

INDUSTRY INSIGHTS

# Global Software Sector Update

Fall 2020

# Executive Summary

In contrast to a tentative economic recovery, and relative to a tepid Q2 2020, software deal activity experienced a record quarter in Q3 2020 with both deal volume and spending returning to historic highs.<sup>1</sup> As boardroom focus shifted away from bracing-for-impact, pent-up demand combined with more readily available financing resulted in a surge of activity. The continued backdrop of roaring public markets and strong investor appetite for software assets also created a booming IPO market, including a resurgence of direct listings. Additionally, a record number of special purpose acquisition companies (SPACs) have been raised this year, with over \$70 billion (bn) of capital raised year-to-date (YTD) by these blank-check companies, with the goal of tapping into the tech M&A frenzy.<sup>2</sup>

The acceleration in activity was most evident across financial sponsors who made the most of the reopening of the leveraged-loan market as sponsor-backed deals hit an all-time high in September 2020. Disclosed PE valuations remained comfortably above long-term average levels indicating both investor comfort in enterprise software businesses' capacity to manage pandemic uncertainty and a continued focus on higher quality assets. Activity among strategic acquirers continued to be driven by large-cap vendors who maintained deal flow through the downturn as well as the return of the \$1 bn+ deals. We also observed buyer participation broadening as less seasoned strategic acquirers stepped up their inorganic efforts, targeting larger deals and/or benefiting from the current climate to acquire companies on more favorable valuation levels.

Given the strong uptick in M&A activity in Q3 2020, we remain cautiously optimistic and believe momentum in the tech M&A market will continue into the end of the year and remain strong heading into 2021. However, we note that near-term political and macro risks are likely to continue to fuel periods of increased volatility, especially in the public markets.

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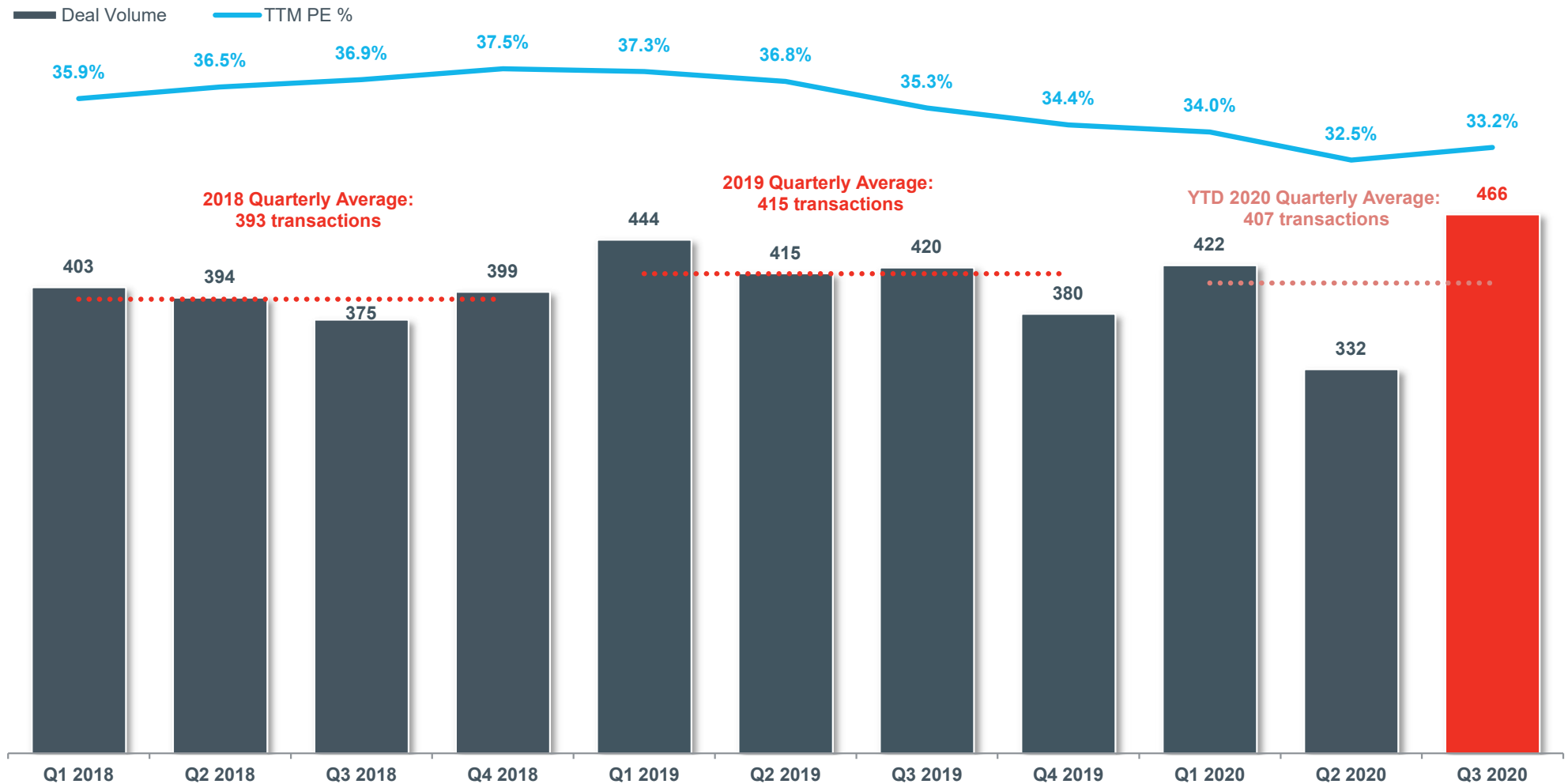
**Pagemill Partners Overview**



# Q3 2020 Witnessed a Sharp Bounce-Back in Deal Activity

With deal volumes for the quarter reaching the highest level over the last three years<sup>1</sup>

## Quarterly Deal Volume



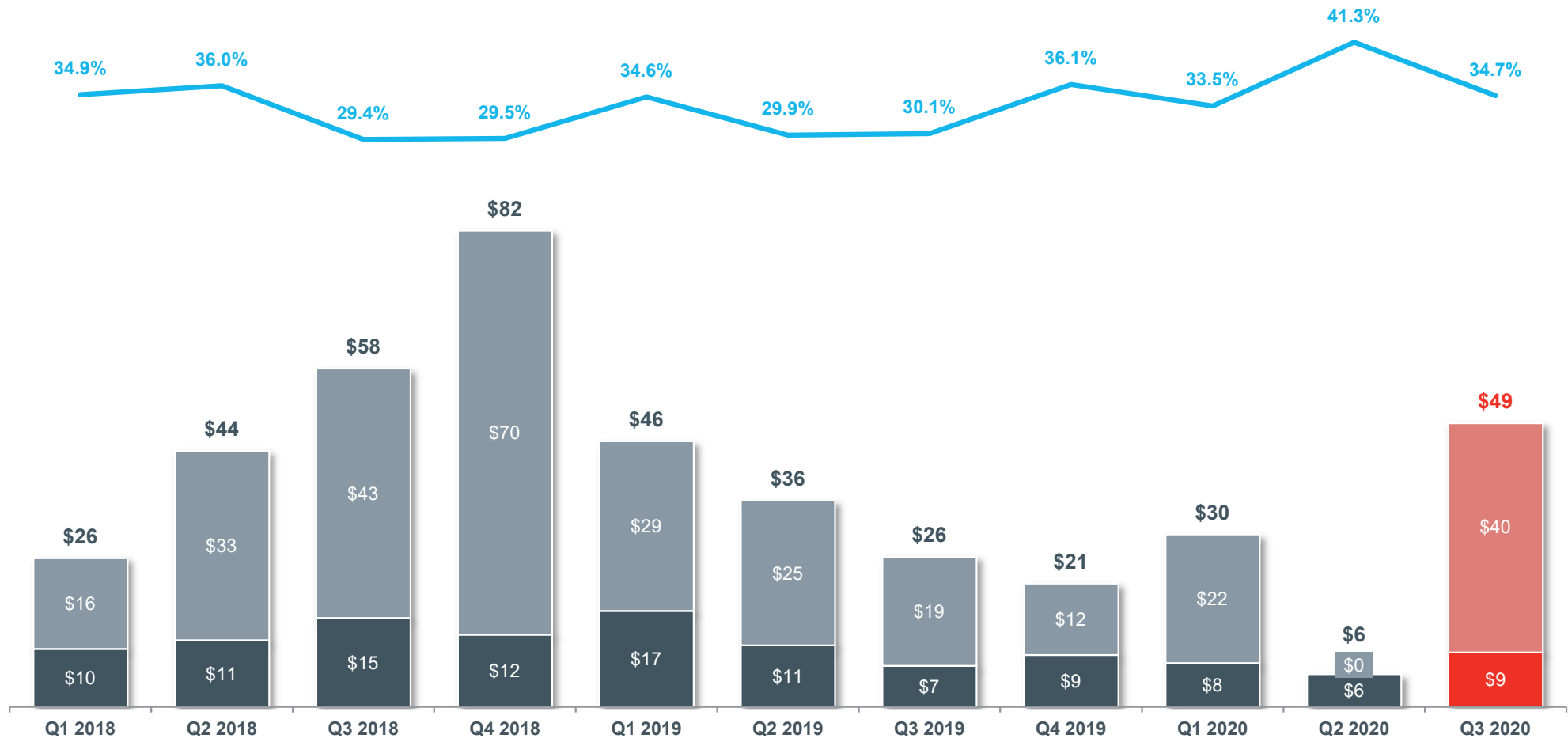
TTM PE % refers to the percentage of deal volume over the trailing 12 months in which a PE fund was the buyer  
<sup>1</sup>Between Q1 2018 and Q3 2020

# Large-Cap Deals Returned in Full Force over Q3 2020

With aggregate deal value in the quarter almost 90% higher Y/Y vs. Q3 2019

## Quarterly Deal Value

Deals >\$1 bn Deals <\$1 bn TTM PE %



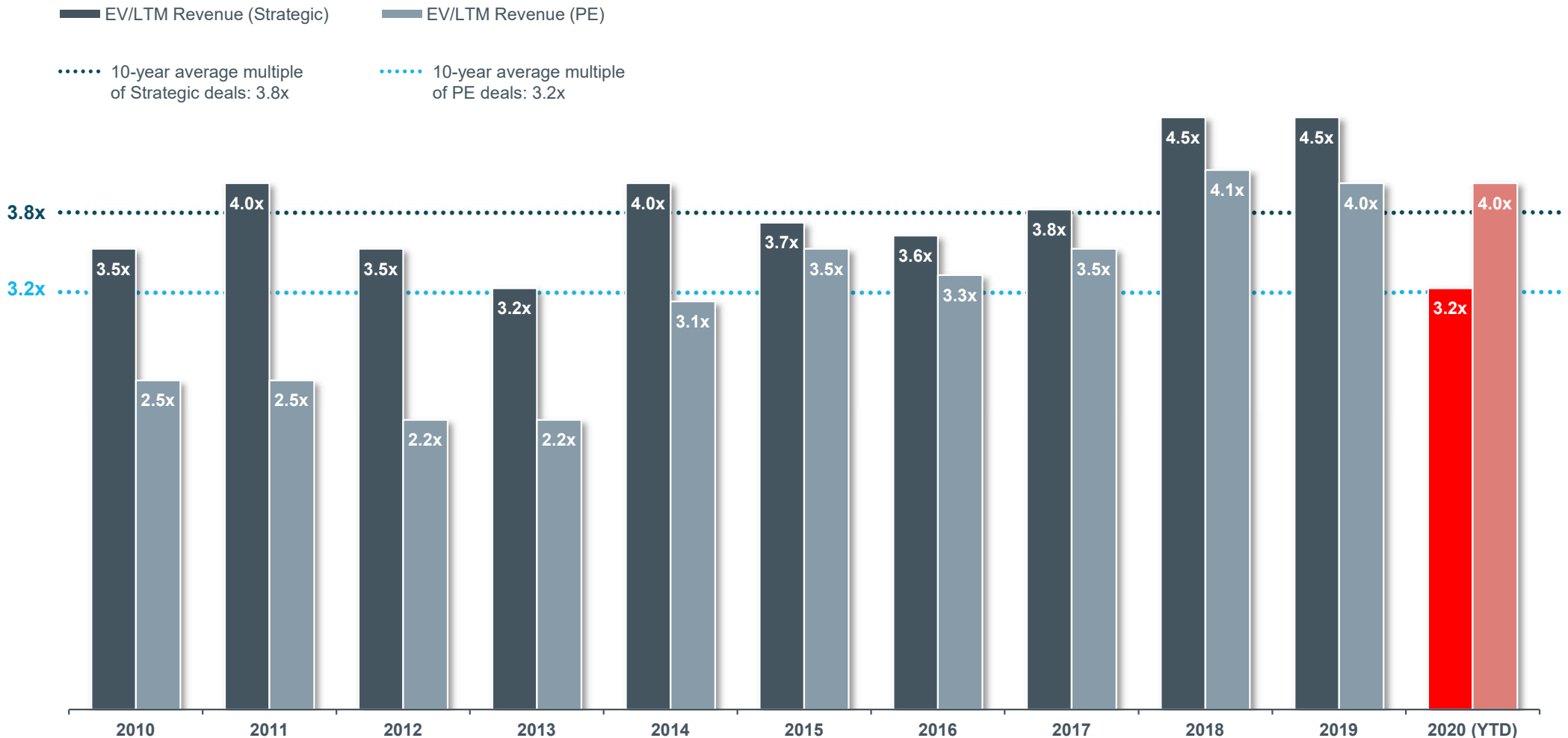
TTM PE % refers to the percentage of deal value over the trailing 12 months in which a PE fund was the buyer

Source: 451 Research as of September 30, 2020

# YTD PE Deal Multiples Remain Above Long-Term Levels

While YTD strategic deal multiples represent the drag on aggregate deal multiples

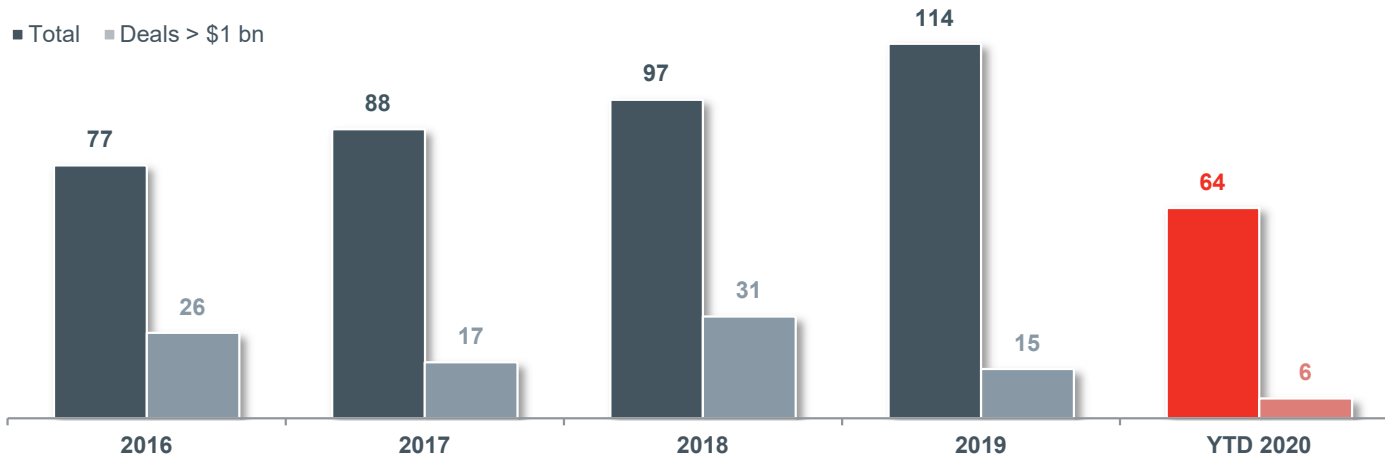
## Annual Median Deal Multiple



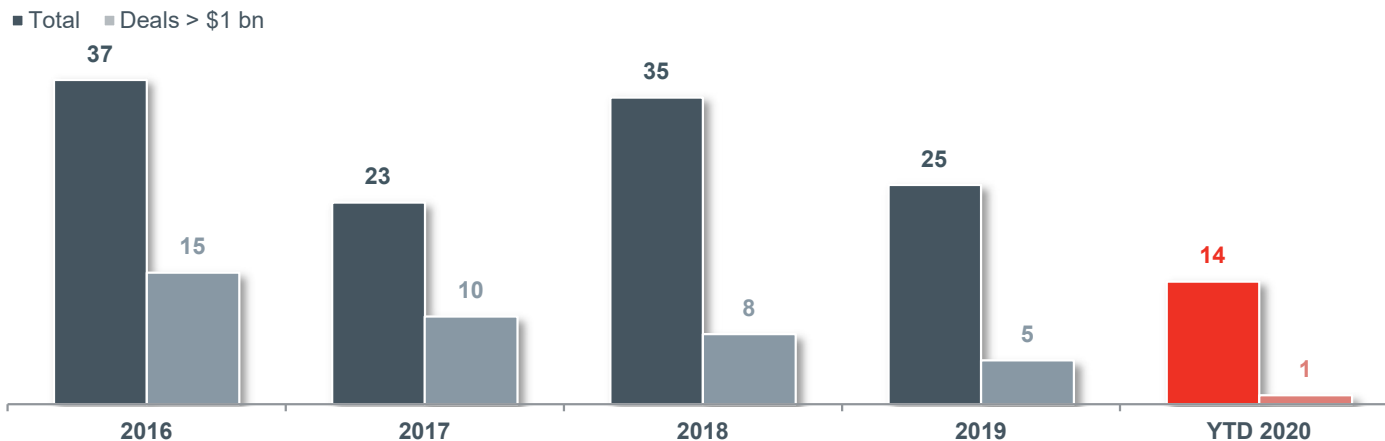
# 2020 Deals from Top Acquirers Will Likely Fall Below 2019<sup>1</sup>

Indicating a broader market participation underpinning the YTD volumes recorded

## Quarterly Deal Volume



## Top Strategic Acquirers



## Top PE Acquirers (Deals Since 2016)

1	VISTA EQUITY PARTNERS	154
2	THOMABRAVO	114
3	PROVIDENCEEQUITY	62
4	FIP FRANCISCO PARTNERS	58
5	MARLIN EQUITY PARTNERS	52

## Top Strategic Acquirers (Deals Since 2016)

1	Microsoft	38
2	Alphabet	26
3	salesforce	24
4	ORACLE®	23
5	CISCO	23

<sup>1</sup>Comparing activity YTD 2020 vs. a pro-rata basis of 2019 activity

Top five PE and strategic acquirers based on total announced deal volumes between January 01, 2016 and September 30, 2020  
PE acquisitions include add-on acquisitions made by portfolio companies/platforms owned by the PE acquirers

Source: 451 Research as of September 30, 2020

All trademarks, trade names or logos referenced herein are the property of their respective owners.

# Top Six Software Acquisitions by Deal Value over Q3 2020

Q3 2020

August 2020

**EllieMae**  
acquired by  
**ICE**

**\$11.0 bn** **12.2x<sup>1</sup>**

Ellie Mae provides mortgage loan origination SaaS for the financial sector. Its software provides application management, collaboration, marketing automation, risk analysis, regulation compliance management and document management.

Intercontinental Exchange (ICE) was attracted to Ellie Mae's technology, expertise and network in the mortgage origination process. ICE intends to leverage Ellie Mae's capabilities alongside those from previous acquisitions of MERS (2018) and Simplifile (2019) to form an expanded platform that integrates key stakeholders from origination to final settlement.

July 2020

**CPA GLOBAL**  
acquired by  
**Clarivate™**

**\$6.8 bn** **12.1x**

CPA Global provides IP workflow management software and outsourced BPO services, with a focus on patent portfolio optimization, contract management, trademark renewals and document review for legal departments and law firms.

The combination is appealing for the complementary products and innovation strengths of each company. Geographically, CPA Global is strong in Europe while Clarivate is in North America and Asia. Product-wise CPA Global has strengths in IP software and technology-enabled services, while Clarivate's strengths lie in content, trademarks and domains.

August 2020

**Vertafore**  
acquired by  
**ROPER**

**\$5.4 bn** **9.1x<sup>1</sup>**

Vertafore provides property and casualty insurance agency management and policy administration SaaS for the insurance sector. It also provides related content management, product lifecycle management and billing software.

Roper's acquisition strategy seeks companies like Vertafore which have a clear niche market leadership, high customer retention and a track record of consistent growth. Roper's long-term mindset and proven business model provides Vertafore a platform to accelerate the modernization of their operations while being in a permanent home vs. their prior PE-ownerships.

August 2020

**OSIsoft.**  
acquired by  
**AVEVA**

**\$5.0 bn** **10.2x**

OSIsoft provides business process data collection and management software and services for the public and private sectors globally. Its offerings focus on system monitoring, data security and asset management.

OSIsoft's data management software complements AVEVA's end-to-end engineering, operations and performance offerings. Integrating OSIsoft's *PI System* into AVEVA's portfolio creates an integrated data foundation that can drive big data, cloud and AI-driven insights to create business outcomes for their combined customer base.

August 2020

**EPICOR.**  
acquired by  
**Clayton, Dubilier & Rice**

**\$4.7 bn** **5.9x**

Epicor is an ERP vendor for SMBs, delivering cloud-enabled services to over 20,000 customers globally. Epicor's flagship products support complex, vertical-specific workflows and provide mission-critical support to customers. Epicor is a leader in the end markets it serves, which include manufacturing, distribution, retail and services categories.

Clayton, Dubilier & Rice's backing will be used to increase investment into Epicor's product portfolio and make strategic acquisitions in order to meet their customer's evolving digital transformation needs.

July 2020

**optimalblue™**  
acquired by  
**BLACK KNIGHT™**

**\$1.8 bn** **N/A**

Optimal Blue provides a SaaS solution that incorporates mortgage pricing and eligibility, mortgage sales, mortgage rate quoting and marketing automation, for banks, mortgage lenders and loan officers.

By acquiring Optimal Blue, Black Knight aims to add an industry-leading product, pricing and eligibility feature to its already robust mortgage data and analytics offering. Thus, Black Knight hopes to provide its clients with a wider selection of offerings from a single unified platform.












Deal  
Size

EV/  
LTM  
Rev



<sup>1</sup>EV/CY20 Revenue  
SaaS = Software as a Service; MERS = Mortgage Electronic Registration Systems, Inc.; IP = Intellectual Property; AI = Artificial Intelligence; ERP = Enterprise Resource Planning; SMB = Small-to-Medium Business;

# Other Notable Software Deals During Q3 2020

## Strategic Deals (Q3 2020)

Date	Target	Acquirer	Deal Value and Multiple <sup>2</sup>	Target Abstract
Aug-20			\$1,600 mn 9.6x	Open automation utility SaaS
Sep-20			\$940 mn 7.2x	Marketing automation SaaS
Jul-20			\$925 mn 7.0x	Enterprise networking WAN SaaS
Jul-20			\$775 mn 31.0x	Web application security SaaS
Sep-20			\$575 mn N/A	Workforce management and CPM SaaS
Aug-20			\$161 mn N/A	Workflow automation and scheduling SaaS
Sep-20			\$100 mn N/A	Customer service automation and training SaaS
Sep-20			N/A N/A	Digital shopping and marketing SaaS
Aug-20			N/A N/A	Wholesaler order and inventory management SaaS
Jul-20			N/A N/A	Mobile POS software
Jul-20			N/A N/A	Transportation SCM SaaS

## PE Deals<sup>1</sup> (Q3 2020)

Date	Target	Acquirer <sup>1</sup>	Deal Value and Multiple <sup>2</sup>	Target Abstract
Aug-20		 <i>Veritas Capital</i>	\$792 mn 4.0x	Language instructional software provider
Jul-20			\$729 mn 4.7x	Insurance SaaS and integration services
Jul-20		 <i>EQT AB</i>	\$600 mn N/A	Open source Kubernetes management SaaS
Jul-20	 <i>Healthcare Software<sup>3</sup></i>	 <i>Ardian</i>	\$525 mn 4.0x	Healthcare information software
Jul-20			\$300 mn N/A	B2B credit-as-a-service SaaS
Sep-20			\$193 mn 6.7x	Law practice and case management SaaS
Jul-20			\$165 mn N/A	Delivery management SaaS
Jul-20			\$100 mn N/A	Graphics and design SaaS
Sep-20			N/A N/A	Employee recruitment and payroll SaaS
Sep-20			N/A N/A	Digital presence optimization and web analytics SaaS
Sep-20			N/A N/A	A/B and multivariate testing SaaS

SaaS = Software as a Service; WAN = Wide Area Network; CPM = Corporate Performance Management; POS = Point of Sale; SCM = Supply Chain Management; B2B = Business-to-Business; <sup>1</sup>PE deals include acquisitions made by PE-backed strategics, whose owners are indicated in *italics*; excludes deals involving special purpose acquisition vehicles; <sup>2</sup>Deal Multiple = Enterprise Value / LTM Revenue, unless otherwise specified; <sup>3</sup>Assets of the healthcare provider software business only



# Pagemill Partners Tracked Software Universe



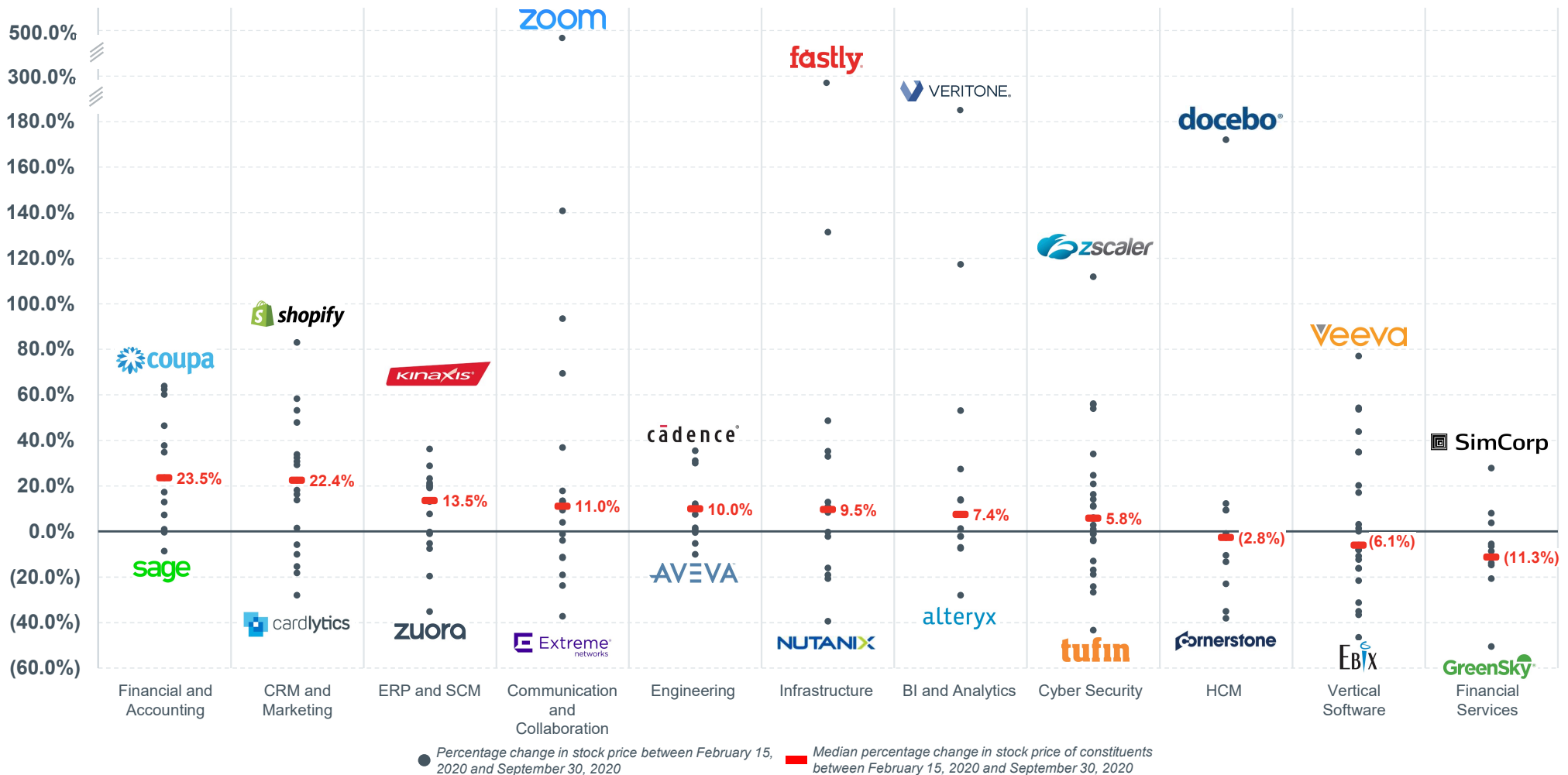
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management

Source: S&P Global Market Intelligence as of September 30, 2020, and includes the most actively traded software companies for respective covered sectors, excluding most microcap companies. All trademarks, trade names or logos referenced herein are the property of their respective owners.

# COVID-19 Impact on Stock Prices

Strong performance from stocks best positioned to navigate COVID-19 digital trends

Performance of Pagemill Tracked Software Universe between February 15, 2020 and September 30, 2020



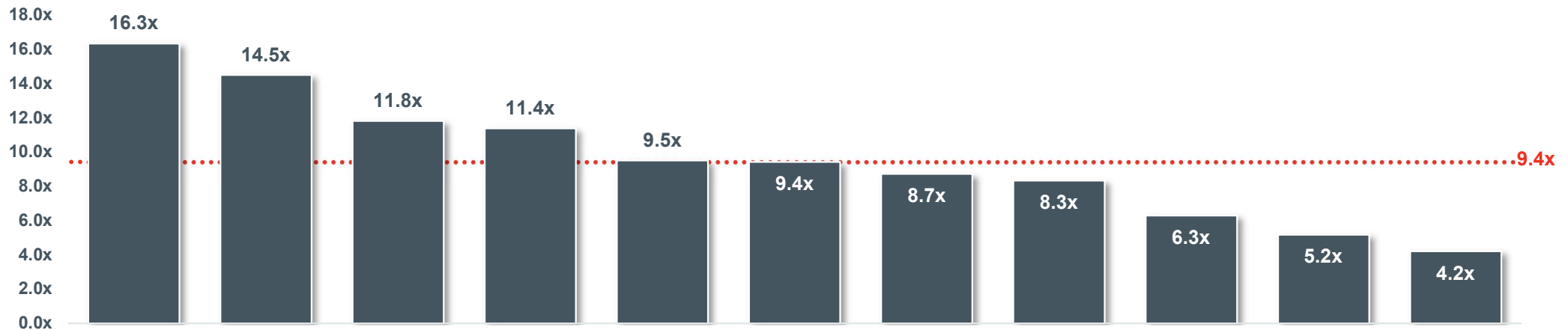
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management  
 Buckets ordered by median percentage change in stock price between February 15, 2020 and September 30, 2020  
 Does not include companies that began trading after February 15, 2020, i.e. BIGC, DCT, FROG, NCNO, SNOW, SUMO, U, ZI

Source: Capital IQ as of September 30, 2020  
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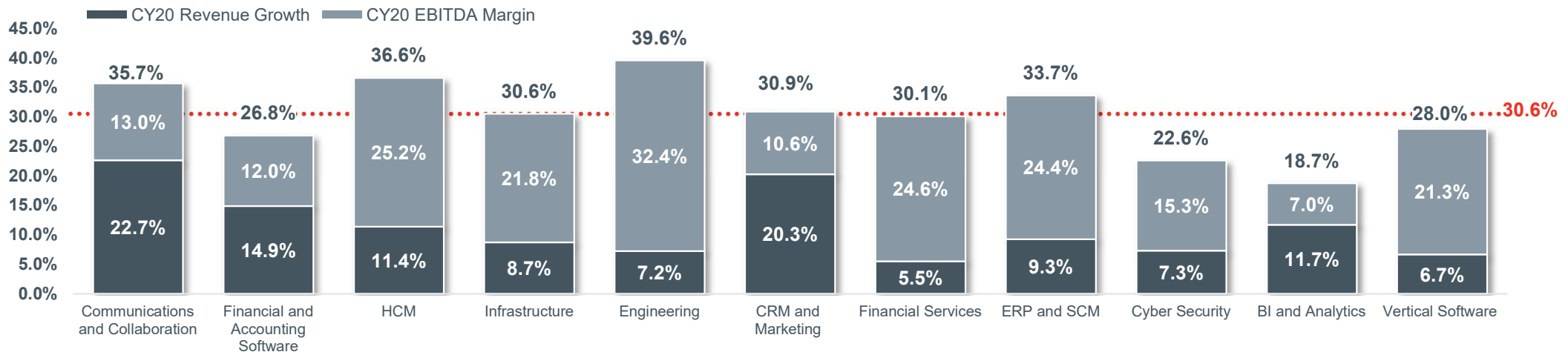
# Public Software Market Multiples

Sector multiples range from 16.3x to 4.2x, with a median of 9.4x CY 2020 revenues

## CY20 EV/Revenue Multiples



## CY20 Revenue Growth and EBITDA Margins



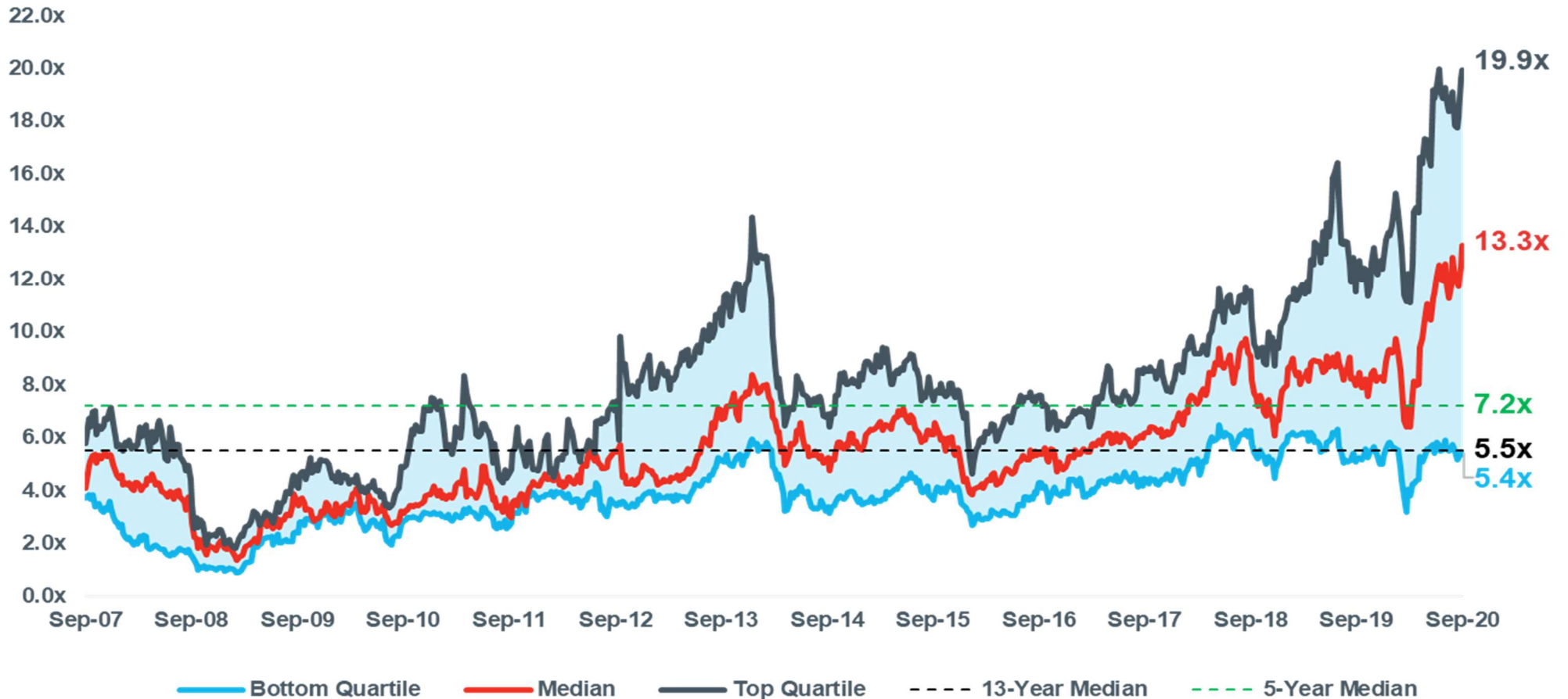
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; HCM = Human Capital Management; SCM = Supply Chain Management  
Buckets ordered by CY20 Revenue Multiples

# SaaS Companies Continue to Trade at Post-GFC Highs

Significant top-quartile premium observed vs. median and broader software universe

## Performance of Pagemill Partners SaaS Index Over the Last 13 Years

EV/NTM Revenue



EV = Enterprise Value; NTM = Next 12 Months; SaaS = Software as a Service; GFC = Global Financial Crisis  
 Pagemill Partners SaaS Index includes: DDOG, DOMO, DT, NEWR, PD, SPLK, TEAM, BOX, DOCU, DBX, EVBG, FIVN, RNG, WORK, SMAR, TWLO, ZM, ADBE, BIGC, ECOM, HUBS, LPSN, MDLA, CRM, SHOP, SVMK, YEXT, ZEN, ZI, CRWD, FEYE, MIME, OKTA, PING, PFPT, QLYS, SCWX, TENB, ZIXI, ZS, KXS, NOW, SPSC, ZUO, PLAN, AVLR, BILL, BL, COUP, WK, BNFT, CSOD, DCBO, PAYC, PCTY, WDAY, APPN, CLDR, NET, ESTC, FSLY, FROG, MDB, NTNX, SNOW, WIX, TWOU, APPF, BLKB, HSTM, PS, QTWO, RP, U and VEEV

# IPO Season Heats Up with Multiple Notable Debuts

First-day pops remain prevalent amongst this year's cohort, with a median pop of 50%<sup>1</sup>

Company	Date of Listing	Gross Proceeds	Offering Share Price	Market Cap at Listing <sup>2</sup>	First Day "Pop" <sup>1</sup>	Latest Market Cap	Change in Share Price Since Listing
McAfee™	<i>In IPO Registration</i>						
Palantir	30-Sep	Direct Listing	\$7.25 <sup>3</sup>	\$11,961	31% <b>Median: 49%</b>	\$15,673	31% <b>Median: 80%</b>
asana	30-Sep	Direct Listing	21.00 <sup>3</sup>	3,246	37%	4,452	37%
Bentley	22-Sep	236.5	22.00	5,747	52%	8,203	43%
unity	18-Sep	1300.0	52.00	13,695	31%	23,314	68%
sumo logic	16-Sep	325.6	22.00	2,171	22%	2,151	(1%)
JFrog	16-Sep	509.0	44.00	3,902	47%	7,653	92%
snowflake	15-Sep	3360.0	120.00	33,203	112%	70,505	109%
Duck Creek Technologies	13-Aug	405.0	27.00	3,464	48%	5,937	68%
BIGCOMMERCE	04-Aug	216.5	24.00	1,580	201%	5,632	247%
jamf	21-Jul	468.0	26.00	3,025	51%	4,380	45%
incino.	13-Jul	249.9	31.00	2,779	195%	7,263	157%
agora	25-Jun	350.0	20.00	1,984	153%	4,377	115%
zoominfo	03-Jun	934.5	21.00	935	62%	6,453	105%
Exasol	19-May	84.5	10.38	222	23%	524	101%

<sup>1</sup>First Day "Pop" = Closing First Day Share Price / Offering Share Price; <sup>2</sup>Market Capitalization at Listing = Market Capitalization on First Day post-IPO / First Day Pop; <sup>3</sup>Direct listing prices as determined by listing exchange, New York Stock Exchange for both

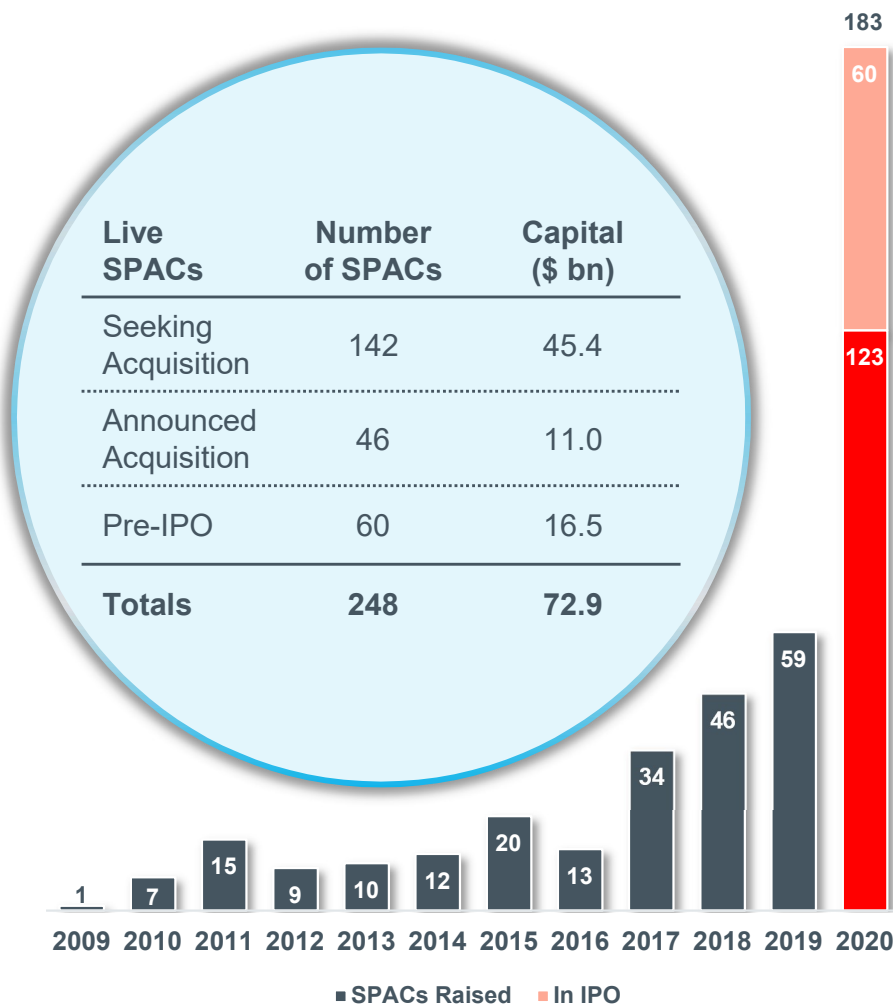
Source: Capital IQ as of September 30, 2020

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# 2020: Year of the SPAC

Three times more SPACs raised this year with \$72.9 bn of capital chasing acquisitions<sup>1</sup>

## Annual Number of SPACs Raised Since 2010



## Recent SPAC Acquisitions of Technology Targets

DIGINEX EV: N/A	Velodyne Lidar <sup>®</sup> EV: \$1.6 bn	Digital Media Solutions EV: N/A
OpenLending EV: \$1.3 bn	COMPUTEX TECHNOLOGY SOLUTIONS EV: \$65 mn	NIKOLA™ EV: \$3.3 bn
meten <sup>®</sup> INTERNATIONAL EDUCATION GROUP EV: \$575 mn	KIDiscOvery EV: \$799 mn	kaleyra EV: \$192 mn
GALACTIC EV: N/A	REPAY EV: \$600 mn	Clarivate™ EV: \$4.2 bn

## Announced SPAC Acquisitions of Technology Targets

ADVANTAGE SOLUTIONS	paya	LUMINAR
Shift Technology	Opendoor	MultiPlan.
BankMobile	Porch	CuriosityStream

# Public Trading Data for Software Companies

\$ in USD millions (except for share price)

Company Name	Share Price 30/09/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA LTM	EBITDA Margin <sup>2</sup>	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>BI and Analytics</b>													
Alteryx, Inc.	\$113.55	\$75.17	\$185.75	(38.9%)	\$7,514.3	\$7,532.8	\$464.9	\$463.9	27%	\$25.1	5.4%	16.2x	12.7x
Datadog, Inc.	102.16	27.55	107.99	(5.4%)	30,988.8	30,150.0	480.8	571.1	35%	12.9	2.7%	52.8x	39.1x
Domo, Inc.	38.33	7.62	47.25	(18.9%)	1,122.0	1,152.9	190.6	204.7	12%	(89.1)	(46.7%)	5.6x	5.0x
Dynatrace, Inc.	41.02	17.05	48.85	(16.0%)	11,529.5	11,838.3	578.8	631.8	21%	(67.5)	(11.7%)	18.7x	15.5x
Expert System S.p.A.	2.70	1.68	4.12	(34.5%)	136.1	131.6	40.5	36.0	9%	(6.4)	(15.9%)	3.7x	3.3x
MicroStrategy Incorporated	150.56	90.00	176.56	(14.7%)	1,393.4	970.9	475.2	465.0	NA	39.4	8.3%	2.1x	NM
New Relic, Inc.	56.36	33.49	74.20	(24.0%)	3,395.4	3,067.7	621.1	653.9	12%	(54.1)	(8.7%)	4.7x	4.2x
PagerDuty, Inc.	27.11	12.33	37.24	(27.2%)	2,153.4	1,797.0	189.2	208.4	20%	(51.2)	(27.0%)	8.6x	7.2x
Splunk Inc.	188.13	93.92	225.89	(16.7%)	30,174.9	30,784.7	2,343.3	2,323.5	26%	(471.4)	(20.1%)	13.2x	10.5x
Talend S.A.	39.04	18.30	46.80	(16.6%)	1,232.0	1,226.5	265.7	278.7	13%	(50.7)	(19.1%)	4.4x	3.9x
Teradata Corporation	22.70	17.62	31.42	(27.8%)	2,474.3	2,674.3	1,844.0	1,810.3	3%	138.0	7.5%	1.5x	1.4x
Veritone, Inc.	9.16	1.22	19.67	(53.4%)	252.9	202.8	50.4	54.5	16%	(48.3)	(95.7%)	3.7x	3.2x
<b>Average</b>												<b>11.3x</b>	<b>9.6x</b>
<b>Median</b>												<b>5.2x</b>	<b>5.0x</b>

BI = Business Intelligence; <sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021; <sup>2</sup> LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

Source: S&P Global Market Intelligence and Capital IQ as of September 30, 2020, and includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

# Public Trading Data for Software Companies



\$ in USD millions (except for share price)

Company Name	Share Price 30/09/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA LTM	EBITDA Margin <sup>2</sup>	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>Communications and Collaboration</b>													
8x8, Inc.	\$15.55	\$10.70	\$21.57	(27.9%)	\$1,620.8	\$1,857.1	\$471.4	\$502.9	16%	(\$143.8)	(30.5%)	3.7x	3.2x
Agora, Inc.	42.98	35.75	68.45	(37.2%)	4,377.5	3,736.6	105.6	125.4	32%	5.6	5.3%	29.8x	22.6x
Atlassian Corporation Plc	181.79	107.00	199.50	(8.9%)	45,077.2	43,974.7	1,614.2	1,762.6	20%	47.3	2.9%	24.9x	20.9x
Avaya Holdings Corp.	15.20	6.13	16.91	(10.1%)	1,261.3	3,902.3	2,841.0	2,855.1	2%	426.0	15.0%	1.4x	1.3x
Box, Inc.	17.36	8.64	22.09	(21.4%)	2,717.6	2,900.0	736.6	769.0	10%	(33.4)	(4.5%)	3.8x	3.4x
CooTek (Cayman) Inc.	4.87	4.55	7.45	(34.6%)	301.0	237.3	333.7	500.0	59%	(26.0)	(7.8%)	0.5x	0.3x
DocuSign, Inc.	215.24	59.77	290.23	(25.8%)	39,854.9	39,868.2	1,163.6	1,384.2	30%	(133.0)	(11.4%)	28.8x	22.1x
Dropbox, Inc.	19.26	14.55	24.14	(20.2%)	7,961.3	7,933.5	1,796.6	1,899.7	11%	175.6	9.8%	4.2x	3.8x
Everbridge, Inc.	125.73	62.89	165.79	(24.2%)	4,348.4	4,326.2	233.9	264.9	26%	(42.0)	(18.0%)	16.3x	13.0x
Extreme Networks, Inc.	4.02	1.43	8.00	(49.8%)	494.1	782.6	948.0	880.6	7%	26.2	2.8%	0.9x	0.8x
Five9, Inc.	129.68	50.73	131.98	(1.7%)	8,472.8	8,441.6	370.9	400.3	17%	10.2	2.8%	21.1x	18.0x
Jamf Holding Corp.	37.61	31.36	51.00	(26.3%)	4,379.6	4,543.1	234.2	256.2	20%	26.0	11.1%	17.7x	14.8x
Juniper Networks, Inc.	21.50	15.20	26.49	(18.8%)	7,132.6	7,152.3	4,425.5	4,398.0	3%	698.9	15.8%	1.6x	1.6x
Open Text Corporation	42.24	29.12	47.85	(11.7%)	11,457.6	14,241.6	3,109.7	3,220.5	-1%	910.9	29.3%	4.4x	4.5x
RingCentral, Inc.	274.61	120.03	317.84	(13.6%)	24,428.8	24,749.1	1,031.7	1,139.5	23%	(17.3)	(1.7%)	21.7x	17.6x
Slack Technologies, Inc.	26.86	15.10	40.07	(33.0%)	15,324.3	14,654.3	768.1	877.8	29%	(267.8)	(34.9%)	16.7x	12.9x
Smartsheet Inc.	49.42	30.91	60.80	(18.7%)	5,960.5	5,486.4	326.8	370.8	29%	(102.5)	(31.4%)	14.8x	11.5x
TeamViewer AG	49.46	25.11	64.42	(23.2%)	9,892.0	10,434.1	479.9	537.1	19%	205.2	42.8%	19.4x	16.3x
Twilio Inc.	247.09	68.06	288.81	(14.4%)	36,617.5	35,409.7	1,392.0	1,597.5	25%	(260.4)	(18.7%)	22.2x	17.7x
Vonage Holdings Corp.	10.23	4.18	12.99	(21.2%)	2,512.0	3,030.0	1,229.8	1,225.3	5%	101.6	8.3%	2.5x	2.3x
Zoom Video Communications	470.11	60.97	529.74	(11.3%)	133,709.1	132,300.0	1,346.5	2,395.1	27%	251.3	18.7%	55.2x	43.6x
<b>Average</b>												<b>14.8x</b>	<b>12.0x</b>
<b>Median</b>												<b>16.3x</b>	<b>12.9x</b>

<sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021; <sup>2</sup> LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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# Public Trading Data for Software Companies



\$ in USD millions (except for share price)

Company Name	Share Price 30/09/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA LTM	EBITDA Margin <sup>2</sup>	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>CRM and Marketing</b>													
Adobe Inc.	\$490.43	\$255.13	\$536.88	(8.7%)	\$235,268.6	\$234,730.6	\$12,436.3	\$12,808.1	15%	\$4,558.9	36.7%	18.3x	15.9x
Aimia Inc.	2.91	1.20	3.19	(8.7%)	273.5	182.6	44.8	24.4	-63%	(87.5)	(195.1%)	NM	NM
BigCommerce Holdings, Inc.	83.30	63.77	162.50	(48.7%)	5,632.3	5,922.8	128.8	143.0	18%	(31.7)	(24.6%)	41.4x	35.1x
Brightcove Inc.	10.24	5.44	13.36	(23.4%)	403.6	395.2	189.6	186.9	8%	1.3	0.7%	2.1x	2.0x
Cardlytics, Inc.	70.57	27.33	107.50	(34.4%)	1,925.6	1,841.1	199.4	170.8	46%	(29.7)	(14.9%)	10.8x	7.4x
ChannelAdvisor Corporation	14.47	4.39	22.32	(35.2%)	415.1	363.7	135.9	141.2	5%	23.0	16.9%	2.6x	2.5x
HubSpot, Inc.	292.23	90.84	320.89	(8.9%)	13,315.2	12,951.7	762.4	831.3	20%	(30.8)	(4.0%)	15.6x	12.9x
LivePerson, Inc.	51.99	14.08	63.90	(18.6%)	3,440.4	3,468.5	323.9	359.7	22%	(63.1)	(19.5%)	9.6x	7.9x
Medallia, Inc.	27.42	16.04	40.20	(31.8%)	4,033.0	3,747.2	441.4	467.8	17%	(121.3)	(27.5%)	8.0x	6.8x
NICE Ltd.	226.13	123.63	234.35	(3.5%)	14,185.9	13,690.4	1,620.1	1,642.8	9%	427.0	26.4%	8.3x	7.7x
Pegasystems Inc.	121.04	38.01	135.36	(10.6%)	9,733.5	9,793.2	986.2	1,065.8	19%	(105.0)	(10.6%)	9.2x	7.7x
salesforce.com, inc.	251.32	115.29	284.50	(11.7%)	228,701.2	225,606.2	19,380.0	20,802.3	18%	2,093.0	10.8%	10.8x	9.2x
Shopify Inc.	1,022.97	282.08	1,146.91	(10.8%)	124,677.4	120,829.6	2,080.1	2,617.7	31%	(40.5)	(1.9%)	46.2x	35.3x
Sprout Social, Inc.	38.50	10.54	41.87	(8.0%)	2,025.3	1,920.6	116.5	129.8	27%	(46.0)	(39.5%)	14.8x	11.6x
SVMK Inc.	22.11	9.35	26.24	(15.7%)	3,101.5	3,225.5	342.8	374.7	20%	(52.6)	(15.3%)	8.6x	7.2x
TechTarget, Inc.	43.96	16.82	44.90	(2.1%)	1,210.5	1,207.8	135.9	137.3	10%	28.6	21.0%	8.8x	8.0x
Upland Software, Inc.	37.70	20.75	45.00	(16.2%)	1,108.2	1,591.2	260.5	278.3	3%	48.0	18.4%	5.7x	5.5x
Verint Systems Inc.	48.18	32.44	59.83	(19.5%)	3,151.0	3,641.4	1,260.5	1,271.2	8%	178.3	14.1%	2.9x	2.6x
Yext, Inc.	15.18	8.56	20.90	(27.4%)	1,815.7	1,723.3	331.2	355.2	22%	(116.5)	(35.2%)	4.9x	4.0x
Zendesk, Inc.	102.92	50.23	107.79	(4.5%)	11,879.6	12,032.5	924.5	1,011.9	24%	(101.6)	(11.0%)	11.9x	9.6x
ZoomInfo Technologies Inc.	42.99	30.83	64.40	(33.2%)	6,452.8	7,450.7	383.3	454.1	27%	63.2	16.5%	16.4x	12.9x
<b>Average</b>												<b>12.2x</b>	<b>10.1x</b>
<b>Median</b>												<b>9.2x</b>	<b>7.7x</b>

CRM = Customer Relationship Management; <sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021; <sup>2</sup> LTM EBITDA Margin: CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>Cyber Security</b>													
Absolute Software Corporation	\$12.14	\$5.03	\$12.68	(4.3%)	\$516.7	\$479.0	\$104.7	\$110.0	11%	\$18.5	17.7%	4.4x	3.9x
Avast Plc	6.81	3.41	7.82	(12.8%)	7,003.1	7,850.9	878.8	891.1	6%	399.6	45.5%	8.8x	8.3x
Check Point Software Tech.	120.34	80.06	130.98	(8.1%)	16,871.7	15,280.1	2,026.9	2,051.4	3%	904.9	44.6%	7.4x	7.2x
CrowdStrike Holdings, Inc.	137.32	31.95	153.10	(10.3%)	30,134.7	29,115.8	654.3	824.6	37%	(98.3)	(15.0%)	35.3x	25.9x
CyberArk Software Ltd.	103.42	69.51	144.90	(28.6%)	4,005.6	3,389.4	451.1	461.9	19%	45.8	10.1%	7.3x	6.2x
F5 Networks, Inc.	122.77	79.78	156.36	(21.5%)	7,510.2	7,201.9	2,326.4	2,366.5	5%	528.9	22.7%	3.0x	2.9x
FireEye, Inc.	12.35	7.54	18.34	(32.7%)	2,762.1	2,869.6	915.6	919.4	6%	(77.8)	(8.5%)	3.1x	3.0x
Fortinet, Inc.	117.81	70.20	151.95	(22.5%)	19,065.4	17,581.8	2,354.3	2,538.9	15%	479.2	20.4%	6.9x	6.0x
F-Secure Oyj	3.96	2.39	4.03	(1.9%)	625.9	637.9	244.9	256.3	6%	22.0	9.0%	2.5x	2.3x
Mimecast Limited	46.92	25.14	54.40	(13.8%)	2,969.6	2,993.0	442.9	475.4	16%	46.6	10.5%	6.3x	5.4x
MobileIron, Inc.	7.01	2.94	7.30	(4.0%)	831.1	755.9	214.9	208.7	4%	(30.8)	(14.3%)	3.6x	3.5x
NortonLifeLock Inc.	20.84	15.12	28.70	(27.4%)	12,316.5	14,876.5	2,454.0	2,475.8	3%	804.0	32.8%	6.0x	5.8x
Okta, Inc.	213.85	88.66	231.29	(7.5%)	27,391.7	26,818.9	703.7	821.1	31%	(176.4)	(25.1%)	32.7x	25.0x
Palo Alto Networks, Inc.	244.75	125.47	275.03	(11.0%)	23,587.4	23,318.2	3,408.4	3,712.6	17%	1.8	0.1%	6.3x	5.4x
Ping Identity Holding Corp.	31.21	12.02	37.80	(17.4%)	2,516.7	2,507.8	250.4	244.7	16%	12.7	5.1%	10.2x	8.8x
Proofpoint, Inc.	105.55	83.81	133.58	(21.0%)	6,084.1	5,947.2	979.0	1,037.1	17%	(11.3)	(1.2%)	5.7x	4.9x
Qualys, Inc.	98.01	63.37	125.22	(21.7%)	3,846.6	3,455.6	342.4	360.0	12%	117.7	34.4%	9.6x	8.6x
Radware Ltd.	24.24	16.02	26.99	(10.2%)	1,123.3	921.9	248.7	247.0	9%	22.9	9.2%	3.7x	3.4x
Rapid7, Inc.	61.24	31.34	67.76	(9.6%)	3,123.6	3,265.6	368.1	402.3	19%	(37.5)	(10.2%)	8.1x	6.8x
SecureWorks Corp.	11.39	5.29	18.23	(37.5%)	936.1	783.5	563.0	556.6	5%	6.3	1.1%	1.4x	1.3x
Sumo Logic, Inc.	21.80	21.01	28.45	(23.4%)	2,151.4	2,418.1	181.4	NA	NA	(88.2)	(48.6%)	NM	NM
Tenable Holdings, Inc.	37.75	16.28	41.80	(9.7%)	3,822.7	3,634.6	398.8	431.3	19%	(69.3)	(17.4%)	8.4x	7.1x
Trend Micro Incorporated	60.77	36.22	65.42	(7.1%)	8,422.0	6,673.0	1,572.7	1,643.9	5%	522.9	33.2%	4.1x	3.9x
Tufin Software Technologies	8.25	5.79	20.13	(59.0%)	294.6	212.4	100.0	95.7	17%	(39.2)	(39.2%)	2.2x	1.9x
Varonis Systems, Inc.	115.42	48.95	127.37	(9.4%)	3,641.4	3,592.2	259.0	270.6	20%	(77.0)	(29.7%)	13.3x	11.1x
Zix Corporation	5.84	2.84	9.29	(37.1%)	320.9	615.5	204.0	214.8	10%	41.0	20.1%	2.9x	2.6x
Zscaler, Inc.	140.69	35.00	163.80	(14.1%)	18,698.6	18,233.3	431.3	508.7	32%	(77.3)	(17.9%)	35.8x	27.2x
<b>Average</b>												<b>9.2x</b>	<b>7.6x</b>
<b>Median</b>												<b>6.3x</b>	<b>5.6x</b>

<sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021; <sup>2</sup> LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>Engineering</b>													
Altair Engineering Inc.	\$41.98	\$23.04	\$44.34	(5.3%)	\$3,069.3	\$3,036.4	\$454.3	\$452.2	8%	\$23.8	5.2%	6.7x	6.2x
ANSYS, Inc.	327.23	200.07	354.87	(7.8%)	28,072.8	27,874.2	1,520.8	1,609.8	11%	516.7	34.0%	17.3x	15.6x
Aspen Technology, Inc.	126.59	73.07	142.89	(11.4%)	8,572.5	8,752.2	590.2	646.1	12%	258.4	43.8%	13.5x	12.1x
Autodesk, Inc.	231.01	125.38	261.94	(11.8%)	50,655.7	51,219.4	3,540.8	3,753.6	17%	630.3	17.8%	13.6x	11.7x
AVEVA Group plc	61.89	34.06	69.37	(10.8%)	9,980.3	9,922.6	1,038.1	1,043.7	6%	193.7	18.7%	9.5x	9.0x
Bentley Systems, Incorporated	31.40	27.00	35.35	(11.2%)	8,202.8	8,334.4	768.5	NA	NA	216.1	28.1%	NM	NM
Cadence Design Systems, Inc.	106.63	51.39	117.59	(9.3%)	29,727.8	29,235.0	2,435.5	2,603.0	7%	663.1	27.2%	11.2x	10.5x
Dassault Systèmes SE	187.59	123.30	192.75	(2.7%)	48,893.4	51,543.0	4,840.4	5,341.7	10%	990.2	20.5%	9.6x	8.8x
Hexagon AB (publ)	75.67	37.81	77.34	(2.2%)	27,812.5	30,101.0	4,278.3	4,405.5	7%	1,146.1	26.8%	6.8x	6.4x
Nemetschek SE	73.39	38.12	87.31	(15.9%)	8,476.7	8,645.8	651.4	691.6	13%	147.2	22.6%	12.5x	11.1x
PTC Inc.	82.72	43.90	97.67	(15.3%)	9,605.3	10,510.8	1,402.4	1,446.1	12%	290.4	20.7%	7.3x	6.5x
Roper Technologies, Inc.	395.11	240.00	455.72	(13.3%)	41,372.3	45,367.9	5,405.0	5,582.7	13%	1,917.7	35.5%	8.1x	7.2x
Synopsys, Inc.	213.98	104.90	230.12	(7.0%)	32,474.0	32,102.9	3,510.9	3,806.7	6%	758.1	21.6%	8.4x	7.9x
Trimble Inc.	48.70	20.01	54.51	(10.7%)	12,185.5	13,935.1	3,133.8	3,016.8	8%	626.8	20.0%	4.6x	4.3x
<b>Average</b>												<b>10.0x</b>	<b>9.0x</b>
<b>Median</b>												<b>9.5x</b>	<b>8.8x</b>
<b>ERP and SCM</b>													
American Software, Inc.	\$14.04	\$9.05	\$21.48	(34.6%)	\$456.0	\$365.6	\$115.4	\$113.6	6%	\$8.1	7.0%	3.2x	3.1x
Kinaxis Inc.	147.12	59.53	168.86	(12.9%)	3,964.9	3,713.8	217.6	220.6	17%	47.8	22.0%	16.8x	14.4x
Manhattan Associates, Inc.	95.49	35.20	101.74	(6.1%)	6,065.7	5,977.0	604.7	570.1	10%	119.8	19.8%	10.5x	9.6x
Microsoft Corporation	210.33	132.52	232.86	(9.7%)	1,591,704.4	1,537,322.4	143,015.0	149,161.9	10%	65,259.0	45.6%	10.3x	9.4x
Oracle Corporation	59.70	39.71	62.60	(4.6%)	179,750.0	208,862.0	39,217.0	39,392.2	2%	16,789.0	42.8%	5.3x	5.2x
Sansan, Inc.	64.38	32.57	65.04	(1.0%)	2,004.6	1,932.2	124.1	140.1	23%	12.7	10.3%	13.8x	11.2x
SAP SE	155.89	96.44	168.29	(7.4%)	185,643.3	196,848.1	31,617.2	33,134.4	8%	8,389.6	26.5%	5.9x	5.5x
ServiceNow, Inc.	485.00	213.99	501.82	(3.4%)	93,023.5	91,879.2	3,954.8	4,403.3	25%	491.4	12.4%	20.9x	16.7x
Serviceware SE	16.79	8.47	19.49	(13.9%)	176.3	141.9	76.9	87.5	13%	(3.2)	(4.1%)	1.6x	1.4x
SPS Commerce, Inc.	77.87	31.28	83.85	(7.1%)	2,735.4	2,531.9	293.4	305.0	9%	61.8	21.1%	8.3x	7.6x
Technology One Limited	5.69	4.56	7.35	(22.6%)	1,817.4	1,778.9	180.6	213.4	15%	50.2	27.8%	8.3x	7.3x
Tecsys Inc.	21.13	9.93	24.35	(13.2%)	304.6	292.9	80.2	86.0	13%	5.8	7.2%	3.4x	3.0x
The Descartes Systems Group	56.93	29.01	61.85	(7.9%)	4,809.1	4,740.4	335.0	343.0	12%	125.0	37.3%	13.8x	12.3x
TOTVS S.A.	4.82	2.20	5.37	(10.2%)	2,738.7	2,577.2	435.0	450.6	17%	67.8	15.6%	5.7x	4.9x
WiseTech Global Limited	18.49	7.15	25.67	(28.0%)	5,958.0	5,829.4	296.5	326.9	26%	69.9	23.6%	17.8x	14.2x
Yonyou Network Technology	5.63	3.09	8.00	(29.7%)	18,279.7	18,202.0	1,153.3	1,372.8	23%	97.1	8.4%	13.3x	10.8x
Zuora, Inc.	10.34	6.21	17.79	(41.9%)	1,222.2	1,117.3	291.1	296.6	10%	(68.8)	(23.6%)	3.8x	3.4x
<b>Average</b>												<b>9.6x</b>	<b>8.2x</b>
<b>Median</b>												<b>8.3x</b>	<b>7.6x</b>

ERP = Enterprise Resource Planning; SCM = Supply Chain Management <sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021;  
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		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>Financial and Accounting Software</b>													
Anaplan, Inc.	\$62.58	\$26.04	\$64.31	(2.7%)	\$8,746.9	\$8,495.1	\$398.0	\$438.4	25%	(\$129.9)	(32.6%)	19.4x	15.4x
Avalara, Inc.	127.34	55.50	144.20	(11.7%)	10,634.1	10,226.6	434.1	468.3	22%	(43.8)	(10.1%)	21.8x	17.8x
Basware Oyj	44.50	18.39	45.33	(1.8%)	641.5	696.3	171.2	177.7	10%	10.0	5.9%	3.9x	3.6x
Bill.com Holdings, Inc.	100.31	23.61	107.41	(6.6%)	8,042.9	7,347.6	157.6	169.1	24%	(29.9)	(19.0%)	43.5x	35.1x
BlackLine, Inc.	89.63	38.32	94.06	(4.7%)	5,099.8	4,889.2	321.1	337.4	19%	(9.1)	(2.8%)	14.5x	12.2x
Coupa Software Incorporated	274.24	99.01	353.55	(22.4%)	18,880.9	19,029.2	458.4	498.5	26%	(42.7)	(9.3%)	38.2x	30.3x
Intuit Inc.	326.21	187.68	360.00	(9.4%)	85,404.1	81,990.1	7,679.0	7,849.5	10%	2,372.0	30.9%	10.4x	9.5x
Money Forward, Inc.	71.87	31.00	82.77	(13.2%)	1,694.1	1,662.9	86.5	107.7	33%	(17.1)	(19.8%)	15.4x	11.6x
Reckon Limited	0.61	0.28	0.65	(5.6%)	69.0	96.9	52.5	54.5	3%	9.1	17.3%	1.8x	1.7x
The Sage Group plc	9.32	6.67	10.28	(9.3%)	10,185.7	10,493.4	2,432.7	2,448.6	0%	732.1	30.1%	4.3x	4.3x
Workiva Inc.	85.53	61.11	87.04	(1.7%)	22,591.3	25,238.1	5,291.5	5,452.3	2%	1,564.3	29.6%	4.6x	4.5x
Wolters Kluwer N.V.	55.76	22.01	61.50	(9.3%)	2,662.8	2,479.4	324.1	342.2	14%	(51.4)	(15.8%)	7.2x	6.3x
Xero Limited	72.22	39.20	74.18	(2.6%)	10,291.2	10,264.3	426.9	521.7	24%	27.6	6.5%	19.7x	15.9x
<b>Average</b>												<b>15.7x</b>	<b>12.9x</b>
<b>Median</b>												<b>14.5x</b>	<b>11.6x</b>
<b>Financial Services</b>													
Bottomline Technologies	\$42.16	\$27.82	\$57.22	(26.3%)	\$1,883.7	\$1,891.3	\$442.2	\$449.4	11%	\$38.4	8.7%	4.2x	3.8x
Broadridge Financial Solutions	132.00	81.90	144.50	(8.7%)	15,201.3	16,835.3	4,529.0	4,592.3	4%	924.2	20.4%	3.7x	3.5x
Duck Creek Technologies, Inc.	45.43	35.10	45.82	(0.9%)	5,937.1	5,944.0	201.3	215.3	17%	11.5	5.7%	27.6x	23.7x
EVO Payments, Inc.	24.85	10.12	30.00	(17.2%)	1,030.6	2,093.8	457.2	452.7	16%	105.2	23.0%	4.6x	4.0x
Fidelity National Info Services	147.21	91.68	158.21	(7.0%)	91,211.8	110,086.8	12,203.0	12,619.9	8%	4,285.0	35.1%	8.7x	8.0x
GreenSky, Inc.	4.44	3.05	9.84	(54.9%)	311.5	762.1	538.7	537.1	14%	124.2	23.0%	1.4x	1.2x
Guidewire Software, Inc.	104.27	71.64	124.16	(16.0%)	8,703.9	8,019.9	742.3	746.4	2%	17.4	2.3%	10.7x	10.6x
i3 Verticals, Inc.	25.25	13.01	37.85	(33.3%)	476.0	662.1	220.4	151.1	21%	25.6	11.6%	NM	3.6x
Jack Henry & Associates, Inc.	162.59	123.64	200.98	(19.1%)	12,461.2	12,316.5	1,697.1	1,723.5	6%	446.3	26.3%	7.1x	6.7x
nCino, Inc.	79.68	66.82	103.95	(23.3%)	7,262.8	6,879.0	169.8	193.5	23%	(30.4)	(17.9%)	35.6x	28.8x
Q2 Holdings, Inc.	91.26	47.17	106.44	(14.3%)	4,880.7	4,971.2	356.5	400.4	22%	(46.3)	(13.0%)	12.4x	10.2x
SimCorp A/S	131.80	72.72	132.43	(0.5%)	5,223.1	5,259.0	511.9	535.9	12%	134.7	26.3%	9.8x	8.8x
SS&C Technologies Holdings	60.52	29.51	66.74	(9.3%)	15,588.7	22,533.2	4,659.4	4,623.7	3%	1,714.9	36.8%	4.9x	4.7x
Temenos AG	135.23	99.79	192.90	(29.9%)	9,781.6	10,807.9	933.2	946.6	13%	238.4	25.5%	11.4x	10.1x
<b>Average</b>												<b>10.9x</b>	<b>9.1x</b>
<b>Median</b>												<b>8.7x</b>	<b>7.4x</b>

<sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021; <sup>2</sup> LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

Source: S&P Global Market Intelligence and Capital IQ as of September 30, 2020, and includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

# Public Trading Data for Software Companies



\$ in USD millions (except for share price)

Company Name	Share Price 30/09/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA LTM	EBITDA Margin <sup>2</sup>	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>HCM</b>													
Automatic Data Processing	\$139.49	\$103.11	\$182.32	(23.5%)	\$59,959.2	\$60,508.8	\$14,589.8	\$14,158.6	3%	\$3,768.7	25.8%	4.3x	4.1x
Benefitfocus, Inc.	11.20	6.09	25.51	(56.1%)	361.3	540.1	287.1	265.6	9%	(2.3)	(0.8%)	2.0x	1.9x
Ceridian HCM Holding Inc.	82.65	38.40	87.00	(5.0%)	12,151.3	12,636.0	839.4	837.7	16%	106.7	12.7%	15.1x	13.1x
Cornerstone OnDemand, Inc.	36.36	22.22	64.45	(43.6%)	2,339.4	3,522.6	629.0	717.8	14%	59.8	9.5%	4.9x	4.3x
Docebo Inc.	37.14	7.73	44.16	(15.9%)	1,078.0	1,037.9	50.9	62.2	48%	(9.9)	(19.4%)	16.7x	11.3x
Paychex, Inc.	79.77	47.87	90.54	(11.9%)	28,715.3	28,718.9	4,040.5	3,868.1	4%	1,670.2	41.3%	7.4x	7.1x
Paycom Software, Inc.	311.30	163.42	342.00	(9.0%)	17,932.1	17,871.6	792.4	827.7	19%	255.5	32.2%	21.6x	18.1x
PayGroup Limited	0.40	0.31	0.65	(38.1%)	30.8	25.6	6.2	NA	NA	(1.2)	(19.6%)	NM	1.6x
Paylocity Holding Corporation	161.42	66.98	167.59	(3.7%)	8,686.6	8,582.5	561.3	578.1	18%	88.5	15.8%	14.8x	12.6x
TriNet Group, Inc.	59.32	27.79	73.82	(19.6%)	3,992.0	3,951.0	3,983.0	976.5	0%	457.0	11.5%	NM	4.1x
Workday, Inc.	215.13	107.75	248.75	(13.5%)	51,020.4	50,403.8	3,994.8	4,265.7	18%	(46.5)	(1.2%)	11.8x	10.0x
<b>Average</b>												<b>11.0x</b>	<b>8.0x</b>
<b>Median</b>												<b>11.8x</b>	<b>7.1x</b>
<b>Infrastructure</b>													
Akamai Technologies, Inc.	\$110.54	\$75.18	\$120.00	(7.9%)	\$17,985.4	\$18,279.0	\$3,041.1	\$3,158.0	7%	\$935.6	30.8%	5.8x	5.4x
Appian Corporation	64.75	29.07	67.42	(4.0%)	4,522.8	4,319.4	280.4	288.4	13%	(40.3)	(14.4%)	15.0x	13.3x
Cisco Systems, Inc.	39.39	32.40	50.28	(21.7%)	166,754.6	152,914.6	49,301.0	47,658.1	4%	15,822.0	32.1%	3.2x	3.1x
Citrix Systems, Inc.	137.71	94.17	173.56	(20.7%)	17,011.6	18,074.1	3,202.6	3,208.6	2%	803.6	25.1%	5.6x	5.5x
Cloudera, Inc.	10.89	4.76	14.20	(23.3%)	3,367.7	3,005.3	834.8	849.8	9%	(148.3)	(17.8%)	3.5x	3.2x
Cloudflare, Inc.	41.06	14.50	45.28	(9.3%)	12,553.1	11,894.7	348.8	407.3	32%	(97.7)	(28.0%)	29.2x	22.1x
Commvault Systems, Inc.	40.80	24.26	51.90	(21.4%)	1,892.8	1,551.4	681.7	675.3	4%	26.3	3.9%	2.3x	2.2x
Elastic N.V.	107.89	39.01	117.53	(8.2%)	9,307.9	8,989.7	466.8	522.7	24%	(127.0)	(27.2%)	17.2x	13.8x
Exasol AG	24.54	12.66	25.25	(2.8%)	523.6	476.3	25.4	32.2	58%	(19.9)	(78.4%)	14.8x	9.4x
Fastly, Inc.	93.68	10.63	117.79	(20.5%)	9,839.9	9,486.0	246.3	296.8	33%	(36.7)	(14.9%)	32.0x	24.0x
JFrog Ltd.	84.65	60.00	90.80	(6.8%)	7,653.2	7,651.2	127.9	153.2	37%	(0.2)	(0.2%)	49.9x	36.4x
MongoDB, Inc.	231.51	93.81	258.05	(10.3%)	13,628.8	13,694.5	501.6	553.3	27%	(155.0)	(30.9%)	24.7x	19.5x
NetApp, Inc.	43.84	34.66	65.38	(32.9%)	9,732.7	8,874.7	5,479.0	5,377.7	3%	1,110.0	20.3%	1.7x	1.6x
Nutanix, Inc.	22.18	11.31	37.86	(41.4%)	4,594.6	4,518.4	1,307.7	1,281.1	8%	(749.4)	(57.3%)	3.5x	3.3x
Snowflake Inc.	251.00	208.55	319.00	(21.3%)	70,504.6	71,530.2	402.7	574.3	90%	(343.4)	(85.3%)	124.6x	65.5x
Software Aktiengesellschaft	49.41	25.36	52.25	(5.4%)	3,655.6	3,312.9	1,002.5	1,009.3	3%	244.9	24.4%	3.3x	3.2x
SolarWinds Corporation	20.34	11.50	22.03	(7.7%)	6,353.9	8,057.2	981.0	1,013.9	10%	224.0	22.8%	7.9x	7.2x
VeriSign, Inc.	204.85	148.77	221.30	(7.4%)	23,527.8	24,126.8	1,245.9	1,261.4	6%	863.5	69.3%	19.1x	18.0x
<b>Average</b>												<b>20.2x</b>	<b>14.3x</b>
<b>Median</b>												<b>11.4x</b>	<b>8.3x</b>

HCM = Human Capital Management; <sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021; <sup>2</sup> LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

Source: S&P Global Market Intelligence and Capital IQ as of September 30, 2020, and includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

# Public Trading Data for Software Companies



\$ in USD millions (except for share price)

Company Name	Share Price 30/09/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA LTM	EBITDA Margin <sup>2</sup>	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
<b>Vertical Software</b>													
2U, Inc.	\$33.86	\$11.51	\$49.46	(31.5%)	\$2,411.0	\$2,561.4	\$675.1	\$743.5	17%	(\$100.5)	(14.9%)	3.4x	2.9x
Allscripts Healthcare Solutions	8.14	4.56	11.82	(31.1%)	1,326.6	2,290.7	1,718.1	1,680.4	2%	70.0	4.1%	1.4x	1.3x
Amdocs Limited	57.41	44.05	77.29	(25.7%)	7,636.6	7,525.1	4,146.3	4,164.4	4%	787.2	19.0%	1.8x	1.7x
AppFolio, Inc.	141.81	81.01	180.56	(21.5%)	4,863.6	4,922.4	288.8	318.8	20%	22.1	7.6%	15.4x	12.9x
ArcSoft Corporation Limited	10.98	5.13	16.18	(32.2%)	4,455.9	4,080.6	85.6	102.6	55%	28.3	33.1%	39.8x	25.7x
AssetMark Financial Holdings	21.74	13.94	34.02	(36.1%)	1,575.0	1,630.6	435.2	293.8	10%	28.2	6.5%	5.5x	5.0x
Black Knight, Inc.	87.05	50.01	87.75	(0.8%)	13,526.7	14,542.7	1,183.0	1,219.7	16%	398.9	33.7%	11.9x	10.3x
Blackbaud, Inc.	55.83	38.22	94.93	(41.2%)	2,695.7	3,264.4	914.6	912.6	0%	117.5	12.9%	3.6x	3.6x
Boxlight Corporation	1.61	0.33	4.65	(65.4%)	81.0	81.9	30.8	30.1	27%	(7.1)	(23.0%)	2.7x	2.1x
Castlight Health, Inc.	1.13	0.60	1.79	(36.9%)	170.2	143.0	146.5	133.2	-1%	(24.6)	(16.8%)	1.1x	1.1x
CDK Global, Inc.	43.59	29.12	57.00	(23.5%)	5,298.0	7,834.6	1,960.1	1,922.0	4%	671.1	34.2%	4.1x	3.9x
Cerner Corporation	72.29	53.08	80.90	(10.6%)	22,076.0	23,151.6	5,613.8	5,509.5	5%	1,169.9	20.8%	4.2x	4.0x
CoreLogic, Inc.	67.67	24.69	69.87	(3.1%)	5,379.5	6,910.4	1,806.3	1,936.2	-2%	443.4	24.5%	3.6x	3.6x
Ebix, Inc.	20.60	8.75	44.39	(53.6%)	636.8	1,306.2	542.6	496.8	23%	137.6	25.4%	2.6x	2.1x
Envestnet, Inc.	77.16	45.53	92.51	(16.6%)	4,149.1	4,736.3	957.9	984.1	11%	131.3	13.7%	4.8x	4.3x
FINEOS Corporation Holdings	3.51	1.55	4.12	(14.8%)	1,042.9	1,005.5	98.8	121.8	24%	3.2	3.3%	8.3x	6.7x
HealthStream, Inc.	20.07	19.32	29.78	(32.6%)	642.2	527.1	247.3	236.2	-7%	36.7	14.8%	2.2x	2.4x
Inovalon Holdings, Inc.	26.45	13.39	26.96	(1.9%)	4,109.0	5,055.3	656.3	685.2	11%	179.8	27.4%	7.4x	6.7x
K12 Inc.	26.34	15.06	52.84	(50.2%)	1,045.5	1,068.3	1,040.8	1,254.9	14%	59.3	5.7%	0.9x	0.7x
Pluralsight, Inc.	17.13	6.59	22.69	(24.5%)	1,917.3	2,126.8	358.8	382.5	17%	(139.5)	(38.9%)	5.6x	4.8x
RealPage, Inc.	57.64	36.91	69.79	(17.4%)	5,698.2	6,390.4	1,072.2	1,148.7	11%	179.8	16.8%	5.6x	5.0x
Tabula Rasa HealthCare, Inc.	40.77	33.04	69.72	(41.5%)	882.2	1,101.7	297.2	304.7	18%	(1.8)	(0.6%)	3.6x	3.1x
Tyler Technologies, Inc.	348.56	245.00	382.92	(9.0%)	14,026.3	13,643.0	1,111.9	1,134.3	9%	209.4	18.8%	12.0x	11.1x
Unity Software Inc.	87.28	65.11	102.63	(15.0%)	23,313.9	23,655.3	640.3	750.0	25%	(85.3)	(13.3%)	31.5x	25.2x
Veeva Systems Inc.	281.19	118.11	298.76	(5.9%)	42,410.9	40,972.7	1,283.2	1,419.6	20%	347.4	27.1%	28.9x	24.1x
<b>Average</b>												<b>8.5x</b>	<b>7.0x</b>
<b>Median</b>												<b>4.2x</b>	<b>4.0x</b>

<sup>1</sup> Forecasts Revenue Growth between CY 2020 and CY 2021; <sup>2</sup> LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

Source: S&P Global Market Intelligence and Capital IQ as of September 30, 2020, and includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

# Firm Overview



**Pagemill Partners, a division of Duff & Phelps, is a technology advisory firm located in the heart of Silicon Valley with representation in London and Paris.**



**Global advisory focused firm ranked No. 4 middle market M&A advisor for the past 10 years with 350+ corporate finance professionals and nearly 4,000 advisory focused professionals<sup>1</sup>**

## Significant Transaction Experience

- Over 300 transactions completed
- Strong track record of execution, running bespoke and competitive processes



- Advised on over 80 M&A transactions in 2019
- Advised on over 450 transactions for over 100 PE firms in 2019

## Deep Domain Expertise

- Fluency in key trends in the technology sector
- Thought leaders and strategic advisors to entrepreneurs and the PE community



- Five dedicated industry practices, each with deep sector expertise
- Established technology, industrials, business services, healthcare and consumer practices

## Unparalleled Access to Buyers

- Unmatched access to technology-focused financial sponsors and strategics
- Regular dialogue with key players in the ecosystem



- Provides advisory services to over 65% of Fortune 100 companies
- Global relationships across industry sectors and geographies

## Unconflicted and Focused Approach

- Singular focus on the technology sector
- Purely focused on M&A advisory services for emerging growth and middle-market clients



- Unconflicted as the firm does not provide audit services
- Independent advisors to all our clients

<sup>1</sup> Source: Thomson Reuters Securities Data (U.S. deals \$15 mn < \$170 mn, including deals without disclosed value). Full years 2010 through 2019.

# Distinguished Enterprise Software Franchise

- Pagemill Partners has completed over 300 transactions, the majority of which are in enterprise software
  - Industry leaders leveraging both SaaS and perpetual models, including companies with hybrid delivery models
  - Underlying technology architecture, reliance on third-party technologies and strategic partnerships, product roadmaps and vertical go-to-market strategies are all important attributes that we have demonstrated experience in articulating and positioning





# Experienced Technology M&A Advisors

## Application Software

 **TechValidate**  
has been  
acquired by  




 **CAMILION**  
has been  
acquired by  


 **EntropySoft**  
has been  
acquired by  



 **SeeControl**  
has been  
acquired by  


## Infrastructure Software

 **NOLIO**  
has been  
acquired by  


 **TierData**  
has been  
acquired by  


 **DataMirror**  
has been  
acquired by  


 **ClearApp**  
has been  
acquired by  


## Security

 **Mu Dynamics**  
has been  
acquired by  


 **POSTX**  
has been  
acquired by  


 **eurekify**  
has been  
acquired by  


 **Reconnex**  
has been  
acquired by  


## Internet/Digital Media

 **SK planet**  
has been  
acquired by  



 **avangate**  
has been  
acquired by  


 **LIVINGLY media**  
has been  
acquired by  


 **Officite**  
has been  
acquired by  


## Consumer Technologies

 **Livio**  
has been  
acquired by  


 **beatport**  
has been  
acquired by  


 **SVOX**  
has been  
acquired by  


 **pushpins**  
has been  
acquired by  


## Mobile/Wireless

 **Scintera**  
has been  
acquired by  



 **dust networks**  
has been  
acquired by  


 **JAVELIN SEMICONDUCTOR**  
has been  
acquired by  



 **ozmo DEVICES**  
has been  
acquired by  


## Networking/Communications

 **TROPOS networks**  
has been  
acquired by  




 **sensity**  
has been  
acquired by  


 **LiquidStream**  
has been  
acquired by  


 **FLUIDMESH NETWORKS**  
has announced its  
intention to be  
acquired by Cisco  
Systems, Inc.

## Semiconductors

 **VIA Telecom**  
has been  
acquired by  


 **FRONTIER SILICON**  
has been  
acquired by  


 **S/BEAM**  
has been  
acquired by  


 **Coresonic**  
The baseband DSP company  
has been  
acquired by  


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## About Duff & Phelps

Duff & Phelps is the world's premier provider of governance, risk and transparency solutions. We work with clients across diverse sectors in the areas of valuation, corporate finance, disputes and investigations, cyber security, claims administration and regulatory compliance. With Kroll, the leading global provider of risk solutions, and Prime Clerk, the leader in complex business services and claims administration, our firm has nearly 4,000 professionals in 25 countries around the world. For more information, visit [www.duffandphelps.com](http://www.duffandphelps.com).

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