

INDUSTRY INSIGHTS

Global Software Sector Update

Winter 2021

Executive Summary

While 2020 was an unprecedented and unsettling year in many respects, the technology sector and, in particular, the global software market remained resilient and thrived, establishing a further divide between the prospects facing the software-enabled, digital-first economy and the physical economy.

In the early days of the COVID-19 pandemic, the global software market witnessed a decade-low performance, with large-cap deal activity being significantly impacted in Q2 2020. However, buyer confidence and dealmaking soared to record highs by Q4 2020, resulting in some of the largest software deals to date. This renewed confidence came from accelerating digital transformation trends driving a broad-based recovery in technology spend. The activity was further fueled by public markets supporting a surging IPO market and a record number of special purpose acquisition companies (SPACs), in addition to the ongoing robust private capital appetite for software assets.

The exceptional return to activity was most evident at the high end of the market. Application software targets worth > \$1 billion (bn) represented 76% of disclosed deal value and traded at an all-time high median of 8.6x revenue. Sponsor-backed deals also reached record volume through Q4 2020, while exhibiting more caution on valuations that reached prior year highs, as the prospect of dwindling returns elsewhere drove even more dry powder into the sector. While we observed heightened activity across all sectors tracked, activity was particularly strong in collaboration, infrastructure, analytics, engineering, fintech and cyber security software.

Notwithstanding these record levels of activity in Q4 2020, market participants broadly expect acquisition activity to continue at pace into 2021. Based on our activity and ongoing engagements, we share this view, as the key drivers that propelled software M&A following the pandemic are expected to endure; positive tailwinds from successful vaccination programs and economic recovery could add more fuel to the fire.

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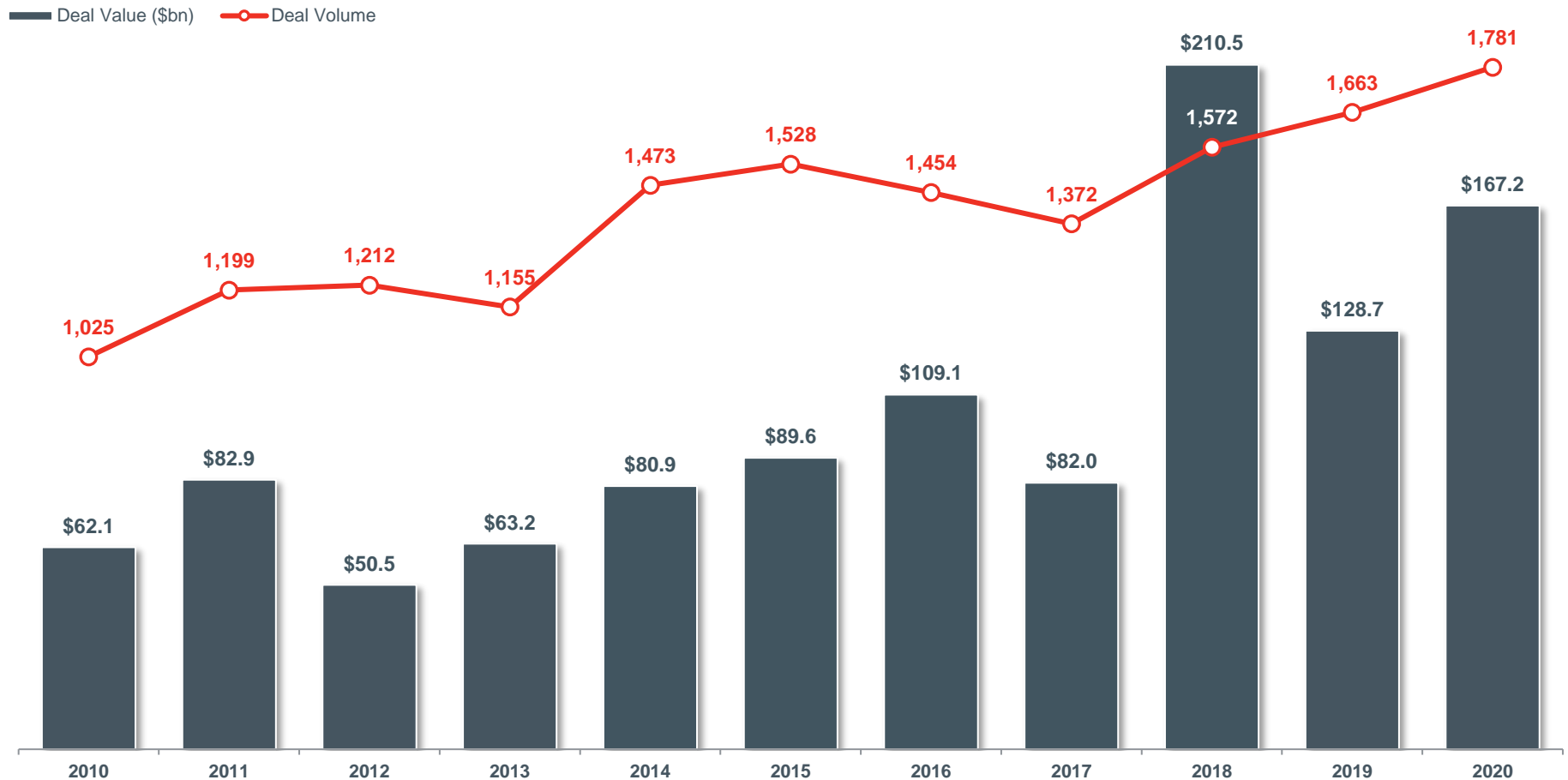
Pagemill Partners Overview



2020: Another Year to Remember for Software M&A

Highest Volume of Deals Over the Last 10 Years and the Second Highest for Disclosed Deal Value

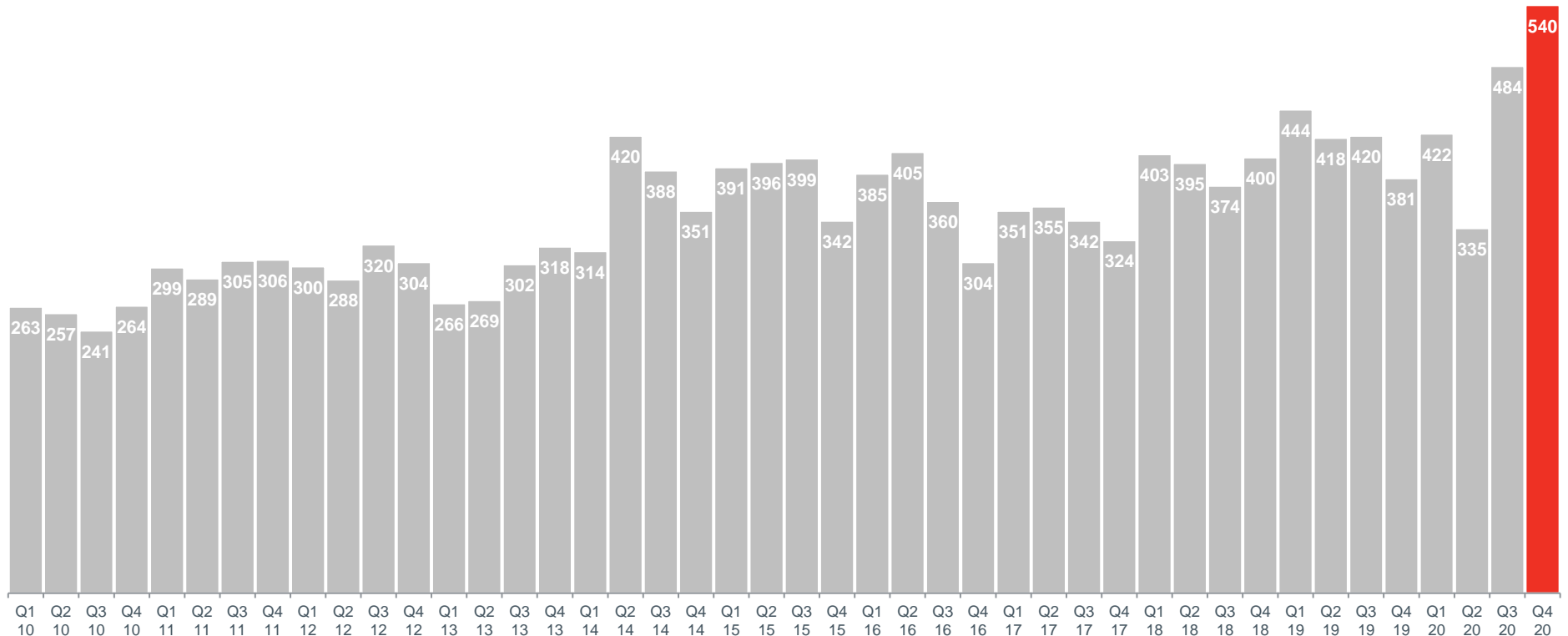
Annual Deal Volume and Deal Value



Software Deal Activity Bounces Back After Q2 2020 Low

Q4 2020 Recorded The Highest Quarterly Software M&A Volumes Over The Past 10 Years¹

Quarterly Deal Volume (Q1 2010 to Q4 2020)



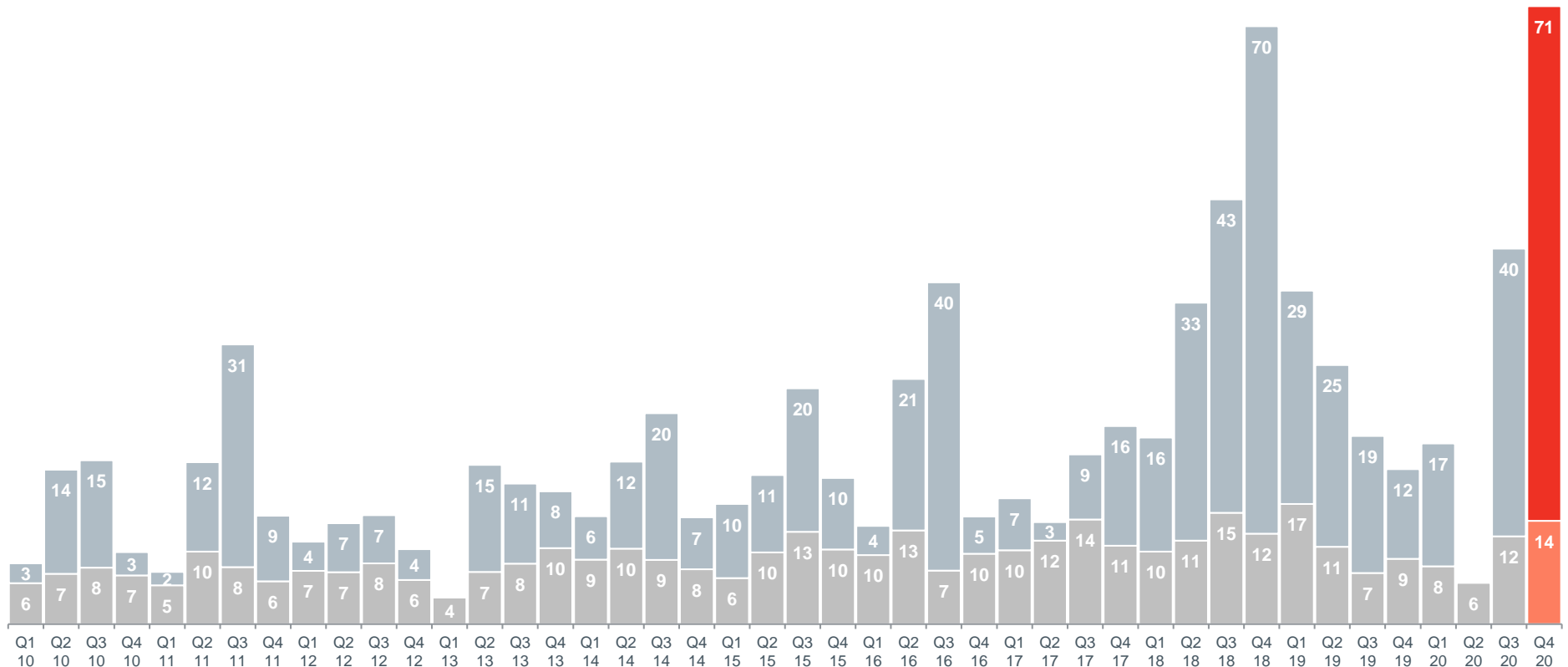
¹Between January 01, 2010 and December 31, 2020

Large Deals Returned at the Back End of 2020

After All-time Lows¹ in Q2 2020, Q4 2020 also Observed Record High Disclosed Deal Values

Quarterly Deal Value (Q1 2010 to Q4 2020)

— <\$1bn Deal Values (\$bn) — >\$1bn Deal Values (\$bn)

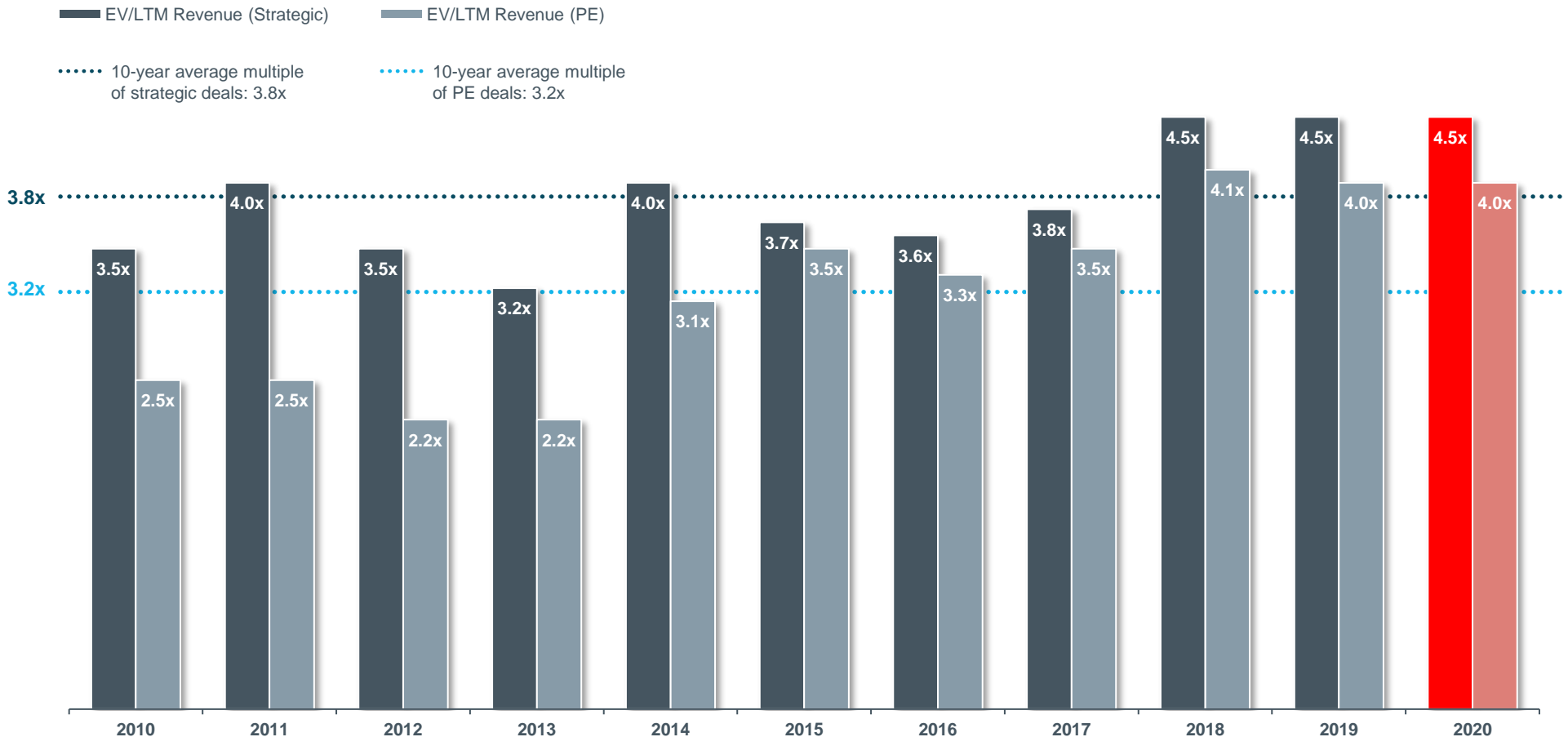


¹Between January 01, 2010 and December 31, 2020

Software Multiples Remain Above Long-Term Levels

Both Strategic and PE Deal Multiples Continue to Remain at Near-Term Highs

Annual Median Deal Multiple



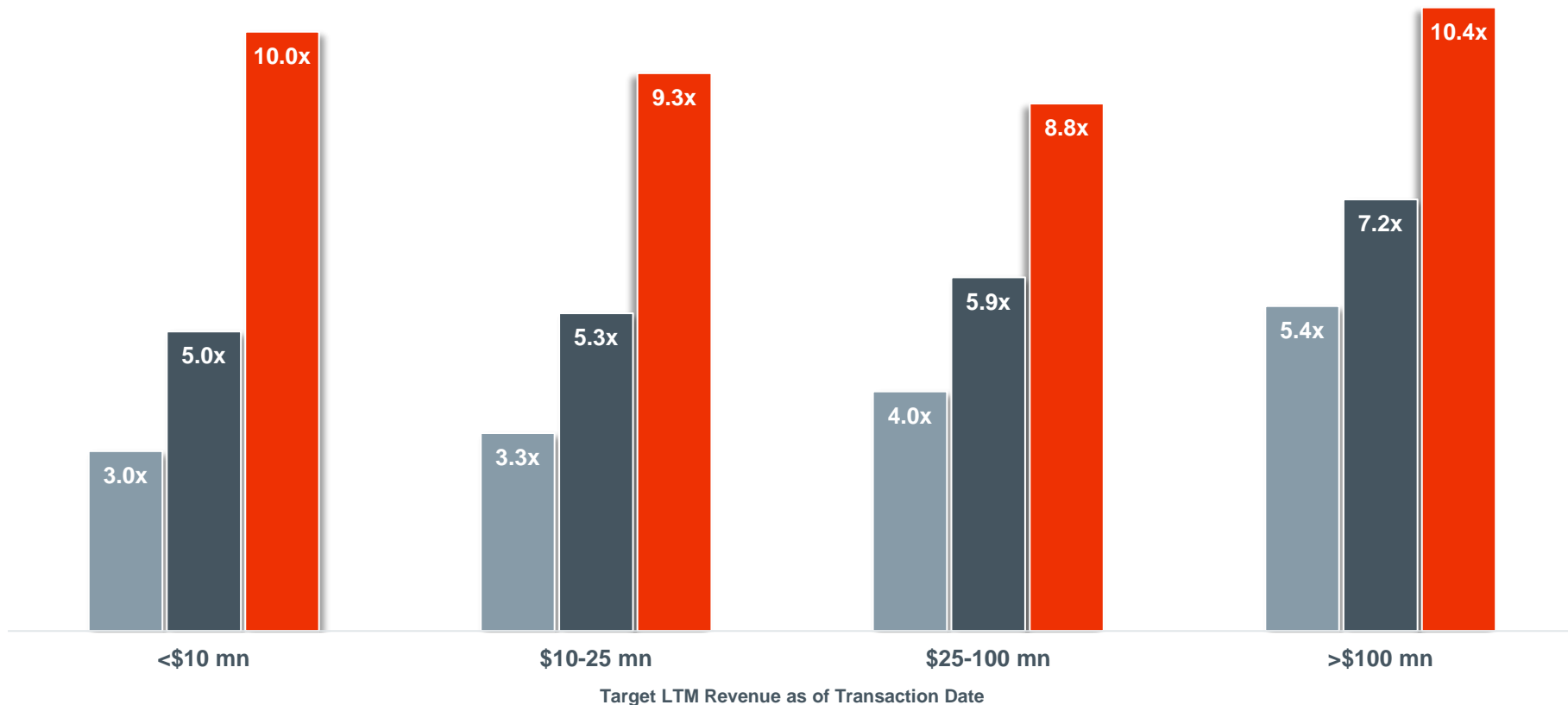
EV = Enterprise Value = Market Capitalization + Total Debt – Cash, LTM = Last Twelve Months, YTD = Year to Date
 PE deals include acquisitions made by PE-backed strategics.

SaaS Deal Multiples by Quartile and Target Revenue

7x Interquartile Range for <\$25 mn Revenue Deals, Narrows to 5x for >\$25 mn Revenue Deals

Deal Multiples Quartiles by Target LTM Revenue

1st Quartile Median 3rd Quartile



Transactions selected based on the following parameters: (i) target company with SaaS business model ; (ii) transaction announced between January 1, 2018 and December 31, 2020; (iii) disclosed EV/LTM revenue multiple; and (iv) excluding outliers and SPAC transactions.

Top Six Software Acquisitions Over 2020 by Deal Value

December 2020




Slack provides team collaboration SaaS to enable employees to upload, edit and manage documents collaboratively and across devices and send and receive real-time messages. The software integrates with third-party applications, news feeds and hosted storage providers.

Slack is expected to become the new interface for Salesforce Customer 360 and will give customers a single source of truth for their business and a unified platform for connecting employees, customers and partners with each other and the applications they use daily, all within existing workflows.

acquired by 


\$28.4 bn **36.4x**

July 2020



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.

acquired by 

\$10.0 bn **12.2x²**

December 2020



RealPage provides property management software and SaaS for the multifamily property real estate sector. The software enables web development, market intelligence, revenue management and utility billing. It also provides related customer care services.

With the increasing importance of technology transformation in the real estate industry, RealPage's portfolio of solutions puts the company in a strong position to accelerate its market leadership. RealPage intends to leverage Thoma Bravo's operational and investment expertise in software to help drive continued growth and identify attractive M&A opportunities.

acquired by 

\$10.2 bn **9.4x**

July 2020




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.

acquired by 


\$6.8 bn **12.1x**

August 2020




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.

acquired by 


\$5.4 bn **9.1x¹**

August 2020



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.

acquired by 

\$5.0 bn **10.2x**

Deal Size EV/LTM Rev

¹EV/2021 Revenue; ²EV/2020 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;

Source: 451 Research as of December 31, 2020
All trademarks, trade names or logos referenced herein are the property of their respective owners.

Other Notable Software Deals During Q4 2020

Strategic Deals (Q4 2020)

Date	Target	Acquirer	Deal Value and Multiple ²	Target Abstract
Oct-20	segment	twilio	\$3,200 mn N/A	Customer data analytics SaaS
Nov-20	VERA FIN	Nasdaq	\$2,750 mn N/A	Financial anti-fraud and compliance SaaS
Oct-20	avalog	NEC	\$2,227 mn N/A	Swiss banking SaaS and BPO services
Nov-20	workfront	Adobe	\$1,500 mn 6.3x	Enterprise work management SaaS
Nov-20	LLamasoft	coupa	\$1,500 mn N/A	SCM systems optimization software
Dec-20	Sparta Systems	Honeywell	\$1,300 mn N/A	Compliance and quality management software
Nov-20	EXPANSE	paloalto	\$800 mn N/A	Cyber security management SaaS
Dec-20	arena	ptc	\$715 mn N/A	Product lifecycle management SaaS
Dec-20	IMI mobile	CISCO	\$709 mn N/A	Mobile messaging and content distribution
Oct-20	AGI <i>Analytical Graphics.</i>	ANSYS	\$700 mn N/A	Defense CAD SaaS
Oct-20	Health Advocate	Teleperformance	\$690 mn N/A	HR SaaS and outsourced services

PE Deals¹ (Q4 2020)

Date	Target	Acquirer ¹	Deal Value and Multiple ²	Target Abstract
Nov-20	planview	TPG ASSOCIATES	\$1,600 mn N/A	Project and portfolio management SaaS
Nov-20	CDK Global International Business Segment	FRANCISCO PARTNERS	\$1,450 mn N/A	Auto dealership management SaaS
Oct-20	CarePort	WellSky <i>TPG Capital</i>	\$1,350 mn 13.0x	Patients care coordination SaaS
Dec-20	VENAFI	THOMABRAVO	\$1,150 mn 16.4x	SSL and encryption key software
Oct-20	FORCEPOINT	FRANCISCO PARTNERS	\$1,000 mn 1.4x	Anti-data leakage SaaS
Dec-20	tinuiti	NEW MOUNTAIN CAPITAL LLC	\$575 mn N/A	Marketing analytics software and services
Oct-20	Information Builders	TIBC Vista Equity Partners	\$550 mn 2.3x	Enterprise business intelligence SaaS
Dec-20	Capita Education Software Division	Montagu	\$528 mn N/A	Education SaaS assets
Dec-20	flexera	THOMABRAVO	N/A N/A	Software license management software and SaaS
Nov-20	Gainsight	VISTA EQUITY PARTNERS	N/A N/A	CRM SaaS and software
Oct-20	Datasite	CAPVEST BUILDING BUSINESSES	N/A N/A	Deal lifecycle management SaaS

SaaS = Software as a Service; BPO = Business Process Outsourcing; SCM = Supply Chain Management; CAD = Computer Aided Design; HR = Human Resources; SSL = Secure Sockets Layer; CRM = Customer Relationship Management; ¹PE deals include acquisitions made by PE-backed strategics, whose owners are indicated in *italics*; excludes deals involving special purpose acquisition vehicles; ²Deal Multiple = Enterprise Value / LTM Revenue, unless otherwise specified;

Source: 451 Research as of December 31, 2020

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

Pagemill Partners-Tracked Software Universe



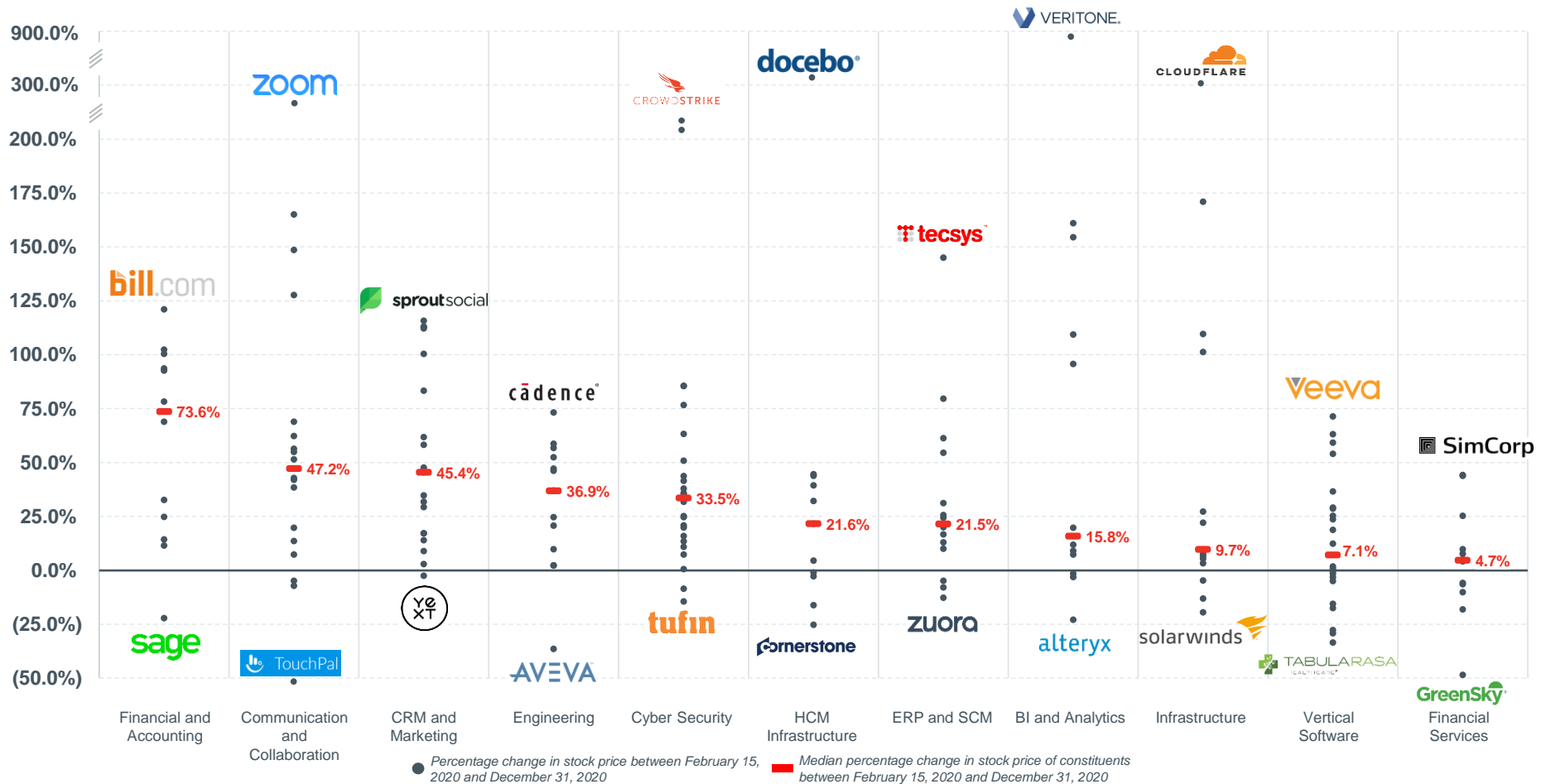
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management

Source: S&P Global Market Intelligence as of December 31, 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 December 31, 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 December 31, 2020.

Does not include companies that began trading after February 15, 2020, i.e., BIGC, DCT, FROG, NCNO, SNOW, SUMO, U, ZI

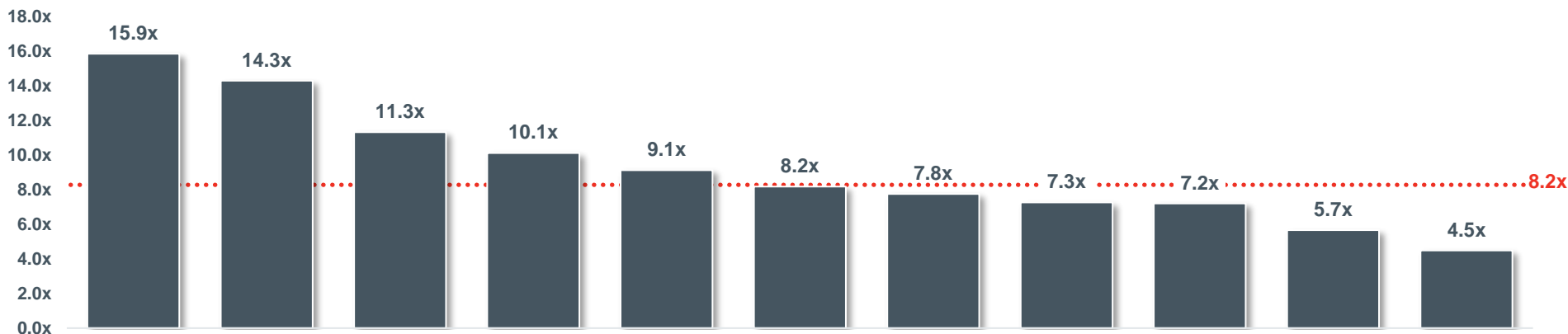
Source: Capital IQ as of December 31, 2020

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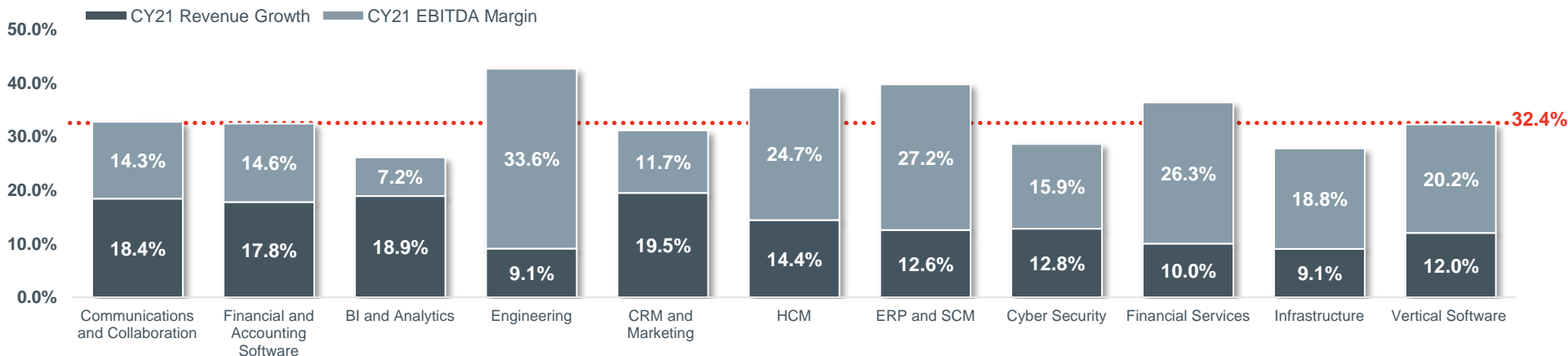
Public Software Market Multiples

Sector Multiples Range from 15.9x to 4.5x, With a Median of 8.2x CY 2021 Revenues

CY21 EV/Revenue Multiples



CY21 Revenue Growth and EBITDA Margins



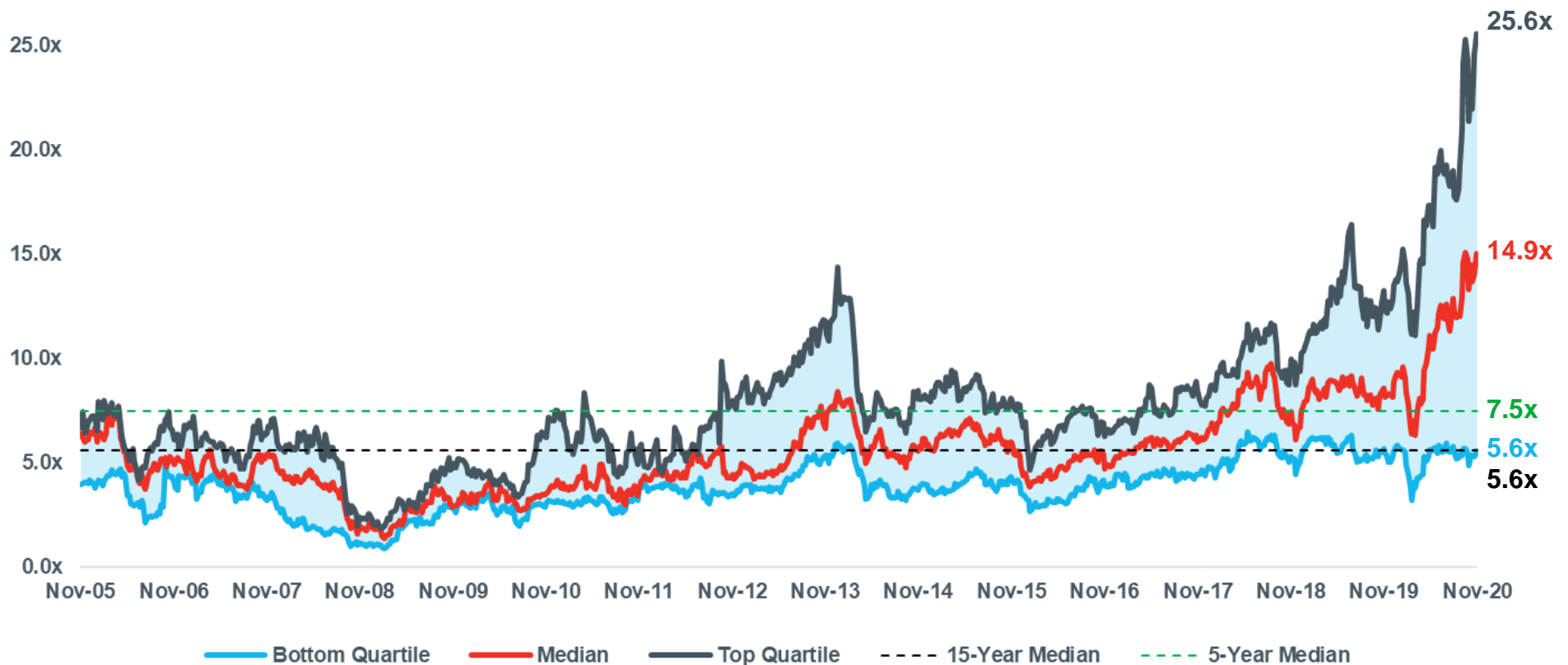
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; HCM = Human Capital Management; SCM = Supply Chain Management
Buckets ordered by CY20 Revenue Multiples

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, QTTWO, RP, U and VEEV

Red Hot IPO Window Including Multiple Notable Listings

First-day Pops Remain Prevalent Amongst This Year's Cohort, With a Median Pop of 48%¹

Company	Date of Listing	Gross Proceeds (\$)	Offering Share Price (\$)	Market Cap at Listing ² (\$)	First Day "Pop" ¹	Latest Market Cap	Change in Share Price Since Listing
 C3.ai	08-Dec	651.0	42.00	4,084	 120%	\$15,673	 230%
 McAfee [™]	21-Oct	740.0	20.00	8,244	-7%  Median: 48%	4,452	-17%  Median: 89%
 Palantir	30-Sep	<i>Direct Listing</i>	7.25 ³	12,834	 31%	8,203	 225%
 asana	30-Sep	<i>Direct Listing</i>	21.00 ³	3,444	 37%	23,314	 41%
 Bentley	22-Sep	236.5	22.00	5,834	 52%	2,151	 84%
 unity	18-Sep	1300.0	52.00	13,955	 31%	7,653	 195%
 sumo logic	16-Sep	325.6	22.00	2,389	 22%	70,505	 30%
 JFrog	16-Sep	509.0	44.00	3,900	 47%	5,937	 43%
 snowflake	15-Sep	3360.0	120.00	33,688	 112%	5,632	 135%
 Duck Creek Technologies	13-Aug	405.0	27.00	3,469	 48%	4,380	 60%
 BIGCOMMERCE	04-Aug	216.5	24.00	1,648	 201%	7,263	 167%
 rackspace technology	04-Aug	703.5	21.00	9,360	-22%  Median: 48%	4,377	-9%  Median: 89%
 jamf	21-Jul	468.0	26.00	3,144	 51%	6,453	 15%
 ncino	13-Jul	249.9	31.00	2,747	 195%	524	 134%
 agora	25-Jun	350.0	20.00	1,924	 153%		 98%
 zoominfo	03-Jun	934.5	21.00	1,815	 62%		 130%
 Exasol	19-May	84.5	10.38	222	 23%		 168%

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

Selected Pagemill 2020 Transactions

Growth Capital



Brightpearl Limited has received a significant Series C growth equity investment from Sage plc

Brightpearl

sage

On December 23, 2020, Sage plc (“Sage”), a market leader in cloud business management solutions, announced a significant partnership with Brightpearl Limited (“Brightpearl”), a market leading digital operations platform targeted at digital retailers across the globe.

Under the partnership, Sage made a minority investment of approximately \$23 mn into the business and took a seat on Brightpearl’s board. Together, Sage and Brightpearl will help retail and e-commerce customers take advantage of the best-of-breed cloud finance and retail management solutions, supporting them on their digital journey.

Sell-Side Advisors



True Wind Capital made a investment in AIA Contract Documents, a business division of the American Institute of Architects (AIA)

AIA Contract Documents

a business division of



TRUE WIND

On October 30, 2020, the American Institute of Architects (AIA) and its Contract Documents business division announced a strategic partnership with True Wind Capital, a leading PE firm focused on investments in targeted segments of technology.

True Wind Capital will invest in AIA’s Contract Documents (ACD), the leading provider of customizable legal contracts for the architecture, engineering and construction industry. Over its 130-year legacy, dating back to 1888, as a library of paper documents, AVD has been widely accepted as the gold-standard for contracts that define the relationships and terms involved in design and construction projects.

Sell-Side Advisors



Fluidmesh Networks has announced its intention to be acquired by Cisco Systems, Inc.



Cisco Systems, Inc.

On April 6, 2020, Fluidmesh Networks, LLC (“Fluidmesh”) announced its intention to be acquired by Cisco Systems, Inc (“Cisco”)

Fluidmesh provides software-enabled dynamic wireless connectivity solutions in the most challenging environments. The company enables Internet of Things and vehicle automation with a specialization in high bandwidth and low latency applications in difficult networking settings. Fluidmesh’s patented transmission technology meets the demanding the needs of autonomous trains and vehicles, robotics and industrial automation. The company offers proprietary technology to key verticals, including transportation, mining, security, public safety, industrials IoT and smart cities.

Public Trading Data for Software Companies ●○○○○○○○

\$ in USD millions (except for share price)

Company Name	Share Price 30/12/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
BI and Analytics													
Alteryx, Inc.	\$121.79	\$75.17	\$185.75	(34.4%)	\$8,109.2	\$8,166.3	\$491.2	\$483.5	18%	\$23.5	4.8%	16.9x	14.3x
C3.ai, Inc.	138.75	90.03	183.90	(24.6%)	13,298.9	13,427.0	164.7	NA	NA	(55.5)	(33.7%)	NM	NM
Datadog, Inc.	98.44	28.88	118.13	(16.7%)	29,978.2	29,115.8	539.6	589.6	36%	6.9	1.3%	49.4x	36.3x
Domo, Inc.	63.77	7.62	72.07	(11.5%)	1,909.9	1,931.5	199.5	207.4	15%	(81.1)	(40.7%)	9.3x	8.1x
Dynatrace, Inc.	43.27	17.10	48.85	(11.4%)	12,206.3	12,485.9	618.0	647.0	20%	108.1	17.5%	19.3x	16.1x
Expert System S.p.A.	0.00	1.75	4.04	(21.5%)	160.9	156.2	40.5	37.6	9%	(6.4)	(15.9%)	4.2x	3.8x
MicroStrategy Incorporated	388.55	90.00	399.98	(2.9%)	3,600.7	3,653.7	482.9	NA	NA	60.4	12.5%	NM	NM
New Relic, Inc.	65.40	33.49	74.20	(11.9%)	4,093.8	3,760.0	641.3	652.6	10%	(81.1)	(12.7%)	5.8x	5.2x
PagerDuty, Inc.	41.70	12.33	48.29	(13.6%)	3,416.6	3,107.5	200.2	211.7	23%	(50.7)	(25.3%)	14.7x	11.9x
Palantir Technologies Inc.	23.55	8.90	33.50	(29.7%)	41,025.2	39,422.7	999.9	1,071.7	32%	(1,128.0)	(112.8%)	36.8x	27.9x
Splunk Inc.	169.89	93.92	225.89	(24.8%)	27,474.8	28,160.5	2,275.5	2,162.7	21%	(589.1)	(25.9%)	13.0x	10.8x
Talend S.A.	38.34	18.30	46.80	(18.1%)	1,217.8	1,235.4	276.0	283.4	13%	(55.5)	(20.1%)	4.4x	3.8x
Teradata Corporation	22.47	17.62	27.79	(19.1%)	2,456.0	2,606.0	1,839.0	1,819.9	2%	147.0	8.0%	1.4x	1.4x
Veritone, Inc.	28.45	1.22	35.79	(20.5%)	886.8	832.5	53.3	57.1	20%	(43.3)	(81.1%)	14.6x	12.1x
Average												15.8x	12.7x
Median												13.8x	11.3x

BI = Business Intelligence; ¹ Forecasts Revenue Growth between CY 2020 and CY 2021; ² 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 December 31, 2020. It 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 30/12/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
Communications and Collaboration													
8x8, Inc.	\$34.47	\$10.70	\$35.72	(3.5%)	\$3,664.9	\$3,908.5	\$491.0	\$505.3	16%	(\$138.9)	(28.3%)	7.7x	6.7x
Agora, Inc.	39.56	33.60	68.45	(42.2%)	4,029.2	3,393.8	119.4	131.2	27%	3.7	3.1%	25.9x	20.3x
Asana, Inc.	29.55	20.57	32.51	(9.1%)	4,703.2	4,781.7	202.1	221.3	33%	(147.5)	(73.0%)	21.6x	16.3x
Atlassian Corporation Plc	233.87	110.01	250.03	(6.5%)	58,280.9	57,096.8	1,710.3	1,773.1	14%	63.7	3.7%	32.2x	28.4x
Avaya Holdings Corp.	19.15	6.13	21.21	(9.7%)	1,597.0	4,201.0	2,873.0	2,885.7	1%	443.0	15.4%	1.5x	1.4x
Box, Inc.	18.05	8.64	22.09	(18.3%)	2,863.5	3,013.0	755.4	768.4	9%	4.1	0.5%	3.9x	3.6x
CooTek (Cayman) Inc.	2.77	2.61	7.45	(62.8%)	169.6	125.4	408.0	NA	NA	(31.4)	(7.7%)	NM	NM
DocuSign, Inc.	222.30	64.88	290.23	(23.4%)	41,471.6	41,558.9	1,297.0	1,430.2	32%	(130.7)	(10.1%)	29.1x	22.0x
Dropbox, Inc.	22.19	14.55	25.16	(11.8%)	9,178.2	9,074.5	1,855.8	1,908.4	11%	224.5	12.1%	4.8x	4.3x
Everbridge, Inc.	149.07	77.60	165.79	(10.1%)	5,210.9	5,207.5	252.6	268.0	26%	(45.0)	(17.8%)	19.4x	15.5x
Extreme Networks, Inc.	6.89	1.43	8.00	(13.9%)	847.6	1,109.2	928.3	901.5	7%	35.1	3.8%	1.2x	1.1x
Five9, Inc.	174.40	52.51	187.99	(7.2%)	11,507.2	11,383.2	399.3	422.2	18%	11.2	2.8%	27.0x	22.8x
Jamf Holding Corp.	29.92	29.03	51.00	(41.3%)	3,488.6	3,311.1	250.0	263.6	20%	26.6	10.7%	12.6x	10.5x
Juniper Networks, Inc.	22.51	15.20	26.49	(15.0%)	7,422.4	7,447.7	4,430.6	4,416.0	3%	686.0	15.5%	1.7x	1.6x
Open Text Corporation	45.46	29.12	47.85	(5.0%)	12,318.8	14,935.7	3,216.9	3,264.6	0%	976.5	30.4%	4.6x	4.6x
RingCentral, Inc.	378.97	134.85	405.46	(6.5%)	33,967.7	34,685.6	1,102.0	1,166.5	23%	(26.8)	(2.4%)	29.7x	24.2x
Smartsheet Inc.	69.29	30.91	75.49	(8.2%)	8,470.6	8,119.6	354.2	378.3	29%	(104.5)	(29.5%)	21.5x	16.6x
TeamViewer AG	0.00	27.28	67.11	(20.1%)	10,722.9	11,335.1	518.5	561.4	19%	245.1	47.3%	20.2x	17.0x
Twilio Inc.	338.50	68.06	374.49	(9.6%)	51,117.5	48,480.6	1,544.9	1,668.1	32%	(274.4)	(17.8%)	29.1x	22.0x
Vonage Holdings Corp.	12.88	4.18	14.20	(9.3%)	3,197.3	3,709.8	1,248.9	1,240.8	5%	87.0	7.0%	3.0x	2.9x
Zoom Video Communications	337.32	65.81	588.84	(42.7%)	96,475.9	94,674.3	1,957.1	2,579.8	36%	448.3	22.9%	36.7x	27.1x
Average												16.7x	13.4x
Median												19.8x	15.9x

¹ Forecasts Revenue Growth between CY 2020 and CY 2021; ² 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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\$ in USD millions (except for share price)

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		Low	High				LTM	CY2020				CY 2020	CY 2021
CRM and Marketing													
Adobe Inc.	\$500.12	\$255.13	\$536.88	(6.8%)	\$239,917.1	\$238,633.1	\$12,868.0	\$12,868.0	18%	\$4,993.0	38.8%	18.5x	15.7x
Aimia Inc.	3.24	1.26	3.34	(2.8%)	303.5	168.4	22.4	22.4	-74%	(110.3)	(493.0%)	7.5x	NM
BigCommerce Holdings, Inc.	64.15	63.54	162.50	(60.5%)	4,436.1	4,295.6	140.2	147.8	19%	(31.5)	(22.4%)	29.1x	24.5x
Brightcove Inc.	18.40	5.44	19.36	(5.0%)	732.4	719.9	191.3	193.5	10%	2.7	1.4%	3.7x	3.4x
Cardlytics, Inc.	142.77	27.33	150.46	(5.1%)	3,921.1	3,818.0	189.1	180.6	42%	(38.1)	(20.1%)	21.1x	14.9x
ChannelAdvisor Corporation	15.98	4.39	22.32	(28.4%)	463.4	409.0	139.5	142.7	5%	24.2	17.3%	2.9x	2.7x
HubSpot, Inc.	396.44	90.84	420.61	(5.7%)	18,191.7	17,794.9	817.1	859.3	23%	(31.5)	(3.9%)	20.7x	16.9x
LivePerson, Inc.	62.23	14.08	68.55	(9.2%)	4,162.3	4,166.3	343.6	363.6	23%	(48.0)	(14.0%)	11.5x	9.3x
Medallia, Inc.	33.22	16.04	40.20	(17.4%)	4,997.9	4,807.1	459.3	473.8	17%	(107.1)	(23.3%)	10.1x	8.7x
NICE Ltd.	279.96	131.61	284.65	(1.7%)	17,562.2	17,022.4	1,643.6	1,651.8	9%	437.9	26.6%	10.3x	9.4x
Pegasystems Inc.	133.26	38.01	140.89	(5.4%)	10,753.8	10,867.6	995.5	1,033.9	17%	(119.3)	(12.0%)	10.5x	9.0x
salesforce.com, inc.	222.53	115.29	284.50	(21.8%)	203,714.0	200,445.0	20,286.0	21,106.7	20%	2,022.0	10.0%	9.5x	7.9x
Shopify Inc.	1,131.95	305.30	1,285.19	(11.9%)	138,857.5	133,639.3	2,456.9	2,853.0	33%	59.2	2.4%	46.8x	35.3x
Sprout Social, Inc.	45.41	10.54	56.65	(19.8%)	2,403.8	2,262.1	123.7	131.5	27%	(47.9)	(38.7%)	17.2x	13.5x
SVMK Inc.	25.55	9.35	26.24	(2.6%)	3,633.6	3,725.7	359.0	375.1	20%	(61.7)	(17.2%)	9.9x	8.3x
TechTarget, Inc.	59.11	16.82	63.11	(6.3%)	1,660.9	1,650.1	138.3	145.1	31%	28.6	20.7%	11.4x	8.7x
Upland Software, Inc.	45.89	20.75	51.48	(10.9%)	1,352.1	1,687.8	279.6	285.6	1%	48.3	17.3%	5.9x	5.9x
Verint Systems Inc.	67.18	32.44	67.59	(0.6%)	4,416.2	4,889.2	1,263.8	1,279.6	5%	187.4	14.8%	3.8x	3.6x
Yext, Inc.	15.72	8.56	20.90	(24.8%)	1,922.0	1,843.5	343.8	351.5	17%	(98.7)	(28.7%)	5.2x	4.5x
Zendesk, Inc.	143.12	50.23	144.59	(1.0%)	16,698.8	16,507.1	975.9	1,024.3	24%	(93.0)	(9.5%)	16.1x	13.0x
ZoomInfo Technologies Inc.	48.23	30.83	64.40	(25.1%)	8,130.4	9,071.0	427.6	468.5	29%	61.4	14.4%	19.4x	15.1x
Average												13.9x	11.5x
Median												10.5x	9.1x

CRM = Customer Relationship Management; ¹ Forecasts Revenue Growth between CY 2020 and CY 2021; ² 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
Cyber Security													
Absolute Software Corporation	\$11.89	\$5.26	\$14.54	(18.2%)	\$582.6	\$532.0	\$107.5	\$110.7	12%	\$18.1	16.8%	4.8x	4.3x
Avast Plc	7.34	3.60	8.25	(11.1%)	7,546.8	8,442.0	878.8	890.3	7%	399.6	45.5%	9.5x	8.9x
Check Point Software Tech	132.91	80.06	139.26	(4.6%)	18,634.0	14,737.6	2,045.1	2,057.7	3%	922.7	45.1%	7.2x	7.0x
CrowdStrike Holdings, Inc.	211.82	31.95	227.36	(6.8%)	46,868.1	45,852.1	761.6	859.3	40%	(77.5)	(10.2%)	53.4x	38.1x
CyberArk Software Ltd.	161.59	69.51	167.34	(3.4%)	6,258.6	5,635.2	449.6	448.6	8%	24.1	5.4%	12.6x	11.6x
F5 Networks, Inc.	175.94	79.78	178.09	(1.2%)	10,838.4	10,401.6	2,350.8	2,391.3	6%	511.2	21.7%	4.3x	4.1x
FireEye, Inc.	23.06	7.54	25.53	(9.7%)	5,210.7	5,298.2	928.2	933.4	6%	(59.2)	(6.4%)	5.7x	5.4x
Fortinet, Inc.	148.53	70.20	153.33	(3.1%)	24,111.2	22,502.7	2,457.7	2,567.2	16%	506.5	20.6%	8.8x	7.6x
F-Secure Oyj	0.00	2.49	5.06	(7.3%)	742.1	749.9	256.5	267.4	6%	26.9	10.5%	2.8x	2.6x
McAfee Corp.	16.69	14.80	19.78	(15.6%)	2,625.8	7,177.8	2,811.0	2,870.1	4%	891.0	31.7%	2.5x	2.4x
Mimecast Limited	56.84	25.14	59.48	(4.4%)	3,631.6	3,662.3	462.2	478.8	15%	56.5	12.2%	7.6x	6.7x
NortonLifeLock Inc.	20.78	15.12	28.70	(27.6%)	12,299.0	14,962.0	2,472.0	2,484.2	3%	894.0	36.2%	6.0x	5.9x
Okta, Inc.	254.26	88.66	287.35	(11.5%)	32,918.0	32,334.7	768.0	822.6	30%	(176.1)	(22.9%)	39.3x	30.1x
Palo Alto Networks, Inc.	355.39	125.47	375.00	(5.2%)	34,411.0	34,636.5	3,582.5	3,750.6	19%	30.2	0.8%	9.2x	7.7x
Ping Identity Holding Corp.	28.64	12.02	37.80	(24.2%)	2,323.0	2,319.5	248.6	249.2	16%	2.5	1.0%	9.3x	8.0x
Proofpoint, Inc.	136.41	83.81	137.84	(1.0%)	7,872.0	7,696.2	1,018.3	1,044.2	14%	(3.4)	(0.3%)	7.4x	6.5x
Qualys, Inc.	121.87	63.37	126.30	(3.5%)	4,755.0	4,363.2	352.8	362.8	13%	122.1	34.6%	12.0x	10.7x
Radware Ltd.	27.75	16.02	27.89	(0.5%)	1,280.9	943.1	248.3	248.6	8%	19.7	7.9%	3.8x	3.5x
Rapid7, Inc.	90.16	31.34	94.60	(4.7%)	4,673.8	4,813.9	390.0	407.3	19%	(41.9)	(10.7%)	11.8x	9.9x
SecureWorks Corp.	14.22	5.29	18.23	(22.0%)	1,169.4	1,011.9	563.3	559.8	3%	10.7	1.9%	1.8x	1.7x
Sumo Logic, Inc.	28.58	16.71	35.70	(19.9%)	2,924.3	2,516.8	192.8	200.6	17%	(87.4)	(45.3%)	12.5x	10.7x
Tenable Holdings, Inc.	52.26	16.28	56.99	(8.3%)	5,388.8	5,181.7	419.2	436.9	19%	(53.3)	(12.7%)	11.9x	10.0x
Tufin Software Technologies	12.48	5.79	18.39	(32.1%)	446.7	368.9	100.0	96.7	13%	(36.5)	(36.5%)	3.8x	3.4x
Varonis Systems, Inc.	163.61	48.95	180.00	(9.1%)	5,190.8	5,139.0	270.1	281.9	20%	(75.9)	(28.1%)	18.2x	15.2x
Zix Corporation	8.63	2.84	9.46	(8.8%)	474.4	759.9	211.0	217.5	12%	43.6	20.7%	3.5x	3.1x
Zscaler, Inc.	199.71	35.00	212.59	(6.1%)	26,799.5	26,310.9	480.3	526.3	33%	(101.5)	(21.1%)	50.0x	37.6x
Average												12.3x	10.1x
Median												8.2x	7.3x

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		Low	High				LTM	CY2020				CY 2020	CY 2021
Engineering													
Altair Engineering Inc.	\$58.18	\$23.04	\$60.00	(3.0%)	\$4,285.4	\$4,290.9	\$460.4	\$451.1	8%	\$29.1	6.3%	9.5x	8.8x
ANSYS, Inc.	363.80	200.07	369.82	(1.6%)	31,244.6	30,945.3	1,543.8	1,632.7	12%	506.9	32.8%	19.0x	16.9x
Aspen Technology, Inc.	130.25	73.07	142.89	(8.8%)	8,828.5	8,973.1	573.5	616.7	18%	247.4	43.1%	14.6x	12.3x
Autodesk, Inc.	305.34	125.38	307.22	(0.6%)	67,141.0	67,624.4	3,650.5	3,761.4	15%	691.0	18.9%	18.0x	15.7x
AVEVA Group plc	43.72	35.96	73.23	(40.3%)	12,546.1	12,552.1	1,001.6	1,073.6	4%	179.2	17.9%	11.7x	11.2x
Bentley Systems, Incorporated	40.51	27.00	41.17	(1.6%)	11,001.7	11,501.9	784.9	795.1	9%	216.5	27.6%	14.5x	13.2x
Cadence Design Systems, Inc.	136.43	51.39	136.84	(0.3%)	38,054.6	37,444.6	2,522.5	2,655.0	7%	718.7	28.5%	14.1x	13.2x
Dassault Systèmes SE	203.24	128.44	205.99	(1.3%)	53,106.4	55,715.6	5,185.7	5,448.4	9%	1,174.0	22.6%	10.2x	9.4x
Hexagon AB (publ)	0.00	41.24	92.42	(1.2%)	33,556.4	35,890.9	4,444.9	4,629.1	7%	1,217.6	27.4%	7.8x	7.3x
Nemetschek SE	0.00	39.71	90.95	(18.8%)	8,533.6	8,674.9	691.9	725.6	11%	155.3	22.4%	12.0x	10.7x
PTC Inc.	119.61	43.90	121.75	(1.8%)	13,954.0	14,839.8	1,458.4	1,484.0	9%	305.1	20.9%	10.0x	9.2x
Roper Technologies, Inc.	431.09	240.00	455.72	(5.4%)	45,209.4	54,611.3	5,416.6	5,556.5	13%	1,937.4	35.8%	9.8x	8.7x
Synopsys, Inc.	259.24	104.90	261.13	(0.7%)	39,672.1	39,104.9	3,685.3	3,804.7	8%	814.6	22.1%	10.3x	9.5x
Trimble Inc.	66.77	20.01	67.93	(1.7%)	16,704.2	18,303.2	3,142.0	3,107.3	7%	645.6	20.5%	5.9x	5.5x
Average												11.9x	10.8x
Median												11.0x	10.1x
ERP and SCM													
American Software, Inc.	\$17.17	\$9.05	\$21.48	(20.1%)	\$559.5	\$467.3	\$115.0	\$112.4	5%	\$7.8	6.8%	4.2x	4.0x
Kinaxis Inc.	141.53	67.91	176.57	(19.8%)	3,816.4	3,614.7	225.6	222.9	16%	44.2	19.6%	16.2x	14.0x
Manhattan Associates, Inc.	105.18	35.20	108.07	(2.7%)	6,681.7	6,549.6	592.2	577.3	5%	120.0	20.3%	11.3x	10.8x
Microsoft Corporation	222.42	132.52	232.86	(4.5%)	1,681,605.5	1,626,872.5	147,114.0	150,436.4	10%	68,123.0	46.3%	10.8x	9.8x
Oracle Corporation	64.69	39.71	66.20	(2.3%)	190,449.6	223,457.6	39,403.0	39,403.0	3%	17,271.0	43.8%	5.7x	5.5x
SAP SE	0.00	100.46	175.31	(25.2%)	156,183.7	163,963.5	32,691.4	33,434.0	1%	8,424.1	25.8%	4.9x	4.9x
ServiceNow, Inc.	550.43	238.93	566.74	(2.9%)	107,361.4	106,612.9	4,220.9	4,476.7	25%	525.1	12.4%	23.8x	19.1x
Serviceware SE	0.00	8.83	20.31	(15.7%)	179.8	144.0	85.5	89.5	17%	(4.4)	(5.1%)	1.6x	1.4x
SPS Commerce, Inc.	108.59	31.28	111.63	(2.7%)	3,834.2	3,594.0	302.1	309.9	15%	65.2	21.6%	11.6x	10.1x
Technology One Limited	6.33	4.91	7.92	(20.1%)	2,032.2	1,958.3	213.8	230.7	9%	62.7	29.3%	8.5x	7.8x
Tecsys Inc.	39.10	10.38	40.03	(2.3%)	563.8	555.4	84.5	92.1	13%	6.6	7.8%	6.0x	5.3x
The Descartes Systems Group	58.43	30.33	64.67	(9.6%)	4,936.3	4,830.5	339.5	344.9	13%	129.6	38.2%	14.0x	12.4x
TOTVS S.A.	0.00	2.38	6.14	(10.0%)	3,139.9	2,979.9	442.5	493.3	17%	65.2	14.7%	6.0x	5.2x
WiseTech Global Limited	23.72	7.69	26.00	(8.8%)	7,645.5	7,507.1	296.5	354.8	23%	69.9	23.6%	21.2x	17.2x
Zuora, Inc.	13.93	6.21	17.79	(21.7%)	1,660.5	1,553.9	296.5	302.2	10%	(64.4)	(21.7%)	5.1x	4.7x
Average												10.1x	8.8x
Median												8.5x	7.8x

ERP = Enterprise Resource Planning; SCM = Supply Chain Management ¹ Forecasts Revenue Growth between CY 2020 and CY 2021; ² 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
Financial and Accounting Software													
Anaplan, Inc.	\$71.85	\$26.04	\$76.37	(5.9%)	\$10,194.9	\$9,953.1	\$423.5	\$444.5	24%	(\$132.6)	(31.3%)	22.4x	18.1x
Avalara, Inc.	164.89	55.50	184.41	(10.6%)	13,944.9	12,947.1	463.4	489.2	26%	(40.8)	(8.8%)	26.5x	20.9x
Basware Oyj	0.00	19.16	52.42	(2.0%)	740.6	794.7	178.5	185.8	9%	11.7	6.5%	4.3x	3.9x
Bill.com Holdings, Inc.	136.50	23.61	154.03	(11.4%)	11,079.0	10,436.4	168.6	176.6	25%	(37.5)	(22.2%)	59.1x	47.2x
BlackLine, Inc.	133.38	38.32	141.82	(6.0%)	7,636.7	7,532.6	336.3	348.0	18%	(1.7)	(0.5%)	21.6x	18.3x
Coupa Software Incorporated	338.91	99.01	369.12	(8.2%)	24,461.2	24,618.2	489.6	524.0	27%	(54.6)	(11.2%)	47.0x	36.9x
Intuit Inc.	379.85	187.68	387.94	(2.1%)	104,856.0	101,697.0	7,837.0	8,093.8	19%	2,559.0	32.7%	12.6x	10.6x
Reckon Limited	0.60	0.30	0.69	(13.3%)	68.2	98.2	52.5	58.6	3%	9.1	17.3%	1.7x	1.6x
The Sage Group plc	7.95	7.04	10.85	(26.8%)	8,708.0	8,925.1	2,460.9	2,585.0	0%	717.7	29.2%	3.5x	3.5x
Wolters Kluwer N.V.	84.48	63.66	95.68	(11.7%)	22,170.4	24,927.6	5,291.5	5,688.4	1%	1,564.3	29.6%	4.4x	4.3x
Workiva Inc.	91.62	22.01	93.74	(2.3%)	4,415.7	4,218.1	338.0	348.2	16%	(42.7)	(12.6%)	12.1x	10.5x
Xero Limited	113.27	42.19	121.89	(7.1%)	16,575.9	16,523.6	522.0	573.1	17%	60.8	11.6%	28.8x	24.6x
Average												20.3x	16.7x
Median												17.1x	14.3x

Financial Services													
Bottomline Technologies, Inc.	\$52.74	\$27.82	\$57.22	(7.8%)	\$2,379.3	\$2,394.9	\$446.4	\$448.4	10%	\$42.3	9.5%	5.3x	4.9x
Broadridge Financial Solutions	153.20	81.90	154.22	(0.7%)	17,712.9	19,441.4	4,597.8	4,648.5	3%	932.3	20.3%	4.2x	4.1x
Duck Creek Technologies, Inc.	43.30	35.10	48.00	(9.8%)	5,665.1	5,300.5	224.0	220.9	18%	(6.2)	(2.8%)	24.0x	20.3x
EVO Payments, Inc.	27.01	10.12	30.00	(10.0%)	1,251.7	2,394.4	451.8	446.9	14%	102.4	22.7%	5.4x	4.7x
Fidelity National Info Services	141.46	91.68	158.21	(10.6%)	87,777.2	105,790.2	12,578.0	12,639.2	9%	4,451.0	35.4%	8.4x	7.7x
GreenSky, Inc.	4.63	3.05	9.84	(52.9%)	330.7	940.0	520.3	518.7	13%	75.9	14.6%	1.8x	1.6x
Guidewire Software, Inc.	128.73	71.64	129.76	(0.8%)	10,781.7	10,090.6	755.1	751.9	1%	9.7	1.3%	13.4x	13.3x
i3 Verticals, Inc.	33.20	13.01	37.85	(12.3%)	628.2	788.0	150.1	150.6	22%	21.2	14.1%	5.2x	4.3x
Jack Henry & Associates, Inc.	161.99	123.64	200.98	(19.4%)	12,362.5	12,237.3	1,710.9	1,724.1	6%	447.3	26.1%	7.1x	6.7x
nCino, Inc.	72.41	66.82	103.95	(30.3%)	6,683.0	6,308.6	186.2	200.9	23%	(32.0)	(17.2%)	31.4x	25.5x
Q2 Holdings, Inc.	126.53	47.17	130.59	(3.1%)	6,817.8	6,905.8	380.6	403.1	21%	(50.4)	(13.2%)	17.1x	14.1x
SimCorp A/S	0.00	75.76	150.37	(1.0%)	5,899.4	5,915.3	513.9	569.1	10%	124.7	24.3%	10.4x	9.5x
SS&C Technologies Holdings	72.75	29.51	74.00	(1.7%)	18,621.4	25,574.8	4,668.0	4,634.2	3%	1,732.0	37.1%	5.5x	5.4x
Temenos AG	0.00	103.46	190.56	(26.7%)	10,118.5	11,156.0	914.5	898.0	10%	238.5	26.1%	12.4x	11.3x
Average												10.8x	9.5x
Median												7.7x	7.2x

¹ Forecasts Revenue Growth between CY 2020 and CY 2021; ² 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 30/12/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
HCM													
Automatic Data Processing	\$176.20	\$103.11	\$182.32	(3.4%)	\$75,557.0	\$76,361.3	\$14,564.8	\$14,464.6	4%	\$3,808.8	26.2%	5.3x	5.1x
Benefitfocus, Inc.	14.48	6.09	22.31	(35.1%)	466.3	638.7	279.1	267.2	7%	5.1	1.8%	2.4x	2.2x
Ceridian HCM Holding Inc.	106.56	38.40	111.93	(4.8%)	15,749.9	16,204.6	841.5	837.2	15%	95.5	11.3%	19.4x	16.9x
Cornerstone OnDemand, Inc.	44.04	22.22	64.45	(31.7%)	2,845.1	3,995.0	683.6	729.9	14%	86.6	12.7%	5.5x	4.8x
Docebo Inc.	64.94	8.08	66.40	(2.2%)	2,117.0	2,057.3	56.5	62.3	45%	(7.3)	(12.9%)	33.0x	22.8x
Paychex, Inc.	93.18	47.87	99.95	(6.8%)	33,603.6	33,631.3	3,973.7	3,973.7	3%	1,608.0	40.5%	8.5x	8.2x
Paycom Software, Inc.	452.25	163.42	471.08	(4.0%)	26,063.6	25,960.1	813.9	834.3	20%	241.8	29.7%	31.1x	25.8x
PayGroup Limited	0.46	0.34	0.70	(34.3%)	37.9	31.0	9.7	NA	NA	(0.0)	(0.2%)	NM	2.0x
Paylocity Holding Corporation	205.91	66.98	218.34	(5.7%)	11,169.7	11,109.1	570.4	581.5	19%	86.3	15.1%	19.1x	16.0x
TriNet Group, Inc.	80.60	27.79	83.82	(3.8%)	5,370.7	5,408.7	3,989.0	1,029.6	-1%	437.0	11.0%	NM	5.3x
Workday, Inc.	239.61	107.75	259.01	(7.5%)	57,702.9	56,984.8	4,162.6	4,301.7	17%	51.3	1.2%	13.2x	11.3x
Average												15.3x	11.0x
Median												13.2x	8.2x
Infrastructure													
Akamai Technologies, Inc.	\$104.99	\$75.18	\$120.00	(12.5%)	\$17,091.7	\$17,246.3	\$3,124.0	\$3,180.8	7%	\$987.3	31.6%	5.4x	5.1x
Appian Corporation	162.09	29.07	216.41	(25.1%)	11,354.2	11,164.2	291.6	297.0	14%	(35.3)	(12.1%)	37.6x	32.9x
Cisco Systems, Inc.	44.75	32.40	50.28	(11.0%)	189,091.8	174,668.8	48,071.0	47,961.8	4%	15,220.0	31.7%	3.6x	3.5x
Citrix Systems, Inc.	130.10	100.31	173.56	(25.0%)	16,018.4	17,020.9	3,236.9	3,209.0	4%	794.8	24.6%	5.3x	5.1x
Cloudera, Inc.	13.91	4.76	15.50	(10.3%)	4,350.4	3,991.9	854.4	864.2	9%	(79.1)	(9.3%)	4.6x	4.2x
Cloudflare, Inc.	75.99	15.05	88.77	(14.4%)	23,351.8	22,718.3	389.1	423.4	34%	(75.0)	(19.3%)	53.7x	40.2x
Commvault Systems, Inc.	55.37	24.26	58.25	(4.9%)	2,609.6	2,235.7	685.2	684.5	4%	28.3	4.1%	3.3x	3.1x
Elastic N.V.	146.13	39.01	159.95	(8.6%)	12,772.3	12,454.0	510.6	543.9	23%	(115.2)	(22.6%)	22.9x	18.6x
Exasol AG	0.00	13.19	35.55	(4.1%)	802.1	752.8	25.4	33.5	58%	(19.9)	(78.4%)	22.5x	14.2x
Fastly, Inc.	87.37	10.63	136.50	(36.0%)	9,916.5	9,546.3	267.2	290.1	31%	(39.2)	(14.7%)	32.9x	25.0x
JFrog Ltd.	62.83	57.14	95.20	(34.0%)	5,729.7	5,151.6	138.9	149.6	31%	(2.1)	(1.5%)	34.4x	26.4x
MongoDB, Inc.	359.04	93.81	399.00	(10.0%)	21,638.0	21,720.0	542.9	576.4	28%	(174.4)	(32.1%)	37.7x	29.5x
NetApp, Inc.	66.24	34.66	67.63	(2.1%)	14,797.0	13,911.0	5,524.0	5,549.4	3%	1,076.0	19.5%	2.5x	2.4x
Nutanix, Inc.	31.87	11.31	37.86	(15.8%)	6,423.3	6,254.4	1,305.7	1,286.7	4%	(709.8)	(54.4%)	4.9x	4.7x
Rackspace Technology, Inc.	19.06	15.25	22.75	(16.2%)	3,817.6	7,721.6	2,618.0	2,695.3	9%	573.3	21.9%	2.9x	2.6x
Snowflake Inc.	281.40	208.55	429.00	(34.4%)	79,664.3	75,116.3	489.3	579.7	89%	(420.8)	(86.0%)	129.6x	68.6x
Software Aktiengesellschaft	0.00	26.42	54.43	(25.1%)	3,017.1	2,734.0	1,000.5	1,023.5	0%	211.9	21.2%	2.7x	2.7x
SolarWinds Corporation	14.95	11.50	24.34	(38.6%)	4,694.9	6,301.4	1,001.4	1,020.0	9%	229.4	22.9%	6.2x	5.7x
VeriSign, Inc.	216.40	148.77	221.30	(2.2%)	24,693.4	25,337.5	1,255.3	1,264.0	7%	864.7	68.9%	20.0x	18.8x
Average												22.8x	16.5x
Median												6.2x	5.7x

HCM = Human Capital Management; ¹ Forecasts Revenue Growth between CY 2020 and CY 2021; ² 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 30/12/2020	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY2020				CY 2020	CY 2021
Vertical Software													
2U, Inc.	\$40.01	\$11.51	\$49.46	(19.1%)	\$2,883.5	\$2,755.2	\$722.4	\$767.5	19%	(\$85.6)	(11.9%)	3.6x	3.0x
Allscripts Healthcare Solutions, Inc.	14.44	4.56	14.91	(3.1%)	2,281.3	3,258.1	1,676.0	1,608.3	-3%	69.8	4.2%	2.0x	2.1x
Amdocs Limited	70.93	44.05	77.29	(8.2%)	9,299.6	9,391.4	4,169.0	4,203.5	6%	793.2	19.0%	2.2x	2.1x
AppFolio, Inc.	180.04	81.01	186.59	(3.5%)	6,180.4	6,038.5	305.0	311.3	13%	21.3	7.0%	19.4x	17.2x
AssetMark Financial Holdings	24.20	13.94	34.02	(28.9%)	1,753.3	1,789.7	432.2	295.6	11%	28.8	6.7%	NM	5.4x
Black Knight, Inc.	88.35	50.01	97.19	(9.1%)	13,732.8	16,622.8	1,196.5	1,232.7	14%	406.1	33.9%	13.5x	11.8x
Blackbaud, Inc.	57.56	38.22	83.70	(31.2%)	2,778.9	3,302.9	908.5	899.9	-1%	113.8	12.5%	3.7x	3.7x
Boxlight Corporation	1.53	0.33	4.65	(67.1%)	78.3	119.9	29.0	50.0	166%	(7.2)	(24.8%)	2.4x	0.9x
Castlight Health, Inc.	1.30	0.60	1.63	(20.2%)	199.9	169.6	146.1	141.7	-7%	(15.7)	(10.7%)	1.2x	1.3x
CDK Global, Inc.	51.83	29.12	57.00	(9.1%)	6,307.3	8,720.1	1,959.1	1,920.9	-3%	647.0	33.0%	4.5x	4.7x
Cerner Corporation	78.48	53.08	80.90	(3.0%)	24,061.2	24,670.9	5,553.0	5,504.4	4%	1,247.3	22.5%	4.5x	4.3x
CoreLogic, Inc.	77.32	24.69	79.51	(2.7%)	6,013.8	7,404.7	1,848.9	1,706.6	-4%	459.8	24.9%	4.3x	4.5x
Ebiz, Inc.	37.97	8.75	39.03	(2.7%)	1,175.6	1,841.3	549.7	561.4	24%	143.2	26.1%	3.3x	2.7x
Envestnet, Inc.	82.29	45.53	92.51	(11.0%)	4,439.5	4,922.9	974.3	992.2	10%	140.9	14.5%	5.0x	4.5x
FINEOS Corporation Holdings	2.85	1.67	4.44	(35.7%)	861.0	820.7	98.8	122.7	20%	3.2	3.3%	6.7x	5.6x
HealthStream, Inc.	21.84	17.95	27.99	(22.0%)	691.8	570.8	245.7	242.1	-5%	36.3	14.8%	2.4x	2.5x
Inovalon Holdings, Inc.	18.17	13.39	27.93	(34.9%)	2,823.6	3,743.9	651.3	658.8	13%	178.5	27.4%	5.7x	5.0x
Pluralsight, Inc.	20.96	6.59	22.69	(7.6%)	2,507.3	2,714.4	375.7	388.7	15%	(126.3)	(33.6%)	7.0x	6.1x
Stride, Inc.	21.23	15.06	52.84	(59.8%)	846.8	970.9	1,154.6	1,260.8	17%	93.4	8.1%	0.8x	0.7x
Tabula Rasa HealthCare, Inc.	42.84	30.12	69.72	(38.6%)	965.1	1,197.0	293.4	294.8	18%	(10.6)	(3.6%)	4.1x	3.4x
Tyler Technologies, Inc.	436.52	247.22	466.21	(6.4%)	17,603.5	17,047.9	1,122.2	1,125.3	7%	219.7	19.6%	15.1x	14.1x
Unity Software Inc.	153.47	65.11	174.94	(12.3%)	41,556.1	39,923.0	710.2	757.7	26%	(181.9)	(25.6%)	52.7x	41.8x
Veeva Systems Inc.	272.25	118.11	313.99	(13.3%)	41,236.5	39,705.1	1,379.8	1,448.5	19%	371.6	26.9%	27.4x	23.1x
Average												8.7x	7.4x
Median												4.4x	4.5x

¹ Forecasts Revenue Growth between CY 2020 and CY 2021; ² 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 December 31, 2020. It includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

Firm Overview

Pagemill
Partners | A Division of
DUFF & PHELPS

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.



DUFF & PHELPS

Global advisory focused firm ranked No. 5 middle-market M&A advisor for the past 10 years with 350+ corporate finance professionals and nearly 4,000 advisory-focused professionals¹

Significant Transaction Experience

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



- Advised on over 75 M&A transactions in 2020
- c.1,000 sell/buy and refinance transactions for 100+ PE firms, Corporates and Banks in 2020
- Advised 50 cross-border engagements in 2020

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 the 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

¹Thomson Financial Securities Data U.S. deals \$10M - \$150M, including deals without a disclosed value. Full years 2011 through 2020.

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
SurveyMonkey

CAMILION
has been acquired by
SAP

EntropySoft
has been acquired by
salesforce

SeeControl
has been acquired by
AUTODESK

Infrastructure Software

NOLIO
has been acquired by
ca

TierData
has been acquired by
INFORMATICA

DataMirror
has been acquired by
IBM

ClearApp
has been acquired by
ORACLE

Security

Mu Dynamics
has been acquired by
SPIRENT

POSTX
has been acquired by
cisco **IRONPORT**

eureify
has been acquired by
ca

Reconnex
has been acquired by
McAfee

Internet/Digital Media

SK planet
has been acquired by
shoptick

avangate
has been acquired by
FIP
FRANCISCO PARTNERS

LIVINGLY media
has been acquired by
axel springer
aufeminin

Officite
has been acquired by
ib Internet Brands

Consumer Technologies

Livio
has been acquired by
Ford

beatport
has been acquired by
sfx

SVOX
has been acquired by
NUANCE

pushpins
has been acquired by
pmb Performance Marketing Brands

Mobile/Wireless

Scintera
has been acquired by
maxim integrated.

dust networks
has been acquired by
LINEAR TECHNOLOGY

JAVELIN
has been acquired by
AVAGO TECHNOLOGIES

ozmo
has been acquired by
Atmel

Networking/Communications

TROPIC NETWORKS
has been acquired by
ABB

sensity
has been acquired by
verizon

LiquidStream
has been acquired by
COMMSCOPE

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

Semiconductors

VIA Telecom
has been acquired by
intel

FRONTIER SILICON
has been acquired by
Toumaz

S/BEAM
has been acquired by
Silicon Image

Coresonic
The baseband DSP company
has been acquired by
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