

INDUSTRY INSIGHTS

Global Software Sector Update

Fall 2021

Executive Summary

Software M&A has proven resilient in the face of a resurgent pandemic, potential taper tantrum, market volatility, rising inflation and continued disruption to global supply chains. Q3 activity once again reached new record highs driven by broad-based buyer participation, ample liquidity and continued strong growth in software spending.

Publicly traded companies, including non-tech, are on pace to announce the highest number of software deals in over a decade, as they rely on M&A to drive “digital transformation”. Despite increasing investor redemptions and regulatory scrutiny, the number of tech companies acquired by special purpose acquisition companies in Q3 doubled from Q3 2020. PE acquirers kept up the pressure on strategics by printing some of the largest software deals in the quarter and increasingly dominated the mid-market software M&A scene.

Valuations are rising to never-before-seen levels. Average revenue multiples exceed 2020 figures by over 50%, while PE acquirers are on track to have paid a premium to strategics for the first year on record. Software as a Service valuations continued to trade at a premium, with top-quartile deals on average commanding double digit revenue multiples. With rising prices, target KPI hurdles are also shifting, extending the bifurcation between top and median performers.

We continue to observe a record pace of deal-making, especially in the U.S., where capacity constraint is a key process consideration when coming to market. Based on our activity and investor interactions, we anticipate a very active end to the year and an already strong pipeline coming into 2022.

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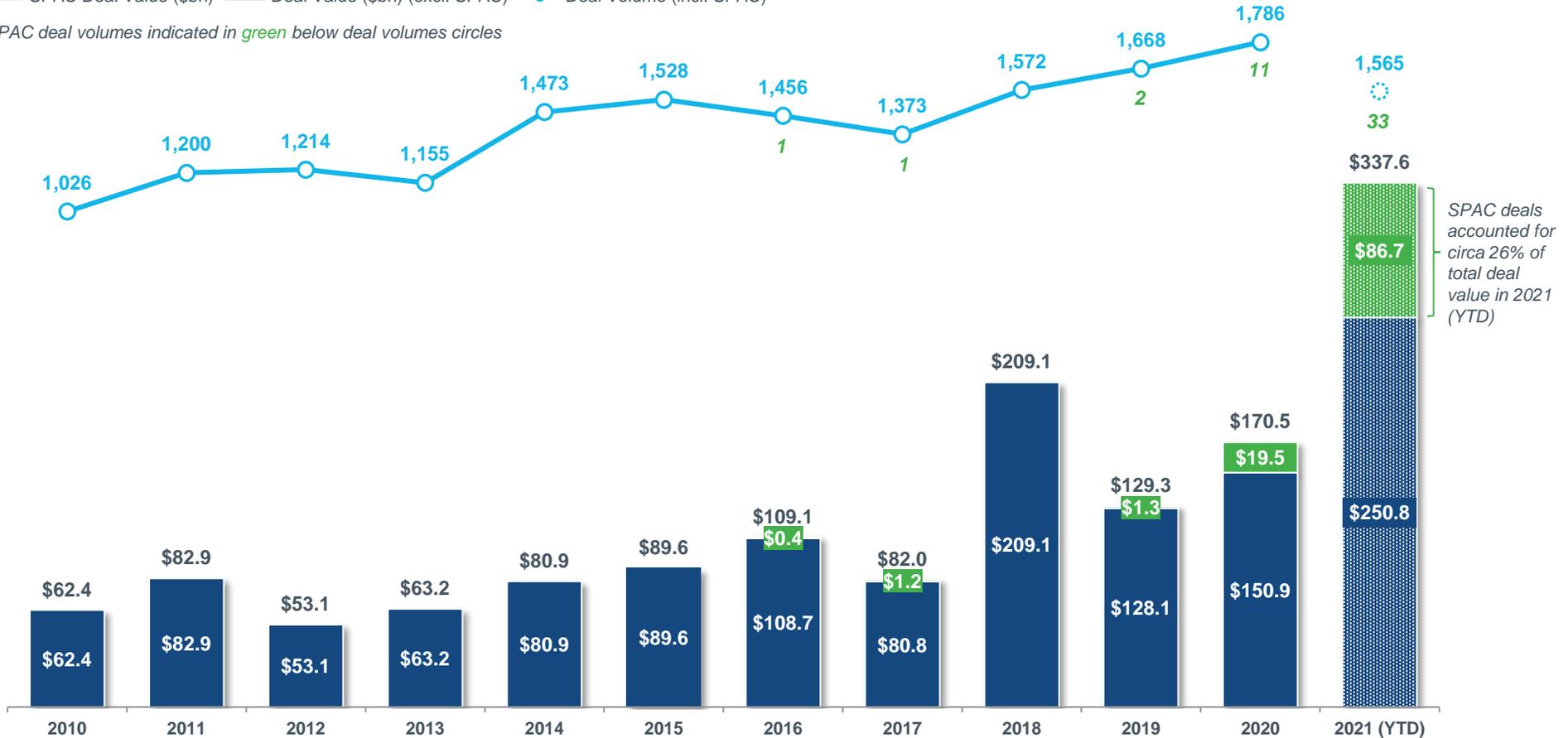
Robust Momentum Continues in Q3 2021

2021 (YTD) Deal Value Has Already Reached a New 10-Year High

Annual Deal Volume and Deal Value¹

SPAC Deal Value (\$bn) Deal Value (\$bn) (excl. SPAC) Deal Volume (incl. SPAC)

SPAC deal volumes indicated in green below deal volumes circles



SPAC deals accounted for circa 26% of total deal value in 2021 (YTD)

¹Between January 01, 2010, and September 30, 2021

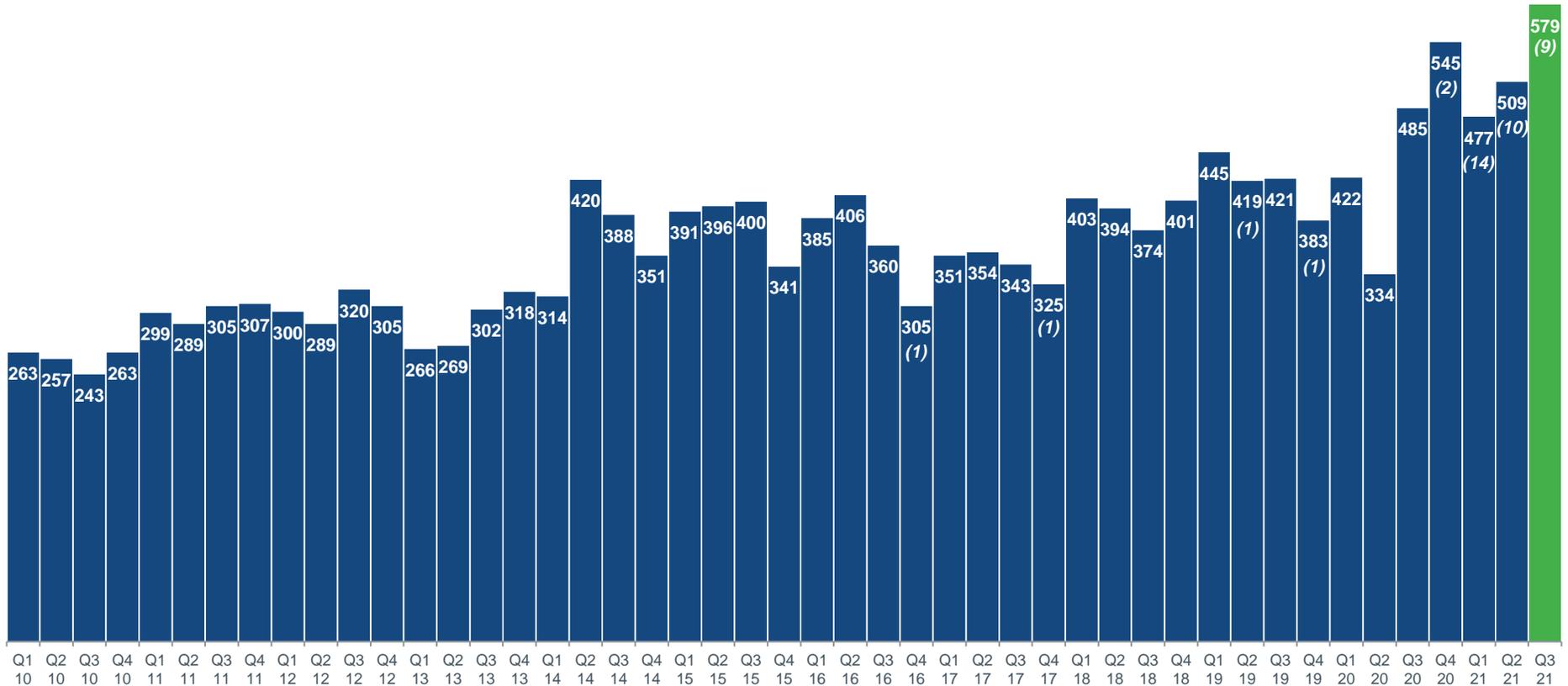
Source: 451 Research as of September 30, 2021

Software Deal Activity Continues above Historical Average

Q3 2021 Recorded the Largest Deal Volumes by Quarter Since Q1 2010

Quarterly Deal Volume (Q1 2010 to Q3 2021)¹

Top number in each bar indicates total deal volumes in quarter (incl. SPAC deals)
SPAC deal volumes indicated in parentheses



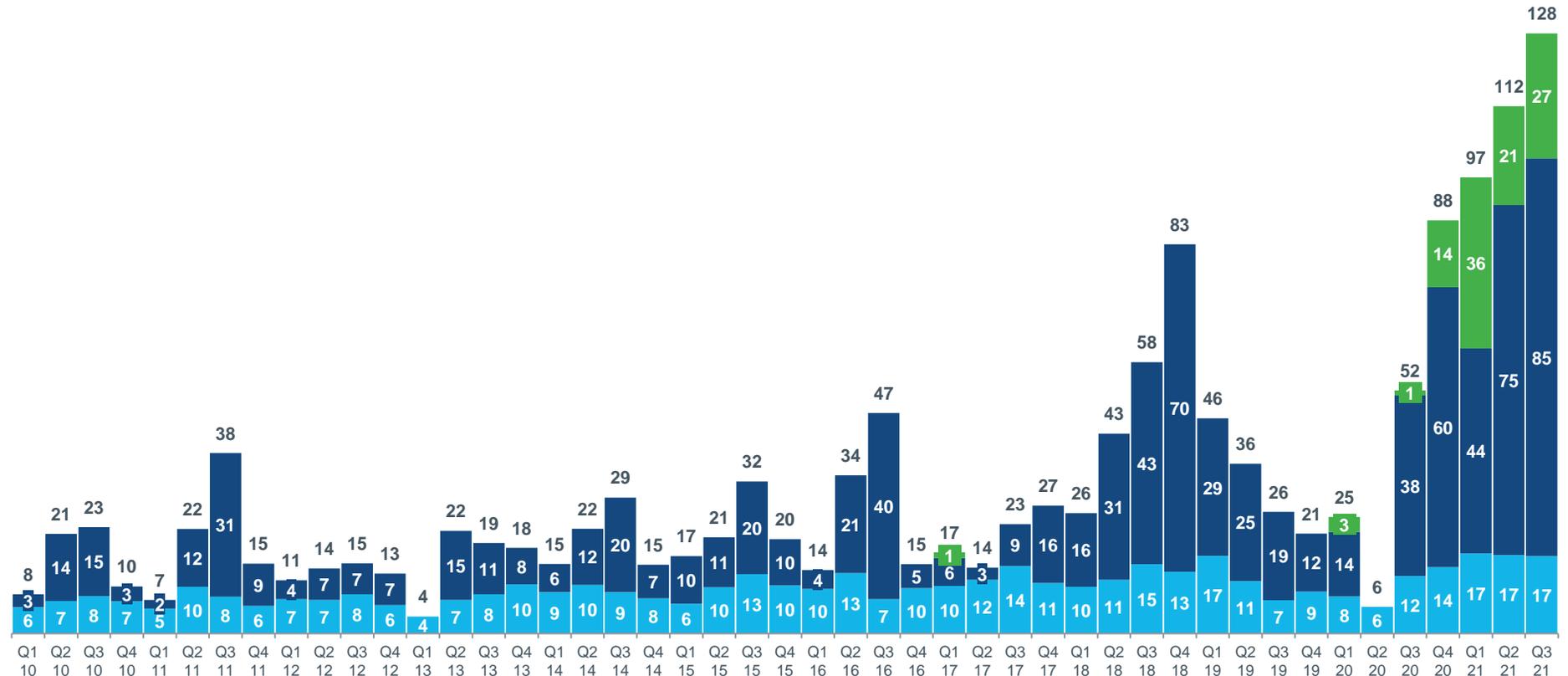
¹Between January 01, 2010, and September 30, 2021

Quarterly Deal Values Continue to Reach Record Highs

Q3 2021 Deal Values Surpassed Q2 2021's Record with Increased SPAC Momentum

Quarterly Deal Value (\$bn) (Q1 2010 to Q3 2021)¹

<\$1bn Deal Values (\$bn) (incl. SPACs) >\$1bn Deal Values (\$bn) (excl. SPACs) >\$1bn Deal Values (\$bn) (SPACs only)



¹Between January 01, 2010, and September 30, 2021

Source: 451 Research as of September 30, 2021

Software Multiples Remain above Long-Term Levels

PE Demonstrates Premium Valuation Compared to Strategics

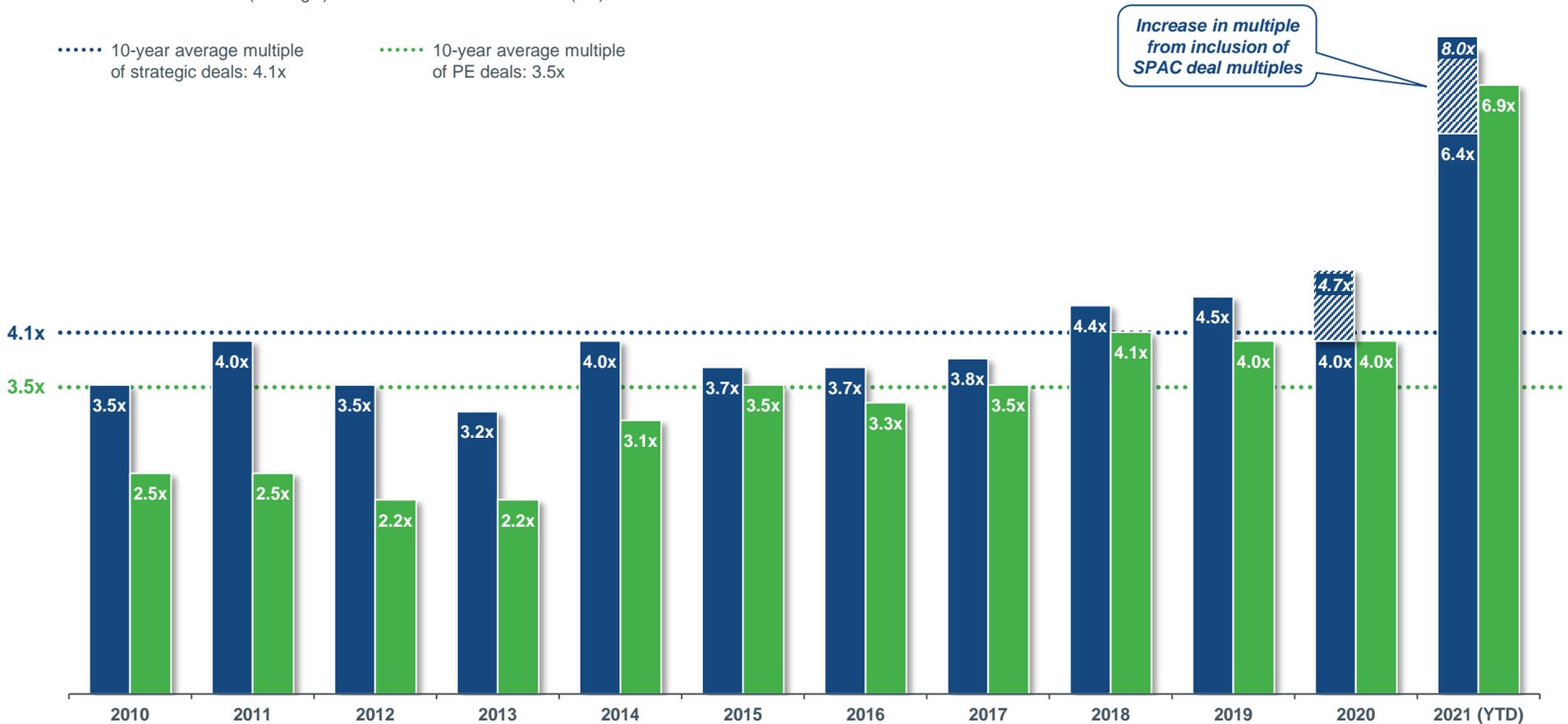
Annual Median Deal Multiples

■ EV/LTM Revenue (Strategic)

■ EV/LTM Revenue (PE)

..... 10-year average multiple of strategic deals: 4.1x

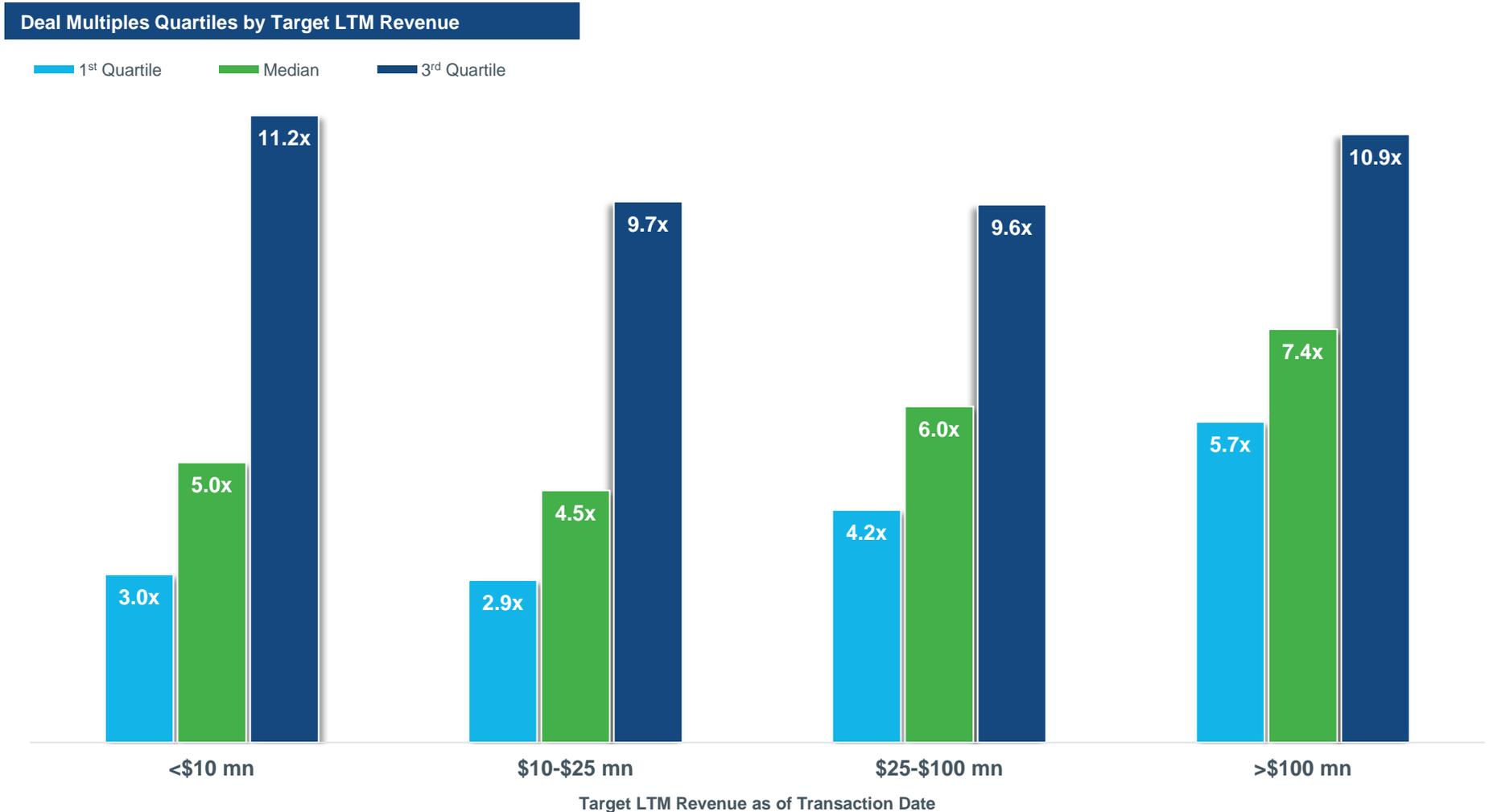
..... 10-year average multiple of PE deals: 3.5x



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

Third-Quartile Multiples Command Average Premiums of 50%–120% vs. Median



Transactions selected based on the following parameters: (i) target company with SaaS business model; (ii) transaction announced between January 1, 2018, and September 30, 2021; (iii) disclosed EV/LTM revenue multiple; and (iv) excluding outliers and SPAC transactions.

Sources: 451 Research and Mergermarket as of September 30, 2021

Top 6 Software Acquisitions over Q3 2021 by Deal Value

September 2021



acquired by



Mailchimp provides AI-based marketing automation, digital marketing analytics, and reporting SaaS and related mobile application to businesses globally. Software provides sign-up forms, digital advertising, shoppable landing pages, survey creation, email automation and marketing, marketing CRM through customer analytics, and revenue reporting and analytics.

With the acquisition of Mailchimp, Intuit will accelerate two of its previously shared strategic Big Bets: to become the center of small business growth, and to disrupt the small mid-market business

\$12.0 bn **N/A**

August 2021



acquired by



Avast provides AI-based PC, Mac and mobile anti-virus, anti-spam and firewall SaaS and software for consumers and businesses globally. Its technology uses machine learning that places a flag on malicious requests, continually updates software and keeps a track of malware.

With this combination, NortonLifeLock is able to strengthen its Cyber Safety platform and make it available to more than 40 million customers and 500 million users. The combined firm will also have the ability to further accelerate innovation to transform Cyber Safety.

\$8.6 bn **9.3x**

August 2021



acquired by





Inovalon provides business and predictive analytics and electronic health record (EHR) analytics SaaS for healthcare organizations in the U.S. Through the Inovalon ONE Platform, Inovalon brings to the marketplace a national-scale capability to interconnect with the healthcare ecosystem, aggregate and analyze data in real time, and empower the application of resulting insights to drive meaningful impact at the point of care. As data-driven insights become even more important in improving healthcare, the acquisition will enable Inovalon to continue to transform the healthcare ecosystem.

\$7.3 bn **10.2x**

July 2021



acquired by



Medallia provides omni-channel customer and employee experience management SaaS for businesses globally. Software leverages AI to capture, analyze, and enable real-time feedback via branded in-application surveys, email, websites, two-way SMS, connected devices, and social media reviews.

In a world where enterprises are only beginning to understand the power of using experience data to run their businesses, Thoma Bravo will enable Medallia to continue to capitalize on a massive, growing market opportunity by providing additional resources, deep sector expertise and greater flexibility to the company.

\$6.1 bn **12.3x**

August 2021



acquired by



Cornerstone OnDemand provides workforce management SaaS for businesses, government agencies, educational institutions, and nonprofit organizations globally. Software provides features for employee recruitment, performance management, and training.

With a compelling suite of market-leading SaaS solutions and history of product innovation, Cornerstone is well positioned in the growing and rapidly evolving talent management market. Leveraging Clearlake's O.P.S.® framework will help Cornerstone to strengthen its strategic growth plans and accelerate the pace of execution.

\$5.2 bn **6.3x**

July 2021



acquired by



The deal encompasses the enterprise asset management (EAM) business of Infor, which provides AI-enabled cloud-based ERP EAM software and SaaS for businesses in various sectors globally, including manufacturing, power and energy, and transportation. Software enables monitoring and tracking of assets along with risk management for planning and operations.

The terms of the agreement include establishing a deeper commercial relationship between Hexagon and Infor as well as Hexagon and Koch Equity Development, both subsidiaries of Koch Industries, Inc. Hexagon gains a best-in-class, SaaS-based asset management solution.

\$2.8 bn **N/A**

Other Notable Software Deals during Q3 2021

Strategic Deals (Q3 2021)

Date	Target	Acquirer	Deal Value and Multiple ²	Target Abstract
Jul-21		Uber Freight	\$2,250 mn N/A	Logistics management SaaS & BPO
Aug-21		MOODY'S	\$2,000 mn N/A	Risk management software
Aug-21		EQUIFAX	\$1,825 mn N/A	Tracking, fraud detection & analytics SaaS
Aug-21		Adobe	\$1,275 mn N/A	Video team collaboration SaaS
Jul-21		FORTIVE	\$1,200 mn N/A	Facilities service management SaaS
Jul-21		qualtrics.XM	\$1,125 mn 11.3x	VOC text analysis software & SaaS
Sep-21		kape	\$936 mn N/A	VPN & cyber security SaaS
Sep-21		Fivetran	\$700 mn 20.0x	Database integration software & SaaS
Aug-21		SIEMENS	\$653 mn N/A	Public transportation management SaaS
Jul-21		Microsoft	\$650 mn N/A	Threat intelligence SaaS
Jul-21		bill.com	\$625 mn N/A	Invoice and estimate software

PE Deals¹ (Q3 2021)

Date	Target	Acquirer ¹	Deal Value and Multiple ²	Target Abstract
Jul-21		Blackstone	\$1,400 mn N/A	Health & safety management software & SaaS
Sep-21		VISTA	\$1,320 mn 6.1x	Robotic process automation software & SaaS
Jul-21		mediaocean VISTA	\$500 mn 6.3x	Advertising serving SaaS
Jul-21		Audax Private Equity	\$325 mn 8.1x	Threat intelligence software, SaaS & services
Jul-21		Great Hill PARTNERS	\$250 mn N/A	Network management SaaS
Sep-21		MARLIN EQUITY PARTNERS	\$200 mn 10.0x	E-commerce automation SaaS
Jul-21		BrandMaker RUBICON	\$180 mn 10.0x	Marketing performance management SaaS
Jul-21		Barracuda THOMABRAVO	\$150 mn 10.0x	Cyber security & XDR SaaS
Jul-21		SERVICE MAX SILVER LAKE	\$145 mn N/A	Mobile field service SaaS
Sep-21		sitecore IEQT	\$90 mn 6.9x	E-commerce predictive analytics SaaS
Aug-21		ivanti TA ASSOCIATES	\$45 mn 4.5x	Vulnerability management software

Mgmt. = Management; SaaS = Software as a Service; BPO = Business Process Outsourcing; VPN = Virtual Private Network; XDR = Extended Detection & Response; ¹PE deals include acquisitions made by PE-backed strategics, whose owners are indicated below the gray line; Excludes deals involving special purpose acquisition (SPAC) vehicles; ²Deal Multiple = Enterprise Value / LTM Revenue, unless otherwise specified

Pagemill Partners-Tracked Software Universe



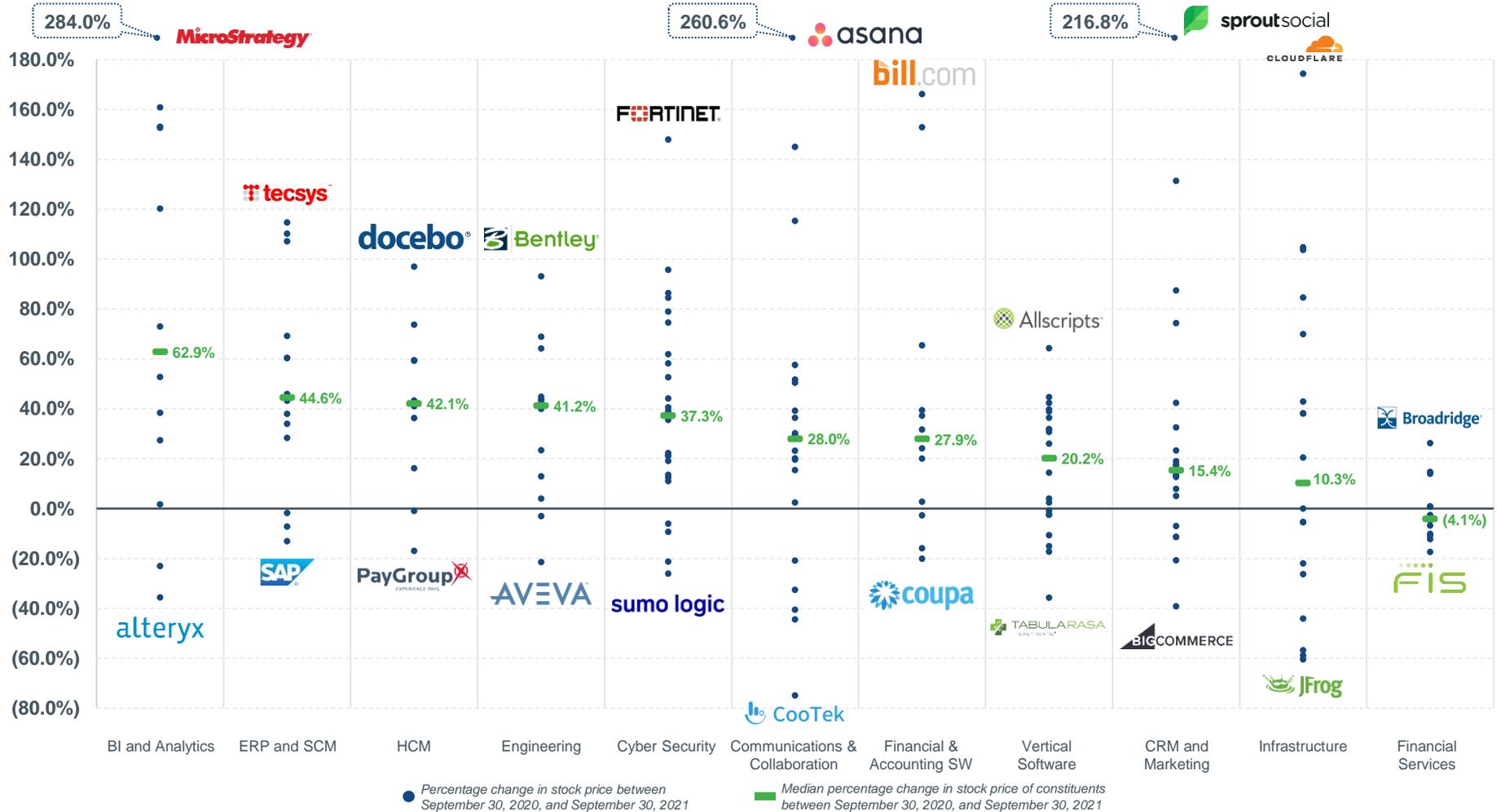
BI = Business Intelligence; CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management

Source: S&P Global Market Intelligence as of September 30, 2021, 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.

LTM Performance of Stock Prices

All Software Sectors Demonstrate Significant Gains during the Last 12 Months

Performance of Pagemill-Tracked Software Universe between September 30, 2020, and September 30, 2021



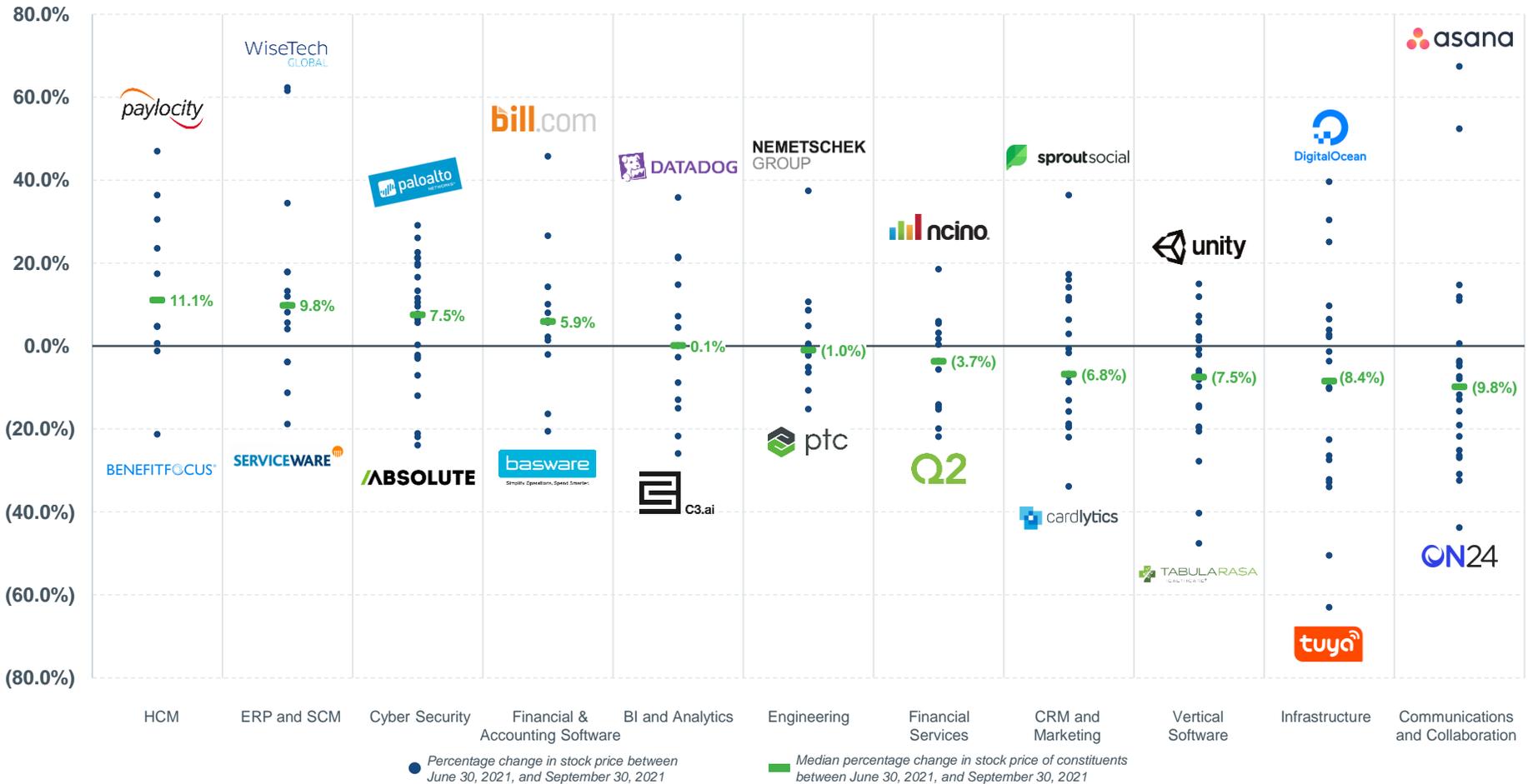
BI = Business Intelligence; CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management
Does not include companies listed post September 30, 2020, i.e., AI, ONTF, FRSH, XM, MCFE, S, CWAN, PYCR, DOCN, TUYA, PATH, ESMT, OLO, PCOR, RSKD, TOST
Buckets ordered by median percentage change in stock price between September 30, 2020, and September 30, 2021.

Source: Capital IQ as of September 30, 2021
All trademarks, trade names or logos referenced herein are the property of their respective owners.

Quarterly Performance of Stock Prices

After a Strong Q2, Mixed Performance in Q3

Performance of Pagemill-Tracked Software Universe between June 30, 2021, and September 30, 2021

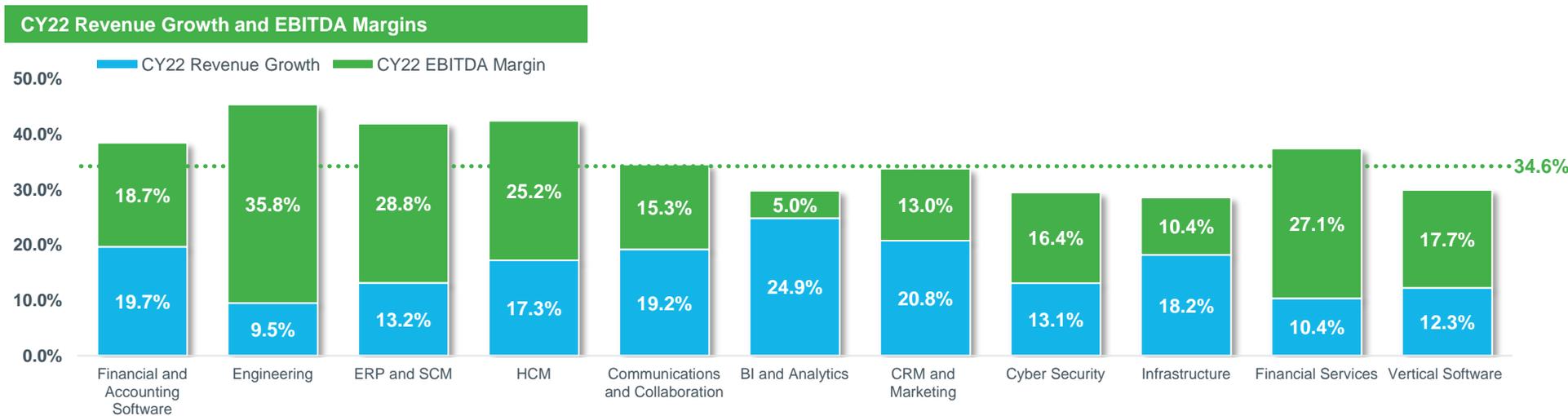
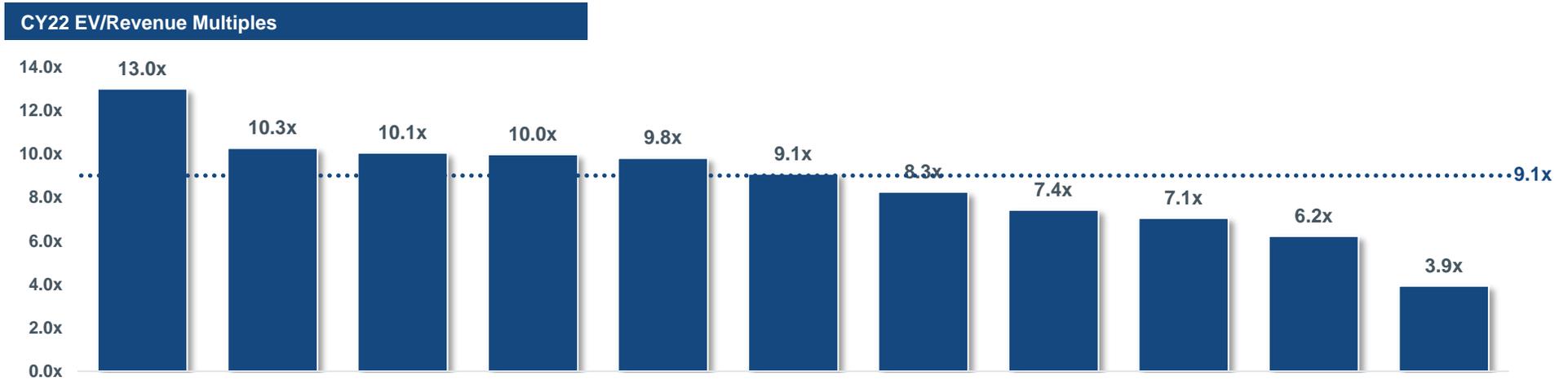


BI = Business Intelligence; CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management
 Buckets ordered by median percentage change in stock price between June 30, 2021, and September 30, 2021.
 Does not include companies listed post June 30, 2021, i.e., FRSH, CWAN, ESMT, RSKD, TOST

Source: Capital IQ as of September 30, 2021
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Public Software Market Multiples

Sector Multiples Range from 13.0x to 3.9x, with a Median of 9.1x CY 2022 Revenues



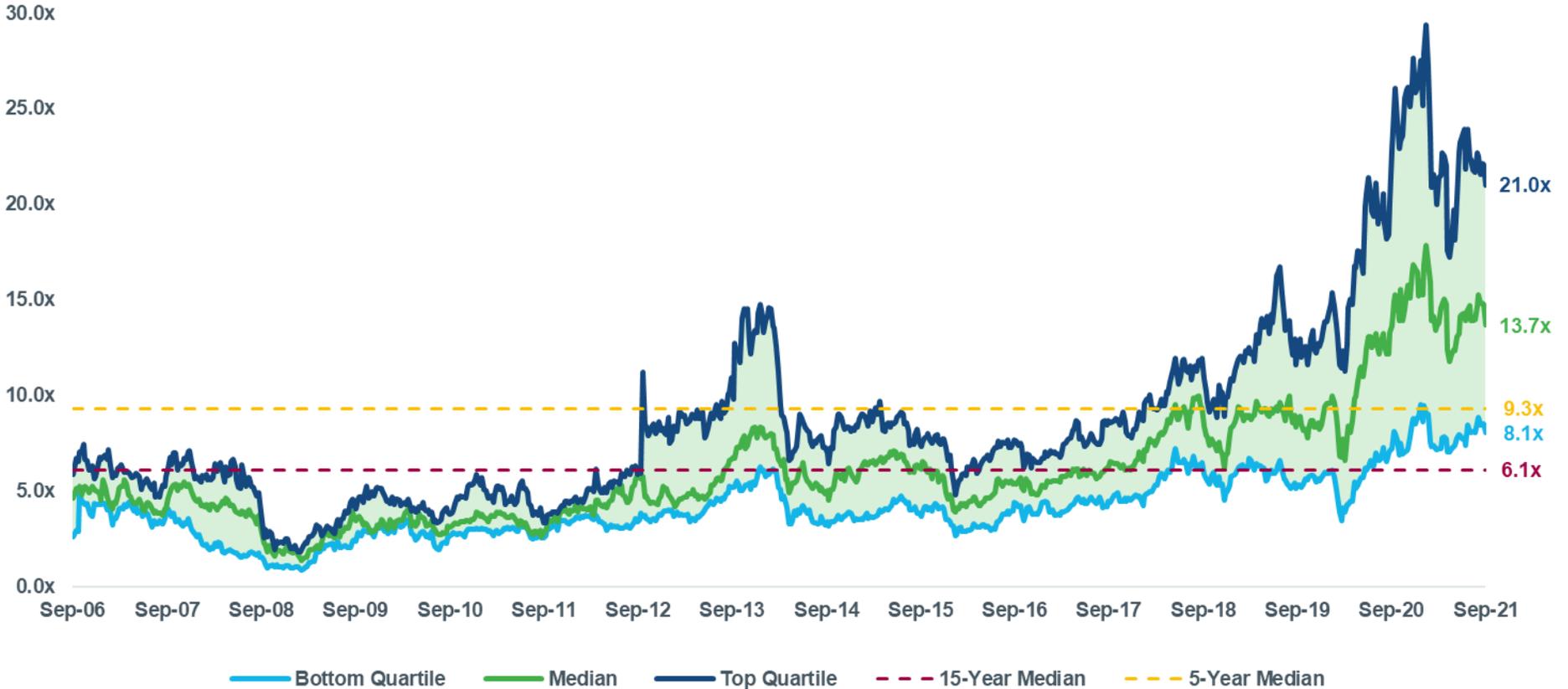
BI = Business Intelligence; CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; HCM = Human Capital Management; SCM = Supply Chain Management
Buckets ordered by CY22 Revenue Multiples

SaaS Companies Continue to Trade at Post-GFC Highs

After a Sharp Increase in Q2, the Pagemill Partners SaaS Index Traded Mostly Flat in All Quartiles in Q3

Performance of Pagemill Partners SaaS Index Over the Last 15 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, ASAN, DOCU, DBX, EVBG, FIVN, RNG, SMAR, TWLO, ZM, ADBE, BIGC, ECOM, HUBS, LPSN, MDLA, CRM, SHOP, MNTV, YEXT, ZEN, ZI, CRWD, MNDT, MIME, OKTA, PING, QLYS, SCWX, TENB, ZIXI, ZS, KXS, NOW, SPSC, ZUO, PLAN, AVLR, BILL, BL, COUP, WK, BNFT, DCBO, PAYC, PCTY, WDAY, APPN, NET, ESTC, FSLY, FROG, MDB, NTKX, SNOW, WIX, TWOU, APPF, BLKB, HSTM, QTWO, U, VEEV, S, and PCOR

IPO Window Remains Open with Notable First-Day Pops

Average Post-IPO Performance Slightly Below First-Day Pop

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
 CLEARWATER ANALYTICS	23-Sep	540.0	18.00	3,186	 41%	4,429	 42%
					Median: 31%	Median: 28%	
 EngageSmart	23-Sep	378.3	26.00	4,185	 31%	5,482	 31%
 toast	21-Sep	869.6	40.00	19,964	 56%	25,093	 25%
 freshworks	21-Sep	1,026.0	36.00	10,132	 32%	12,136	 19%
 riskified	28-Jul	367.5	21.00	3,310	 24%	3,655	 9%
 Paycor	20-Jul	425.5	23.00	3,940	 13%	6,133	 53%
 SentinelOne	29-Jun	1,225.0	35.00	8,973	 21%	14,198	 53%
 PROCORE	30-Sep	634.5	67.00	8,585	 31%	11,715	 33%
 UiPath	30-Sep	1,337.9	56.00	29,073	 23%	27,017	 -6%
 DigitalOcean	23-Mar	775.5	47.00	4,949	 -10%	8,333	 65%
 tuya	17-Mar	915.4	21.00	11,755	 19%	5,077	 -57%

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

IPO Window Remains Open with Notable First-Day Pops

Average Post-IPO Performance Slightly Below First-Day Pop

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
 olo	16-Mar	450.0	25.00	3,550	 39%	4,436	 20%
					Median: 31%	Median: 28%	
 ON24	3-Feb	428.0	50.00	2,224	 42%	930	 -60%
 qualtrics ^{XM}	28-Jan	1,550.9	30.00	15,084	 52%	21,995	 42%
 C3.ai	8-Dec	651.0	42.00	4,026	 120%	4,824	 10%
 McAfee	21-Oct	740.0	20.00	3,309	 -7%	3,888	 11%
 Palantir	30-Sep	<i>Direct Listing</i>	7.25	11,961	 31%	46,953	 232%
 asana	30-Sep	<i>Direct Listing</i>	21.00	3,246	 37%	19,096	 394%
 Bentley	22-Sep	236.5	22.00	6,362	 52%	18,726	 176%
 unity	18-Sep	1,300.0	52.00	13,695	 31%	35,668	 143%
 sumo logic	16-Sep	325.6	22.00	2,171	 22%	1,779	 -27%
 JFrog	16-Sep	509.0	44.00	3,902	 47%	3,212	 -24%

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

Select Recent Pagemill Transactions

Sell-Side Advisors



whiteCryption has been acquired by Zimperium, a portfolio company of Warburg Pincus and SoftBank



On July 2, 2021, whiteCryption, a leading provider of cyber security software and a pioneer in mobile application shielding and cryptographic key protection, was acquired by Zimperium, the global leader in mobile security.

whiteCryption's security software protects mobile and desktop applications, firmware, and embedded applications, and is available for all popular platforms such as Android, iOS, Windows, and macOS. It has a core focus on providing app shielding products for banks, financial institutions, medical device companies, automakers and media companies.

Sell-Side Advisors



Instec has been acquired by Insurity, a portfolio company of GI Partners



On April 14, 2021, Insurance Information Technologies ("Instec"), a SaaS-based insurance software provider, was acquired by Insurity, a leading provider of cloud-based software for P&C carriers, brokers and MGAs.

Instec delivers mid-size P&C carriers a policy administration platform that insurance carriers and MGAs can leverage to build out new insurance products, refresh existing ones or acquire new books of business. Instec's unique approach enables mid-size P&C carriers to migrate, launch or expand complex commercial offerings from start to first quote in as little as four weeks.

Growth Capital



Rockley Photonics has received a strategic investment from Medtronic



On March 19, 2021, Rockley Photonics ("Rockley"), a leading developer of integrated silicon photonic chips and modules, announced a strategic investment from Medtronic, one of the largest medical device companies in the world.

Rockley has positioned itself for hyper scale manufacture with a uniquely capable platform that can address multiple huge and emerging markets, including health monitoring in consumer devices, data communications and machine vision. Rockley has partnered with multiple tier-1 customers across the markets it serves to deliver the complex optical systems required for transformational product realization.

Select Recent Pagemill Transactions

Sell-Side Advisors



AT Internet has been acquired by Piano, Inc.



AT INTERNET

piano

On March 2, 2021, Applied Technologies Internet SAS (“AT Internet”), a market leader in digital analytics and contextual data, was acquired by Piano Software Inc. (“Piano”), a global subscription commerce and customer experience platform.

AT Internet empowers organizations to effectively measure and analyze how visitors arrive on their digital platforms, as well as their subsequent actions and behaviors. The combination of AT Internet and Piano forms an industry-first customer experience platform powered by contextual analytics, which empowers digital marketing, data and product teams for enterprise customers globally.

Sell-Side Advisors



NuSource Financial, a portfolio company of Tonka Bay Equity Partners, has been acquired by Mosaic Capital Partners



On February 17, 2021, NuSource Financial (“NuSource”), a market-leading bank technology integration company, was acquired by Mosaic Capital Partners (“Mosaic”) from Tonka Bay Equity Partners (“Tonka Bay”).

NuSource provides Automated Teller Machine (ATM)/Interactive Teller Machine (ITM) equipment and security systems to financial institutions. The company provides technology integration and installation of ATMs and ITMs as well other related system integration programs to enable customers to digitize and comprehensively transform its branches and customers’ staffing needs.

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.

Public Trading Data for Software Companies



\$ in USD millions (except for share price)

Company Name	Share Price 09/30/2021	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 2021	CY 2022
BI and Analytics													
Alteryx, Inc.	\$73.10	\$66.66	\$154.83	(52.8%)	\$4,917.4	\$5,096.3	\$529.1	\$527.0	18%	(\$15.9)	(3.0%)	9.7x	8.2x
C3.ai, Inc.	46.34	44.35	183.90	(74.8%)	4,824.4	3,729.4	195.1	227.3	35%	(89.0)	(45.6%)	16.4x	12.2x
Datadog, Inc.	141.35	69.73	150.67	(6.2%)	43,820.7	43,203.5	764.3	943.7	37%	(24.8)	(3.2%)	45.8x	33.3x
Domo, Inc.	84.44	31.01	98.35	(14.1%)	2,715.5	2,752.1	233.4	254.7	19%	(67.7)	(29.0%)	10.8x	9.1x
Dynatrace, Inc.	70.97	33.83	74.34	(4.5%)	20,175.8	20,204.2	757.7	860.3	25%	132.2	17.4%	23.5x	18.8x
Expert.ai S.p.A.	2.75	2.29	4.04	(32.0%)	141.4	128.3	44.4	38.9	39%	(14.3)	(32.3%)	3.3x	2.4x
MicroStrategy Incorporated	578.40	145.16	1,315.00	(56.0%)	5,821.4	8,006.8	507.0	509.9	5%	85.8	16.9%	15.7x	15.0x
New Relic, Inc.	71.77	51.52	82.76	(13.3%)	4,654.1	4,405.9	685.5	718.7	9%	(167.5)	(24.4%)	6.1x	5.6x
PagerDuty, Inc.	41.42	25.90	58.36	(29.0%)	3,519.6	3,282.2	244.2	275.0	25%	(77.5)	(31.7%)	11.9x	9.5x
Palantir Technologies Inc.	24.04	8.90	45.00	(46.6%)	46,953.1	44,861.7	1,328.3	1,502.4	30%	(1,249.8)	(94.1%)	29.9x	23.0x
Splunk Inc.	144.71	110.28	222.19	(34.9%)	23,377.3	24,152.8	2,411.4	2,574.3	20%	(864.0)	(35.8%)	9.4x	7.8x
Teradata Corporation	57.35	17.99	59.58	(3.7%)	6,256.9	6,221.9	1,927.0	1,916.3	2%	361.0	18.7%	3.2x	3.2x
Veritone, Inc.	23.89	8.50	50.34	(52.5%)	826.1	711.9	70.0	99.8	71%	(56.3)	(80.4%)	7.1x	4.2x
Average												14.8x	11.7x
Median												10.8x	9.1x

BI = Business Intelligence; ¹ Forecasts Revenue Growth between CY 2021 and CY 2022; 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 September 30, 2021. 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 09/30/2021	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 2021	CY 2022
Communications and Collaboration													
8x8, Inc.	\$23.39	\$15.33	\$39.17	(40.3%)	\$2,620.5	\$2,885.0	\$558.9	\$595.5	14%	(\$129.9)	(23.2%)	4.8x	4.2x
Agora, Inc.	29.00	24.29	114.97	(74.8%)	3,360.2	2,539.6	146.7	160.7	24%	(39.1)	(26.7%)	15.8x	12.8x
Asana, Inc.	103.84	20.57	124.85	(16.8%)	19,096.3	18,972.8	293.4	359.1	31%	(219.2)	(74.7%)	52.8x	40.4x
Atlassian Corporation Plc	391.42	176.42	420.23	(6.9%)	98,499.7	97,762.4	2,089.1	2,334.0	19%	143.8	6.9%	41.9x	35.1x
Avaya Holdings Corp.	19.79	15.17	34.06	(41.9%)	1,666.6	4,296.6	2,968.0	2,962.5	3%	476.0	16.0%	1.5x	1.4x
Box, Inc.	23.67	15.08	27.41	(13.6%)	3,587.1	3,917.3	811.8	858.6	11%	49.4	6.1%	4.6x	4.1x
CooTek (Cayman) Inc.	1.22	1.20	7.20	(83.1%)	81.1	78.4	372.9	329.8	NA	(47.3)	(12.7%)	0.2x	NM
DocuSign, Inc.	257.43	179.49	314.76	(18.2%)	50,641.2	50,731.6	1,794.7	2,086.3	29%	(28.9)	(1.6%)	24.3x	18.8x
Dropbox, Inc.	29.22	17.66	33.00	(11.5%)	11,264.8	11,787.2	2,033.7	2,140.3	9%	378.2	18.6%	5.5x	5.0x
Everbridge, Inc.	151.04	100.17	178.98	(15.6%)	5,797.7	5,906.5	315.7	363.2	25%	(53.1)	(16.8%)	16.3x	13.0x
Extreme Networks, Inc.	9.85	3.84	12.29	(19.9%)	1,277.6	1,422.7	1,009.4	1,056.0	5%	94.3	9.3%	1.3x	1.3x
Five9, Inc.	159.74	128.01	211.68	(24.5%)	10,819.2	11,007.6	521.7	578.6	21%	17.2	3.3%	19.0x	15.8x
Jamf Holding Corp.	38.52	27.77	40.68	(5.3%)	4,570.5	4,370.9	314.1	359.7	24%	18.8	6.0%	12.2x	9.8x
Juniper Networks, Inc.	27.52	19.51	29.77	(7.6%)	8,948.2	9,470.7	4,607.5	4,710.9	3%	678.2	14.7%	2.0x	1.9x
ON24, Inc.	19.94	18.88	81.98	(75.7%)	930.2	539.5	198.1	202.6	16%	15.8	8.0%	2.7x	2.3x
Open Text Corporation	48.74	36.18	55.25	(11.8%)	13,168.9	15,431.7	3,386.1	3,424.2	2%	1,042.3	30.8%	4.5x	4.4x
RingCentral, Inc.	217.50	210.37	449.00	(51.6%)	19,903.4	20,996.2	1,369.8	1,544.8	24%	(82.0)	(6.0%)	13.6x	11.0x
Smartsheet Inc.	68.82	48.04	85.65	(19.6%)	8,669.0	8,308.8	457.6	532.2	28%	(123.1)	(26.9%)	15.6x	12.2x
TeamViewer AG	29.43	28.99	57.53	(48.9%)	5,917.0	6,404.0	568.3	608.5	28%	199.8	35.2%	10.5x	8.2x
Twilio Inc.	319.05	247.50	457.30	(30.2%)	56,519.6	51,859.1	2,255.0	2,682.7	31%	(456.9)	(20.3%)	19.3x	14.8x
Vonage Holdings Corp.	16.12	9.93	16.65	(3.2%)	4,059.9	4,535.5	1,253.1	1,388.4	10%	122.7	9.8%	3.3x	3.0x
Zoom Video Communications	261.50	255.25	588.84	(55.6%)	77,698.9	72,693.9	3,637.4	4,016.0	18%	1,085.7	29.8%	18.1x	15.4x
Average												13.2x	11.2x
Median												11.3x	9.8x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; 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 2021	CY 2022
CRM and Marketing													
Adobe Inc.	\$575.72	\$420.78	\$673.88	(14.6%)	\$273,927.6	\$272,448.6	\$15,099.0	\$15,757.3	15%	\$6,103.0	40.4%	17.3x	15.0x
Aimia Inc.	3.42	2.64	4.41	(22.4%)	316.7	209.5	16.5	10.3	50%	(4.2)	(25.4%)	NM	13.6x
BigCommerce Holdings, Inc.	50.64	42.17	109.15	(53.6%)	3,601.0	3,412.0	178.6	211.4	27%	(40.7)	(22.8%)	16.1x	12.7x
Brightcove Inc.	11.54	9.97	25.26	(54.3%)	471.0	437.5	209.1	212.4	9%	15.0	7.2%	2.1x	1.9x
Cardlytics, Inc.	83.94	69.55	161.47	(48.0%)	2,773.4	2,716.2	225.2	254.5	36%	(49.0)	(21.8%)	10.7x	7.9x
ChannelAdvisor Corporation	25.23	13.36	29.42	(14.2%)	752.7	671.0	156.3	165.4	9%	23.3	14.9%	4.1x	3.7x
HubSpot, Inc.	42.69	40.05	49.25	(13.3%)	12,136.0	15,172.4	308.1	NA	NA	(5.3)	(1.7%)	NM	NM
LivePerson, Inc.	676.09	281.57	736.15	(8.2%)	31,779.9	31,295.9	1,072.6	1,271.4	28%	(32.7)	(3.1%)	24.6x	19.3x
Medallia, Inc.	58.95	47.62	72.23	(18.4%)	4,112.7	4,018.2	424.4	468.8	26%	(3.8)	(0.9%)	8.6x	6.8x
NICE Ltd.	278.89	214.47	302.72	(7.9%)	17,603.8	16,933.8	1,755.5	1,851.4	11%	442.8	25.2%	9.1x	8.3x
Pegasystems Inc.	127.10	109.06	148.80	(14.6%)	10,353.0	10,586.5	1,163.8	1,258.5	19%	(38.3)	(3.3%)	8.4x	7.0x
Qualtrics International Inc.	42.74	29.36	57.28	(25.4%)	21,994.9	22,102.1	973.2	1,014.0	21%	(726.0)	(74.6%)	21.8x	17.9x
salesforce.com, inc.	271.22	201.51	286.36	(5.3%)	265,524.4	271,648.4	23,539.0	26,333.1	21%	3,570.0	15.2%	10.3x	8.5x
Shopify Inc.	1,355.78	875.00	1,650.00	(17.8%)	169,658.5	162,979.9	3,853.2	4,629.2	34%	531.6	13.8%	35.2x	26.2x
Sprout Social, Inc.	121.95	37.14	145.42	(16.1%)	6,566.9	6,420.3	156.5	182.4	31%	(20.2)	(12.9%)	35.2x	26.9x
Momentive Global Inc.	19.60	16.35	28.12	(30.3%)	2,891.3	2,901.8	408.1	445.9	19%	(70.9)	(17.4%)	6.5x	5.5x
TechTarget, Inc.	82.42	43.31	101.12	(18.5%)	2,320.9	2,434.2	198.8	261.9	15%	43.0	21.6%	9.3x	8.0x
Upland Software, Inc.	33.44	33.31	53.00	(36.9%)	1,017.0	1,390.3	302.7	308.0	6%	48.8	16.1%	4.5x	4.2x
Verint Systems Inc.	44.79	41.46	77.70	(42.4%)	2,929.8	3,513.9	1,299.3	872.7	7%	173.3	13.3%	NM	3.8x
Yext, Inc.	12.03	11.78	20.23	(40.5%)	1,538.0	1,429.4	371.4	387.4	15%	(73.8)	(19.9%)	3.7x	3.2x
Zendesk, Inc.	116.39	101.17	166.60	(30.1%)	13,969.1	13,674.1	1,161.7	1,314.9	25%	(116.0)	(10.0%)	10.4x	8.3x
ZoomInfo Technologies Inc.	61.19	35.50	69.72	(12.2%)	16,350.4	17,145.3	590.4	707.2	31%	167.7	28.4%	24.2x	18.5x
Average												13.8x	10.8x
Median												10.3x	8.3x

CRM = Customer Relationship Management; ¹ Forecasts Revenue Growth between CY 2021 and CY 2022; 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 2021	CY 2022
Cyber Security													
Absolute Software Corporation	\$11.01	\$9.69	\$19.77	(44.3%)	\$546.5	\$420.5	\$120.8	\$160.3	37%	\$8.6	7.1%	2.6x	1.9x
Avast Plc	7.67	5.64	8.25	(7.1%)	7,935.2	8,438.0	931.1	951.8	7%	482.3	51.8%	8.9x	8.3x
Check Point Software	113.04	109.07	139.26	(18.8%)	15,011.5	11,039.3	2,106.5	2,144.3	3%	941.5	44.7%	5.1x	5.0x
CrowdStrike Holdings, Inc.	245.78	118.10	289.24	(15.0%)	56,085.2	55,082.8	1,137.9	1,405.8	38%	(66.7)	(5.9%)	39.2x	28.4x
CyberArk Software Ltd.	157.82	95.12	171.34	(7.9%)	6,274.9	5,594.3	481.1	492.0	12%	(12.0)	(2.5%)	11.4x	10.1x
F5 Networks, Inc.	198.78	121.77	216.15	(8.0%)	11,988.9	11,953.1	2,536.2	2,636.7	7%	528.0	20.8%	4.5x	4.2x
Mandiant, Inc.	17.80	12.30	25.53	(30.3%)	4,226.0	4,435.1	979.8	479.7	21%	(56.0)	(5.7%)	NM	7.7x
Fortinet, Inc.	292.04	106.75	322.00	(9.3%)	47,696.0	45,632.6	2,910.5	3,239.3	17%	630.4	21.7%	14.1x	12.0x
F-Secure Oyj	5.56	3.82	5.91	(5.9%)	881.2	866.4	269.5	274.0	7%	27.7	10.3%	3.2x	2.9x
McAfee Corp.	22.11	14.80	32.83	(32.7%)	3,888.0	15,198.0	3,078.0	1,857.8	11%	482.0	15.7%	NM	7.4x
Mimecast Limited	63.60	37.03	71.45	(11.0%)	4,181.0	4,085.5	528.8	565.4	13%	82.6	15.6%	7.2x	6.4x
NortonLifeLock Inc.	25.30	17.98	28.92	(12.5%)	14,717.9	17,416.9	2,623.0	2,753.0	12%	1,235.0	47.1%	6.3x	5.6x
Okta, Inc.	237.34	199.08	294.00	(19.3%)	36,707.7	36,174.0	1,018.6	1,249.0	38%	(384.7)	(37.8%)	29.0x	21.1x
Palo Alto Networks, Inc.	479.00	219.34	495.92	(3.4%)	46,657.5	47,361.6	4,256.1	4,771.4	22%	(59.1)	(1.4%)	9.9x	8.1x
Ping Identity Holding Corp.	24.57	19.97	37.23	(34.0%)	2,017.5	2,051.6	271.0	283.1	12%	(28.0)	(10.3%)	7.2x	6.5x
Qualys, Inc.	111.29	86.65	148.84	(25.2%)	4,334.2	3,915.7	384.3	406.7	12%	139.8	36.4%	9.6x	8.6x
Radware Ltd.	33.72	21.66	39.78	(15.2%)	1,535.4	1,186.3	268.0	280.7	10%	23.8	8.9%	4.2x	3.9x
Rapid7, Inc.	113.02	59.20	125.32	(9.8%)	6,304.6	6,632.6	462.1	522.5	22%	(54.2)	(11.7%)	12.7x	10.4x
SecureWorks Corp.	19.88	10.01	26.89	(26.1%)	1,696.7	1,526.0	555.0	538.8	2%	(0.3)	(0.0%)	2.8x	2.8x
SentinelOne, Inc.	53.57	39.94	73.47	(27.1%)	14,197.8	12,538.1	137.6	189.4	70%	(189.5)	(137.8%)	66.2x	38.8x
Sumo Logic, Inc.	16.12	15.79	46.37	(65.2%)	1,779.2	1,416.7	219.1	237.9	19%	(95.2)	(43.5%)	6.0x	5.0x
Tenable Holdings, Inc.	46.14	33.25	58.45	(21.1%)	4,917.5	4,713.9	483.8	530.1	19%	(6.0)	(1.2%)	8.9x	7.5x
Tufin Software Technologies	9.83	6.34	20.11	(51.1%)	366.2	289.3	103.7	108.2	12%	(31.1)	(30.0%)	2.7x	2.4x
Varonis Systems, Inc.	60.85	37.39	75.33	(19.2%)	6,505.9	5,980.6	335.2	379.4	23%	(74.2)	(22.1%)	15.8x	12.8x
Zix Corporation	7.07	5.76	10.37	(31.8%)	393.8	704.9	235.6	253.5	14%	39.4	16.7%	2.8x	2.4x
Zscaler, Inc.	262.22	120.34	293.44	(10.6%)	36,379.3	35,841.4	673.1	812.8	37%	(182.4)	(27.1%)	44.1x	32.3x
Average												13.5x	10.1x
Median												8.1x	7.4x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; 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 2021	CY 2022
Engineering													
Altair Engineering Inc.	\$68.94	\$41.95	\$76.91	(10.4%)	\$5,409.2	\$5,377.6	\$510.0	\$517.1	11%	\$43.3	8.5%	10.4x	9.4x
ANSYS, Inc.	340.45	292.79	413.19	(17.6%)	29,705.1	29,632.4	1,800.5	1,879.8	10%	621.5	34.5%	15.8x	14.3x
Aspen Technology, Inc.	122.80	108.15	162.56	(24.5%)	8,237.0	8,186.8	709.4	681.9	8%	372.5	52.5%	12.0x	11.1x
Autodesk, Inc.	285.17	223.51	344.39	(17.2%)	62,694.8	63,854.9	4,040.6	4,369.7	19%	761.5	18.8%	14.6x	12.3x
AVEVA Group plc	48.61	41.37	65.67	(26.0%)	14,635.6	15,282.6	1,130.2	1,375.1	30%	214.2	19.0%	11.1x	8.6x
Bentley Systems, Incorporated	60.64	29.15	71.92	(15.7%)	18,725.7	19,919.2	867.5	955.7	14%	246.7	28.4%	20.8x	18.3x
Cadence Design Systems, Inc.	151.44	104.48	168.61	(10.2%)	41,915.6	41,415.6	2,890.8	2,952.5	8%	901.0	31.2%	14.0x	13.0x
Dassault Systèmes SE	52.69	33.45	59.31	(11.1%)	69,239.7	70,768.8	5,433.5	5,571.5	10%	1,176.4	21.7%	12.7x	11.6x
Hexagon AB (publ)	15.54	10.31	17.40	(10.7%)	39,890.9	42,319.9	4,779.9	4,991.6	9%	1,689.6	35.3%	8.5x	7.8x
Nemetschek SE	105.12	59.05	108.76	(3.3%)	12,141.7	12,164.3	750.5	775.5	9%	192.5	25.6%	15.7x	14.4x
PTC Inc.	119.79	79.36	153.73	(22.1%)	14,061.2	15,377.5	1,717.5	1,786.5	11%	404.5	23.6%	8.6x	7.7x
Roper Technologies, Inc.	446.13	362.90	499.21	(10.6%)	47,032.7	55,396.8	6,274.0	6,422.4	5%	2,306.0	36.8%	8.6x	8.2x
Synopsys, Inc.	299.41	210.33	340.66	(12.1%)	45,660.8	44,808.9	4,077.2	4,337.9	9%	909.7	22.3%	10.3x	9.5x
Trimble Inc.	82.25	47.19	96.49	(14.8%)	20,695.7	21,689.5	3,453.5	3,626.7	9%	743.2	21.5%	6.0x	5.5x
Average												12.1x	10.8x
Median												11.6x	10.3x
ERP and SCM													
American Software, Inc.	\$23.75	\$13.85	\$28.45	(16.5%)	\$790.6	\$683.8	\$113.4	\$117.6	8%	\$6.4	5.7%	5.8x	5.4x
Kinaxis Inc.	144.53	98.11	176.37	(18.1%)	3,947.0	3,733.5	227.8	246.1	27%	10.8	4.7%	15.2x	11.9x
Manhattan Associates, Inc.	153.03	83.74	167.75	(8.8%)	9,702.1	9,524.1	619.8	648.1	9%	136.5	22.0%	14.7x	13.5x
Microsoft Corporation	281.92	199.62	305.84	(7.8%)	2,118,598.1	2,070,620.1	168,088.0	180,747.3	13%	80,816.0	48.1%	11.5x	10.1x
Oracle Corporation	87.13	55.14	92.27	(5.6%)	238,186.1	282,005.1	40,840.0	41,252.1	5%	18,117.0	44.4%	6.8x	6.5x
SAP SE	135.47	104.23	157.19	(13.8%)	159,792.8	169,112.5	32,195.2	31,772.4	4%	8,227.9	25.6%	5.3x	5.1x
ServiceNow, Inc.	622.27	448.27	681.10	(8.6%)	123,293.5	122,398.5	5,171.5	5,840.0	25%	633.2	12.2%	21.0x	16.7x
Serviceware SE	15.59	14.02	22.02	(29.2%)	163.7	129.6	94.5	92.7	14%	(0.9)	(1.0%)	1.4x	1.2x
SPS Commerce, Inc.	161.31	78.10	169.15	(4.6%)	5,780.0	5,568.3	347.5	382.0	15%	76.1	21.9%	14.6x	12.7x
Technology One Limited	8.23	5.50	8.73	(5.7%)	2,646.6	2,594.7	231.8	228.5	13%	75.3	32.5%	11.4x	10.1x
Tecsys Inc.	45.37	22.15	52.66	(13.8%)	658.0	641.2	102.7	106.1	8%	9.3	9.0%	6.0x	5.6x
The Descartes Systems Group	81.54	53.75	87.79	(7.1%)	6,900.5	6,785.8	384.3	420.9	13%	153.1	39.8%	16.1x	14.3x
TOTVS S.A.	6.66	4.60	7.61	(12.5%)	4,048.1	4,240.5	568.3	580.5	18%	101.1	17.8%	7.3x	6.2x
WiseTech Global Limited	38.86	18.11	41.51	(6.4%)	12,550.9	12,347.0	380.5	405.2	24%	133.9	35.2%	30.5x	24.5x
Zuora, Inc.	16.58	9.27	18.65	(11.1%)	2,065.9	1,930.5	323.3	341.4	15%	(56.1)	(17.4%)	5.7x	4.9x
Average												11.5x	9.9x
Median												11.4x	10.1x

ERP = Enterprise Resource Planning; SCM = Supply Chain Management ¹ Forecasts Revenue Growth between CY 2021 and CY 2022;
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		Low	High				LTM	CY2020				CY 2021	CY 2022
Financial and Accounting Software													
Anaplan, Inc.	\$60.89	\$46.00	\$86.17	(29.3%)	\$8,901.1	\$8,643.5	\$511.5	\$573.0	25%	(\$158.9)	(31.1%)	15.1x	12.1x
Avalara, Inc.	174.77	117.33	191.67	(8.8%)	15,085.5	14,509.3	595.3	674.6	23%	(52.9)	(8.9%)	21.5x	17.5x
Basware Oyj	37.44	36.45	50.82	(26.3%)	541.2	593.6	176.4	180.4	12%	12.8	7.3%	3.3x	2.9x
Bill.com Holdings, Inc.	266.95	89.19	301.99	(11.6%)	27,136.6	27,056.2	238.3	358.7	62%	(90.1)	(37.8%)	75.4x	46.5x
BlackLine, Inc.	118.06	87.33	154.61	(23.6%)	6,895.8	6,838.0	386.8	421.9	21%	(7.4)	(1.9%)	16.2x	13.4x
Coupa Software Incorporated	219.18	203.51	377.04	(41.9%)	16,232.3	17,206.1	642.7	707.1	23%	(113.3)	(17.6%)	24.3x	19.8x
Intuit Inc.	539.51	312.05	582.96	(7.5%)	147,335.8	145,945.8	9,633.0	10,861.3	6%	2,844.0	29.5%	13.4x	12.6x
Reckon Limited	0.73	0.50	0.87	(15.5%)	82.9	98.0	56.7	52.4	2%	11.3	20.0%	1.9x	1.8x
The Sage Group plc	9.58	7.33	10.26	(6.7%)	9,992.8	10,146.7	2,569.3	2,501.1	6%	611.7	23.8%	4.1x	3.8x
Wolters Kluwer N.V.	106.14	74.04	114.46	(7.3%)	27,550.9	30,352.2	5,441.1	5,438.5	4%	1,637.4	30.1%	5.6x	5.4x
Workiva Inc.	140.96	52.86	156.48	(9.9%)	7,109.1	6,890.0	391.7	431.3	18%	(10.6)	(2.7%)	16.0x	13.5x
Xero Limited	100.68	73.08	114.44	(12.0%)	14,947.3	14,841.2	593.3	671.2	32%	51.4	8.7%	22.1x	16.7x
Average												18.2x	13.8x
Median												15.5x	13.0x
Financial Services													
Bottomline Technologies, Inc.	\$39.28	\$36.05	\$55.09	(28.7%)	\$1,792.7	\$1,814.4	\$471.4	\$492.3	12%	\$44.1	9.4%	3.7x	3.3x
Broadridge Financial Solutions	166.64	131.23	177.16	(5.9%)	19,358.3	23,274.0	5,169.2	5,246.8	7%	1,084.0	21.0%	4.4x	4.1x
Clearwater Analytics Holdings	25.61	23.25	27.68	(7.5%)	4,429.2	4,812.5	237.0	NA	NA	(30.8)	(13.0%)	NM	NM
Duck Creek Technologies, Inc.	44.24	33.91	59.40	(25.5%)	5,827.0	5,476.6	260.4	268.5	18%	7.0	2.7%	20.4x	17.3x
EVO Payments, Inc.	23.68	20.45	31.99	(26.0%)	1,120.7	2,435.4	480.1	492.9	11%	147.4	30.7%	4.9x	4.4x
FIS	121.68	120.17	155.96	(22.0%)	75,160.6	93,463.6	13,521.0	13,910.2	8%	4,836.0	35.8%	6.7x	6.2x
Guidewire Software, Inc.	118.87	91.77	134.22	(11.4%)	9,875.3	9,216.9	743.3	747.3	10%	(74.0)	(10.0%)	12.3x	11.2x
i3 Verticals, Inc.	24.21	20.25	35.99	(32.7%)	532.1	837.1	191.4	239.4	13%	21.7	11.3%	3.5x	3.1x
Jack Henry & Associates, Inc.	164.06	141.65	179.98	(8.8%)	12,142.7	12,252.8	1,758.2	1,833.7	8%	451.3	25.7%	6.7x	6.2x
nCino, Inc.	71.03	48.00	90.22	(21.3%)	6,832.8	6,464.7	239.7	263.7	24%	(44.8)	(18.7%)	24.5x	19.8x
Q2 Holdings, Inc.	80.14	76.90	148.56	(46.1%)	4,525.0	4,728.1	475.8	497.8	19%	(46.4)	(9.8%)	9.5x	8.0x
SimCorp A/S	118.39	111.33	145.69	(18.7%)	4,678.3	4,668.8	563.3	577.4	10%	163.1	29.0%	8.1x	7.4x
SS&C Technologies Holdings	69.40	58.40	79.71	(12.9%)	17,714.8	23,994.3	4,960.2	4,982.8	4%	1,855.6	37.4%	4.8x	4.6x
Temenos AG	136.21	103.33	165.04	(17.5%)	9,922.4	10,916.6	954.1	988.2	10%	260.7	27.3%	11.0x	10.0x
Average												9.3x	8.1x
Median												6.7x	6.2x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; 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 09/30/2021	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 2021	CY 2022
HCM													
Automatic Data Processing	\$199.92	\$135.11	\$217.15	(7.9%)	\$84,510.8	\$85,382.0	\$15,005.4	\$15,551.9	6%	\$3,866.1	25.8%	5.5x	5.2x
Benefitfocus, Inc.	11.10	9.42	17.58	(36.9%)	370.1	532.0	265.8	257.8	-1%	28.5	10.7%	2.1x	2.1x
Ceridian HCM Holding Inc.	112.62	78.20	116.70	(3.5%)	16,877.4	17,720.4	912.1	1,014.0	17%	28.2	3.1%	17.5x	14.9x
Docebo Inc.	73.15	36.23	92.97	(21.3%)	2,393.8	2,185.4	82.2	102.6	39%	(7.3)	(8.9%)	21.3x	15.4x
Paychex, Inc.	112.45	78.00	118.22	(4.9%)	40,551.8	40,307.3	4,207.5	4,282.1	5%	1,783.3	42.4%	9.4x	9.0x
Paycom Software, Inc.	495.75	302.44	515.52	(3.8%)	28,712.5	28,611.0	931.8	1,037.7	24%	243.8	26.2%	27.6x	22.2x
Paycor HCM, Inc.	35.16	24.00	39.71	(11.5%)	6,133.0	6,690.6	352.8	375.4	13%	45.4	12.9%	17.8x	15.8x
PayGroup Limited	0.33	0.31	0.59	(43.2%)	38.3	30.6	11.9	17.4	27%	0.5	4.6%	1.8x	1.4x
Paylocity Holding Corporation	280.40	154.26	298.63	(6.1%)	15,310.2	15,178.2	635.6	712.0	23%	77.8	12.2%	21.3x	17.3x
TriNet Group, Inc.	94.58	58.66	96.77	(2.3%)	6,228.8	6,186.8	4,198.0	1,080.5	8%	383.0	9.1%	NM	5.3x
Workday, Inc.	249.89	201.62	282.77	(11.6%)	61,972.7	60,812.6	4,673.0	5,106.1	19%	190.0	4.1%	11.9x	10.0x
Average												13.6x	10.8x
Median												14.7x	10.0x

HCM = Human Capital Management; ¹ Forecasts Revenue Growth between CY 2021 and CY 2022; 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 2021	CY 2022
Infrastructure													
Akamai Technologies, Inc.	\$104.59	\$92.64	\$124.91	(16.3%)	\$17,030.4	\$17,282.3	\$3,334.7	\$3,443.2	8%	\$1,091.6	32.7%	5.0x	4.7x
Appian Corporation	92.51	62.29	260.00	(64.4%)	6,575.8	6,391.3	330.8	357.0	18%	(46.8)	(14.2%)	17.9x	15.1x
Cisco Systems, Inc.	54.43	35.28	60.27	(9.7%)	229,571.4	217,738.4	49,818.0	51,757.8	5%	15,496.0	31.1%	4.2x	4.0x
Citrix Systems, Inc.	107.37	94.66	146.94	(26.9%)	13,338.8	16,484.9	3,164.7	3,230.6	8%	620.8	19.6%	5.1x	4.7x
Cloudflare, Inc.	112.65	40.50	137.07	(17.8%)	35,195.3	34,610.1	530.6	632.0	34%	(60.5)	(11.4%)	54.8x	40.9x
Commvault Systems, Inc.	75.31	38.90	84.22	(10.6%)	3,454.5	3,117.0	733.9	759.1	7%	62.9	8.6%	4.1x	3.8x
DigitalOcean Holdings, Inc.	77.63	35.35	88.48	(12.3%)	8,332.8	7,755.6	366.1	422.3	30%	63.9	17.5%	18.4x	14.1x
Elastic N.V.	148.99	97.48	176.49	(15.6%)	13,676.7	13,276.4	672.7	767.5	25%	(113.3)	(16.8%)	17.3x	13.8x
Exasol AG	13.72	13.54	34.17	(59.8%)	327.2	273.2	34.0	36.1	51%	(29.7)	(87.2%)	7.6x	5.0x
Fastly, Inc.	40.44	33.87	136.50	(70.4%)	4,715.3	4,645.1	323.2	345.2	20%	(131.4)	(40.7%)	13.5x	11.2x
JFrog Ltd.	33.50	33.28	95.20	(64.8%)	3,212.2	2,616.5	175.3	203.7	30%	(33.2)	(18.9%)	12.8x	9.9x
MongoDB, Inc.	471.51	219.51	518.34	(9.0%)	31,203.6	30,632.0	702.2	813.2	31%	(232.4)	(33.1%)	37.7x	28.8x
NetApp, Inc.	89.76	41.90	94.33	(4.8%)	20,073.0	18,416.0	5,899.0	6,151.5	5%	1,227.0	20.8%	3.0x	2.8x
Nutanix, Inc.	37.70	21.35	44.50	(15.3%)	8,076.1	8,047.3	1,394.4	1,503.4	15%	(581.2)	(41.7%)	5.4x	4.7x
OVH Groupe Société anonyme	0.00	0.00	0.00		0.0	0.0	801.1	NA	NA	300.7	37.5%	NM	NM
Rackspace Technology, Inc.	14.22	13.07	26.43	(46.2%)	2,973.9	6,910.8	2,867.6	2,997.1	9%	623.5	21.7%	2.3x	2.1x
Snowflake Inc.	302.43	184.71	429.00	(29.5%)	91,001.2	86,104.6	851.2	1,146.6	64%	(759.5)	(89.2%)	75.1x	45.7x
Software Aktiengesellschaft	46.73	35.00	51.00	(8.4%)	3,457.2	3,169.5	970.3	958.5	8%	201.8	20.8%	3.3x	3.1x
SolarWinds Corporation	16.73	16.60	48.68	(65.6%)	2,643.7	4,282.0	1,045.2	882.3	-16%	182.8	17.5%	4.9x	5.8x
Tuya Inc.	9.07	8.73	27.65	(67.2%)	5,077.0	3,839.3	263.6	338.1	61%	(113.2)	(42.9%)	11.4x	7.1x
UiPath Inc.	52.61	51.01	90.00	(41.5%)	27,017.1	25,139.4	736.9	873.9	33%	(370.2)	(50.2%)	28.8x	21.6x
VeriSign, Inc.	205.01	184.60	234.56	(12.6%)	22,935.4	23,600.9	1,291.2	1,327.1	9%	881.6	68.3%	17.8x	16.3x
Average												16.7x	12.6x
Median												11.4x	7.1x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; 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 2021	CY 2022
Vertical Software													
2U, Inc.	\$33.57	\$28.45	\$59.74	(43.8%)	\$2,504.9	\$2,393.6	\$886.0	\$945.3	16%	(\$40.7)	(4.6%)	2.5x	2.2x
Allscripts Healthcare Solutions	13.37	7.89	19.01	(29.7%)	1,671.4	1,954.7	1,494.1	1,502.9	3%	70.0	4.7%	1.3x	1.3x
Amdocs Limited	75.71	54.68	82.38	(8.1%)	9,585.3	9,479.4	4,254.3	4,312.0	5%	802.0	18.9%	2.2x	2.1x
AppFolio, Inc.	120.40	110.22	186.59	(35.5%)	4,167.3	4,071.2	324.5	352.1	19%	6.3	1.9%	11.6x	9.7x
AssetMark Financial Holdings	24.87	21.10	27.20	(8.6%)	1,829.1	1,819.4	465.1	377.6	18%	34.3	7.4%	4.8x	4.1x
Black Knight, Inc.	72.00	68.60	97.19	(25.9%)	11,189.6	13,950.8	1,365.7	1,457.5	9%	476.3	34.9%	9.6x	8.8x
Blackbaud, Inc.	70.35	46.86	80.00	(12.1%)	3,349.1	3,890.8	906.2	911.3	2%	83.4	9.2%	4.3x	4.2x
Boxlight Corporation	2.25	1.29	3.80	(40.8%)	134.7	174.6	121.5	178.2	12%	0.8	0.7%	1.0x	0.9x
Castlight Health, Inc.	1.57	0.77	2.71	(42.1%)	251.6	201.8	142.8	138.5	4%	(2.4)	(1.7%)	1.5x	1.4x
CDK Global, Inc.	42.55	39.78	55.51	(23.3%)	5,141.4	6,636.6	1,673.2	1,734.4	6%	536.0	32.0%	3.8x	3.6x
Cerner Corporation	70.52	67.96	84.20	(16.2%)	20,844.7	21,824.0	5,608.2	5,791.9	5%	1,413.2	25.2%	3.8x	3.6x
Ebix, Inc.	26.93	17.83	64.14	(58.0%)	833.3	1,466.3	912.8	906.8	-35%	139.2	15.3%	1.6x	NM
EngageSmart, LLC	34.06	31.80	38.83	(12.3%)	5,482.2	5,562.7	183.2	NA	NA	25.0	13.6%	NM	NM
Envestnet, Inc.	80.24	61.00	88.45	(9.3%)	4,374.3	4,971.1	1,080.2	1,173.8	12%	153.4	14.2%	4.2x	3.8x
FINEOS Corporation Holdings	3.14	2.43	3.73	(15.9%)	997.2	989.7	128.5	136.7	15%	(9.8)	(7.6%)	7.2x	6.3x
HealthStream, Inc.	28.58	17.95	31.11	(8.1%)	901.8	873.6	251.0	255.8	7%	37.3	14.9%	3.4x	3.2x
Olo Inc.	30.03	22.88	49.00	(38.7%)	4,435.5	3,860.3	130.1	145.3	28%	3.7	2.8%	26.6x	20.8x
Procure Technologies, Inc.	89.34	78.96	108.75	(17.8%)	11,715.2	10,746.3	448.1	500.0	23%	(176.8)	(39.4%)	21.5x	17.5x
Riskified Ltd.	22.81	22.50	40.48	(43.7%)	3,655.3	3,720.2	205.5	224.8	20%	1.6	0.8%	16.5x	13.8x
Stride, Inc.	35.94	20.39	37.21	(3.4%)	1,444.2	1,483.9	1,566.0	1,509.5	1%	145.5	9.3%	1.0x	1.0x
Tabula Rasa HealthCare, Inc.	26.21	26.19	69.31	(62.2%)	612.4	968.8	306.5	343.8	15%	(33.4)	(10.9%)	2.8x	2.4x
Toast, Inc.	49.95	49.00	65.99	(24.3%)	25,093.3	25,566.1	1,183.0	NA	NA	(131.0)	(11.1%)	NM	NM
Tyler Technologies, Inc.	458.65	346.45	498.98	(8.1%)	18,732.8	20,046.1	1,267.9	1,550.7	18%	257.9	20.3%	12.9x	10.9x
Unity Software Inc.	126.25	76.00	174.94	(27.8%)	35,668.0	34,209.3	929.5	1,060.4	26%	(380.0)	(40.9%)	32.3x	25.6x
Veeva Systems Inc.	288.17	235.74	343.96	(16.2%)	44,210.4	42,005.6	1,663.4	1,834.6	19%	481.0	28.9%	22.9x	19.3x
Average												8.7x	7.6x
Median												4.2x	3.9x

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Firm Overview

Pagemill Partners
A KROLL BUSINESS



DUFF & PHELPS
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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. 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

Vertical Software/SaaS

 a business division of  has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Data & Analytics

 AT INTERNET has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Fintech & Payments

 has been acquired by 	 a portfolio company of  TONKA BAY has been acquired by 	 has been acquired by 	 has received funding from 
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Marketing Tech

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Retail and Commerce Technologies

 has received funding from 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Security

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Consumer Technologies

 has been acquired by  a subsidiary of 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Networking Technologies

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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About Duff & Phelps

About Duff & Phelps, A Kroll Business

For nearly 100 years, Duff & Phelps has helped clients make confident decisions in the areas of valuation, real estate, taxation and transfer pricing, disputes, M&A advisory and other corporate transactions. For more information, visit www.duffandphelps.com.

About Kroll

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