



# Industry Insights

Global Software Sector Update

Early Winter 2022



# Executive Summary

Global software M&A activity reverted to pre-pandemic levels in Q3 2022 as measured by number of deals (down c.20% versus prior four quarters to 512) while total disclosed value (\$65 billion) was c.40% below the prior four quarters. As anticipated, cash-rich strategic and financial buyers are turning to public targets trading at multiples not seen since 2018, driving a significant portion of activity over the quarter. The quarter saw just one deal in the >\$10 billion range, the landmark acquisition of Figma by Adobe for \$20 billion.

Following a brief end-of-summer rally, the September Consumer Price Index print and continued interest rate hikes resumed the downward pressure on public market valuations. The top quartile in our Software-as-a-Service (SaaS) index moved into single digit next twelve months (NTM) revenue territory and at 8.2x dropped past its 2018 low. Reported valuations in the private domain have remained relatively robust in comparison. This may be misleading as higher quality assets continue to attract intense bidding interest while other businesses sit out the turmoil, creating a natural selection bias that pushes disclosed multiples higher. A common theme across sellers and buyers alike is a far stronger focus on capital efficiency, which is here to stay.

Valuation expectations and liquidity are only one side of the coin. The ability to win and retain business, in a capital efficient manner, are the real value drivers for a business and an industry. Against an uncertain outlook, it will be unsurprising to see pressure on both sales cycles and deal cycles. These near term headwinds are meeting a formidable force in the inevitable tidal flow of ongoing digital transformation initiatives, which continue to be a C-suite priority and to drive spend in IT/software budgets. With record amounts of dry powder and cash on hand, in the coming months, we may see fortune favoring the bold becoming the prevailing narrative for both strategic and financial buyers.

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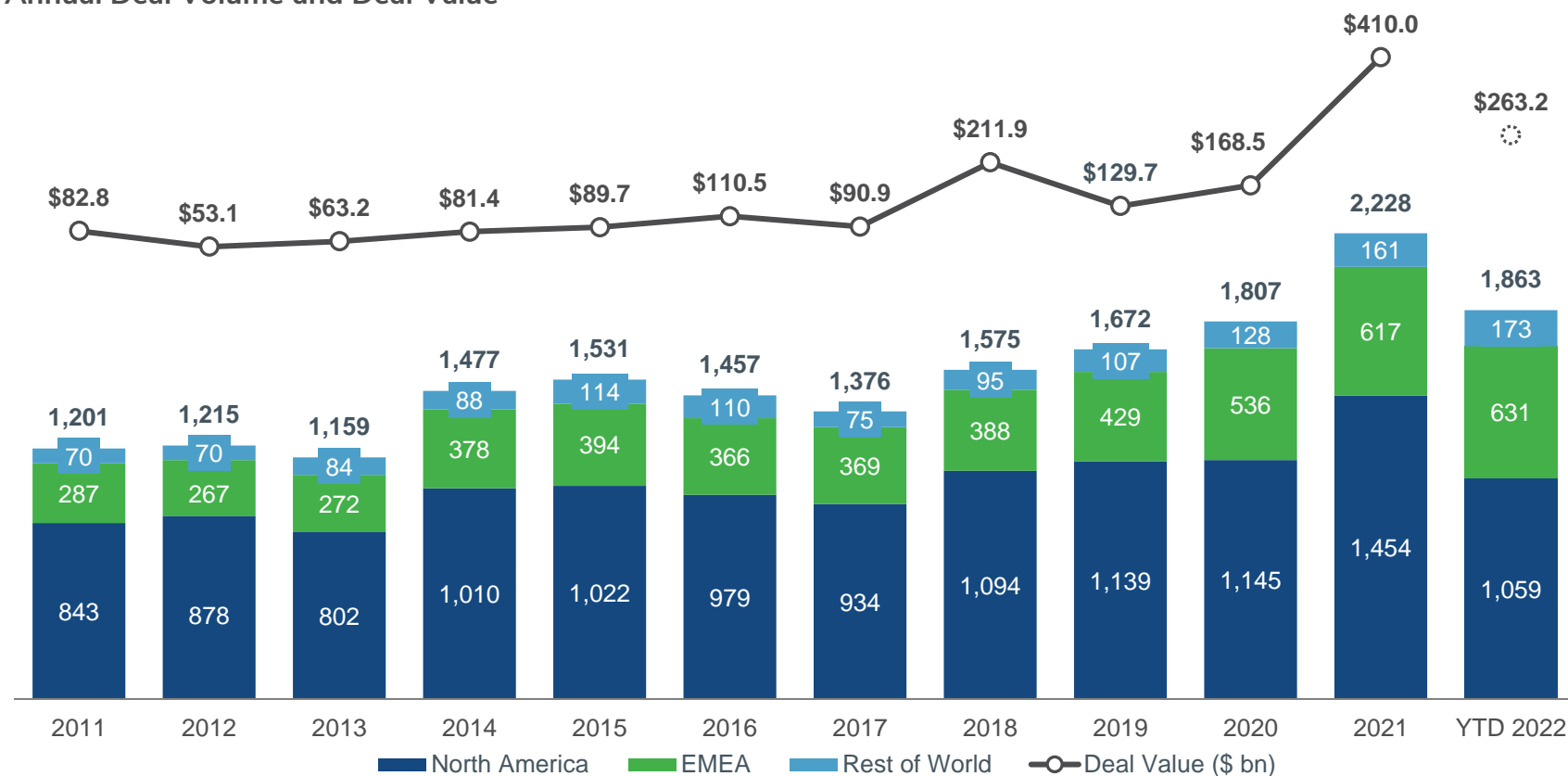


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# Strong Deal Volume Due to a Robust First Half of 2022 Offsetting the Decline in Q3 2022

EMEA and Rest of the World Driving Higher Share of Deal Volume to Previous Years

Annual Deal Volume and Deal Value



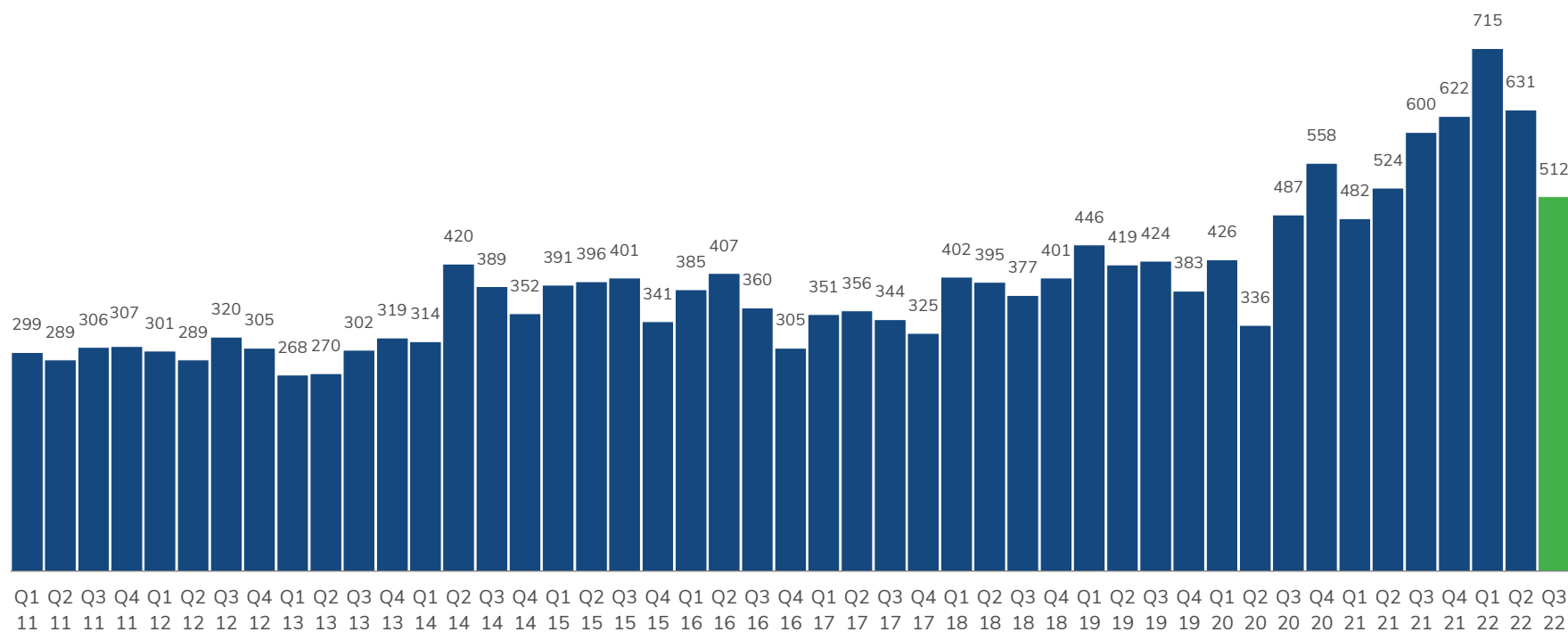
Source: 451 Research as of September 30, 2022

# Q3 2022 Marked a Significant Decline in Quarterly Deal Activity

Q3 2022 Recorded a c.20% Drop in Deal Activity Compared to Previous Four Quarters

Quarterly Deal Volume (Q1 2011 to Q3 2022)<sup>1</sup>

Top number in each bar indicates total deal volumes in quarter

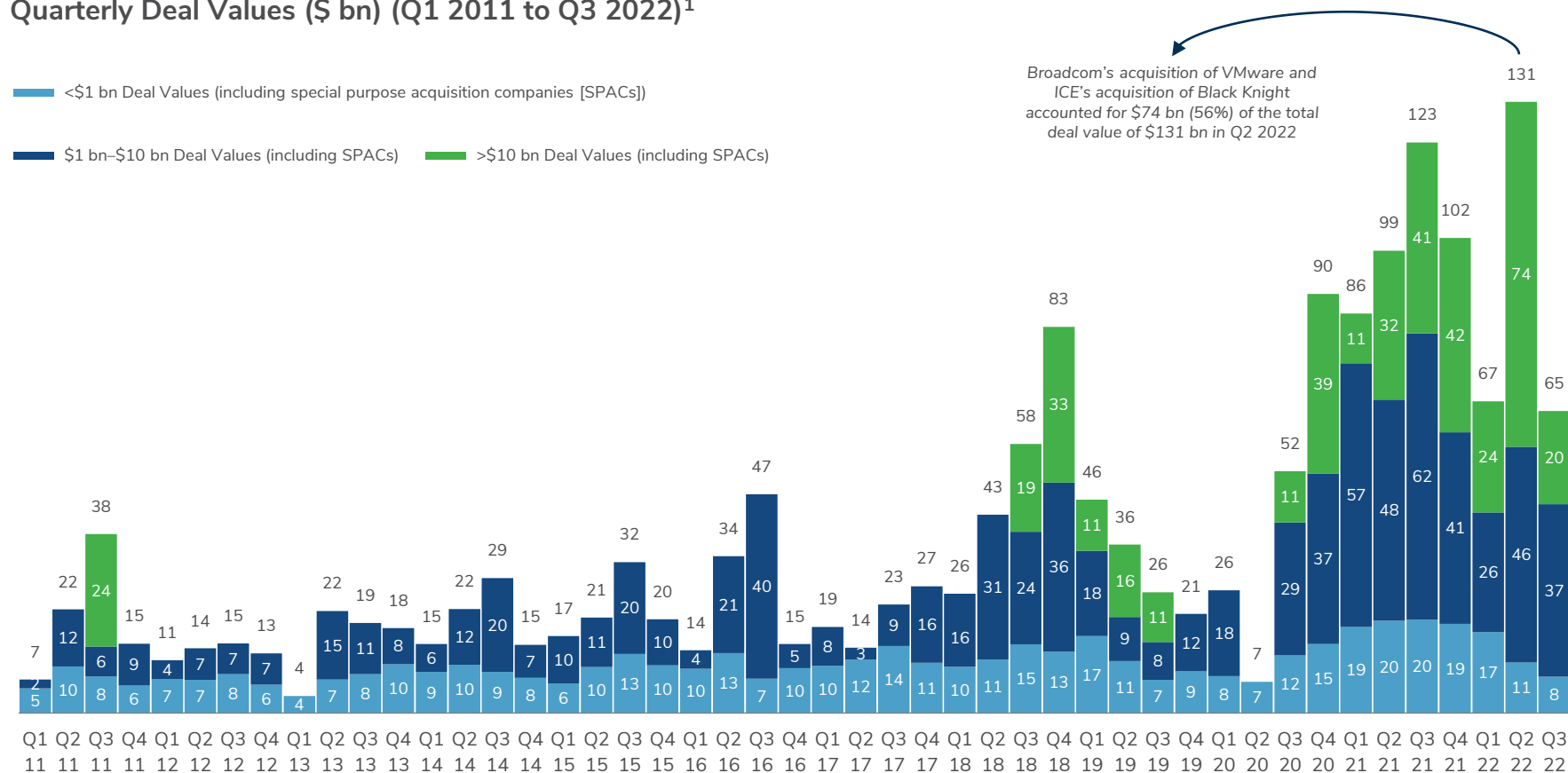


<sup>1</sup>Between January 1, 2011, and September 30, 2022  
Source: 451 Research as of September 30, 2022

# Significant Slowdown in Deal Value in Q3 2022 after Strong Q2 2022

Over 60% Decrease in Deal Value for <\$1 bn Deals in Q3 2022 Compared to Q3 2021

Quarterly Deal Values (\$ bn) (Q1 2011 to Q3 2022)<sup>1</sup>

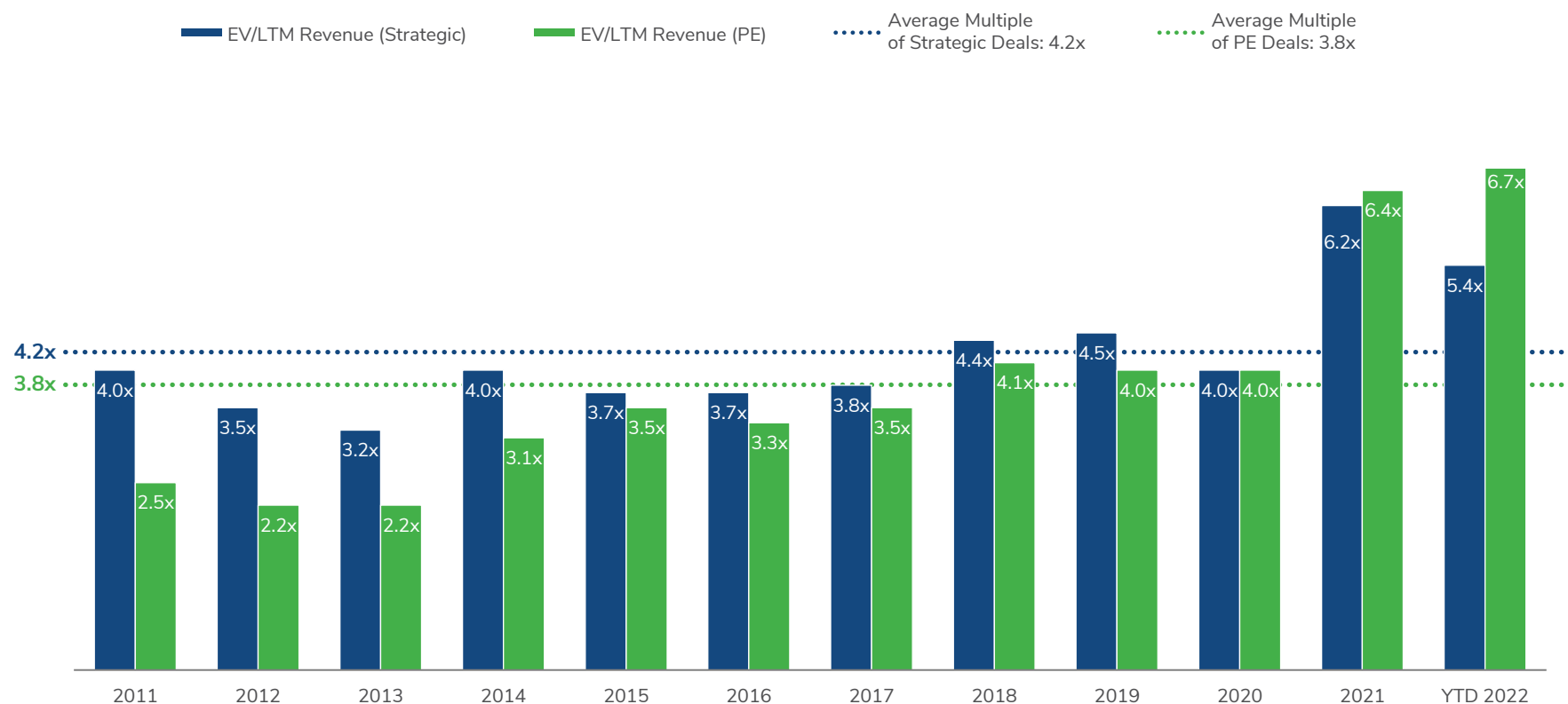


<sup>1</sup>Between January 1, 2011, and September 30, 2022  
Source: 451 Research as of September 30, 2022

# After Record 2021 Strategic Deal Multiples are Converging Towards Long-Term Average

Tighter Strategic Valuations also Driven by Significantly Lower Public Valuations

## Annual Median Deal Multiples

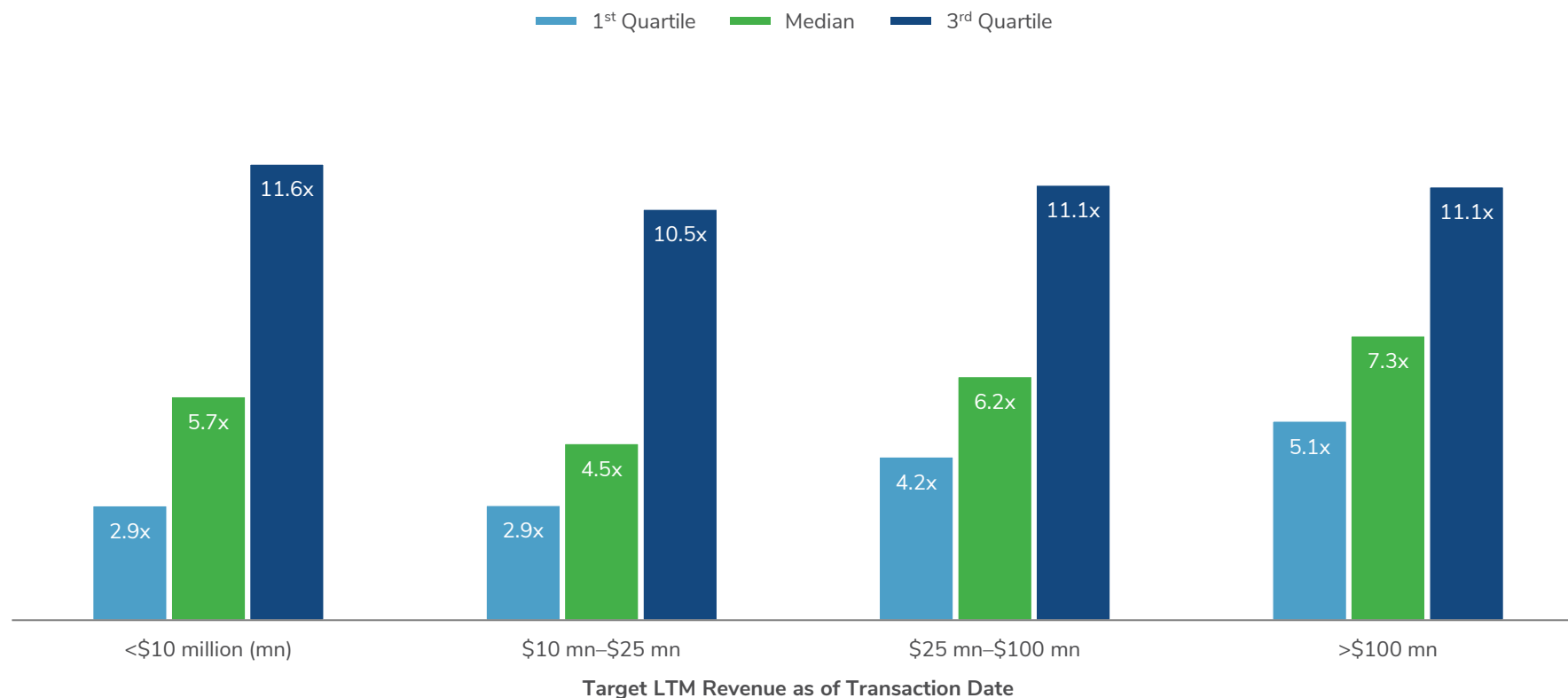


EV = Enterprise Value or Market Capitalization + Total Debt – Cash; LTM = Last Twelve Months  
 PE deals include acquisitions made by PE-backed strategies.  
 Source: 451 Research as of September 30, 2022

# SaaS Deal Multiples by Quartile and Target Revenue

Third Quartile Multiples Command Average Premiums of 52%–133% vs. Median

Deal Multiples Quartiles by Target LTM Revenue



Transactions selected are based on the following parameters: (i) target company with SaaS business model; (ii) transaction announced between September 30, 2020, and September 30, 2022; (iii) disclosed EV/LTM revenue multiple; and (iv) excluding outliers and SPAC transactions.  
Source: 451 Research and Mergermarket as of September 30, 2022



# Top Six Software Acquisitions over Q3 2022 by Deal Value

September 2022



acquired by

\$20.0  
bn

50.0x

Figma provides a collaborative interface for designing and prototyping for businesses globally. The software provides features for inspecting design files, exporting assets, embedding comments and measuring design impact.

Together, Adobe and Figma will reimagine the future of creativity and productivity, accelerate creativity on the web, advance product design and inspire global communities of creators, designers and developers. The combined company will have a massive, fast-growing market opportunity and capabilities to drive significant value for customers, shareholders and the industry.

September 2022



acquired by

\$7.8  
bn

9.3x

Signify Health provides health assessment, clinical workflow, logistics SaaS and health care services for businesses and consumers in the U.S. The software provides features for analytical insights, in-home care management and payment management. Service offerings include evaluation, care management, pharmaceuticals and clinical and social care coordination.

The acquisition will play a critical role in advancing CVS's health care services strategy, providing a platform to accelerate growth in value-based care.

August 2022



acquired by

\$4.4  
bn

6.4x

IronSource provides mobile and web application distribution and marketing software for mobile application developers, including mobile games developers, and telecommunications operators globally. The software provides features for application monetization, user acquisition and mobile advertising. Also provides application installation software to enable end users to install downloadable applications.

The companies' complementary offerings create a unique end-to-end platform that allows creators to create, publish, run, monetize and grow live games and real-time 3D content seamlessly.

August 2022



acquired by

\$8.4  
bn

10.6x

Avalara provides AI-based transaction taxes calculation and compliance management SaaS for businesses globally. The software provides features for automation, data research and analytics, reporting and filing.

Avalara's success is built on an extensive partner network, a large tax content data and repository, and its cloud-native end-to-end multi-product tax compliance portfolio. In partnering with Vista, Avalara will look to build on its successful platform by refining its go-to-market strategy, expanding its international workforce, streamlining its systems architecture and continuing to pursue value-accretive M&A opportunities.

August 2022



acquired by

\$6.0  
bn

2.1x

Micro Focus provides application life cycle management, AI, security and infrastructure modernization software development, deployment and distribution services to businesses globally. Software enables the development and integration of applications with wider architectures and web services frameworks.

After the acquisition, OpenText will be one of the world's largest software businesses. OpenText has been quicker at moving its older products to the cloud. It says it can do the same for Micro Focus, returning it to organic growth and expanding its market reach to SMBs while also improving renewals.

August 2022



acquired by

\$4.0  
bn

6.6x

EVO Payments provides payment and transaction processing SaaS, software and services for businesses and government agencies globally. It also provides mobile payment processing, customer loyalty, fraud prevention and POS systems integration and distribution services.

The transaction will significantly increase Global Payments' target addressable markets, further enhance its leadership in integrated payments worldwide, expand its presence in new and existing faster growth geographies, and augment its B2B software and payment solutions with the addition of accounts receivable software with broad third-party acceptance.

Source: 451 Research as of September 30, 2022























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Deal  
ValueEV/LTM  
Rev




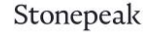





















# Other Notable Software Deals during Q3 2022

## Strategic Deals (Q3 2022)

Date	Target	Acquirer	Deal Value and Multiple <sup>1</sup>	Target Abstract
Aug-22	 <b>frontline</b> education	 <b>Roper</b> TECHNOLOGIES	\$3,725 mn N/A	K-12 workforce management SaaS
Jul-22	 <b>micromine</b>	 <b>aspentech</b>	\$623 mn N/A	Mining operational management SaaS
Sep-22	 <b>rxss</b>	 <b>McKESSON</b>	\$600 mn N/A	Health care consumerism SaaS
Jul-22	 <b>IBI GROUP</b>	 <b>ARCADIS</b>	\$563 mn 1.9x	Urban city management SaaS
Jul-22	 <b>OpenEye</b> SCIENTIFIC	 <b>cādence</b>	\$500 mn N/A	Molecular modeling & simulation SaaS
Aug-22	 <b>LEVER</b>	 <b>employ</b>	\$400 mn 7.3x	Recruitment SaaS
Jul-22	 <b>AMOBEE</b>	 <b>TREMOR INTERNATIONAL</b>	\$239 mn 1.6x	Advertising enablement SaaS
Aug-22	 <b>APPLICA</b>	 <b>snowflake</b>	\$175 mn N/A	Document management SaaS
Sep-22	 <b>weclapp</b>	 <b>=exact</b>	\$162 mn N/A	ERP & CRM SaaS
Jul-22	 <b>onewelcome</b>	 <b>THALES</b>	\$101 mn N/A	Identity & access management SaaS
Sep-22	 <b>RAPIDMINER</b>	 <b>ALTAIR</b>	\$100 mn N/A	Data science & analytics SaaS

## PE Deals<sup>2</sup> (Q3 2022)

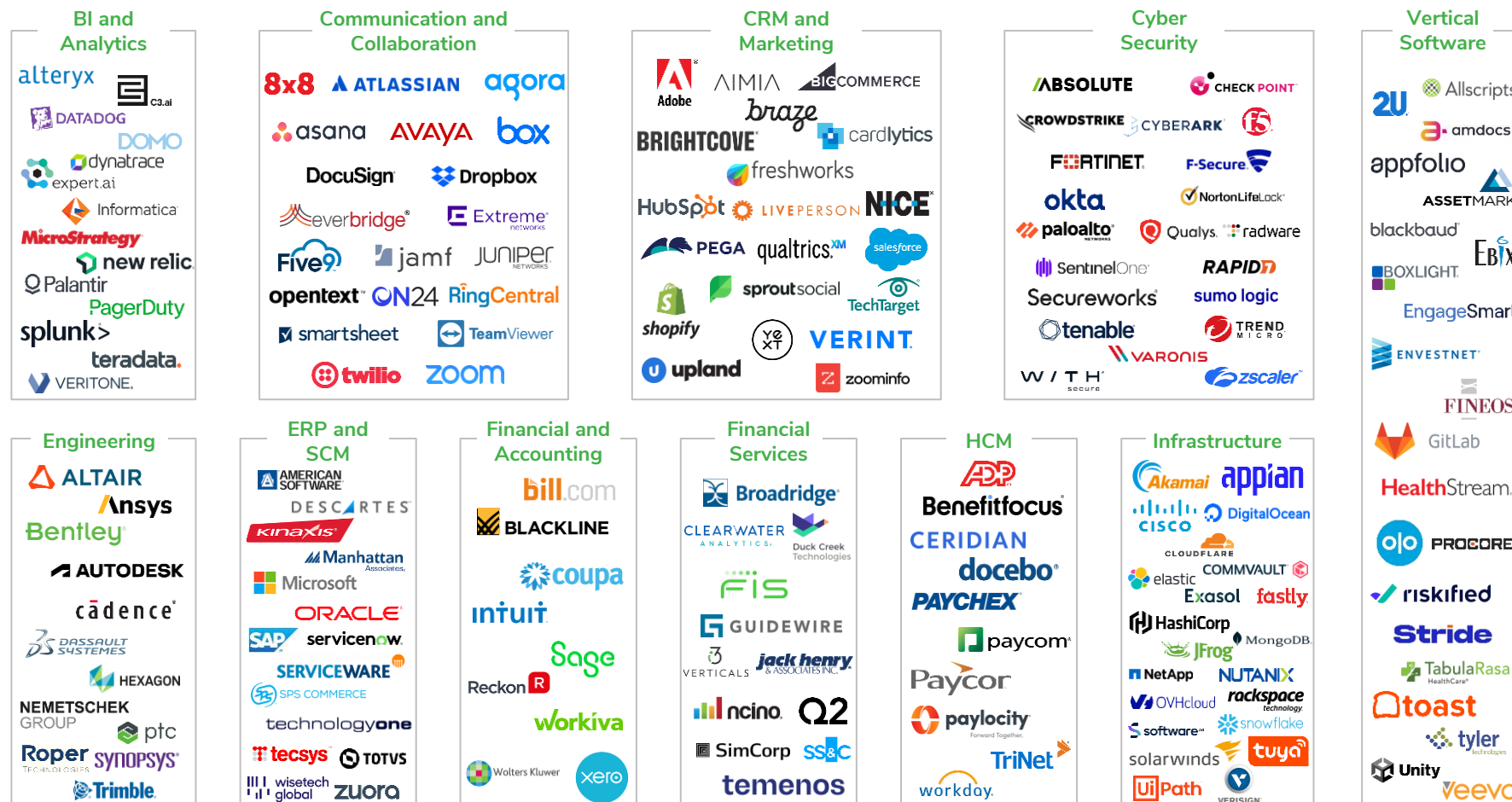
Date	Target	Acquirer <sup>2</sup>	Deal Value and Multiple <sup>1</sup>	Target Abstract
Aug-22	 <b>Ping</b> Identity	 <b>THOMABRAVO</b>	\$3,007 mn 9.1x	ID management authentication SaaS
Sep-22	 <b>Intrado</b> Safety Business	 <b>Stonepeak</b>	\$2,400 mn N/A	Communications SaaS
Sep-22	 <b>billtrust</b>	 <b>IEQT</b>	\$1,563 mn 8.3x	Payments SaaS & services
Sep-22	 <b>channeladvisor</b>	 <b>CommerceHub</b> <b>INSIGHT</b> PARTNERS	\$712 mn 3.8x	E-commerce & marketing SaaS
Sep-22	 <b>MarkMonitor</b>	 <b>newfold</b> digital  <b>SIRIS</b> SECURITY	\$303 mn N/A	Brand protection & domain mgmt. SaaS
Aug-22	 <b>glofox</b>	 <b>ABC</b>  <b>THOMABRAVO</b>	\$220 mn N/A	Fitness management SaaS
Sep-22	 <b>Pay360</b> by Capita	 <b>access</b>  <b>Hg</b>	\$179 mn N/A	Online payments processing SaaS
Aug-22	 <b>TalentReef</b>	 <b>MITRATECH</b>  <b>Hg</b>	\$110 mn 3.7x	HR & talent management SaaS
Sep-22	 <b>HOUSE OF CONTROL</b>	 <b>VISMA</b>  <b>Hg</b>	\$60 mn 3.1x	Contract management SaaS

CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; HR = Human Resources; <sup>1</sup> Deal Multiple = Enterprise Value/LTM Revenue, unless otherwise specified; <sup>2</sup> PE deals include acquisitions made by PE-backed strategics, whose owners are indicated below the gray line, and exclude deals involving SPAC vehicles

Source: 451 Research as of September 30, 2022

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# Our Technology M&A Practice (Formerly Pagemill Partners) Tracked Software Universe

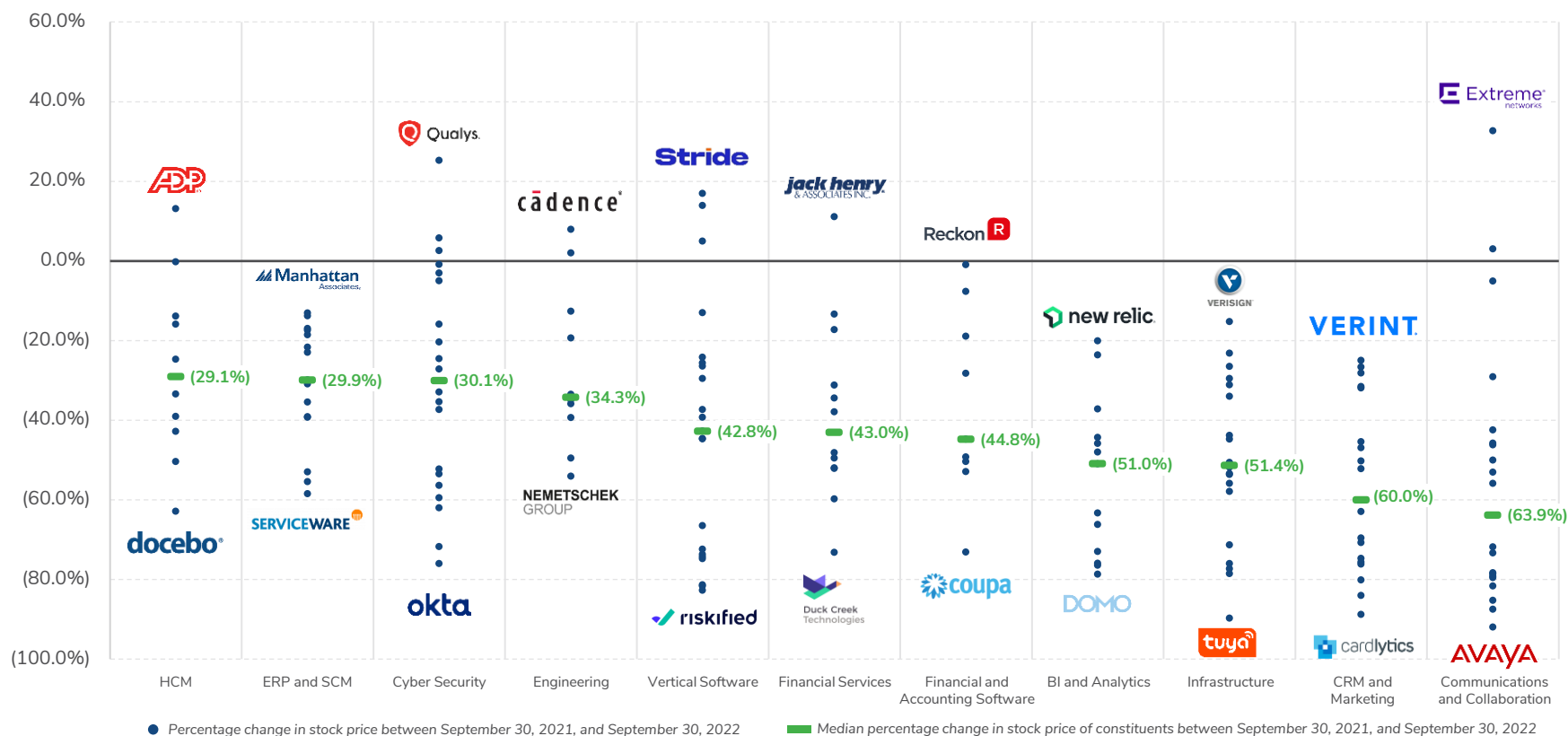


BI = Business Intelligence; CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; HCM = Human Capital Management; SCM = Supply Chain Management  
 Source: S&P Global Market Intelligence as of September 30, 2022, including the most actively traded software companies for respective covered sectors and excluding most microcap companies.  
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# LTM Performance of Stock Prices

Significant Differences between High and Low Performers within the Past 12 Months

Performance of Our Technology M&A Practice Tracked Software Universe between September 30, 2021, and September 30, 2022



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

Does not include companies listed post September 30, 2021

Buckets ordered by median percentage change in stock price between September 30, 2021, and September 30, 2022

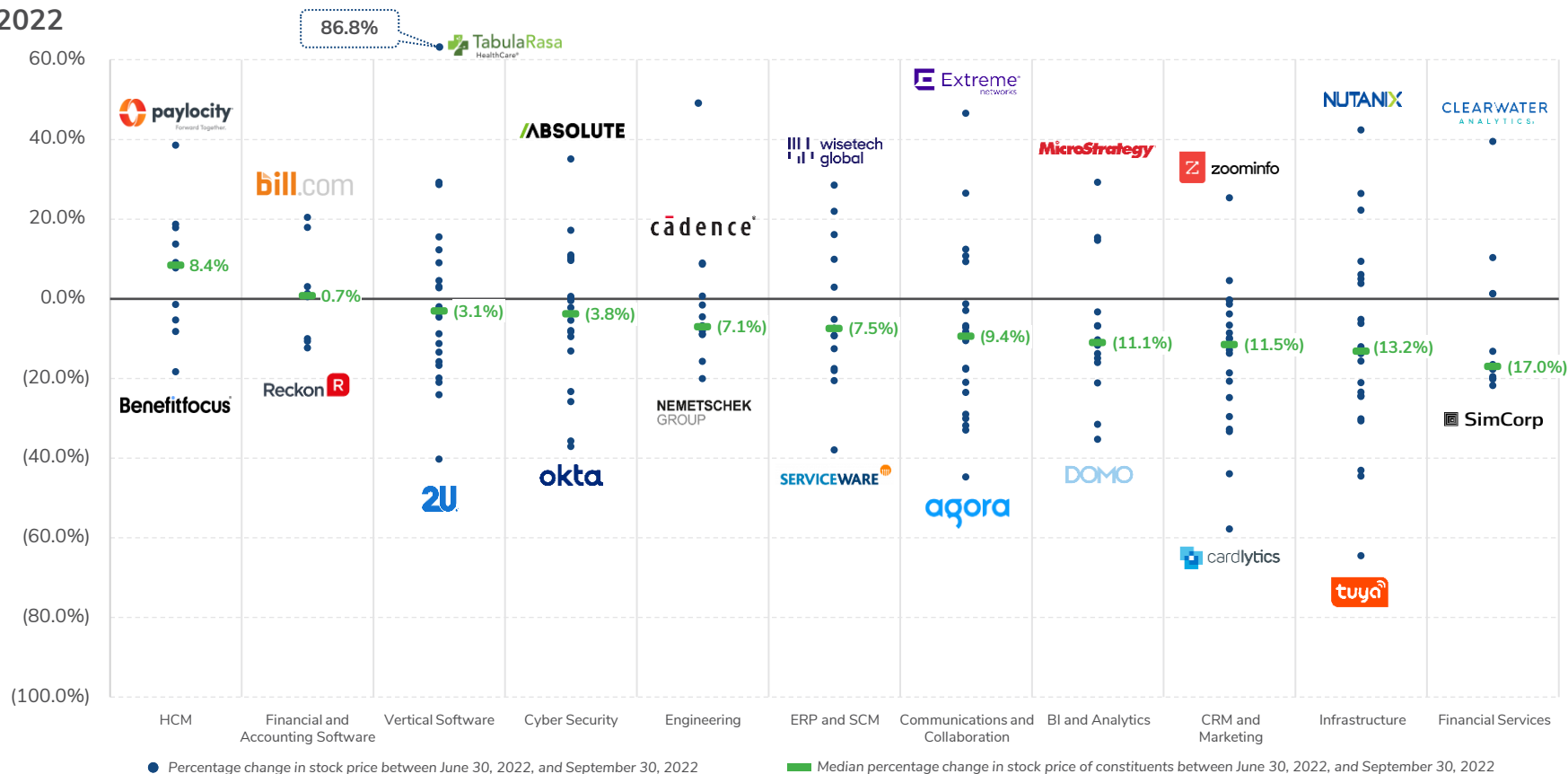
Source: Capital IQ as of September 30, 2022

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# Quarterly Performance of Stock Prices

All Software Sectors Demonstrated Significant Losses in the Quarter

Performance of Our Technology M&A Practice Tracked Software Universe between June 30, 2022, and September 30, 2022



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

Does not include companies listed post June 30, 2022

Buckets ordered by median percentage change in stock price between June 30, 2022, and September 30, 2022

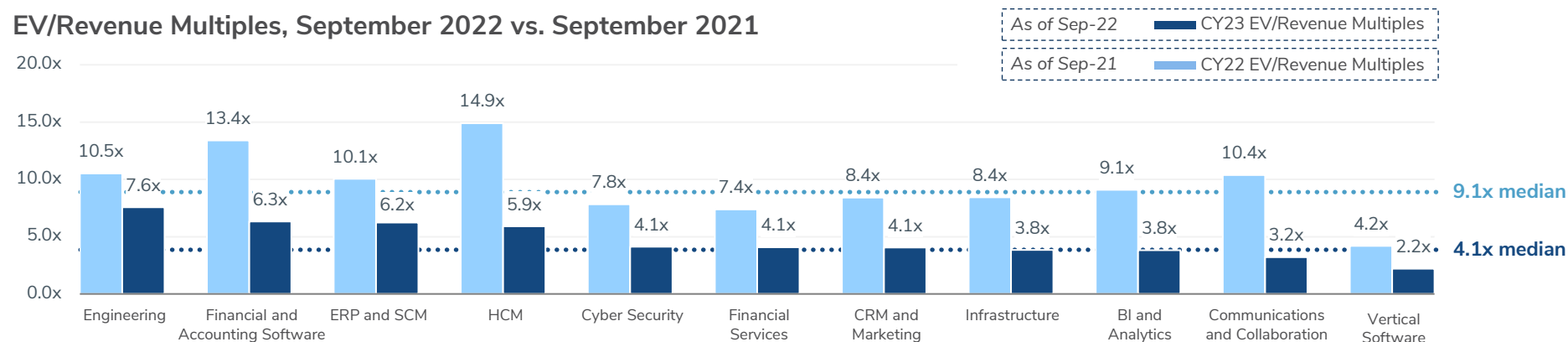
Source: Capital IQ as of September 30, 2022

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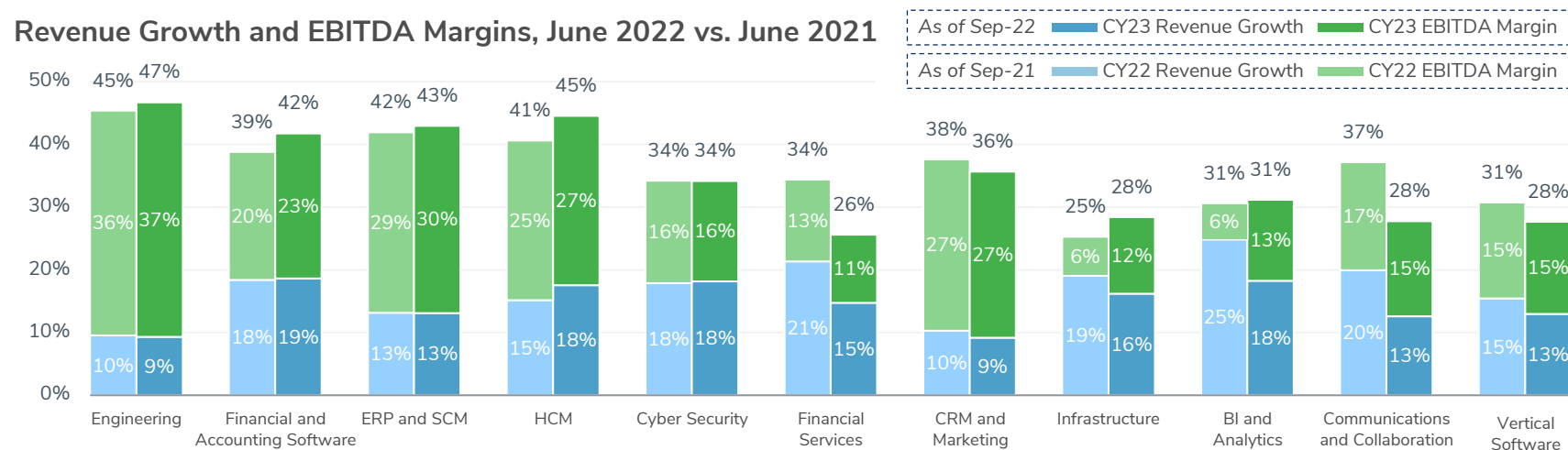
# Public Software Market Multiples

Sector Multiples Declined Significantly in September 2022 vs. September 2021 Despite Stable Margin and Growth Forecast

## EV/Revenue Multiples, September 2022 vs. September 2021



## Revenue Growth and EBITDA Margins, June 2022 vs. June 2021



BI = Business Intelligence; CY = Calendar Year; CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; HCM = Human Capital Management; SCM = Supply Chain Management  
Buckets ordered by CY23 revenue multiples  
Source: Capital IQ as of September 30, 2022

# SaaS Companies Experiencing Considerable Decline from COVID-19 Highs

Recent Index Decline Most Marked for Top-Quartile Constituents

## Performance of Our Technology M&A Practice SaaS Index over the Past 15 Years

EV/NTM Revenue

30.0x

25.0x

20.0x

15.0x

10.0x

5.0x

0.0x

Sep-07 Sep-08 Sep-09 Sep-10 Sep-11 Sep-12 Sep-13 Sep-14 Sep-15 Sep-16 Sep-17 Sep-18 Sep-19 Sep-20 Sep-21 Sep-22

Bottom Quartile Median Top Quartile 15-Year Median 5-Year Median

10.2x

8.2x

6.5x

5.5x

3.4x

Our Technology M&A Practice 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, OKTA, PING, QLYS, SCWX, TENB, ZS, KXS, NOW, SPSC, ZUO, AVLR, BILL, BL, COUP, WK, BNFT, DCBO, PAYC, PCTY, WDAY, APPN, NET, ESTC, FSLY, FROG, MDB, NTN, SNOW, WIX, TWOU, APPF, BLKB, HSTM, QTWO, U, VEEV, S, PCOR.

Source: Capital IQ as of September 30, 2022

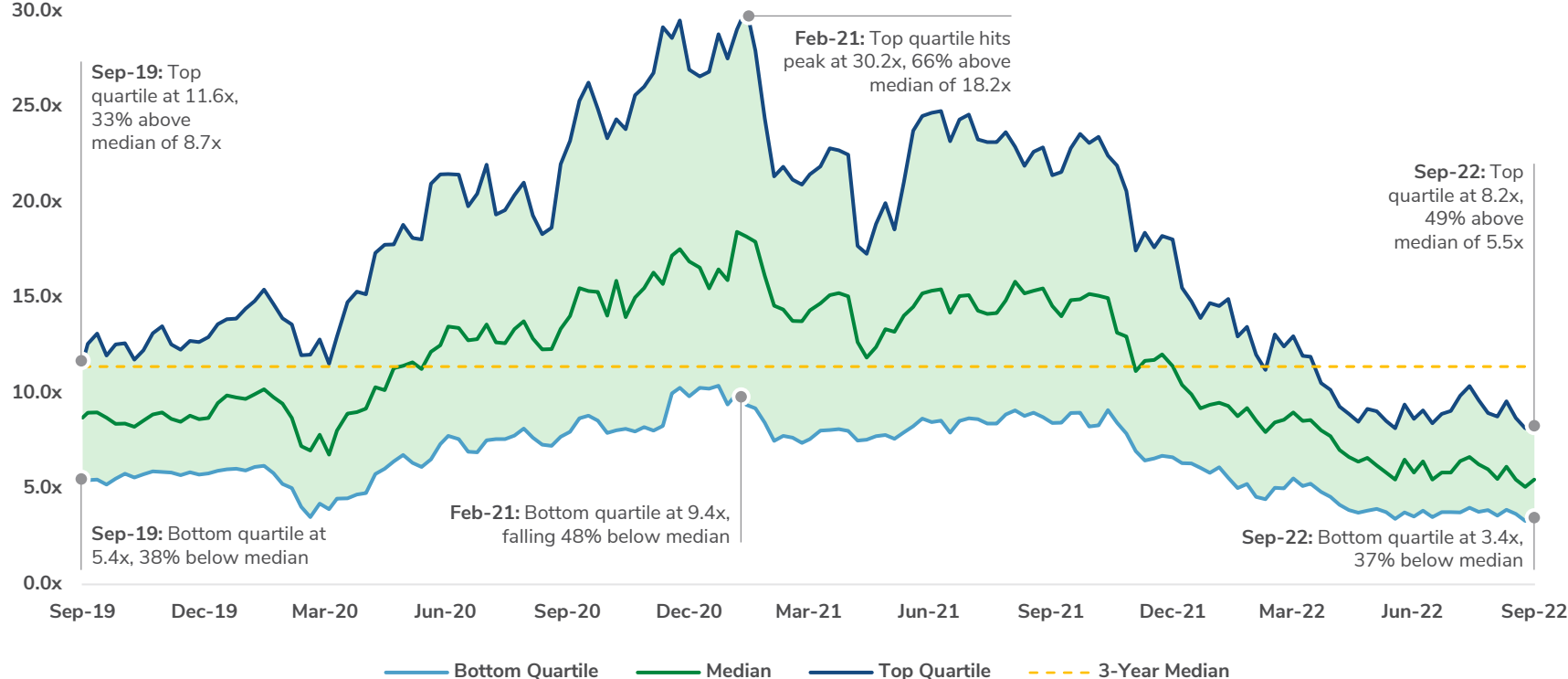
# Focus on Performance by Quartile over Past Three Years

## Gap between Quartiles Tightening after Fall from Top Quartile's COVID-19 Highs

### Performance of Our Technology M&A Practice SaaS Index over the Past Three Years

EV/NTM Revenue

30.0x



















Our Technology M&A Practice 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, OKTA, PING, QLYS, SCWX, TENB, ZS, KXS, NOW, SPSC, ZUO, AVLR, BILL, BL, COUP, WK, BNFT, DCBO, PAYC, PCTY, WDAY, APPN, NET, ESTC, FSLY, FROG, MDB, NTN, SNOW, WIX, TWOU, APPF, BLKB, HSTM, QTTWO, U, VEEV, S, PCOR.

Source: Capital IQ as of September 30, 2022



# IPO Activity has Come to a Standstill in 2022 ..

Vast Majority of Companies are Trading Significantly Below Listing Price

Company	IPO Date	Gross Proceeds (\$)	Offering Share Price (\$)	Market Cap at Listing <sup>1</sup> (\$)	First-Day "Pop" <sup>2</sup>	Latest Market Cap	Change in Share Price Since Listing
 HashiCorp	12/8/21	1,224.0	80.00	14,312	 6% <b>Median: 31%</b>	5,428	-60%  <b>Median: -52%</b>
 braze	11/16/21	520.0	65.00	5,867	 44%	3,406	-46% 
 Informatica	10/26/21	841.0	29.00	7,941	 0%	5,816	-31% 
 OVHcloud	10/14/21	386.3	21.43	4,041	 -8%	3,442	-52% 
 GitLab	10/13/21	800.8	77.00	11,012	 35%	7,849	-33% 
 CLEARWATER ANALYTICS	9/23/21	540.0	18.00	3,186	 41%	2,234	-7% 
 EngageSmart	9/22/21	378.3	26.00	4,185	 31%	2,615	-20% 
 toast	9/21/21	869.6	40.00	19,964	 56%	6,624	-58% 
 freshworks	9/21/21	1,026.0	36.00	10,132	 32%	3,737	-64% 
 riskified	7/28/21	367.5	21.00	3,310	 24%	742	-81% 
 Paycor	7/20/21	425.5	23.00	3,940	 13%	4,548	 29%

IPO = Initial Public Offering; <sup>1</sup>Market Capitalization at Listing = Market Capitalization on First-Day Post-IPO/First-Day Pop; <sup>2</sup>First-Day "Pop" = Closing First-Day Share Price/Offering Share Price  
 Source: Capital IQ as of September 30, 2022  
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 SentinelOne	6/29/21	1,225.0	35.00	8,973	 21% <b>Median: 31%</b>	6,508	-27%  <b>Median: -52%</b>
<b>PROCORE</b>	5/19/21	634.5	67.00	8,585	 31%	6,153	-26% 
 UiPath	4/20/21	1,337.9	56.00	29,073	 23%	9,909	-77% 
 DigitalOcean	3/23/21	775.5	47.00	4,949	-10% 	4,223	-23% 
 tuyni	3/17/21	915.4	21.00	11,755	 19%	1,475	-96% 
 olo	3/16/21	450.0	25.00	3,550	 39%	1,581	-68% 
<b>ON24</b>	2/2/21	428.0	50.00	2,224	 42%	445	-82% 
<b>qualtrics</b> <sup>XM</sup>	1/28/21	1,550.9	30.00	15,084	 52%	7,285	-66% 
 C3.ai	12/8/20	651.0	42.00	4,026	 120%	1,940	-70% 
 McAfee	10/21/20	740.0	20.00	3,309	-7% 	Taken private at \$26 per share <sup>3</sup>	
 Palantir	9/30/20	Direct Listing <sup>4</sup>	7.25	11,961	 31%	18,563	 12%


IPO = Initial public offering; <sup>1</sup>Market Capitalization at Listing = Market Capitalization on First-Day Post-IPO/First-Day Pop; <sup>2</sup>First-Day "Pop" = Closing First-Day Share Price/Offering Share Price;

<sup>3</sup>Taken private by investor group led by Advent International Corporation in March 2022; <sup>4</sup>Direct listing prices as determined by listing exchange (New York Stock Exchange)


Source: Capital IQ as of September 30, 2022


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# Select Recent Kroll Technology M&A Transactions

Sell-Side Advisors 

Resonate has been acquired by ZMC





On July 27, 2022, Resonate, a leading AI-powered consumer data, insights and analytics software platform, received a majority investment from Zelnick Media Capital (ZMC), a leading media and technology-focused PE firm.

Hundreds of companies use Resonate to drive better marketing strategy and execution fueled by a more comprehensive understanding of their customers and prospects. The ZMC investment will accelerate Resonate's mission to ignite its clients' growth with actionable consumer intelligence.

Sell-Side Advisors 


Techex has been acquired by WestBridge







On June 14, 2022, Techex, the UK's leading broadcast design architect for live cloud and IP broadcast solutions, secured WestBridge as a funding partner to support accelerated growth.

Techex's value is underpinned by its trusted partner status and long-term continuous development engagements with its strategic Tier 1 broadcast and media customers. With WestBridge's support alongside a highly experienced management team, Techex will continue to grow talent across the team, expand geographically and build on the strong customer relationships it already enjoys.

Sell-Side Advisors 

Viajanet has been acquired by Despegar





On May 5, 2022, TVLX Viagens e Turismo S.A. ("Viajanet"), one of the leading online travel agencies in Brazil, was acquired by Despegar.com, Corp. ("Despegar"), the leading online travel company in Latin America.

Viajanet marks Despegar's third acquisition in Brazil in the past two years and another step in its regional consolidation strategy. Becoming part of Despegar will give Viajanet customers access to a larger, more diverse inventory of travel products and the innovative technological capabilities behind Despegar's travel site.

Flags indicate location of target/bidder.

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# Public Trading Data for Software Companies .ooooooo

\$ in USD millions (except for share price)

Company Name	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA	EBITDA	EV/Revenue	
	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
BI and Analytics													
Alteryx, Inc.	\$55.8	\$43.5	\$81.3	(31.3%)	\$3,825.1	\$4,383.8	\$635.9	\$775.6	18.9%	(\$220.4)	(34.7%)	5.7x	4.8x
C3.ai, Inc.	12.5	12.1	53.8	(76.8%)	1,356.0	447.1	265.7	264.8	14.3%	(228.3)	(85.9%)	1.7x	1.5x
Datadog, Inc.	88.8	81.1	199.7	(55.5%)	28,094.0	27,201.8	1,365.9	1,630.6	36.9%	35.6	2.6%	16.7x	12.2x
Domo, Inc.	18.0	16.4	95.5	(81.2%)	616.4	663.1	285.1	306.9	15.9%	(109.2)	(38.3%)	2.2x	1.9x
Dynatrace, Inc.	34.8	29.4	80.1	(56.6%)	10,002.3	9,734.5	987.0	1,084.5	21.2%	119.3	12.1%	9.0x	7.4x
Expert.ai S.p.A.	0.7	0.7	2.5	(73.6%)	34.6	45.3	41.4	42.2	35.8%	(22.0)	(53.1%)	1.1x	0.8x
Informatica Inc.	20.1	16.2	40.1	(50.0%)	5,641.6	6,966.1	1,502.9	1,549.8	11.9%	208.6	13.9%	4.5x	4.0x
MicroStrategy Incorporated	212.3	134.1	891.4	(76.2%)	2,399.8	4,777.5	503.9	501.4	3.3%	34.6	6.9%	9.5x	9.2x
New Relic, Inc.	57.4	41.7	129.7	(55.8%)	3,862.5	3,565.6	821.5	878.8	17.7%	(182.9)	(22.3%)	4.1x	3.4x
PagerDuty, Inc.	23.1	21.7	44.9	(48.6%)	2,056.9	1,893.6	325.9	368.1	23.8%	(109.5)	(33.6%)	5.1x	4.2x
Palantir Technologies Inc.	8.1	6.4	27.1	(70.0%)	16,781.6	14,581.0	1,744.4	1,900.6	24.5%	(216.0)	(12.4%)	7.7x	6.2x
Splunk Inc.	75.2	75.2	176.7	(57.4%)	12,235.7	14,567.8	3,038.7	3,387.8	18.7%	(643.6)	(21.2%)	4.3x	3.6x
Teradata Corporation	31.1	30.2	59.4	(47.7%)	3,193.0	3,291.0	1,861.0	1,794.9	3.2%	310.0	16.7%	1.8x	1.8x
Veritone, Inc.	5.6	5.3	37.1	(84.8%)	203.4	183.2	146.4	153.3	15.0%	(9.8)	(6.7%)	1.2x	1.0x
Average												5.3x	4.4x
Median												4.4x	3.8x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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, 2022. It includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

# Public Trading Data for Software Companies ..oooooooo

\$ in USD millions (except for share price)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA		EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
Communications and Collaboration													
8x8, Inc.	\$3.5	\$3.4	\$24.8	(86.1%)	\$413.9	\$852.9	\$677.4	\$744.6	8.1%	(\$108.6)	(16.0%)	1.1x	1.1x
Agora, Inc.	3.6	3.6	29.0	(87.5%)	420.6	(215.3)	165.0	175.5	23.7%	(90.8)	(55.0%)	NM	NM
Asana, Inc.	22.2	16.2	145.8	(84.8%)	4,691.5	4,701.8	467.8	545.7	29.6%	(351.0)	(75.0%)	8.6x	6.6x
Atlassian Corporation Plc	210.6	159.5	483.1	(56.4%)	53,688.2	53,500.0	2,802.9	3,188.0	28.5%	(77.7)	(2.8%)	16.8x	13.1x
Avaya Holdings Corp.	1.6	0.6	22.5	(92.9%)	138.1	3,006.1	2,766.0	2,545.7	(3.7%)	247.0	8.9%	1.2x	1.2x
Box, Inc.	24.4	22.3	33.0	(26.2%)	3,471.2	4,169.7	941.9	994.7	12.1%	66.3	7.0%	4.2x	3.7x
DocuSign, Inc.	53.5	51.1	288.5	(81.5%)	10,735.2	10,595.1	2,337.2	2,479.0	10.4%	(18.2)	(0.8%)	4.3x	3.9x
Dropbox, Inc.	20.7	19.1	31.5	(34.2%)	7,415.4	8,285.2	2,250.8	2,317.7	6.1%	501.1	22.3%	3.6x	3.4x
Everbridge, Inc.	30.9	24.1	164.0	(81.2%)	1,226.9	1,578.5	402.9	430.2	14.2%	(44.7)	(11.1%)	3.7x	3.2x
Extreme Networks, Inc.	13.1	8.5	16.6	(21.3%)	1,715.1	1,871.7	1,112.3	1,147.5	12.7%	113.1	10.2%	1.6x	1.4x
Five9, Inc.	75.0	74.5	170.7	(56.1%)	5,256.3	5,486.2	700.1	782.0	22.6%	(28.0)	(4.0%)	7.0x	5.7x
Jamf Holding Corp.	22.2	19.7	49.3	(55.0%)	2,674.5	2,885.2	423.3	476.0	22.3%	(77.7)	(18.4%)	6.1x	5.0x
Juniper Networks, Inc.	26.1	25.7	38.1	(31.5%)	8,426.6	9,223.6	4,926.5	5,212.6	5.5%	688.5	14.0%	1.8x	1.7x
ON24, Inc.	8.8	8.3	20.7	(57.5%)	417.9	84.1	198.1	192.5	4.9%	(45.4)	(22.9%)	0.4x	0.4x
Open Text Corporation	26.4	26.4	52.7	(49.8%)	7,036.0	9,811.8	3,493.8	3,541.2	4.9%	995.2	28.5%	2.8x	2.6x
RingCentral, Inc.	40.0	39.5	315.0	(87.3%)	3,808.9	5,381.4	1,817.7	2,003.4	22.2%	(200.9)	(11.1%)	2.7x	2.2x
Smartsheet Inc.	34.4	27.1	80.9	(57.5%)	4,487.4	4,102.6	657.0	752.1	29.1%	(194.3)	(29.6%)	5.5x	4.2x
TeamViewer AG	7.8	7.5	25.0	(68.6%)	1,410.4	1,925.1	556.0	552.8	12.5%	159.0	28.6%	3.5x	3.1x
Twilio Inc.	69.1	64.3	373.0	(81.5%)	12,661.3	9,526.6	3,401.6	3,865.8	27.7%	(769.0)	(22.6%)	2.5x	1.9x
Zoom Video Communications, Inc.	73.6	73.0	291.3	(74.7%)	21,903.7	16,481.5	4,295.4	4,397.4	9.6%	908.9	21.2%	3.7x	3.4x
Average												4.3x	3.6x
Median												3.6x	3.2x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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 ooo.....

\$ in USD millions (except for share price)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA		EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
CRM and Marketing													
Adobe Inc.	\$275.2	\$274.7	\$699.5	(60.7%)	\$127,940.5	\$126,817.5	\$17,191.0	\$17,615.9	13.0%	\$6,728.0	39.1%	7.2x	6.4x
Aimia Inc.	2.5	2.4	4.7	(46.3%)	213.1	167.8	(35.0)	NA	NA	(49.6)	141.7%	NM	NM
BigCommerce Holdings, Inc.	14.8	12.7	64.1	(76.9%)	1,086.1	1,078.1	258.4	279.9	20.8%	(74.0)	(28.6%)	3.9x	3.2x
Braze, Inc.	34.8	27.1	98.8	(64.7%)	3,310.1	2,860.8	298.0	349.3	32.7%	(126.1)	(42.3%)	8.2x	6.2x
Brightcove Inc.	6.3	5.8	12.5	(49.4%)	264.0	259.7	212.6	213.5	4.7%	5.0	2.4%	1.2x	1.2x
Cardlytics, Inc.	9.4	8.7	97.2	(90.3%)	309.2	390.0	298.4	316.9	15.1%	(88.1)	(29.5%)	1.2x	1.1x
Freshworks Inc.	13.0	10.5	53.4	(75.7%)	3,713.2	2,570.5	438.2	494.8	25.5%	(298.4)	(68.1%)	5.2x	4.1x
HubSpot, Inc.	270.1	257.2	866.0	(68.8%)	12,970.9	12,471.1	1,525.9	1,693.6	24.0%	(63.5)	(4.2%)	7.4x	5.9x
LivePerson, Inc.	9.4	8.7	61.7	(84.7%)	706.6	1,026.1	504.9	513.2	11.0%	(134.4)	(26.6%)	2.0x	1.8x
NICE Ltd.	-	173.0	279.3	(31.7%)	12,122.7	11,495.3	2,067.3	2,178.5	11.4%	469.3	22.7%	5.3x	4.7x
Pegasystems Inc.	32.1	31.7	131.8	(75.6%)	2,633.9	3,018.7	1,223.1	1,296.3	12.0%	(142.7)	(11.7%)	2.3x	2.1x
Qualtrics International Inc.	10.2	9.7	48.3	(78.9%)	5,961.1	5,461.0	1,279.7	1,424.3	19.3%	(1,055.6)	(82.5%)	3.8x	3.2x
Salesforce, Inc.	143.8	143.8	311.8	(53.9%)	143,696.2	144,482.2	29,320.0	30,994.6	14.8%	2,465.0	8.4%	4.7x	4.1x
Shopify Inc.	26.9	26.4	176.3	(84.7%)	34,249.5	28,487.0	5,002.5	5,488.0	24.4%	(146.1)	(2.9%)	5.2x	4.2x
Sprout Social, Inc.	60.7	38.4	142.6	(57.5%)	3,316.8	3,158.5	221.2	254.0	30.5%	(36.7)	(16.6%)	12.4x	9.5x
TechTarget, Inc.	59.2	56.1	111.4	(46.9%)	1,746.8	1,832.8	293.8	315.5	13.8%	72.0	24.5%	5.8x	5.1x
Upland Software, Inc.	8.1	7.9	34.7	(76.6%)	257.2	645.8	310.7	316.1	2.5%	43.3	13.9%	2.0x	2.0x
Verint Systems Inc.	33.6	33.5	56.4	(40.5%)	2,189.7	2,818.8	899.8	920.5	9.7%	102.0	11.3%	3.1x	2.8x
Yext, Inc.	4.5	4.0	13.1	(66.0%)	550.5	487.4	400.1	400.7	6.7%	(77.5)	(19.4%)	1.2x	1.1x
ZoomInfo Technologies Inc.	41.7	30.3	79.2	(47.4%)	16,807.4	17,731.1	928.7	1,086.8	30.3%	183.8	19.8%	16.3x	12.5x
Average												5.2x	4.3x
Median												4.7x	4.1x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA		EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
Cyber Security													
Absolute Software Corporation	\$11.6	\$6.4	\$12.0	(2.9%)	\$599.3	\$799.3	\$197.3	\$224.0	17.0%	\$13.4	6.8%	3.6x	3.1x
Check Point Software	112.0	107.9	149.6	(25.1%)	14,048.6	10,397.7	2,246.9	2,317.6	4.8%	901.7	40.1%	4.5x	4.3x
CrowdStrike Holdings, Inc.	164.8	130.0	298.5	(44.8%)	38,463.4	36,934.4	1,834.0	2,234.6	37.1%	(65.6)	(3.6%)	16.5x	12.1x
CyberArk Software Ltd.	149.9	100.4	201.7	(25.7%)	6,105.0	5,463.2	542.8	596.8	22.5%	(107.6)	(19.8%)	9.2x	7.5x
F5, Inc.	144.7	141.9	249.0	(41.9%)	8,620.4	8,545.3	2,677.8	2,697.8	11.3%	555.5	20.7%	3.2x	2.8x
Fortinet, Inc.	49.1	47.4	74.4	(33.9%)	38,740.0	37,987.8	3,815.7	4,382.0	21.6%	821.8	21.5%	8.7x	7.1x
F-Secure Oyj	2.4	2.2	3.1	(22.5%)	419.9	395.8	268.7	109.1	4.7%	23.2	8.6%	NM	3.5x
NortonLifeLock Inc.	20.1	20.1	30.9	(34.9%)	13,413.8	15,538.8	2,817.0	2,875.9	5.5%	1,289.0	45.8%	5.4x	5.1x
Okta, Inc.	56.9	52.8	272.3	(79.1%)	9,035.1	8,945.6	1,600.4	1,820.0	28.4%	(659.8)	(41.2%)	4.9x	3.8x
Palo Alto Networks, Inc.	163.8	140.5	213.6	(23.3%)	49,008.2	49,388.9	5,501.5	6,136.2	23.9%	31.4	0.6%	8.0x	6.5x
Qualys, Inc.	139.4	106.5	162.4	(14.1%)	5,347.5	4,891.2	448.0	488.9	16.8%	163.1	36.4%	10.0x	8.6x
Radware Ltd.	21.8	20.5	42.2	(48.4%)	977.1	643.4	298.9	303.3	6.5%	27.6	9.2%	2.1x	2.0x
Rapid7, Inc.	42.9	42.6	145.0	(70.4%)	2,518.2	3,193.8	616.4	688.2	20.8%	(106.8)	(17.3%)	4.6x	3.8x
SecureWorks Corp.	8.1	7.7	23.8	(66.1%)	684.0	536.4	498.8	461.3	3.2%	(50.1)	(10.0%)	1.2x	1.1x
SentinelOne, Inc.	25.6	18.6	78.5	(67.5%)	7,180.2	5,990.1	302.4	416.4	64.2%	(322.6)	(106.7%)	14.4x	8.8x
Sumo Logic, Inc.	7.5	6.6	17.8	(57.9%)	889.1	542.3	271.0	291.8	18.1%	(125.4)	(46.3%)	1.9x	1.6x
Tenable Holdings, Inc.	34.8	33.7	63.6	(45.3%)	3,885.2	3,797.5	611.4	676.5	20.5%	(40.1)	(6.6%)	5.6x	4.7x
Trend Micro Incorporated	54.0	38.2	63.2	(14.5%)	7,557.5	5,923.9	1,503.7	1,532.2	8.8%	467.2	31.1%	3.9x	3.6x
Varonis Systems, Inc.	26.5	24.6	67.8	(60.9%)	2,914.3	2,445.3	434.6	487.8	21.2%	(111.4)	(25.6%)	5.0x	4.1x
WithSecure Oyj	1.6	1.5	5.5	(71.6%)	274.4	198.0	248.4	133.3	15.0%	8.1	3.3%	NM	1.3x
Zscaler, Inc.	164.4	125.1	376.1	(56.3%)	23,513.5	22,827.9	1,090.9	1,301.1	32.4%	(298.6)	(27.4%)	17.5x	13.2x
Average												6.9x	5.2x
Median												5.0x	4.1x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA	EBITDA	EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
Engineering													
Altair Engineering Inc.	\$44.2	\$44.1	\$83.0	(46.7%)	\$3,535.2	\$3,449.5	\$554.5	\$562.7	9.1%	\$66.1	11.9%	6.1x	5.6x
ANSYS, Inc.	221.7	221.4	413.9	(46.4%)	19,303.1	19,671.0	1,995.8	2,038.7	9.5%	672.4	33.7%	9.6x	8.8x
Autodesk, Inc.	186.8	163.2	335.5	(44.3%)	40,322.5	41,796.5	4,744.4	5,015.1	12.9%	990.1	20.9%	8.3x	7.4x
Bentley Systems, Incorporated	30.6	26.3	62.4	(51.0%)	9,481.3	11,266.0	1,062.9	1,111.0	11.0%	202.1	19.0%	10.1x	9.1x
Cadence Design Systems, Inc.	163.4	132.3	195.0	(16.2%)	44,758.6	44,077.0	3,283.2	3,495.2	9.9%	1,134.1	34.5%	12.6x	11.5x
Dassault Systèmes SE	35.0	32.5	55.7	(37.1%)	46,049.3	46,539.6	5,472.3	5,443.6	9.1%	1,346.7	24.6%	8.5x	7.8x
Hexagon AB (publ)	9.4	9.0	13.3	(28.9%)	25,389.3	28,897.2	4,944.2	5,025.5	5.8%	1,557.9	31.5%	5.8x	5.4x
Nemetschek SE	48.3	45.9	113.9	(57.6%)	5,575.7	5,593.1	787.4	776.2	8.7%	220.9	28.1%	7.2x	6.6x
PTC Inc.	104.6	96.6	136.0	(23.1%)	12,287.0	13,584.6	1,906.1	1,968.0	11.8%	490.8	25.7%	6.9x	6.2x
Roper Technologies, Inc.	359.6	359.2	505.0	(28.8%)	38,125.3	42,703.2	6,023.3	5,232.7	5.1%	2,299.5	38.2%	8.2x	7.8x
Synopsys, Inc.	305.5	255.0	391.2	(21.9%)	46,715.9	45,901.5	4,949.7	5,143.1	13.4%	1,326.6	26.8%	8.9x	7.9x
Trimble Inc.	54.3	54.2	92.0	(41.0%)	13,440.4	14,498.8	3,762.3	3,783.8	6.3%	781.8	20.8%	3.8x	3.6x
Average												8.0x	7.3x
Median												8.2x	7.4x
ERP and SCM													
American Software, Inc.	\$15.3	\$14.5	\$33.3	(53.9%)	\$516.2	\$402.2	\$129.6	\$132.9	7.7%	\$15.0	11.6%	3.0x	2.8x
Kinaxis Inc.	99.8	87.0	167.5	(40.4%)	2,756.0	2,571.0	311.9	362.1	13.8%	26.8	8.6%	7.1x	6.2x
Manhattan Associates, Inc.	133.0	106.0	188.5	(29.4%)	8,343.5	8,155.2	711.6	737.6	11.0%	148.0	20.8%	11.1x	10.0x
Microsoft Corporation	232.9	232.7	349.7	(33.4%)	1,736,943.0	1,710,594.0	198,270.0	207,605.7	13.2%	97,983.0	49.4%	8.2x	7.3x
Oracle Corporation	61.1	60.8	106.3	(42.6%)	164,654.9	245,437.9	44,157.0	45,827.3	11.5%	18,405.0	41.7%	5.4x	4.8x
SAP SE	82.5	78.0	127.2	(35.2%)	96,081.8	104,216.7	30,753.7	29,795.1	7.2%	6,584.8	21.4%	3.5x	3.3x
ServiceNow, Inc.	377.6	367.7	707.6	(46.6%)	76,131.5	74,441.5	6,601.0	7,313.2	23.5%	675.0	10.2%	10.2x	8.2x
Serviceware SE	6.5	6.0	19.7	(67.2%)	68.0	43.5	91.6	80.1	6.2%	(0.3)	(0.4%)	0.5x	0.5x
SPS Commerce, Inc.	124.2	96.4	174.4	(28.8%)	4,474.2	4,233.5	415.0	447.6	15.7%	86.4	20.8%	9.5x	8.2x
Technology One Limited	6.8	6.2	8.8	(22.1%)	2,208.3	2,155.3	254.3	231.4	9.7%	80.6	31.7%	9.3x	8.5x
Tecsys Inc.	21.3	18.2	44.5	(52.1%)	310.4	293.2	107.8	103.5	13.1%	4.8	4.4%	2.8x	2.5x
The Descartes Systems Group Inc.	63.9	53.1	84.0	(23.9%)	5,416.9	5,248.5	460.7	489.2	10.6%	191.0	41.5%	10.7x	9.7x
TOTVS S.A.	5.4	4.2	7.0	(23.0%)	3,284.8	3,182.3	708.2	758.5	18.0%	128.3	18.1%	4.2x	3.6x
WiseTech Global Limited	33.5	22.0	40.8	(17.9%)	10,865.4	10,574.9	435.6	453.5	22.0%	191.1	43.9%	23.3x	19.1x
Zuora, Inc.	7.4	7.1	23.3	(68.3%)	953.6	763.2	371.9	396.4	14.9%	(79.2)	(21.3%)	1.9x	1.7x
Average												7.4x	6.4x
Median												7.1x	6.2x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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 o o o o o o . o o o o

\$ in USD millions (except for share price)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA	EBITDA	EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
Financial and Accounting Software													
Bill.com Holdings, Inc.	132.4	89.9	348.5	(62.0%)	13,877.7	13,040.6	642.0	814.7	37.9%	(225.6)	(35.1%)	16.0x	11.6x
BlackLine, Inc.	59.9	49.7	135.0	(55.6%)	3,858.2	4,251.1	473.4	526.1	19.8%	(37.0)	(7.8%)	8.1x	6.7x
Coupa Software Incorporated	58.8	50.5	259.9	(77.4%)	4,464.7	5,873.5	786.6	841.5	18.6%	(119.5)	(15.2%)	7.0x	5.9x
Intuit Inc.	387.3	339.4	716.9	(46.0%)	109,173.8	113,432.8	12,726.0	13,609.7	13.9%	3,240.0	25.5%	8.3x	7.3x
Reckon Limited	0.7	0.5	0.9	(18.5%)	82.1	93.4	49.7	33.0	4.7%	20.1	40.5%	NM	2.7x
The Sage Group plc	7.8	6.5	9.6	(19.1%)	7,885.5	8,609.7	2,422.6	2,176.6	6.1%	632.3	26.1%	4.0x	3.7x
Wolters Kluwer N.V.	98.0	82.5	109.2	(10.3%)	24,213.2	26,386.2	5,322.0	5,206.5	4.6%	1,620.3	30.4%	5.1x	4.8x
Workiva Inc.	77.8	59.4	173.2	(55.1%)	4,072.6	4,018.3	494.7	535.1	18.6%	(54.9)	(11.1%)	7.5x	6.3x
Xero Limited	47.4	46.7	100.9	(53.1%)	7,104.7	7,155.4	761.9	712.9	28.8%	57.7	7.6%	10.0x	7.8x
Average												8.2x	6.3x
Median												7.8x	6.3x
Financial Services													
Broadridge Financial Solutions, Inc.	\$144.3	\$132.4	\$185.4	(22.2%)	\$22,291.8	\$26,132.7	\$5,709.1	\$5,866.3	6.8%	\$1,223.9	21.4%	4.5x	4.2x
Clearwater Analytics Holdings, Inc.	16.8	11.2	26.6	(36.9%)	3,152.4	3,009.3	278.4	298.8	18.2%	14.5	5.2%	10.1x	8.5x
Duck Creek Technologies, Inc.	11.9	11.3	46.8	(74.7%)	1,571.0	1,227.7	293.1	297.1	11.6%	14.5	5.0%	4.1x	3.7x
FIS, Inc.	75.6	75.5	126.2	(40.1%)	45,944.9	62,729.9	14,388.0	14,687.3	6.8%	4,158.0	28.9%	4.3x	4.0x
Guidewire Software, Inc.	61.6	59.4	129.0	(52.3%)	5,177.9	4,665.2	812.6	855.9	9.4%	(172.2)	(21.2%)	5.5x	5.0x
i3 Verticals, Inc.	20.0	17.8	30.3	(33.8%)	445.9	848.8	299.8	320.6	8.9%	40.8	13.6%	2.6x	2.4x
Jack Henry & Associates, Inc.	182.3	147.5	212.6	(14.3%)	13,288.0	13,405.7	1,942.9	2,009.4	7.7%	547.2	28.2%	6.7x	6.2x
nCino, Inc.	34.1	23.9	77.4	(55.9%)	3,781.1	3,745.3	338.8	402.6	25.8%	(60.3)	(17.8%)	9.3x	7.4x
Q2 Holdings, Inc.	32.2	31.3	90.9	(64.6%)	1,845.5	2,181.9	533.0	579.1	18.4%	(49.8)	(9.3%)	3.8x	3.2x
SimCorp A/S	56.6	54.8	109.1	(48.1%)	2,223.8	2,246.7	520.9	536.0	5.8%	107.9	20.7%	4.2x	4.0x
SS&C Technologies Holdings, Inc.	47.8	47.6	84.9	(43.7%)	12,177.5	19,317.3	5,182.3	5,356.1	4.7%	1,805.1	34.8%	3.6x	3.4x
Temenos AG	68.7	64.9	145.3	(52.7%)	4,930.2	5,667.9	980.4	1,032.8	9.4%	261.2	26.6%	5.5x	5.0x
Average												5.3x	4.8x
Median												4.4x	4.1x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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, 2022. It includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

# Public Trading Data for Software Companies oooooooo

\$ in USD millions (except for share price)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA		EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
HCM													
Automatic Data Processing, Inc.	\$226.2	\$192.3	\$261.6	(13.5%)	\$93,934.8	\$96,089.2	\$16,498.3	\$17,173.6	7.5%	\$4,372.6	26.5%	5.6x	5.2x
Benefitfocus, Inc.	6.4	6.0	13.1	(51.4%)	217.4	445.6	254.9	254.1	2.6%	9.7	3.8%	1.8x	1.7x
Ceridian HCM Holding Inc.	55.9	43.2	130.4	(57.1%)	8,552.8	9,447.1	1,133.8	1,227.2	16.8%	27.4	2.4%	7.7x	6.6x
Docebo Inc.	27.2	23.6	75.0	(63.8%)	893.9	698.0	123.9	144.4	34.2%	(11.7)	(9.4%)	4.8x	3.6x
Paychex, Inc.	112.2	109.9	141.9	(20.9%)	40,440.6	40,089.7	4,735.0	4,803.7	6.7%	2,082.8	44.0%	8.3x	7.8x
Paycom Software, Inc.	330.0	255.8	559.0	(41.0%)	19,094.9	18,844.9	1,211.6	1,355.1	22.6%	354.5	29.3%	13.9x	11.3x
Paycor HCM, Inc.	29.6	20.1	37.4	(21.0%)	5,192.0	5,059.0	429.4	470.7	18.3%	(30.6)	(7.1%)	10.7x	9.1x
Paylocity Holding Corporation	241.6	152.0	314.5	(23.2%)	13,354.0	13,291.7	852.7	966.8	23.8%	109.7	12.9%	13.7x	11.1x
TriNet Group, Inc.	71.2	69.2	109.4	(34.9%)	4,424.3	4,523.3	4,798.0	1,323.0	1.0%	593.0	12.4%	NM	3.4x
Workday, Inc.	152.2	134.1	307.8	(50.5%)	38,970.7	37,105.8	5,673.9	6,205.4	19.1%	174.5	3.1%	6.0x	5.0x
Average												8.1x	6.5x
Median												7.7x	5.9x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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 oooooooo

\$ in USD millions (except for share price)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA		EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
Infrastructure													
Akamai Technologies, Inc.	\$80.3	\$79.8	\$123.3	(34.8%)	\$12,767.4	\$14,660.1	\$3,572.7	\$3,589.0	6.5%	\$1,207.7	33.8%	4.1x	3.8x
Appian Corporation	40.8	38.8	104.5	(60.9%)	2,958.1	2,877.4	421.7	467.0	17.0%	(108.7)	(25.8%)	6.2x	5.3x
Cisco Systems, Inc.	40.0	40.0	64.3	(37.8%)	164,353.8	155,647.8	51,557.0	52,466.5	5.2%	15,902.0	30.8%	3.0x	2.8x
Cloudflare, Inc.	55.3	39.0	221.6	(75.0%)	18,111.8	18,037.5	812.6	970.7	36.4%	(116.6)	(14.4%)	18.6x	13.6x
Commvault Systems, Inc.	53.0	50.3	78.1	(32.0%)	2,376.5	2,131.7	784.2	797.3	6.4%	43.8	5.6%	2.7x	2.5x
DigitalOcean Holdings, Inc.	36.2	30.1	133.4	(72.9%)	3,506.0	3,806.3	492.3	578.8	37.4%	49.6	10.1%	6.6x	4.8x
Elastic N.V.	71.7	50.7	189.8	(62.2%)	6,814.3	6,559.3	919.4	1,028.7	28.3%	(172.8)	(18.8%)	6.4x	5.0x
Exasol AG	2.9	2.9	12.2	(76.0%)	71.0	52.1	33.0	33.8	31.9%	(17.2)	(52.1%)	1.5x	1.2x
Fastly, Inc.	9.2	8.1	58.6	(84.4%)	1,107.1	1,177.5	389.4	419.7	15.3%	(188.1)	(48.3%)	2.8x	2.4x
HashiCorp, Inc.	32.2	25.5	103.0	(68.7%)	5,999.7	4,724.9	393.5	445.5	29.1%	(391.6)	(99.5%)	10.6x	8.2x
JFrog Ltd.	22.1	16.4	42.3	(47.8%)	2,195.8	1,790.7	244.4	279.3	27.7%	(58.4)	(23.9%)	6.4x	5.0x
MongoDB, Inc.	198.6	188.2	590.0	(66.3%)	13,642.5	13,086.5	1,082.5	1,207.6	28.0%	(327.4)	(30.2%)	10.8x	8.5x
NetApp, Inc.	61.9	61.3	96.8	(36.1%)	13,444.1	12,963.1	6,452.0	6,662.8	4.9%	1,377.0	21.3%	1.9x	1.9x
Nutanix, Inc.	20.8	13.4	39.3	(47.1%)	4,729.1	4,846.5	1,580.8	1,655.3	14.4%	(371.9)	(23.5%)	2.9x	2.6x
OVH Groupe S.A.	10.0	9.7	27.7	(63.7%)	1,908.4	2,345.7	798.4	790.1	14.1%	\$233.3	29.2%	3.0x	2.6x
Rackspace Technology, Inc.	4.1	4.1	18.5	(77.9%)	859.2	4,586.7	3,087.5	3,102.6	1.1%	605.6	19.6%	1.5x	1.5x
Snowflake Inc.	170.0	110.3	405.0	(58.0%)	54,369.7	49,571.6	1,637.8	2,040.0	52.2%	(670.2)	(40.9%)	24.3x	16.0x
Software Aktiengesellschaft	23.1	22.0	40.9	(43.6%)	1,706.2	1,920.7	904.8	918.5	7.4%	157.2	17.4%	2.1x	1.9x
SolarWinds Corporation	7.8	7.5	20.5	(62.3%)	1,247.1	2,435.1	720.9	720.5	4.4%	121.8	16.9%	3.4x	3.2x
Tuya Inc.	0.9	0.9	9.7	(90.4%)	514.1	(424.0)	278.4	227.1	69.9%	(191.5)	(68.8%)	NM	NM
UiPath Inc.	12.6	12.1	59.6	(78.8%)	6,930.5	5,255.7	997.8	1,008.0	20.1%	(389.7)	(39.1%)	5.2x	4.3x
VeriSign, Inc.	173.7	155.3	257.0	(32.4%)	18,635.1	19,425.0	1,373.4	1,427.4	8.2%	952.3	69.3%	13.6x	12.6x
Average												6.5x	5.2x
Median												4.1x	3.8x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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, 2022. It includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

# Public Trading Data for Software Companies oooooooo

\$ in USD millions (except for share price)

	Share Price	52-Week		% of 52-Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth <sup>1</sup>	EBITDA		EV/Revenue	
Company Name	9/30/22	Low	High				LTM	CY22		LTM	Margin <sup>2</sup>	CY22	CY23
Vertical Software													
2U, Inc.	\$6.3	\$5.7	\$34.9	(82.1%)	\$484.3	\$1,304.5	\$970.8	\$962.4	3.4%	(\$29.9)	(3.1%)	1.4x	1.3x
Allscripts Healthcare Solutions, Inc.	15.2	13.0	23.3	(34.5%)	1,687.4	1,407.1	1,521.7	616.0	6.9%	111.3	7.3%	NM	2.1x
Amdocs Limited	79.5	68.3	90.8	(12.5%)	9,689.8	9,741.9	4,497.5	4,666.8	7.9%	874.0	19.4%	2.1x	1.9x
AppFolio, Inc.	104.7	79.9	140.0	(25.2%)	3,665.3	3,604.8	414.2	460.0	20.7%	(26.8)	(6.5%)	7.8x	6.5x
AssetMark Financial Holdings, Inc.	18.3	16.9	29.5	(38.1%)	1,350.6	1,374.6	582.8	446.4	15.1%	120.6	20.7%	NM	2.7x
Blackbaud, Inc.	44.1	43.5	87.0	(49.3%)	2,283.9	3,251.8	1,001.2	1,059.7	5.2%	57.2	5.7%	3.1x	2.9x
Boxlight Corporation	0.6	0.5	2.5	(75.0%)	45.6	120.6	215.2	250.2	11.8%	7.7	3.6%	0.5x	0.4x
Ebix, Inc.	19.0	12.5	44.4	(57.3%)	586.3	1,192.6	995.6	974.8	(0.7%)	137.4	13.8%	1.2x	1.2x
EngageSmart, Inc.	20.7	15.6	35.9	(42.4%)	3,389.8	3,149.8	258.3	297.1	27.5%	20.2	7.8%	10.6x	8.3x
Envestnet, Inc.	44.4	44.3	86.0	(48.4%)	2,450.7	3,086.3	1,262.9	1,259.0	10.7%	98.0	7.8%	2.5x	2.2x
FINEOS Corporation Holdings plc	0.8	0.8	3.1	(73.9%)	257.2	219.7	133.0	125.0	13.1%	(14.9)	(11.2%)	1.8x	1.6x
GitLab Inc.	51.2	30.7	137.0	(62.6%)	7,620.1	6,741.7	333.0	413.8	41.9%	(178.5)	(53.6%)	16.3x	11.5x
HealthStream, Inc.	21.3	18.5	29.6	(28.2%)	649.9	635.5	259.4	269.8	7.5%	30.2	11.6%	2.4x	2.2x
Olo Inc.	7.9	7.2	32.8	(75.9%)	1,277.1	836.5	165.7	183.1	20.0%	(34.5)	(20.8%)	4.6x	3.8x
Procore Technologies, Inc.	49.5	40.0	105.3	(53.0%)	6,769.3	6,295.3	609.8	693.0	22.8%	(221.3)	(36.3%)	9.1x	7.4x
Riskified Ltd.	3.9	3.8	23.4	(83.2%)	658.5	212.8	241.1	255.6	21.7%	(112.8)	(46.8%)	0.8x	0.7x
Stride, Inc.	42.0	25.7	44.9	(6.5%)	1,750.1	1,841.7	1,686.7	1,730.7	5.4%	207.5	12.3%	1.1x	1.0x
Tabula Rasa HealthCare, Inc.	4.8	2.1	31.6	(84.8%)	114.8	482.6	347.9	289.0	12.8%	(43.7)	(12.6%)	1.7x	1.5x
Toast, Inc.	16.7	11.9	69.9	(76.1%)	8,637.3	7,550.3	2,208.0	2,651.5	32.5%	(353.0)	(16.0%)	2.8x	2.1x
Tyler Technologies, Inc.	347.5	300.9	557.6	(37.7%)	14,449.6	15,471.5	1,818.2	1,861.3	9.7%	341.3	18.8%	8.3x	7.6x
Unity Software Inc.	31.9	29.1	210.0	(84.8%)	9,572.9	9,635.3	1,219.4	1,320.6	27.9%	(502.0)	(41.2%)	7.3x	5.7x
Veeva Systems Inc.	164.9	152.0	327.8	(49.7%)	25,602.8	22,747.2	2,000.9	2,145.0	15.8%	509.4	25.5%	10.6x	9.2x
Average												4.8x	3.8x
Median												2.6x	2.2x

<sup>1</sup>Forecasts revenue growth between CY22 and CY23; <sup>2</sup> Last Twelve Months (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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# Firm Overview



The Technology M&A practice of Kroll Corporate Finance (formerly Pagemill Partners) is a leading mid-market practice with 300+ transactions completed over the past 15 years and bankers based in key tech centers internationally, including Palo Alto, Los Angeles, New York, London, Paris, Munich and Toronto.

Global advisory-focused firm ranked number five middle-market M&A advisor for the past 10 years, with 350+ corporate finance professionals and nearly 4,000 advisory-focused professionals.<sup>1</sup>

## Significant Transaction Experience

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

- Advised on over 85 M&A transactions in 2021
- Over 1,100 transactions for more than 200 PE firms in 2021
- Over 120 cross-border engagements in 2021

## 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, Health Care and Consumer practices

## Unparalleled Access to Buyers

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

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






## Unconflicted and Focused Approach

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

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

<sup>1</sup> Refinitiv Data (U.S. deals \$10 mn–\$170 mn, including deals without a disclosed value). Full years 2012 through 2021.

# Key Subsectors of Focus for Our Technology M&A Practice (Formerly Pagemill Partners)

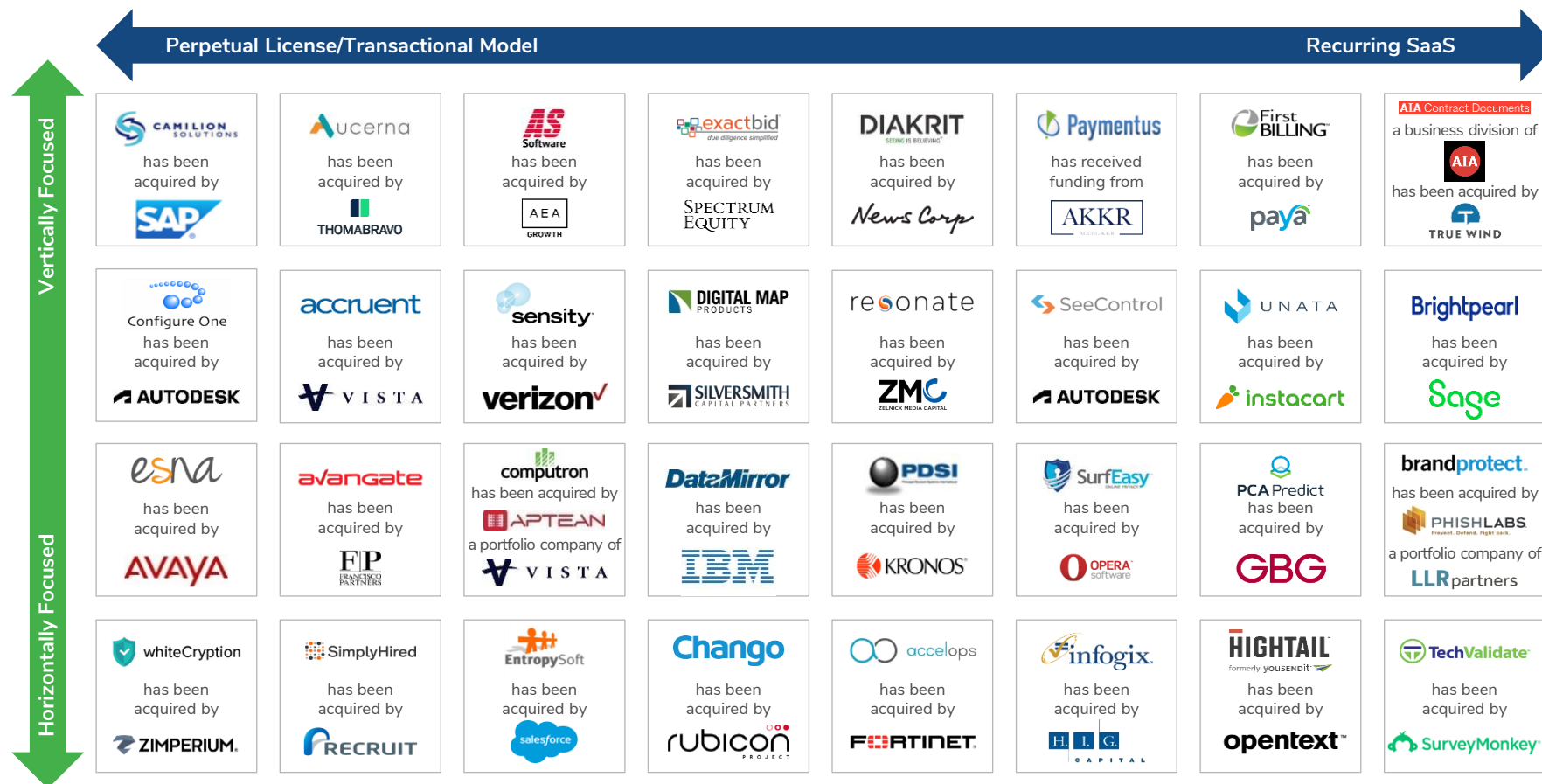
<h2>Vertical Software/SaaS</h2> <div>                       has been acquired by   </div> <div>                       a business division of                        has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div>	<h2>Data and Analytics</h2> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div>
<h2>Fintech and Payments</h2> <div>                       has been acquired by   </div> <div>                       a portfolio company of                        has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has received funding from   </div>	<h2>Marketing Tech</h2> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div>
<h2>Retail and Commerce Technologies</h2> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div>	<h2>Security</h2> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div>
<h2>Consumer Technologies</h2> <div>                       has been acquired by                        a subsidiary of   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div>	<h2>Networking Technologies</h2> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div> <div>                       has been acquired by   </div>

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



# Distinguished Enterprise Software Franchise

- Our Technology M&A Practice (formerly Pagemill Partners) has completed over 300 transactions, the majority of which are in enterprise software.
  - Industry leaders leverage 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.



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**Environmental, Social and Governance**

**Investigations and Disputes**

**Business Services**



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