.4	35.0	2.5	7.2%	-0.1%	0.7x	9.7x
YouGov plc	* United Kingdom	6.97	-12%	730.8	681.1	166.8	31.1	18.7%	17.1%	4.1x	21.9x
Adjusted Weighted Average										2.9x	12.5x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (8.2x) and EBITDA multiples that are 1.0 standard deviations above the mean (21.7x)

(\$ in Millions, except stock price data)

Other Information

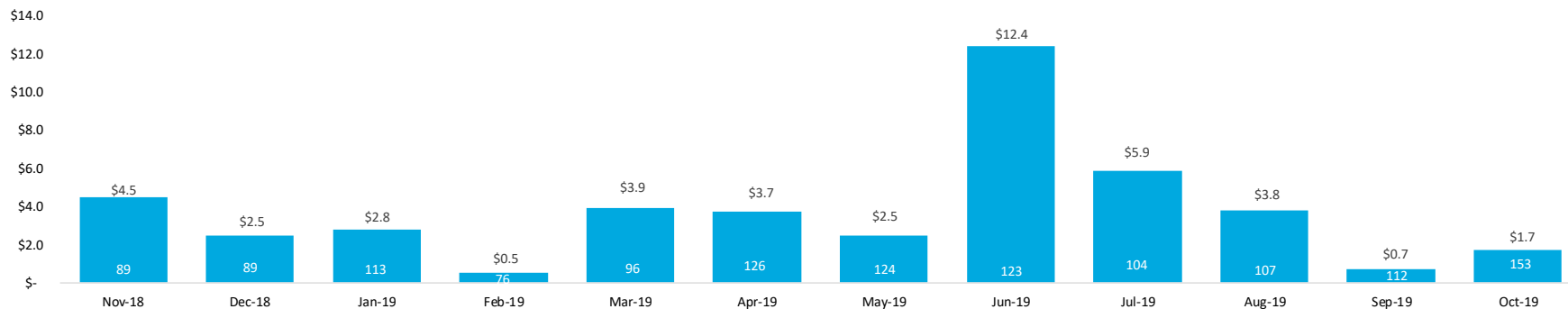
Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Forrester Research, Inc.	United States	\$34.48	-33%	\$ 639.67	\$ 791.41	\$ 436.01	\$ 31.06	7.1%	24.8%	1.8x	25.5x
Gartner, Inc.	* United States	154.08	-10%	13,782.9	16,581.0	4,130.7	576.0	13.9%	5.9%	4.0x	28.8x
HealthStream, Inc.	United States	28.06	-6%	908.5	769.7	251.2	31.4	12.5%	10.7%	3.1x	24.5x
IQVIA Holdings Inc.	United States	144.42	-12%	28,017.5	39,295.5	10,881.0	1,892.0	17.4%	6.2%	3.6x	20.8x
Informa plc	United Kingdom	10.02	-14%	12,544.9	16,450.3	3,583.5	1,129.7	31.5%	56.8%	4.6x	14.6x
National Research Corporation	* United States	57.43	-17%	1,424.0	1,459.9	123.5	45.2	36.6%	4.8%	11.8x	32.3x
NiC Inc.	United States	23.52	-4%	1,575.0	1,377.8	345.8	74.7	21.6%	-1.1%	4.0x	18.4x
Premier, Inc.	United States	32.58	-25%	2,250.3	2,142.8	1,227.4	515.6	42.0%	-26.6%	1.7x	4.2x
Proofpoint, Inc.	United States	115.37	-14%	6,513.1	6,260.3	843.2	(24.6)	NM	26.7%	7.4x	NM
Reed Elsevier plc ⁽¹⁾	United Kingdom	24.03	-8%	46,452.4	55,225.3	9,819.2	2,988.8	30.4%	6.0%	5.6x	18.5x
Wolters Kluwer N.V.	Netherlands	73.59	-2%	19,315.0	21,916.7	5,056.9	1,382.6	27.3%	5.4%	4.3x	15.9x
Adjusted Weighted Average										4.7x	18.0x

(1) All financials are representative of the Reed Elsevier combined businesses, except per stock data, which represents Reed Elsevier (LSE:REL)

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (10.4x) and EBITDA multiples that are 1.0 standard deviations above the mean (28.4x)

/ Business & IT Services

- The Business & IT Services segment had 153 transactions, 28 of which were valued at \$1.7 billion
- IT Consulting's 69 transactions accounted for more than one-third of all segment activity
- In addition to the acquisition of Crisis Prevention Institute, select transaction from the segment include:
 - MEDNAX's \$300 million sale of hospital system services company MedData to Frazier Healthcare Partners
 - The \$67 million acquisition of IT consulting company Intersys Consulting by ASGN
 - Salsify's purchase of e-commerce IT consultancy B2X
 - The purchase of product innovation and engineering company Nytec by Accenture
 - Deloitte's acquisition of Australia-based IT and human capital management consulting company Presence



BUSINESS SERVICES & IT SERVICES

	2Q19		3Q19		LTM		Oct-19	
	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)	Number of Transactions	Reported Value (\$MM)
Strategic	272	\$9,623.9	245	\$1,824.3	975	\$21,066.1	122	\$467.6
Private Equity - Buyout	28	6,482.0	23	7,283.0	105	17,457.7	7	910.0
Private Equity - VC/Growth Capital	73	2,512.7	55	1,282.4	252	6,720.1	24	310.5
Total	373	\$18,618.6	323	\$10,389.7	1,332	\$45,243.9	153	\$1,688.1

/ Business & IT Services

(\$ in Millions, except stock price data)

Consulting

Company Name	Headquarters	Stock Price	Chg % From	Equity	Enterprise	Last Twelve Months			Last Twelve Months Multiples		
		10/31/19	52WK High	Value	Value	Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Accenture plc	Ireland	\$185.42	-9%	\$ 117,753.39	\$ 112,064.56	\$ 43,215.01	\$ 6,923.02	16.0%	5.4%	2.6x	16.2x
CRA International, Inc.	United States	49.25	-9%	381.2	534.8	440.9	41.9	9.5%	8.6%	1.2x	12.8x
FTI Consulting, Inc.	United States	108.87	-8%	3,977.8	4,195.7	2,255.5	334.8	14.8%	13.3%	1.9x	12.5x
Information Services Group, Inc.	United States	2.16	-57%	102.3	196.8	268.0	18.0	6.7%	-2.5%	0.7x	10.9x
ICF International, Inc.	United States	85.69	-1%	1,610.1	2,038.5	1,418.8	129.6	9.1%	13.2%	1.4x	15.7x
Huron Consulting Group Inc.	United States	66.14	-3%	1,436.5	1,761.7	849.9	109.0	12.8%	9.6%	2.1x	16.2x
The Hackett Group, Inc.	United States	16.91	-26%	504.9	500.3	258.5	40.6	15.7%	-0.3%	1.9x	12.3x

Adjusted Weighted Average

1.8x **13.3x**

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (2.6x) and EBITDA multiples that are 1.0

(\$ in Millions, except stock price data)

HR Services

Company Name	Headquarters	Stock Price	Chg % From	Equity	Enterprise	Last Twelve Months			Last Twelve Months Multiples		
		10/31/19	52WK High	Value	Value	Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Automatic Data Processing, Inc.	United States	\$162.23	-7%	\$ 70,310.48	\$ 71,686.88	\$ 14,360.60	\$ 3,567.70	24.8%	5.9%	5.0x	20.1x
Barrett Business Services, Inc.	United States	87.73	-5%	655.3	583.9	935.0	59.2	6.3%	-1.3%	0.6x	9.9x
Capita plc	United Kingdom	2.02	-12%	3,342.8	5,093.1	4,775.3	318.2	6.7%	-8.8%	1.1x	16.0x
DHI Group, Inc.	United States	3.62	-18%	182.0	201.6	151.4	23.7	15.6%	-19.5%	1.3x	8.5x
Edenred SA	* France	52.61	0%	12,800.5	14,873.8	1,632.9	596.3	36.5%	12.4%	9.1x	24.9x
Insperty, Inc.	United States	105.63	-27%	4,350.5	4,202.7	4,206.5	213.0	5.1%	14.0%	1.0x	19.7x
Marsh & McLennan Companies, Inc.	United States	103.62	-1%	52,293.7	66,123.7	16,100.0	3,824.0	23.8%	7.9%	4.1x	17.3x
Paychex, Inc.	United States	83.64	-5%	29,938.5	30,295.0	3,901.7	1,603.9	41.1%	13.2%	7.8x	18.9x
TriNet Group, Inc.	United States	52.99	-31%	3,700.8	3,883.8	3,755.0	274.0	7.3%	9.3%	1.0x	14.2x

Adjusted Weighted Average

5.2x **18.7x**

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (9.9x) and EBITDA multiples that are 1.0

/ Business & IT Services

(\$ in Millions, except stock price data)

IT Consulting

Company Name	Headquarters	Stock Price 10/31/19	Chg % From 52WK High	Equity Value	Enterprise Value Value	Last Twelve Months			Last Twelve Months Multiples		
						Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
Accenture plc	Ireland	\$185.42	-9%	\$ 117,753.39	\$ 112,064.56	\$ 43,215.01	\$ 6,923.02	16.0%	5.4%	2.6x	16.2x
Amdocs Limited	United States	65.20	-4%	8,860.0	8,444.6	4,059.0	758.5	18.7%	2.7%	2.1x	11.1x
Bechtle AG	Germany	108.29	-12%	4,548.3	4,943.0	5,580.0	301.8	5.4%	26.9%	0.9x	16.4x
Booz Allen Hamilton Holding Corporation	United States	70.37	-10%	9,867.1	11,696.2	7,087.9	717.7	10.1%	11.4%	1.7x	16.3x
Business & Decision SA	* France	8.25	-6%	65.0	135.6	97.4	2.4	NA	-2.1%	1.4x	57.4x
Capgemini SE	France	112.53	-14%	18,589.0	21,594.2	15,631.5	2,018.7	12.9%	8.1%	1.4x	10.7x
Cerner Corporation	United States	67.12	-12%	21,082.2	21,621.4	5,616.0	1,109.7	19.8%	5.7%	3.8x	19.5x
CGI Inc.	Canada	77.80	-4%	20,895.4	22,693.9	9,136.3	1,556.9	17.0%	5.6%	2.5x	14.6x
Cognizant Technology Solutions Corporation	United States	60.94	-19%	33,368.7	31,991.7	16,628.0	3,169.0	19.1%	5.1%	1.9x	10.1x
Digi International Inc.	United States	14.42	-3%	405.7	319.4	255.8	26.2	10.3%	23.7%	1.2x	12.2x
DXC Technology Company	United States	27.67	-62%	7,248.5	16,803.5	20,361.0	4,010.0	19.7%	-6.5%	0.8x	4.2x
Endava plc	* United Kingdom	43.01	-4%	2,258.8	2,169.7	365.9	51.4	14.0%	32.3%	5.9x	42.2x
EPAM Systems, Inc.	* United States	175.96	-12%	9,651.5	9,105.7	2,046.0	321.5	15.7%	24.3%	4.5x	28.3x
Globant S.A.	* Luxembourg	93.26	-17%	3,417.4	3,426.8	578.4	104.0	18.0%	22.4%	5.9x	33.0x
Hexaware Technologies Limited	India	4.68	-27%	1,397.3	1,387.5	751.0	116.5	15.5%	20.6%	1.8x	11.9x
International Business Machines Corporation	United States	133.73	-13%	118,436.3	179,242.3	77,131.0	16,664.0	21.6%	-4.0%	2.3x	10.8x
Infosys Limited	India	9.65	-19%	40,906.3	38,721.7	12,386.0	2,981.0	24.1%	9.5%	3.1x	13.0x
ITS Group	France	7.18	0%	54.1	101.6	133.9	8.8	6.6%	-8.5%	0.8x	11.5x
Larsen & Toubro Limited	India	20.74	-9%	29,098.3	46,588.2	21,330.1	2,743.1	12.9%	15.0%	2.2x	17.0x
NTT DATA Corporation	Japan	13.25	-4%	18,581.8	22,921.6	20,526.0	1,332.0	6.5%	0.0%	1.1x	17.2x
Parsons Corporation	United States	35.60	-8%	3,539.9	3,855.4	3,799.2	174.5	4.6%	0.0%	1.0x	22.1x
Perficient, Inc.	United States	39.20	-6%	1,287.4	1,404.4	531.3	67.2	12.6%	6.3%	2.6x	20.9x
Presidio, Inc.	United States	16.60	-5%	1,383.4	2,299.2	3,026.1	220.2	7.3%	9.4%	0.8x	10.4x
Reply S.p.A.	Italy	65.10	-9%	2,435.2	2,416.6	1,282.5	163.7	12.8%	17.4%	1.9x	14.8x
SQLISA	France	20.40	-25%	92.8	161.7	272.0	18.2	6.7%	6.1%	0.6x	8.9x
Synthomer plc	United Kingdom	3.61	-39%	1,532.4	1,908.5	1,966.9	221.7	11.3%	0.3%	1.0x	8.6x
Tata Consultancy Services Limited	* India	31.94	-1%	119,859.6	112,911.9	21,583.8	5,721.6	26.5%	13.7%	5.2x	19.7x
Wipro Limited	India	3.65	-14%	20,749.7	17,708.4	8,479.1	1,785.7	21.1%	7.1%	2.1x	9.9x
Adjusted Weighted Average										2.9x	15.0x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (5.3x) and EBITDA multiples that are 1.0 standard deviations above the mean (28.6x)

/ Business & IT Services

(\$ in Millions, except stock price data)

Outsourced Services

Company Name	Headquarters	Stock Price	Chg % From	Equity	Enterprise Value	Last Twelve Months			Last Twelve Months Multiples		
		10/31/19	52WK High	Value	Value	Revenue	EBITDA	EBITDA Margin	Revenue Growth	Enterprise Value/Revenue	Enterprise Value/EBITDA
AMREP Corporation	United States	\$5.87	-22%	\$ 47.76	\$ 33.01	\$ 13.36	\$ (2.11)	NM	323.2%	2.5x	NM
Cmpress N.V.	Ireland	132.12	-6%	3,686.0	5,162.3	2,796.1	358.2	12.8%	6.8%	1.8x	14.4x
Clairvest Group Inc.	Canada	38.66	-2%	589.3	324.5	109.5	62.7	57.3%	-52.4%	3.0x	5.2x
CSG Systems International, Inc.	United States	57.64	-1%	1,835.4	2,120.5	989.3	167.6	16.9%	18.8%	2.1x	12.7x
Donnelley Financial Solutions, Inc.	United States	11.30	-37%	387.6	882.5	884.7	76.6	8.7%	-10.4%	1.0x	11.5x
Elanders AB (publ)	Sweden	8.60	-13%	304.2	748.4	1,145.8	78.7	6.9%	7.7%	0.7x	9.5x
Eniro AB (publ)	Sweden	0.12	-52%	7.9	110.4	115.4	8.1	7.1%	-22.2%	1.0x	13.6x
ExiService Holdings, Inc.	United States	69.63	-1%	2,374.0	2,438.3	969.4	130.1	13.4%	14.6%	2.5x	18.7x
Firstsource Solutions Limited	India	0.69	-17%	479.1	535.3	563.9	75.5	13.4%	8.7%	0.9x	7.1x
Genpact Limited	Bermuda	39.17	-12%	7,461.9	8,726.8	3,274.3	519.0	15.9%	14.5%	2.7x	16.8x
InnerWorkings, Inc.	United States	4.85	-33%	249.8	427.1	1,116.3	14.9	1.3%	-3.0%	0.4x	28.7x
j2 Global, Inc.	United States	94.96	-3%	4,645.2	5,680.3	1,312.5	492.3	37.5%	11.5%	4.3x	11.5x
Liq Participações S.A.	Brazil	2.55	-79%	7.1	114.5	298.4	(5.6)	NM	-25.5%	0.4x	NM
LSC Communications, Inc.	United States	0.98	-91%	32.7	1,040.7	3,668.0	95.0	2.6%	-3.6%	0.3x	11.0x
MAXIMUS, Inc.	United States	76.74	-6%	4,896.8	4,830.1	2,690.3	368.0	13.7%	9.6%	1.8x	13.1x
Quad/Graphics, Inc.	United States	4.53	-75%	239.2	1,537.9	4,186.3	332.7	7.9%	4.0%	0.4x	4.6x
IQVIA Holdings Inc.	United States	144.42	-12%	28,017.5	39,295.5	10,881.0	1,892.0	17.4%	6.2%	3.6x	20.8x
R.R. Donnelley & Sons Company	United States	4.36	-35%	309.1	2,408.3	6,413.4	388.8	6.1%	-7.9%	0.4x	6.2x
Serco Group plc	United Kingdom	2.02	-1%	2,461.7	2,738.1	3,743.8	166.2	4.4%	4.9%	0.7x	16.5x
Steel Connect, Inc.	United States	1.56	-27%	95.8	486.1	819.8	30.7	3.7%	27.1%	0.6x	15.8x
SYNNEX Corporation	United States	117.74	-3%	6,013.6	9,080.1	23,005.9	1,177.4	5.1%	17.8%	0.4x	7.7x
Sykes Enterprises, Incorporated	United States	30.90	-4%	1,285.0	1,463.4	1,604.7	176.1	11.0%	-1.5%	0.9x	8.3x
Teleperformance SE	France	226.51	-5%	13,267.5	16,333.7	5,615.6	917.2	16.3%	18.4%	2.9x	17.8x
TTEC Holdings, Inc.	United States	47.37	-6%	2,201.9	2,542.2	1,601.5	195.2	12.2%	5.6%	1.6x	13.0x
transcosmos inc.	Japan	25.24	-9%	1,046.8	907.2	2,765.7	111.5	4.0%	7.7%	0.3x	8.1x
Transcontinental Inc.	Canada	11.43	-33%	1,001.6	2,029.2	2,332.2	387.0	16.6%	32.5%	0.9x	5.2x
Adjusted Weighted Average										1.5x	16.3x

*Calculation is market cap weighted and excludes revenue multiples that are 2.0 standard deviations above the mean (1.3x) and EBITDA multiples that are 1.0 standard deviations above the mean (14.6x)

Additional Information



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/ Appendix

- All transaction information has been publicly reported and is sourced from national news publications, industry trade journals and blogs, and public announcements by companies and investors.
- All trading data related to publicly-traded companies has been sourced from Capital IQ.

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