

INDUSTRY INSIGHTS

Global Software Sector Update

Spring 2021

Executive Summary

Expectations were high coming into 2021 following a record closing quarter, and all eyes were on the software sector to maintain its outperformance and dynamic pace of deal-making. Q1 2021 did not disappoint, bringing M&A spending to new highs driven by soaring Special Purpose Acquisition Company (“SPAC”) and strong PE activity. We also observed the first signs of a post-pandemic rotation, starting with the return of volatility in software public markets.

The meteoric rise of SPACs contributed a record 44% of total M&A spending in Q1 2021, taking the spotlight away from the largest tech acquirers. Median valuation multiples for software de-SPAC deals significantly exceeded those of traditional strategic buyers by a factor of c.5-times (21.1x vs. 4.4x), reflecting the focus on higher growth/disruptive technology targets. PE activity, which has redefined the software M&A landscape remained equally robust in Q1, with disclosed median PE multiples exceeding strategic buyers (ex-SPACs).

Worldwide enterprise software spending is projected to grow by over 10% in 2021 as companies focus on enhancing, extending and transforming their value propositions using technology. Employee experience has emerged as one of the major areas of near-term investment, alongside other key applications such as the digital workplace, security, customer engagement, supply chain management, data integration and digital commerce.

Underneath a robust software M&A market, we note the beginnings of a broader sector shift as a post-pandemic world starts to reopen. Tech stocks gained a little in Q1 while the overall S&P 500 index added 5%. Sharp sell-offs were observed for the highest growth SaaS players, bringing much of the market down with them as multiples showed some trends toward mean reversion.

Based on our activity and ongoing engagements, we continue to observe a conducive environment for deal-making and a healthy pipeline of opportunities coming to market. A changing tax landscape could act as a catalyst alongside increasingly successful vaccination programs and a steady economic recovery.

Table of Contents



3	Robust M&A Momentum Continues into 2021
6	Software and SaaS M&A Valuations Dynamics
8	Software and SaaS M&A Transactions to Note
10	Pagemill Partners Tracked Public Market Software Universe
14	Public Market SaaS Multiples Trending Down
15	Recent Software IPO Activity
18	Public Company Raw Market Data
26	Pagemill Partners Overview

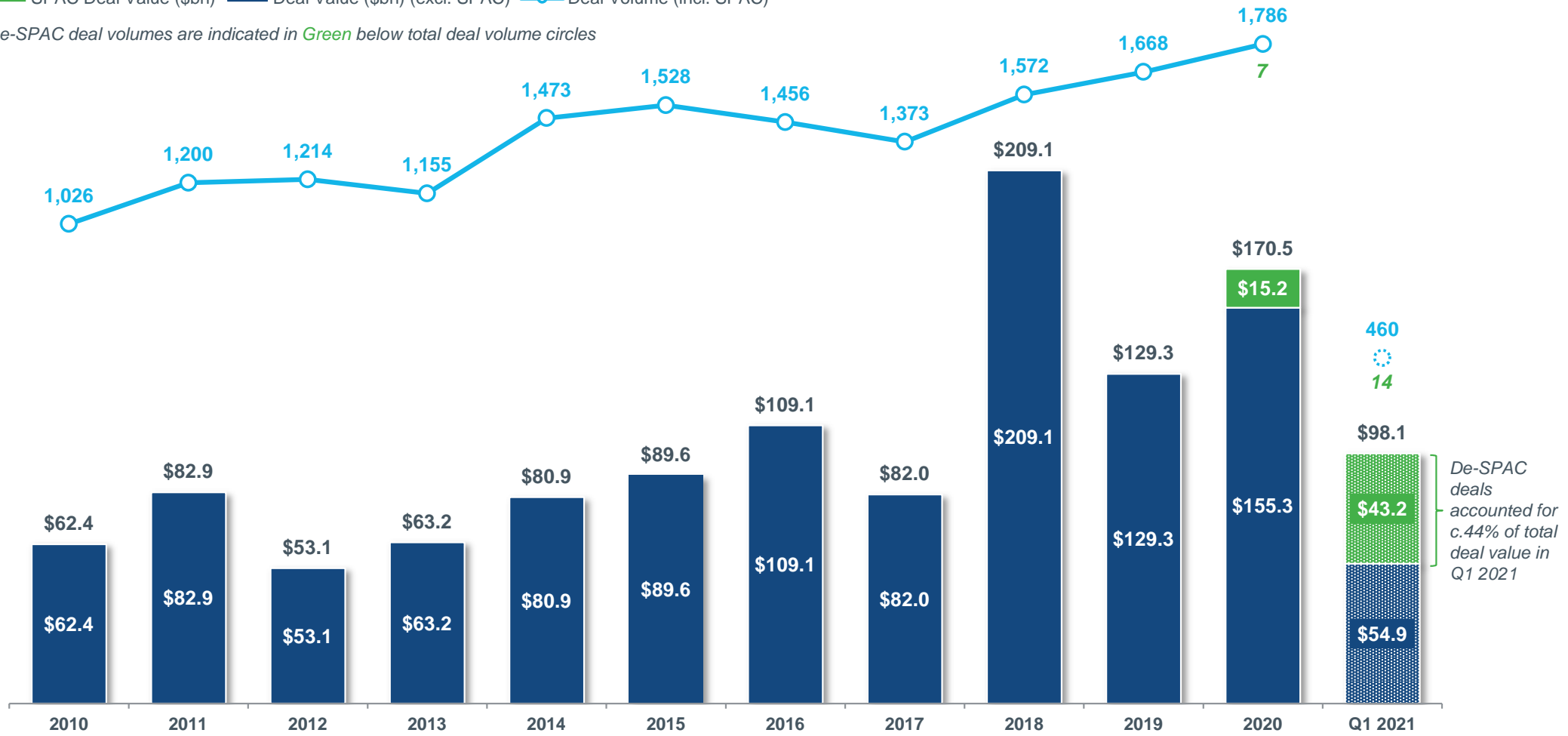
Robust M&A Momentum Continues into 2021

Q1 2021 Deal Value has Already Exceeded Annual Deal Values in 7 of the Last 10 Years, and Deal Volumes Suggest Another Record Year Could be in the Making

Annual Deal Volume and Deal Value

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

De-SPAC deal volumes are indicated in Green below total deal volume circles



De-SPAC deals accounted for c.44% of total deal value in Q1 2021

Note: SPAC deals disaggregated from Q4 2020 onwards

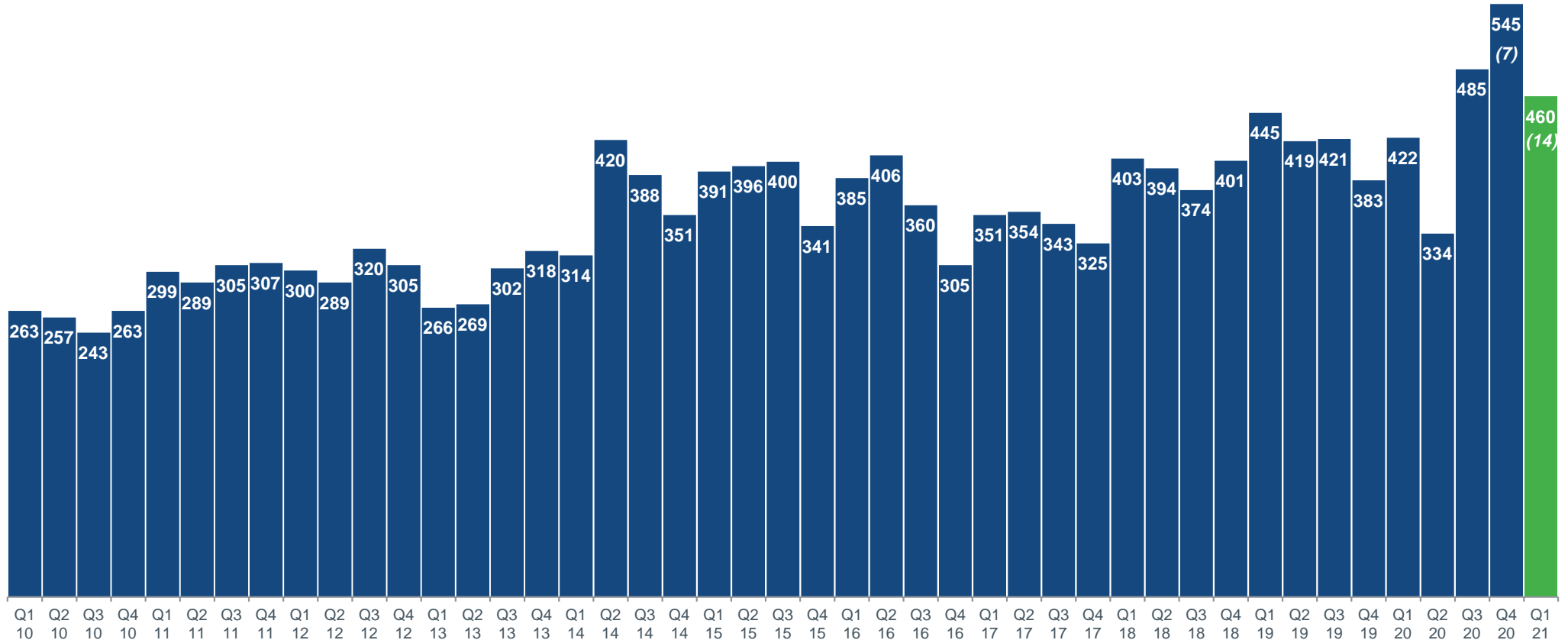
Source: 451 Research as of March 31, 2021

Software Deal Activity Continues Above Historical Average

Q1 2021 Recorded the Third Highest Deal Volume by Quarter Since Q1 2010, which also included 14 De-SPAC Deals, a Quarterly Record

Quarterly Deal Volume (Q1 2010 to Q1 2021)

Top number in each bar indicates total deal volume in quarter (incl. De-SPAC deals)
De-SPAC deal volumes indicated in brackets



Notes: SPAC deals disaggregated from Q4 2020 onwards

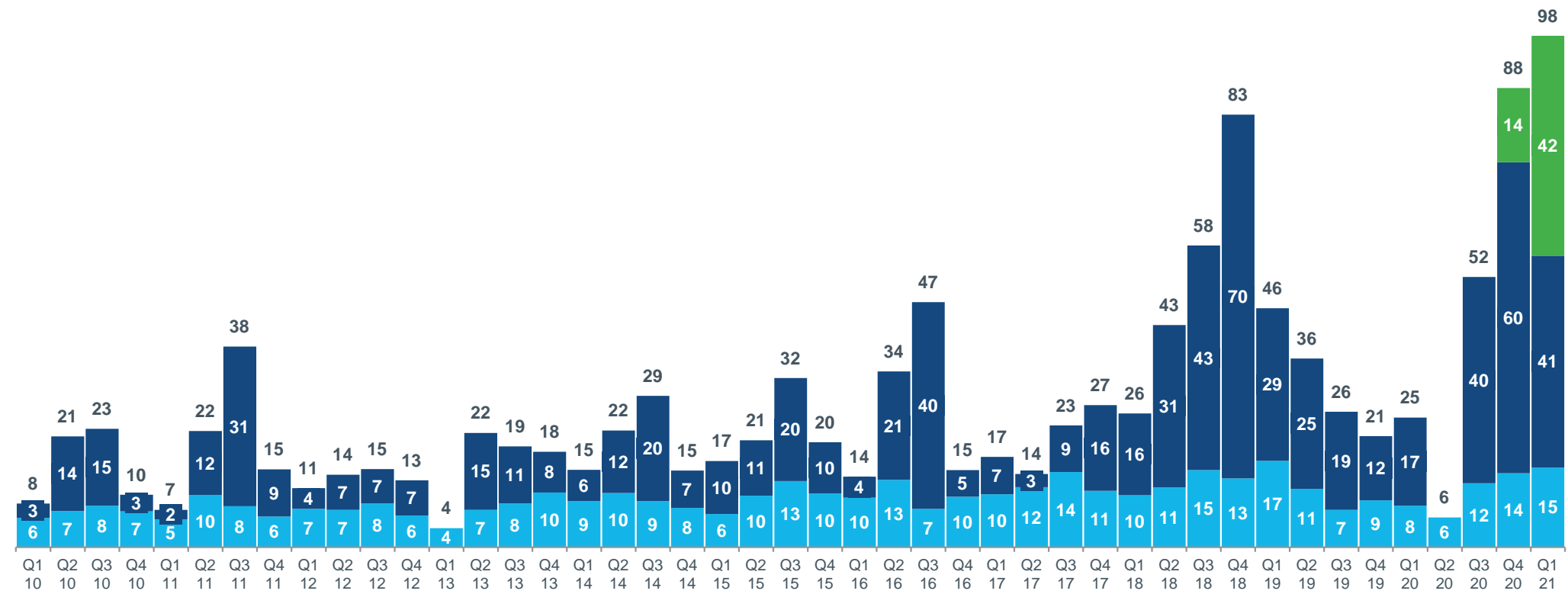
Source: 451 Research as of March 31, 2021

Quarterly Deal Value Sets Another Record High

Q1 2021 Deal Value Surpassed Q4 2020's Record as a Result of a Sharp Rise in High-value De-SPAC Deals

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

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



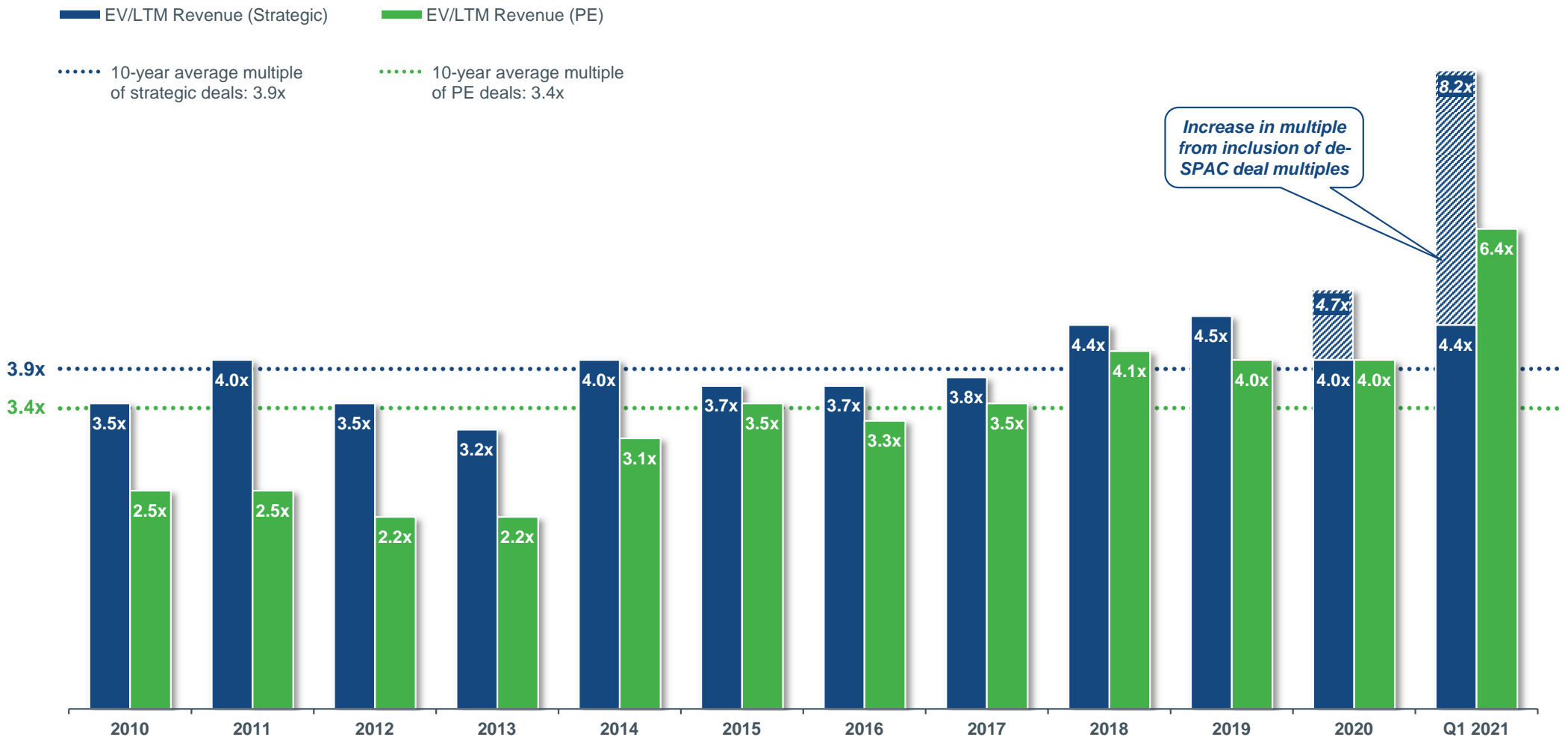
Notes: SPAC deals disaggregated from Q4 2020 onwards

Source: 451 Research as of March 31, 2021

Software Multiples Remain above Long-Term Levels

Non-SPAC Strategic Deal Multiples Remain at Historic Highs as PE Valuations Rise to the Challenge and All-Time-Highs

Annual Median Deal Multiples



Increase in multiple from inclusion of de-SPAC deal multiples

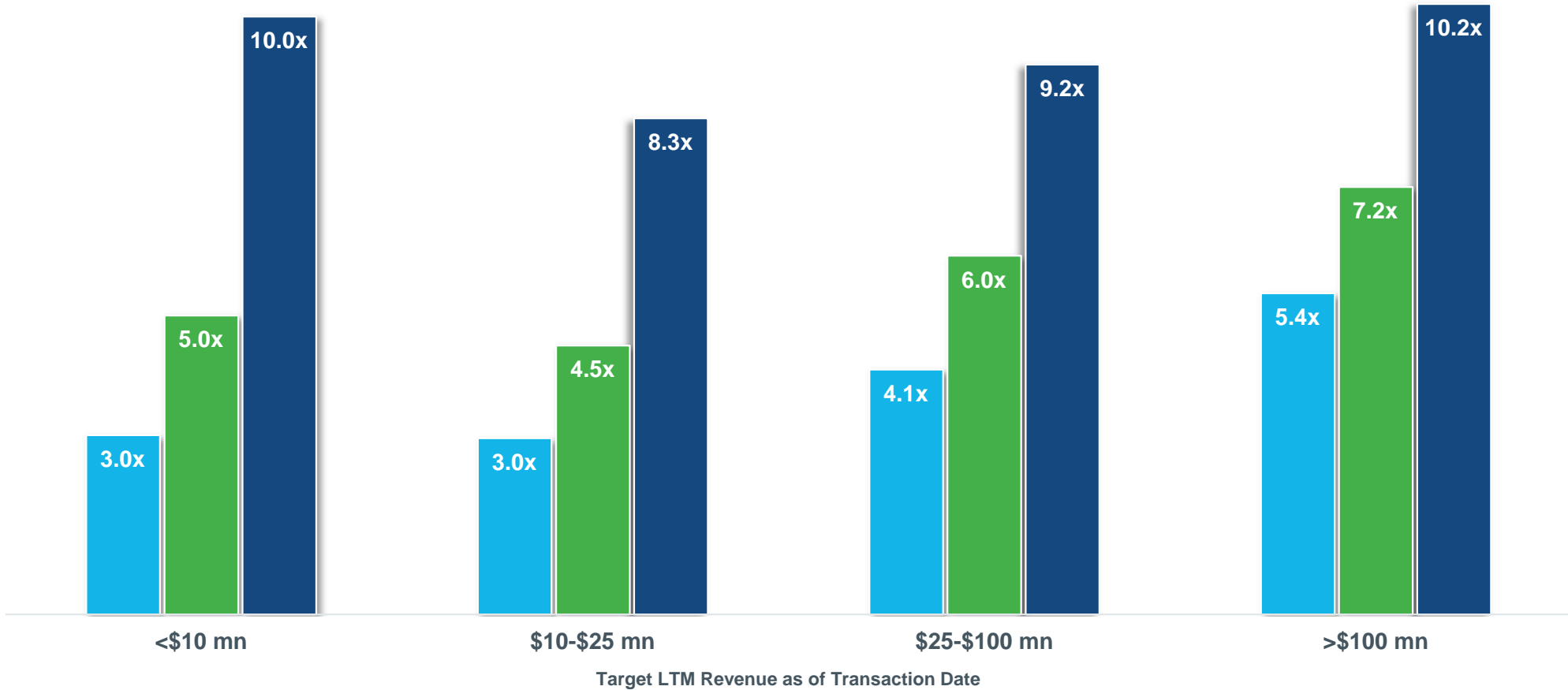
EV = Enterprise Value = Market Capitalization + Total Debt - Cash, PE deals include acquisitions made by PE-backed strategics.

SaaS Deal Multiples by Quartile and Target Revenue

3rd Quartile Multiples Command Average Premiums of 40%–100% vs. Median

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 March 31, 2021; (iii) disclosed EV/LTM revenue multiple; and (iv) excluding outliers and SPAC transactions.

Source: 451 Research as of March 31, 2021

Top 6 Software Acquisitions over Q1 2021 by Deal Value

January 2021

CHANGE HEALTHCARE
acquired by

OPTUM

\$12.7 bn **7.7x**

Change Healthcare provides medical revenue cycle management SaaS for businesses in the health care sector globally. Its software provides features for electronic information transmission, collaboration, billing, medical coding and transaction, payments processing, and staff scheduling. The merger combines technology for administrative and financial support capabilities, enabling better workflow and transactional connectivity across the health care system with Optum's modern analytics, comprehensive clinical expertise, innovative technologies and extensive experience in improving operational and clinical performance.

March 2021

Auth0
acquired by

Okta

\$6.5 bn **43.3x**

Okta provides cloud-based identity management SaaS to enterprises. Its software provides features for identification and authentication of users by connecting to multi-tenant and single-tenant B2B applications. The transaction accelerates Okta's growth in its end market, and with Auth0, the combined entity has a comprehensive and complementary identity platform that is robust enough to serve the largest enterprise organizations while remaining flexible to address the majority of identity use cases. The transaction also closed on the heels of TPG Capital's acquisition of Centrify and Thycotic, which lie in the privileged access management space.

March 2021

McAfee Enterprise Business
acquired by

STG SYMPHONY TECHNOLOGY GROUP

\$4.0 bn **3.0x**

The enterprise business of McAfee provides network anti-malware and PC security software for enterprises globally. Its software includes features for anti-virus, anti-spyware, anti-spam, intrusion prevention, secure messaging, web filtering and vulnerability management. The transaction occurs less than five months following McAfee's IPO and effectively returns McAfee to its early roots as a consumer security brand, mirroring an almost identical (but larger) move by rival Symantec two years ago. For Symphony, the company may combine some parts of McAfee's enterprise division with RSA Security, which it bought last year for c.\$2 bn.

March 2021

precisely
acquired by

TA ASSOCIATES
CLEARVIEW CAPITAL

\$3.6 bn **6.0x**

Precisely provides open-source and Windows-based data integration software for businesses. Its software has features for data management, integration and backup. The company has expanded its product offerings and established a sales strategy providing data management software to address complex data quality challenges facing enterprises. The company is well positioned as a buy-and-build platform within the market. Clearview Capital merged Vision Systems, a backup and recovery software provider, with Syncsort (a predecessor to Precisely) in July 2017 before selling a majority stake to Centerbridge Partners.

March 2021

ITIVITI
acquired by

Broadridge

\$2.5 bn **9.4x**

Itiviti is a leading global capital markets technology service provider offering highly scalable solutions that financial institutions use to consolidate their trading infrastructure, driving significant cost savings. The acquisition enhances Broadridge's position by extending its capabilities into the front office and deepening its multi-asset class solutions. Itiviti significantly strengthens its Capital Markets franchise and better enables Broadridge to assist financial institutions adapt to a rapidly evolving marketplace. Itiviti also has a well-developed footprint in APAC and EMEA to increase Broadridge's scale to serve its global clients.

March 2021

talend
acquired by

THOMABRAVO

\$2.4 bn **8.3x**

Talend provides open-source data integration, data quality and master data management software and SaaS for businesses. Talend's Data Fabric brings together all the data integration and governance capabilities. Talend delivers complete, clean and uncompromised data in real time. This unified approach to data has led to the rollout of Talend Trust Score, a pioneering innovation that instantly assesses reliability of data sets. Thoma Bravo provides the additional capital and expertise to accelerate its growth, leverage a large market opportunity and transition fully to the cloud, which aligns with Talend's mission to help all organizations become data-driven.

Deal Size EV/LTM Rev

SaaS = Software as a Service; EV = Enterprise Value; LTM = Last 12 Months; APAC = Asia Pacific; EMEA = Europe, Middle East and Africa
































Source: 451 Research as of March 31, 2021
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Other Notable Software Deals during Q1 2021

Strategic Deals (Q4 2020)

Date	Target	Acquirer	Deal Value and Multiple ²	Target Abstract
Feb-21			\$2,277 mn 4.4x	Government mgmt. SaaS and payment processing services
Jan-21			\$2,250 mn 16.1x	Project management and collaboration SaaS
Oct-20			\$891 mn N/A	Fleet management SaaS
Jan-21			\$700 mn 23.3x	Employee engagement SaaS
Jan-21			\$1,500 mn N/A	E-commerce fraud detection SaaS
Jan-21			\$635 mn 6.4x	Medical data capture SaaS
Mar-21			\$523 mn N/A	Mobile app advertising and SaaS
Feb-21			\$500 mn N/A	Real estate property listing SaaS
Jan-21			\$440 mn N/A	Networking SaaS
Mar-21			\$425 mn N/A	Payment software and APIs
Mar-21			\$400 mn N/A	Hospitality management SaaS

PE Deals¹ (Q4 2020)

Date	Target	Acquirer ¹	Deal Value and Multiple ²	Target Abstract
Mar-21			\$2,000 mn N/A	ERP SaaS and software
Mar-21			\$1,700 mn 8.5x	Native advertising SaaS
Feb-21			\$1,600 mn N/A	Interior design software and services
Mar-21		 	\$1,400 mn 15.6x	Privileged identity management software and SaaS
Feb-21		 	\$1,000 mn N/A	Governance, risk and compliance SaaS
Jan-21			\$900 mn 8.6x	Identity and access management SaaS
Feb-21		 	\$650 mn N/A	E-learning mobile application and SaaS
Feb-21		 	\$450 mn 4.5x	Social media monitoring SaaS
Jan-21		  	\$450 mn 6.4x	IT service and asset management SaaS
Feb-21		 	\$225 mn 5.0x	Application development and deployment SaaS
Jan-21		  	\$200 mn 4.0x	Data modeling and management SaaS

Mgmt. = Management; SaaS = Software as a Service; API = Application Programming Interface; ERP = Enterprise Resource Planning; 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

<p>BI and Analytics</p>	<p>Communication and Collaboration</p>	<p>CRM and Marketing</p>	<p>Cyber Security</p>	<p>Vertical Software</p>	
<p>Engineering</p>	<p>ERP and SCM</p>	<p>Financial and Accounting</p>	<p>Financial Services</p>	<p>HCM</p>	<p>Infrastructure</p>

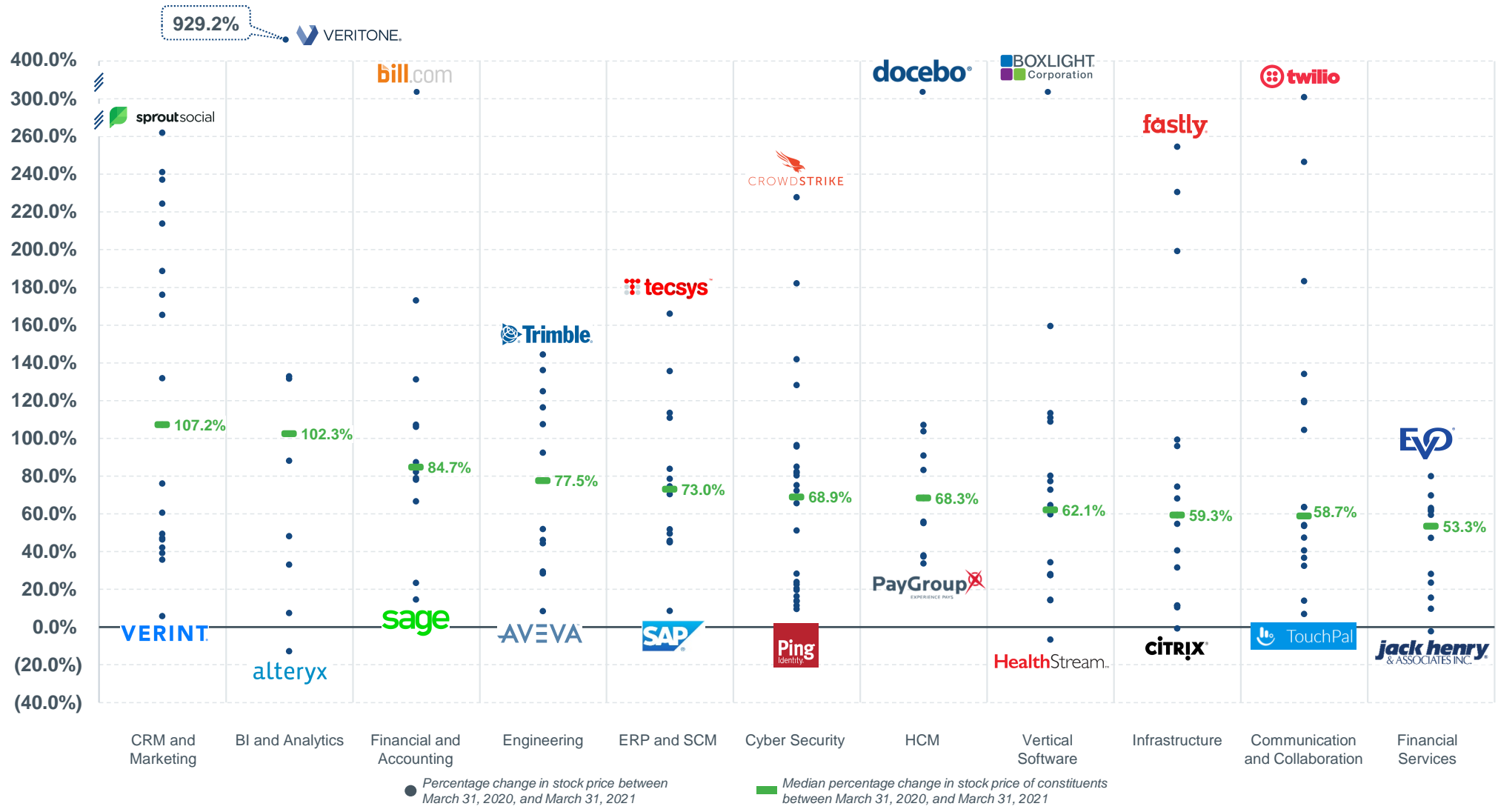
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management

Source: S&P Global Market Intelligence as of March 31, 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

Strong Performance from Software Stocks Driven by COVID-19 Tailwinds

Performance of Pagemill-Tracked Software Universe between March 31, 2020 and March 31, 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 March 31, 2020, and March 31, 2021.

Does not include companies listed post March 31, 2020 (i.e., AI, API, ASAN, BIGC, BSY, DCT, DOCN, EXL, FROG, JAMF, MCFE, NCNO, ONTF, PLTR, RXT, SUMO, XM, ZI)

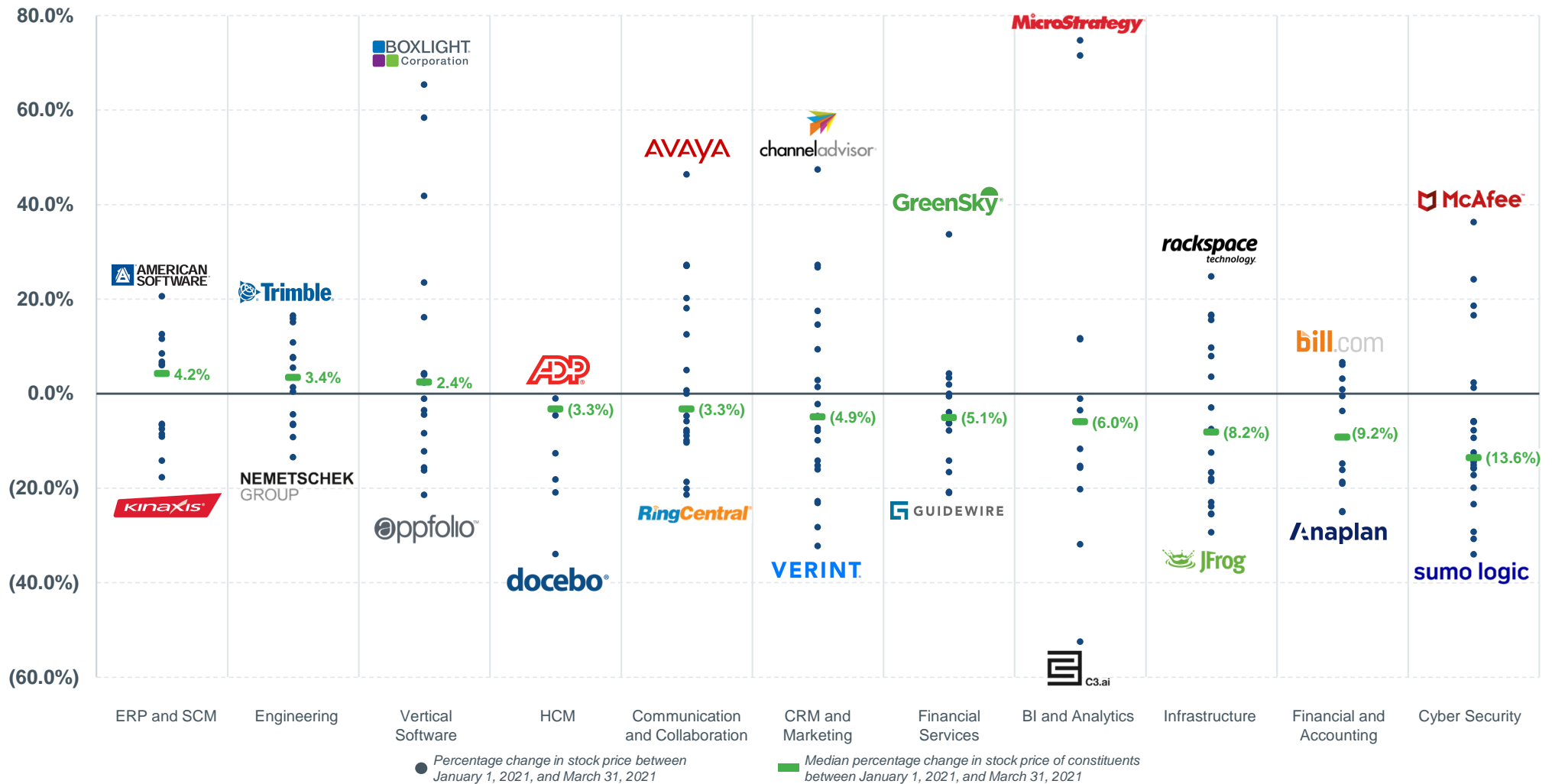
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Source: Capital IQ as of March 31, 2021

Quarterly Performance of Stock Prices

Noticeable Retreat in Stock Price Performance following Strong Gains over 2020

Performance of Pagemill-Tracked Software Universe between January 01, 2021 and March 31, 2021

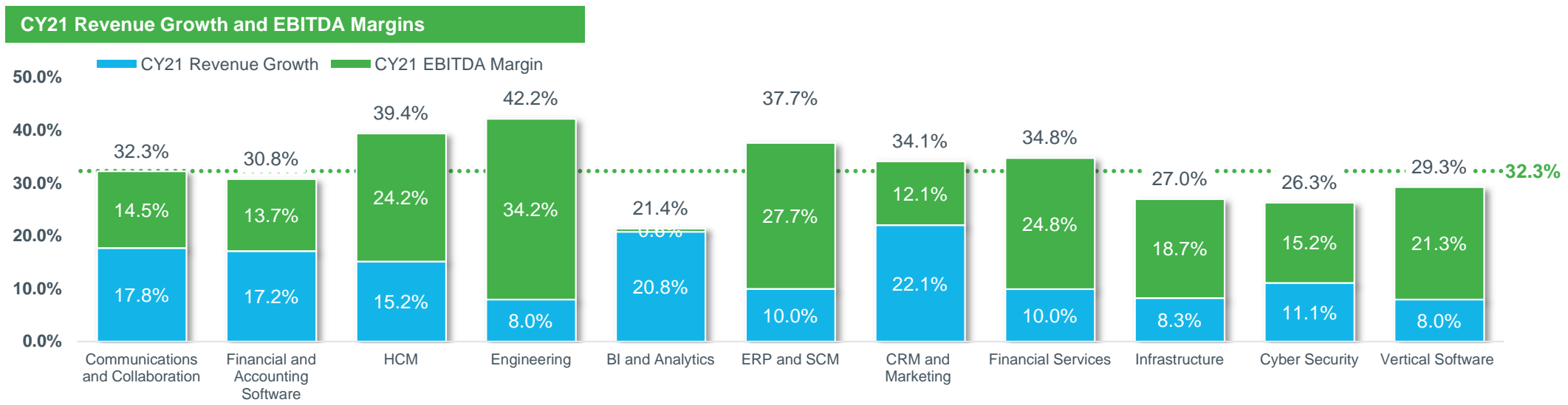
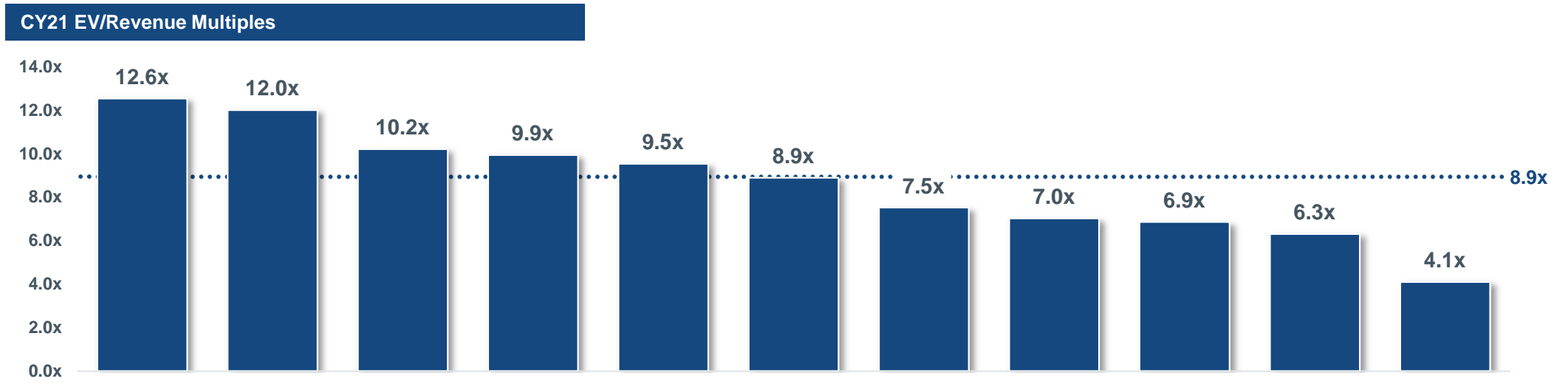


BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management
 Buckets ordered by median percentage change in stock price between January 1, 2021, and March 31, 2021.
 Does not include companies listed post January 1, 2021 (i.e., DOCN, OLO, ONTF, TUYA, XM)

Source: Capital IQ as of March 31, 2021
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Public Software Market Multiples

Sector Multiples Range from 12.6x to 4.1x, With a Median of 8.9x CY 2021 Revenues



BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; HCM = Human Capital Management; SCM = Supply Chain Management; EV = Enterprise Value; EBITDA = Earnings Before Interest, Depreciation and Amortization; Buckets ordered by CY21 Revenue Multiples

Source: Capital IQ as of March 31, 2021

SaaS Multiples Showed Some Mean Reversion in Q1

Post-pandemic Rotation and Concerns about Overextended Valuations Resulted in a Pullback following February Record Highs

Performance of Pagemill Partners SaaS Index Over the Past 15 Years


EV/NTM Revenue



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

IPO Window Remains Open with Notable First Day Pops

Average Post-IPO Performance Only Slightly above 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
 DigitalOcean	23 Mar 21	775.5	47.00	4,949	-10%	4,436	-10%
 tuya	17 Mar 21	915.4	21.00	11,755	19%	11,833	1%
 olo	16 Mar 21	450.0	25.00	3,550	39%	3,819	6%
 ON24	03 Feb 21	428.0	50.00	2,224	42%	2,247	-3%
 qualtrics. ^{XM}	28 Jan 21	1,550.9	30.00	15,102	47%	16,825	10%
 C3.ai	08 Dec 21	651.0	42.00	4,026	120%	6,652	57%
 McAfee	21 Oct 20	740.0	20.00	3,309	-7%	3,691	14%
 Palantir	30 Sep 20	<i>Direct Listings</i>	7.25	11,961	31%	42,441	
 asana	30 Sep 20	<i>Direct Listings</i>	21.00	3,246	37%	4,660	36%
 Bentley	22 Sep 20	236.5	22.00	5,747	52%	12,970	113%
 unity	18 Sep 20	1,300.0	52.00	13,695	31%	27,877	93%

Median: 44%

Median: 47%

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

Source: Capital IQ as of March 31, 2021
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IPO Window Remains Open with Notable First Day Pops

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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
 sumo logic	16 Sep 20	325.6	22.00	2,171	 22% Median: 44%	1,937	-14% Median: 47%
 JFrog	16 Sep 20	509.0	44.00	3,902	 47%	4,140	1%
 snowflake	15 Sep 20	3360.0	120.00	33,203	 112%	66,193	 91%
 Duck Creek Technologies	13 Aug 20	405.0	27.00	3,464	 48%	5,914	 67%
 BIGCOMMERCE	04 Aug 20	216.5	24.00	1,580	 201%	4,229	 141%
 rackspace technology	04 Aug 20	703.5	21.00	4,180	 -22%	4,887	13%
 jamf	21 Jul 20	468.0	26.00	3,025	 51%	4,149	 36%
 ncino	13 Jul 20	249.9	31.00	2,779	 195%	6,296	 115%
 agora	25 Jun 20	350.0	20.00	1,984	 153%	5,825	 151%
 zoominfo	03 Jun 20	934.5	21.00	935	 62%	8,988	 133%
 Exasol	19 May 20	84.5	10.38	222	 23%	598	 108%

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



AT Internet has been acquired by Piano, Inc.



AT INTERNET



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 that 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 an Automated Teller Machine (ATMs) / Interactive Teller Machine (ITMs), 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 staffing needs.

Growth Capital



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



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 best-of-breed cloud finance and retail management solutions, supporting them on their digital journey.

Public Trading Data for Software Companies



\$ in USD mn (except for share price)

Company Name	Share Price 03/31/2020	52-Week		% of 52- Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY 2020				CY 2021	CY 2022
BI and Analytics													
Alteryx, Inc.	\$82.96	\$77.05	\$185.75	(55.3%)	\$5,564.2	\$5,603.3	\$505.2	\$560.2	21%	\$0.4	0.1%	10.0x	8.3x
C3.ai, Inc.	65.91	59.75	183.90	(64.2%)	6,652.4	5,533.2	172.6	221.7	35%	(62.6)	(36.3%)	25.0x	18.5x
Datadog, Inc.	83.34	33.04	119.43	(30.2%)	25,543.0	24,669.2	670.8	833.7	33%	(15.3)	(2.3%)	29.6x	22.3x
Domo, Inc.	56.29	8.09	79.00	(28.7%)	1,685.8	1,700.0	210.2	245.5	19%	(71.0)	(33.8%)	6.9x	5.8x
Dynatrace, Inc.	48.24	19.95	56.94	(15.3%)	13,632.3	13,832.4	657.6	821.0	23%	124.0	18.9%	16.8x	13.7x
Expert System S.p.A.	3.53	2.32	4.09	(13.6%)	179.4	154.9	42.9	39.4	39%	(11.8)	(27.6%)	3.9x	2.8x
MicroStrategy Incorporated	678.80	108.64	1,315.00	(48.4%)	6,507.7	7,029.5	492.2	NA	NA	81.4	16.5%	NM	NM
New Relic, Inc.	61.48	43.03	81.10	(24.2%)	3,877.3	3,605.4	654.6	689.5	11%	(102.4)	(15.6%)	5.2x	4.7x
PagerDuty, Inc.	40.23	14.70	58.36	(31.1%)	3,341.4	3,030.5	213.6	267.4	24%	(55.8)	(26.2%)	11.3x	9.1x
Palantir Technologies Inc.	23.29	8.90	45.00	(48.2%)	42,440.6	40,886.1	1,204.6	1,461.9	30%	(1,203.4)	(99.9%)	28.0x	21.5x
Splunk Inc.	135.48	101.10	225.89	(40.0%)	22,196.9	23,035.7	2,229.4	2,537.2	24%	(675.4)	(30.3%)	9.1x	7.3x
Teradata Corporation	38.54	17.99	59.58	(35.3%)	4,221.0	4,362.0	1,893.0	1,878.4	6%	282.0	14.9%	2.3x	2.2x
Veritone, Inc.	23.98	2.00	50.34	(52.4%)	774.5	667.3	64.1	78.7	24%	(55.6)	(86.7%)	8.5x	6.8x
Average												13.1x	10.3x
Median												9.5x	7.8x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin; BI = Business Intelligence; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings Before Interest, Tax, Depreciation and Amortization; LTM = Last 12 Months

Source: S&P Global Market Intelligence and Capital IQ as of March 31, 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 mn (except for share price)

Company Name	Share Price 03/31/2021	52-Week		% of 52- Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY 2020				CY 2021	CY 2022
Communications and Collaboration													
8x8, Inc.	\$32.44	\$12.32	\$39.17	(17.2%)	\$3,486.9	\$3,740.4	\$509.1	\$589.6	17%	(\$131.1)	(25.8%)	6.3x	5.4x
Agora, Inc.	50.27	33.60	114.97	(56.3%)	5,824.8	5,189.4	133.6	182.1	49%	(0.7)	(0.5%)	28.5x	19.2x
Asana, Inc.	28.58	20.57	43.72	(34.6%)	4,660.0	4,859.6	227.0	310.7	29%	(172.7)	(76.1%)	15.6x	12.1x
Atlassian Corporation Plc	210.76	126.54	262.40	(19.7%)	52,703.0	51,811.1	1,960.1	2,069.6	21%	139.2	7.1%	25.0x	20.7x
Avaya Holdings Corp.	28.03	6.27	34.06	(17.7%)	2,351.8	4,921.8	2,957.0	2,937.3	3%	527.0	17.8%	1.7x	1.6x
Box, Inc.	22.96	12.95	26.47	(13.3%)	3,670.4	3,724.7	770.8	844.9	10%	28.3	3.7%	4.4x	4.0x
CooTek (Cayman) Inc.	2.77	2.46	7.45	(62.8%)	179.3	165.5	441.5	500.8	30%	(44.1)	(10.0%)	0.3x	0.3x
DocuSign, Inc.	202.45	78.72	290.23	(30.2%)	39,090.6	39,232.8	1,453.0	1,974.5	27%	(109.0)	(7.5%)	19.9x	15.6x
Dropbox, Inc.	26.66	17.32	28.33	(5.9%)	11,056.4	11,054.6	1,970.5	2,108.9	9%	309.9	15.7%	5.2x	4.8x
Everbridge, Inc.	121.18	95.40	178.98	(32.3%)	4,557.2	4,550.2	294.5	343.2	25%	(41.6)	(14.1%)	13.3x	10.6x
Extreme Networks, Inc.	8.75	2.41	11.12	(21.3%)	1,083.4	1,310.2	946.9	1,008.3	7%	77.5	8.2%	1.3x	1.2x
Five9, Inc.	156.33	71.68	201.75	(22.5%)	10,476.6	10,484.2	477.7	520.6	18%	17.5	3.7%	20.1x	17.1x
Jamf Holding Corp.	35.32	28.82	51.00	(30.7%)	4,148.8	3,954.0	269.5	333.9	21%	27.9	10.3%	11.8x	9.8x
Juniper Networks, Inc.	25.33	18.45	27.83	(9.0%)	8,285.1	8,841.1	4,521.5	4,605.9	3%	657.7	14.5%	1.9x	1.9x
ON24, Inc.	48.51	42.91	81.98	(40.8%)	2,246.6	2,367.3	156.9	207.6	22%	24.8	15.8%	11.4x	9.4x
Open Text Corporation	47.71	33.59	49.99	(4.6%)	12,967.0	15,346.5	3,319.2	3,338.5	0%	1,043.7	31.4%	4.6x	4.6x
RingCentral, Inc.	297.88	194.99	449.00	(33.7%)	26,955.9	27,777.5	1,268.5	1,485.3	24%	(46.1)	(3.6%)	18.7x	15.1x
Smartsheet Inc.	63.92	37.91	85.43	(25.2%)	7,931.5	7,578.2	385.5	502.9	28%	(105.8)	(27.5%)	15.1x	11.7x
TeamViewer AG	42.76	38.20	64.39	(33.6%)	8,597.4	9,107.1	553.1	633.3	29%	212.8	38.5%	14.4x	11.2x
Twilio Inc.	340.76	79.25	457.30	(25.5%)	58,092.0	55,659.5	1,986.9	2,433.8	31%	(382.2)	(19.2%)	22.9x	17.5x
Vonage Holdings Corp.	11.82	6.68	15.72	(24.8%)	2,944.7	3,450.5	1,217.1	1,332.5	9%	112.7	9.3%	2.6x	2.4x
Zoom Video Communications	321.29	108.53	588.84	(45.4%)	94,367.4	90,228.7	2,651.4	3,815.3	20%	698.5	26.3%	23.6x	19.8x
Average												12.2x	9.8x
Median												12.6x	10.2x

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Public Trading Data for Software Companies



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		Low	High				LTM	CY 2020				CY 2021	CY 2022
CRM and Marketing													
Adobe Inc.	\$475.37	\$289.71	\$536.88	(11.5%)	\$227,857.0	\$227,601.0	\$13,682.0	\$15,476.9	14%	\$5,333.0	39.0%	14.7x	12.9x
Aimia Inc.	4.11	1.47	4.44	(7.3%)	380.1	432.8	11.2	(1.6)	-350%	(4.8)	(42.7%)	NM	108.9x
BigCommerce Holdings, Inc.	57.80	50.59	162.50	(64.4%)	4,229.3	4,025.7	152.4	190.6	23%	(35.6)	(23.4%)	21.1x	17.2x
Brightcove Inc.	20.12	6.40	25.26	(20.3%)	806.7	779.1	205.5	215.3	10%	15.1	7.3%	3.6x	3.3x
Cardlytics, Inc.	109.70	28.57	161.47	(32.1%)	3,483.4	3,378.3	194.6	267.9	38%	(47.1)	(24.2%)	12.6x	9.1x
ChannelAdvisor Corporation	23.55	6.90	28.94	(18.6%)	699.8	638.4	152.2	155.4	9%	26.6	17.5%	4.1x	3.8x
HubSpot, Inc.	454.21	110.58	547.47	(17.0%)	21,045.9	20,583.3	965.4	1,168.0	25%	(30.3)	(3.1%)	17.6x	14.1x
LivePerson, Inc.	52.74	19.73	72.23	(27.0%)	3,574.9	3,481.8	396.4	462.5	23%	(7.2)	(1.8%)	7.5x	6.1x
Medallia, Inc.	27.89	16.04	48.28	(42.2%)	4,335.5	4,169.8	477.2	564.6	20%	(96.6)	(20.2%)	7.4x	6.2x
NICE Ltd.	216.10	150.13	274.74	(21.3%)	13,640.7	13,021.6	1,648.0	1,804.4	10%	425.8	25.8%	7.2x	6.5x
Pegasystems Inc.	114.34	60.13	148.80	(23.2%)	9,250.2	9,303.2	1,065.4	1,242.0	20%	(94.2)	(8.8%)	7.5x	6.2x
Qualtrics International Inc.	32.91	31.32	57.28	(42.5%)	16,824.8	16,863.7	826.1	953.7	20%	(386.7)	(46.8%)	17.7x	14.8x
salesforce.com, inc.	211.87	130.04	284.50	(25.5%)	195,132.3	189,579.3	21,252.0	25,739.9	19%	3,123.0	14.7%	7.4x	6.2x
Shopify Inc.	1,106.50	334.55	1,499.75	(26.2%)	137,272.6	131,788.1	3,448.1	4,082.2	35%	424.7	12.3%	32.3x	24.0x
Sprout Social, Inc.	57.76	11.90	82.47	(30.0%)	3,084.1	2,946.0	143.2	172.8	27%	(23.1)	(16.1%)	17.0x	13.4x
SVMK Inc.	18.32	11.36	28.12	(34.9%)	2,642.6	2,714.6	389.6	440.6	20%	(64.6)	(16.6%)	6.2x	5.1x
TechTarget, Inc.	69.45	17.74	101.12	(31.3%)	1,954.1	2,055.9	169.9	232.4	14%	36.1	21.3%	8.8x	7.8x
Upland Software, Inc.	47.19	24.04	52.00	(9.3%)	1,415.1	1,728.4	297.7	304.9	5%	43.4	14.6%	5.7x	5.4x
Verint Systems Inc.	45.49	35.06	77.70	(41.5%)	2,992.6	3,407.0	1,273.7	1,350.0	6%	179.1	14.1%	2.5x	2.4x
Yext, Inc.	14.48	8.56	20.90	(30.7%)	1,807.2	1,714.5	354.7	377.7	15%	(86.3)	(24.3%)	4.5x	3.9x
Zendesk, Inc.	132.62	56.60	166.60	(20.4%)	15,617.2	15,394.3	1,090.1	1,297.1	25%	(104.4)	(9.6%)	11.9x	9.5x
ZoomInfo Technologies Inc.	48.90	30.83	64.40	(24.1%)	8,988.2	9,919.4	527.3	653.8	28%	99.4	18.9%	15.2x	11.8x
Average												11.1x	13.6x
Median												7.5x	7.2x

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		Low	High				LTM	CY 2020				CY 2021	CY 2022
Cyber Security													
Absolute Software Corporation	\$13.87	\$6.61	\$19.87	(30.2%)	\$684.2	\$563.7	\$111.6	\$124.9	14%	\$18.2	16.3%	4.5x	4.0x
Avast Plc	6.28	5.02	8.33	(24.6%)	6,463.4	7,193.1	892.9	951.1	7%	416.7	46.7%	7.6x	7.1x
Check Point Software Ltd.	111.97	96.12	139.26	(19.6%)	15,698.2	11,731.7	2,086.0	2,132.4	3%	939.0	45.0%	5.5x	5.3x
CrowdStrike Holdings, Inc.	182.51	53.53	251.28	(27.4%)	40,859.7	39,721.3	874.4	1,320.1	33%	(56.5)	(6.5%)	30.1x	22.6x
CyberArk Software Ltd.	129.34	75.13	169.70	(23.8%)	5,055.7	4,426.1	470.4	492.3	12%	7.8	1.7%	9.0x	8.1x
F5 Networks, Inc.	208.62	101.42	215.91	(3.4%)	12,861.6	12,247.0	2,468.0	2,595.7	8%	516.6	20.9%	4.7x	4.4x
FireEye, Inc.	19.57	9.28	25.53	(23.3%)	4,634.3	4,753.2	962.2	1,004.4	7%	(32.9)	(3.4%)	4.7x	4.4x
Fortinet, Inc.	184.42	96.01	193.84	(4.9%)	30,095.7	28,311.5	2,727.0	3,056.1	15%	600.7	22.0%	9.3x	8.0x
F-Secure Oyj	4.74	2.76	4.87	(2.7%)	750.9	737.3	262.0	273.5	6%	30.2	11.5%	2.7x	2.5x
McAfee Corp.	22.74	14.80	24.99	(9.0%)	3,691.4	12,509.4	2,994.0	3,027.3	4%	481.0	16.1%	4.1x	4.0x
Mimecast Limited	40.21	30.28	59.48	(32.4%)	2,588.8	2,576.0	501.4	546.7	15%	72.6	14.5%	4.7x	4.1x
NortonLifeLock Inc.	21.26	17.98	24.40	(12.9%)	12,371.2	15,000.2	2,551.0	2,671.9	4%	1,046.0	41.0%	5.6x	5.4x
Okta, Inc.	220.43	112.50	294.00	(25.0%)	28,923.2	28,305.0	835.4	1,088.8	29%	(178.4)	(21.4%)	26.0x	20.2x
Palo Alto Networks, Inc.	322.06	158.00	403.00	(20.1%)	31,318.0	31,619.4	3,782.7	4,557.0	18%	26.3	0.7%	6.9x	5.9x
Ping Identity Holding Corp.	21.93	17.11	37.80	(42.0%)	1,786.1	1,810.5	251.1	260.9	14%	(20.6)	(8.2%)	6.9x	6.1x
Proofpoint, Inc.	125.79	91.60	140.91	(10.7%)	7,219.6	7,300.0	1,088.1	1,199.5	17%	2.5	0.2%	6.1x	5.2x
Qualys, Inc.	104.78	81.80	148.84	(29.6%)	4,108.2	3,711.1	373.5	400.5	12%	107.7	28.8%	9.3x	8.3x
Radware Ltd.	26.08	19.90	31.96	(18.4%)	1,203.9	856.6	256.8	268.9	9%	18.7	7.3%	3.2x	2.9x
Rapid7, Inc.	74.61	35.36	94.60	(21.1%)	3,931.0	4,082.5	434.6	493.6	19%	(49.3)	(11.4%)	8.3x	7.0x
SecureWorks Corp.	13.38	10.01	16.31	(18.0%)	1,110.9	919.9	561.0	540.8	4%	8.8	1.6%	1.7x	1.6x
Sumo Logic, Inc.	18.86	16.50	46.37	(59.3%)	1,937.0	1,532.9	202.6	234.1	20%	(73.8)	(36.4%)	6.5x	5.4x
Tenable Holdings, Inc.	36.19	19.90	58.45	(38.1%)	3,764.6	3,531.1	460.8	515.7	19%	(7.6)	(1.7%)	6.8x	5.8x
Tufin Software Technologies	10.50	6.34	20.11	(47.8%)	382.7	305.4	100.8	109.6	13%	(32.4)	(32.1%)	2.8x	2.5x
Varonis Systems, Inc.	51.34	17.21	75.33	(31.8%)	5,311.6	5,294.7	313.3	364.5	22%	(69.1)	(22.0%)	14.5x	11.9x
Zix Corporation	7.55	3.28	10.37	(27.2%)	415.2	737.3	226.1	245.8	13%	38.9	17.2%	3.0x	2.6x
Zscaler, Inc.	171.67	59.20	230.88	(25.6%)	23,336.9	22,833.3	536.0	735.4	31%	(139.1)	(25.9%)	31.0x	23.8x
Average												8.7x	7.3x
Median												6.3x	5.4x

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		Low	High				LTM	CY 2020				CY 2021	CY 2022
Engineering													
Altair Engineering Inc.	\$62.57	\$23.04	\$68.58	(8.8%)	\$4,667.6	\$4,680.1	\$488.6	\$507.2	9%	\$45.0	9.2%	9.2x	8.5x
ANSYS, Inc.	339.56	207.79	413.19	(17.8%)	29,587.7	29,617.2	1,739.5	1,850.9	10%	610.1	35.1%	16.0x	14.5x
Aspen Technology, Inc.	144.33	86.18	162.56	(11.2%)	9,790.8	9,912.1	713.4	733.2	4%	381.3	53.5%	13.5x	13.0x
Autodesk, Inc.	277.15	135.52	321.13	(13.7%)	60,860.0	61,107.4	3,790.4	4,304.0	18%	742.0	19.6%	14.2x	12.0x
AVEVA Group plc	47.14	42.21	73.90	(36.2%)	14,177.3	14,183.4	1,001.6	1,411.7	32%	179.2	17.9%	10.0x	7.6x
Bentley Systems, Incorporated	46.93	27.00	54.62	(14.1%)	12,969.6	13,142.3	828.9	905.5	10%	239.6	28.9%	14.5x	13.2x
Cadence Design Systems, Inc.	136.99	62.92	149.08	(8.1%)	38,229.9	37,791.6	2,801.0	2,898.8	8%	868.7	31.0%	13.0x	12.1x
Dassault Systèmes SE	214.08	138.15	223.83	(4.4%)	55,953.6	59,157.1	5,270.5	5,605.6	9%	1,174.9	22.3%	10.6x	9.7x
Hexagon AB (publ)	92.37	44.84	92.37	0.0%	33,890.2	36,499.1	4,521.6	4,803.2	6%	1,431.0	31.6%	7.6x	7.2x
Nemetschek SE	63.85	46.90	87.27	(26.8%)	7,374.6	7,457.2	714.4	757.8	10%	174.6	24.4%	9.8x	9.0x
PTC Inc.	137.65	52.96	147.67	(6.8%)	16,079.0	16,874.6	1,633.5	1,738.7	13%	392.2	24.0%	9.7x	8.6x
Roper Technologies, Inc.	403.34	290.00	455.72	(11.5%)	42,326.3	51,868.8	5,705.0	6,311.7	4%	2,049.9	35.9%	8.2x	7.9x
Synopsys, Inc.	247.78	122.51	300.91	(17.7%)	37,755.0	37,392.3	3,821.2	4,108.8	9%	866.2	22.7%	9.1x	8.4x
Trimble Inc.	77.79	27.79	78.67	(1.1%)	19,551.9	21,006.1	3,241.9	3,385.1	8%	700.8	21.6%	6.2x	5.8x
Average												10.8x	9.8x
Median												9.9x	8.8x
ERP and SCM													
American Software, Inc.	\$20.70	\$13.08	\$21.92	(5.6%)	\$677.1	\$578.0	\$112.1	\$116.1	4%	\$5.7	5.1%	5.0x	4.8x
Kinaxis Inc.	116.59	77.94	178.86	(34.8%)	3,158.1	2,959.1	229.2	246.0	28%	22.2	9.7%	12.0x	9.4x
Manhattan Associates, Inc.	117.38	43.09	146.50	(19.9%)	7,489.1	7,318.8	589.3	612.5	9%	124.0	21.0%	11.9x	10.9x
Microsoft Corporation	235.77	150.36	246.13	(4.2%)	1,778,228.2	1,729,021.2	159,969.0	172,645.7	10%	75,578.0	47.2%	10.0x	9.1x
Oracle Corporation	70.17	46.04	73.62	(4.7%)	202,337.7	236,499.7	39,691.0	40,890.7	2%	17,649.0	44.5%	5.8x	5.7x
SAP SE	122.56	105.55	168.22	(27.1%)	144,567.7	154,905.7	31,883.8	31,931.7	4%	8,701.9	27.3%	4.9x	4.7x
ServiceNow, Inc.	500.11	246.67	598.37	(16.4%)	98,071.6	97,114.7	4,833.5	5,732.8	25%	613.2	12.7%	16.9x	13.6x
Serviceware SE	18.25	11.15	22.30	(18.2%)	191.6	167.5	86.6	99.8	15%	(0.8)	(0.9%)	1.7x	1.5x
SPS Commerce, Inc.	99.31	43.12	118.06	(15.9%)	3,533.8	3,370.7	328.5	365.1	11%	71.9	21.9%	9.2x	8.3x
Technology One Limited	7.11	5.69	7.81	(9.0%)	2,284.1	2,211.1	213.8	248.3	10%	62.7	29.3%	8.9x	8.1x
Tecsys Inc.	33.58	12.72	52.93	(36.6%)	485.7	469.6	92.3	107.7	15%	7.8	8.5%	4.4x	3.8x
The Descartes Systems Group	60.95	36.20	65.51	(7.0%)	5,150.3	5,027.8	348.7	393.5	13%	135.4	38.8%	12.8x	11.3x
TOTVS S.A.	5.12	2.52	6.18	(17.2%)	2,905.8	2,781.5	480.3	539.4	15%	89.4	18.6%	5.2x	4.5x
WiseTech Global Limited	22.11	10.40	26.20	(15.6%)	7,150.7	6,990.4	356.6	429.0	18%	91.0	25.5%	16.3x	13.8x
Zuora, Inc.	14.80	7.19	17.79	(16.8%)	1,790.9	1,673.5	305.4	336.0	14%	(55.3)	(18.1%)	5.0x	4.4x
Average												8.7x	7.6x
Median												8.9x	8.1x

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		Low	High				LTM	CY 2020				CY 2021	CY 2022
Financial and Accounting Software													
Anaplan, Inc.	\$53.85	\$26.04	\$86.17	(37.5%)	\$7,738.2	\$7,469.1	\$447.8	\$553.5	24%	(\$137.2)	(30.7%)	13.5x	10.8x
Avalara, Inc.	133.43	61.63	185.37	(28.0%)	11,398.5	10,790.3	542.7	631.6	25%	(41.6)	(7.7%)	17.1x	13.7x
Basware Oyj	43.02	21.53	51.47	(16.4%)	620.1	671.5	177.3	184.2	13%	11.6	6.5%	3.6x	3.2x
Bill.com Holdings, Inc.	145.50	27.53	195.95	(25.7%)	11,972.1	11,185.0	202.1	243.0	35%	(49.0)	(24.2%)	46.0x	34.0x
BlackLine, Inc.	108.40	47.58	154.61	(29.9%)	6,291.3	6,179.8	368.0	413.4	21%	(2.5)	(0.7%)	14.9x	12.3x
Coupa Software Incorporated	254.48	120.00	377.04	(32.5%)	18,539.5	19,482.8	541.6	679.1	25%	(84.2)	(15.6%)	28.7x	23.0x
Intuit Inc.	383.06	215.55	423.74	(9.6%)	104,897.1	104,980.1	7,717.0	9,963.8	8%	2,321.0	30.1%	10.5x	9.7x
Reckon Limited	0.60	0.38	0.69	(13.3%)	67.7	96.3	58.3	57.3	2%	11.3	19.3%	1.7x	1.6x
The Sage Group plc	8.44	7.46	10.67	(20.9%)	9,185.2	9,404.2	2,460.9	2,561.7	7%	717.7	29.2%	3.7x	3.4x
Wolters Kluwer N.V.	87.00	69.48	91.81	(5.2%)	22,681.1	25,479.2	5,630.6	5,453.3	4%	1,647.7	29.3%	4.7x	4.5x
Workiva Inc.	88.26	29.87	114.68	(23.0%)	4,378.0	4,173.0	370.0	410.6	16%	(21.0)	(5.7%)	10.2x	8.7x
Xero Limited	96.30	49.59	120.25	(19.9%)	14,099.8	14,048.1	522.0	659.7	30%	60.8	11.6%	21.3x	16.4x
Average												14.7x	11.8x
Median												12.0x	10.3x

Financial Services													
Bottomline Technologies, Inc.	\$45.25	\$31.00	\$55.63	(18.7%)	\$2,037.1	\$2,058.0	\$459.9	\$499.5	12%	\$43.8	9.5%	4.1x	3.7x
Broadridge Financial Solutions	153.10	90.08	158.36	(3.3%)	17,728.8	19,431.3	4,824.0	4,880.9	5%	999.4	20.7%	4.0x	3.8x
Duck Creek Technologies, Inc.	45.14	35.10	59.40	(24.0%)	5,914.5	5,577.7	233.8	259.4	17%	(10.9)	(4.7%)	21.5x	18.4x
EVO Payments, Inc.	27.52	12.15	31.99	(14.0%)	1,289.1	2,531.0	434.1	486.1	12%	117.0	27.0%	5.2x	4.6x
Fidelity National Info Services	140.61	112.20	156.73	(10.3%)	87,336.9	106,184.9	12,697.0	13,647.9	8%	4,234.0	33.3%	7.8x	7.2x
GreenSky, Inc.	6.19	3.05	7.40	(16.4%)	444.4	604.2	529.0	574.1	16%	66.4	12.6%	1.1x	0.9x
Guidewire Software, Inc.	101.63	71.64	134.22	(24.3%)	8,510.4	7,821.1	761.7	753.9	11%	(1.2)	(0.2%)	10.4x	9.4x
i3 Verticals, Inc.	31.13	16.68	35.99	(13.5%)	660.9	879.5	161.0	214.5	12%	16.5	10.3%	4.1x	3.7x
Jack Henry & Associates, Inc.	151.72	141.65	200.98	(24.5%)	11,542.4	11,461.7	1,718.5	1,823.7	7%	448.9	26.1%	6.3x	5.9x
nCino, Inc.	66.72	57.38	103.95	(35.8%)	6,296.2	5,944.8	204.3	246.4	21%	(36.7)	(18.0%)	24.1x	20.0x
Q2 Holdings, Inc.	100.20	51.69	148.56	(32.6%)	5,571.1	5,635.2	426.9	489.8	21%	(42.9)	(10.0%)	11.5x	9.5x
SimCorp A/S	123.95	85.76	147.54	(16.0%)	4,922.8	4,912.4	557.8	580.6	10%	156.9	28.1%	8.5x	7.7x
SS&C Technologies Holdings	69.87	39.91	74.00	(5.6%)	18,005.2	24,587.3	4,727.7	4,812.7	4%	1,738.8	36.8%	5.1x	4.9x
Temenos AG	144.35	102.30	174.54	(17.3%)	10,456.3	11,262.3	907.4	986.4	10%	269.7	29.7%	11.4x	10.4x
Average												8.9x	7.9x
Median												7.0x	6.5x

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; LTM = Last 12 Months

Source: S&P Global Market Intelligence and Capital IQ as of March 31, 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 mn (except for share price)

Company Name	Share Price 03/31/2021	52-Week		% of 52- Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY 2020				CY 2021	CY 2022
HCM													
Automatic Data Processing	\$188.47	\$126.69	\$193.44	(2.6%)	\$80,653.9	\$81,491.4	\$14,645.2	\$15,384.4	6%	\$3,813.4	26.0%	5.3x	5.0x
Benefitfocus, Inc.	13.81	7.94	17.58	(21.4%)	448.9	612.5	267.1	257.3	4%	31.2	11.7%	2.4x	2.3x
Ceridian HCM Holding Inc.	84.27	38.90	111.93	(24.7%)	12,540.6	13,064.3	854.3	924.5	17%	39.9	4.7%	14.1x	12.1x
Cornerstone OnDemand, Inc.	43.58	27.69	55.50	(21.5%)	2,837.0	3,947.8	800.1	853.3	8%	150.8	18.9%	4.6x	4.3x
Docebo Inc.	42.93	10.48	68.88	(37.7%)	1,403.3	1,184.7	62.9	92.3	36%	(5.0)	(8.0%)	12.8x	9.4x
Paychex, Inc.	98.02	58.85	101.01	(3.0%)	35,349.1	35,376.8	3,942.7	4,110.2	6%	1,602.8	40.7%	8.6x	8.1x
Paycom Software, Inc.	370.06	163.42	471.08	(21.4%)	21,367.3	21,274.3	871.3	1,010.0	25%	220.4	25.3%	21.1x	16.9x
PayGroup Limited	0.48	0.38	0.69	(30.9%)	39.3	32.5	9.7	15.4	26%	(0.0)	(0.2%)	2.1x	1.7x
Paylocity Holding Corporation	179.83	73.07	218.34	(17.6%)	9,778.0	9,723.1	598.8	693.0	22%	78.6	13.1%	14.0x	11.5x
TriNet Group, Inc.	77.96	32.74	87.60	(11.0%)	5,144.6	5,217.6	4,046.0	998.5	11%	426.0	10.5%	NM	4.7x
Workday, Inc.	248.43	115.50	282.77	(12.1%)	60,368.5	59,070.9	4,318.0	4,994.3	18%	124.1	2.9%	11.8x	10.0x
Average												9.7x	7.8x
Median												10.2x	8.1x
Infrastructure													
Akamai Technologies, Inc.	\$101.90	\$88.75	\$124.91	(18.4%)	\$16,632.1	\$16,912.2	\$3,276.6	\$3,408.1	7%	\$1,064.8	32.5%	5.0x	4.6x
Appian Corporation	132.95	30.68	260.00	(48.9%)	9,399.0	9,234.9	314.6	354.3	18%	(34.2)	(10.9%)	26.1x	22.0x
Cisco Systems, Inc.	51.71	35.28	52.94	(2.3%)	218,308.5	203,341.5	48,026.0	50,525.5	3%	15,236.0	31.7%	4.0x	3.9x
Citrix Systems, Inc.	140.36	111.26	173.56	(19.1%)	17,259.2	18,358.9	3,151.5	3,372.8	9%	641.8	20.4%	5.4x	5.0x
Cloudera, Inc.	12.17	7.19	19.35	(37.1%)	3,546.3	3,456.2	869.3	916.8	9%	(31.0)	(3.6%)	3.8x	3.5x
Cloudflare, Inc.	70.26	21.18	95.77	(26.6%)	21,698.1	21,090.1	477.9	592.7	33%	(59.0)	(12.3%)	35.6x	26.8x
Commvault Systems, Inc.	64.50	34.42	72.33	(10.8%)	3,031.3	2,668.8	723.5	744.6	7%	63.4	8.8%	3.6x	3.3x
DigitalOcean Holdings, Inc.	42.13	36.65	45.16	(6.7%)	4,436.4	4,717.8	339.2	NA	NA	65.0	19.2%	NM	NM
Elastic N.V.	111.20	46.27	176.49	(37.0%)	9,981.8	9,618.2	554.5	699.7	24%	(109.6)	(19.8%)	13.7x	11.1x
Exasol AG	25.38	12.65	34.60	(26.7%)	597.8	550.4	31.7	46.7	36%	(36.7)	(115.8%)	11.8x	8.7x
Fastly, Inc.	67.28	17.18	136.50	(50.7%)	7,711.6	7,587.5	312.8	381.3	28%	(97.1)	(31.0%)	19.9x	15.6x
JFrog Ltd.	44.37	41.89	95.20	(53.4%)	4,140.3	3,542.2	163.1	201.5	31%	(18.1)	(11.1%)	17.6x	13.5x
MongoDB, Inc.	267.43	117.71	428.97	(37.7%)	16,363.1	16,466.7	590.4	763.9	27%	(191.2)	(32.4%)	21.6x	16.9x
NetApp, Inc.	72.67	37.08	75.58	(3.9%)	16,176.4	15,032.4	5,590.0	5,862.5	5%	1,080.0	19.3%	2.6x	2.4x
Nutanix, Inc.	26.56	13.76	35.58	(25.4%)	5,425.7	5,297.7	1,305.3	1,413.1	11%	(658.9)	(50.5%)	3.7x	3.4x
Rackspace Technology, Inc.	23.78	15.25	25.76	(7.7%)	4,887.3	8,934.4	2,707.1	3,023.3	11%	642.4	23.7%	3.0x	2.7x
Snowflake Inc.	229.28	205.07	429.00	(46.6%)	66,193.1	61,324.3	592.0	1,093.8	65%	(534.1)	(90.2%)	56.1x	34.1x
Software Aktiengesellschaft	42.18	30.54	52.23	(19.2%)	3,120.7	2,860.5	951.8	968.9	7%	178.6	18.8%	3.0x	2.8x
SolarWinds Corporation	17.44	13.98	24.34	(28.3%)	5,504.5	7,169.4	1,029.2	1,042.9	9%	207.6	20.2%	6.9x	6.3x
Tuya Inc.	21.14	17.59	27.65	(23.5%)	11,833.3	11,999.1	179.9	NA	NA	(68.2)	(37.9%)	NM	NM
VeriSign, Inc.	198.76	171.72	221.30	(10.2%)	22,478.7	23,113.2	1,276.1	1,314.2	8%	875.0	68.6%	17.6x	16.3x
Average												13.7x	10.7x
Median												6.9x	6.3x

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; LTM = Last 12 Months

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Public Trading Data for Software Companies



\$ in USD mn (except for share price)

Company Name	Share Price 03/31/2021	52-Week		% of 52- Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY 2020				CY 2021	CY 2022
Vertical Software													
2U, Inc.	\$38.23	\$17.41	\$59.74	(36.0%)	\$2,828.8	\$2,694.6	\$831.5	\$932.5	16%	(\$55.1)	(6.6%)	2.9x	2.5x
Allscripts Healthcare Solutions	15.02	5.28	17.96	(16.4%)	2,102.6	1,854.8	1,489.7	1,503.2	3%	35.4	2.4%	1.2x	1.2x
Amdocs Limited	70.15	51.62	82.38	(14.8%)	9,197.4	8,748.9	4,213.4	4,239.1	4%	805.5	19.1%	2.1x	2.0x
AppFolio, Inc.	141.41	86.00	186.59	(24.2%)	4,872.0	4,745.5	316.5	346.9	18%	15.4	4.9%	13.7x	11.6x
AssetMark Financial Holdings	23.34	17.53	29.45	(20.7%)	1,691.2	1,720.9	436.2	349.8	11%	12.5	2.9%	4.9x	4.4x
Black Knight, Inc.	73.99	56.39	97.19	(23.9%)	11,487.0	14,306.0	1,297.5	1,413.5	7%	455.8	35.1%	10.1x	9.4x
Blackbaud, Inc.	71.08	45.77	80.00	(11.2%)	3,348.2	3,874.3	908.8	901.2	2%	105.8	11.6%	4.3x	4.2x
Boxlight Corporation	2.53	0.52	4.65	(45.6%)	143.6	183.6	54.9	142.1	12%	(5.3)	(9.6%)	1.3x	1.2x
Castlight Health, Inc.	1.51	0.61	2.36	(36.0%)	238.0	203.4	142.7	132.8	3%	(2.5)	(1.7%)	1.5x	1.5x
CDK Global, Inc.	54.06	29.33	55.51	(2.6%)	6,582.1	9,186.4	1,950.9	1,733.4	6%	593.8	30.4%	5.3x	5.0x
Cerner Corporation	71.88	59.61	84.20	(14.6%)	22,016.4	22,451.4	5,481.8	5,817.7	5%	1,299.7	23.7%	3.9x	3.7x
CoreLogic, Inc.	79.25	28.62	90.70	(12.6%)	5,830.5	7,649.9	1,712.2	1,664.4	-2%	506.8	29.6%	4.6x	4.7x
Ebix, Inc.	32.03	12.14	64.14	(50.1%)	991.7	1,657.4	625.6	662.0	NA	142.6	22.8%	2.5x	NM
Envestnet, Inc.	72.23	45.53	92.51	(21.9%)	3,908.9	4,406.1	1,026.8	1,133.6	10%	146.3	14.2%	3.9x	3.5x
FINEOS Corporation Holdings	2.97	1.99	4.38	(32.2%)	895.3	866.3	122.3	127.8	11%	(8.4)	(6.9%)	6.8x	6.1x
HealthStream, Inc.	22.34	17.95	26.63	(16.1%)	703.6	688.9	246.7	247.0	8%	36.2	14.7%	2.8x	2.6x
Inovalon Holdings, Inc.	28.78	15.15	28.88	(0.3%)	4,470.3	5,380.7	690.5	756.1	10%	204.4	29.6%	7.1x	6.5x
Olo Inc.	26.39	25.50	35.00	(24.6%)	3,819.0	3,855.0	98.4	NA	NA	16.5	16.7%	NM	NM
Stride, Inc.	30.11	17.33	52.84	(43.0%)	1,203.4	1,404.4	1,408.2	1,499.2	1%	138.0	9.8%	0.9x	0.9x
Tabula Rasa HealthCare, Inc.	46.05	30.12	69.31	(33.6%)	1,072.8	1,340.1	301.1	341.7	17%	(25.2)	(8.4%)	3.9x	3.4x
Tyler Technologies, Inc.	424.53	275.38	479.79	(11.5%)	17,226.0	16,572.4	1,134.9	1,206.0	9%	227.7	20.1%	13.7x	12.6x
Unity Software Inc.	100.31	65.11	174.94	(42.7%)	27,876.6	26,248.5	772.4	967.2	28%	(227.7)	(29.5%)	27.1x	21.2x
Veeva Systems Inc.	261.24	148.25	325.54	(19.8%)	39,766.9	38,166.4	1,465.1	1,763.6	19%	407.2	27.8%	21.6x	18.2x
Average												6.6x	6.0x
Median												4.1x	4.2x

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; LTM = Last 12 Months

Source: S&P Global Market Intelligence and Capital IQ as of March 31, 2021. 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, is a technology advisory firm located in the heart of Silicon Valley with representation in London and Paris.

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

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

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

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



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

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

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

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

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

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Deep Domain Expertise

Unparalleled Access to Buyers

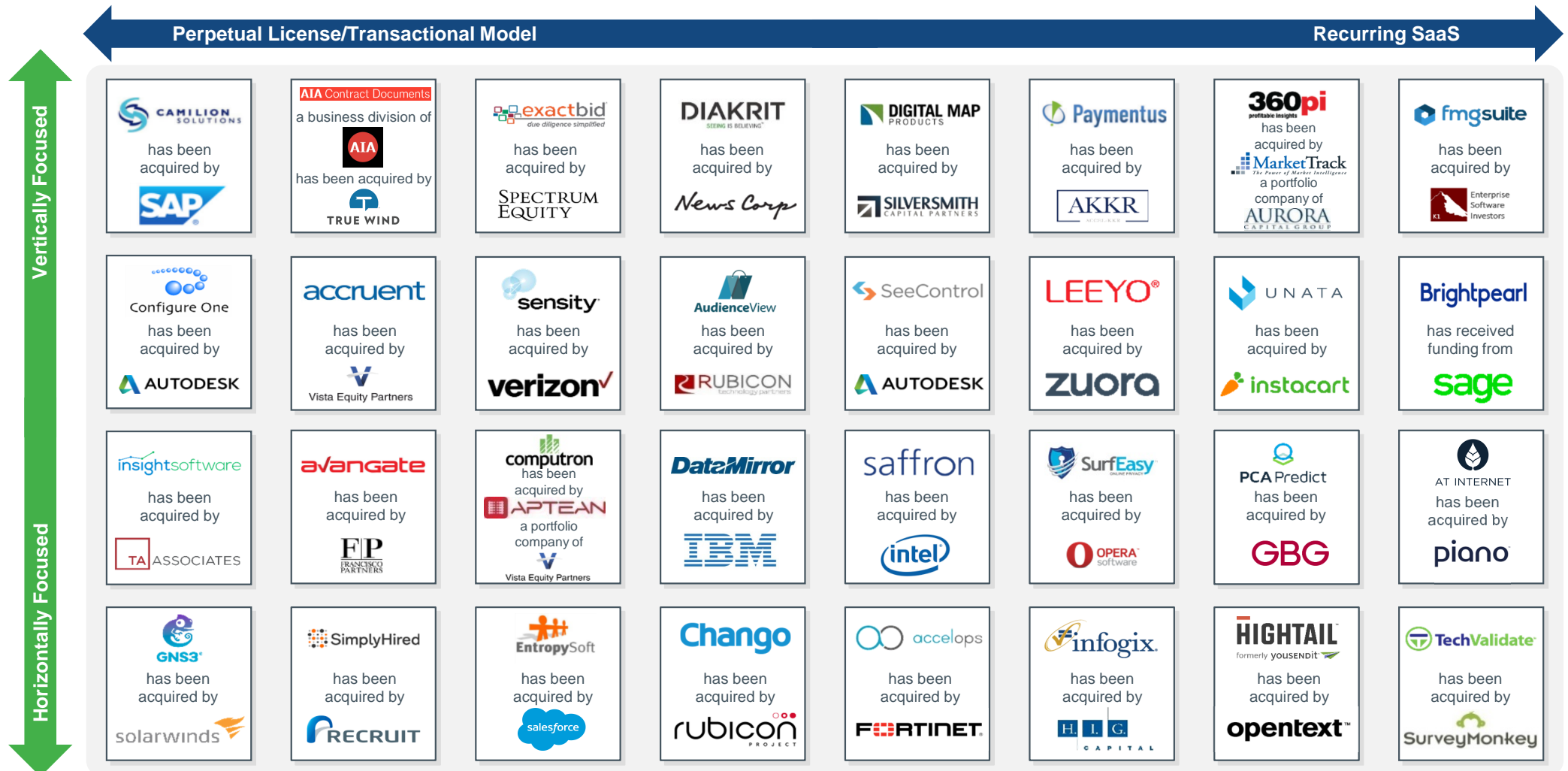
Unconflicted and Focused Approach



¹Thomson Financial Securities Data U.S. deals \$10 mn < \$150 mn, 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.
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 - 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

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Infrastructure Software

 has been acquired by 	 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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Internet/Digital Media

 has been acquired by 	 has been acquired by 	LIVINGLY media has been acquired by 	Officite has been acquired by 
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Consumer Technologies

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Mobile/Wireless

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Networking/Communications

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by Cisco Systems
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Semiconductors

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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