

## EQUITY RESEARCH

May 19, 2022

Industry Update

### Conserving Cash – Bits & Bytes Weekly

VC-backed Firms Pivoting From A Growth Mentality

#### Our Conclusion

The broad valuation reset among public tech companies is trickling into private tech markets. Venture capital (VC) funding fell 26% sequentially in Q1 according to Pitchbook, with valuations of high-growth start-ups down 42% over the same time period. Investors have a renewed focus on profitability, with private tech companies aggressively instituting hiring freezes and cost cuts to conserve cash. With VC and IPO funding increasingly scarce, we expect M&A could accelerate to fill the void, with strategic acquirers looking to strengthen their tech stack at reasonable valuations.

#### Key Points

The public tech market rout has extended into the VC world, with crossover funds (money managers that invest in both stocks and private companies) exiting the space and traditional VCs becoming a lot more selective in their investments. Not surprisingly given the public markets, exits are also becoming more difficult, with IPOs and VC-backed exits totaling only US\$33.6 billion in Q1, down 83% sequentially. Start-ups that are in need of cash infusions are resorting to extension/insider rounds, where shares are issued at the same price as those from previous rounds.

VC valuations have begun to mirror what is happening in the public markets where the S&P 500 Software Index has fallen 26% since the November peak and the median NTM revenue multiple for select SaaS companies is now 8.8x, down from a peak valuation of 50.8x.

With the next funding round uncertain, private tech companies are prioritizing a path to profitability and slashing costs through hiring freezes and layoffs, as well as scaling back marketing spend and new engineering projects. These initiatives have contributed to more than 8,200 layoffs at U.S. venture-backed start-ups since March according to tracking website Layoffs.fyi, with Crunchbase noting that 66 tech companies announced layoffs in 2022, including 43 in May. The layoffs mirror the industry-wide move to a focus on profitability and free cash flow amid increasing recessionary concerns. Public companies from Meta to Uber have pledged to slow down hiring, while Netflix has announced cuts amounting to 1.4% of its workforce. The cuts are deeper at private firms, with firms like Cameo and MainStreet cutting their staff by 30%.

In the current environment, we expect M&A to comprise an increasing percentage of VC exits. While we saw an M&A pause in Q1 (global M&A down 23% Y/Y according to GlobalData), we expect M&A to accelerate as private market valuations re-rate and VC backers look to cash out.

Stephanie Price, CFA  
+1 416-594-7047  
Stephanie.Price@cibc.com

Scott Fletcher, CPA, CA  
+1 416-956-3229  
Scott.Fletcher@cibc.com

Natalie Zhang, CFA  
+1 416-581-2120  
Natalie.Zhang@cibc.com

Javeria Gaya, CPA  
+1 416-594-7261  
Javeria.Gaya@cibc.com

**Sector:**  
Information Technology

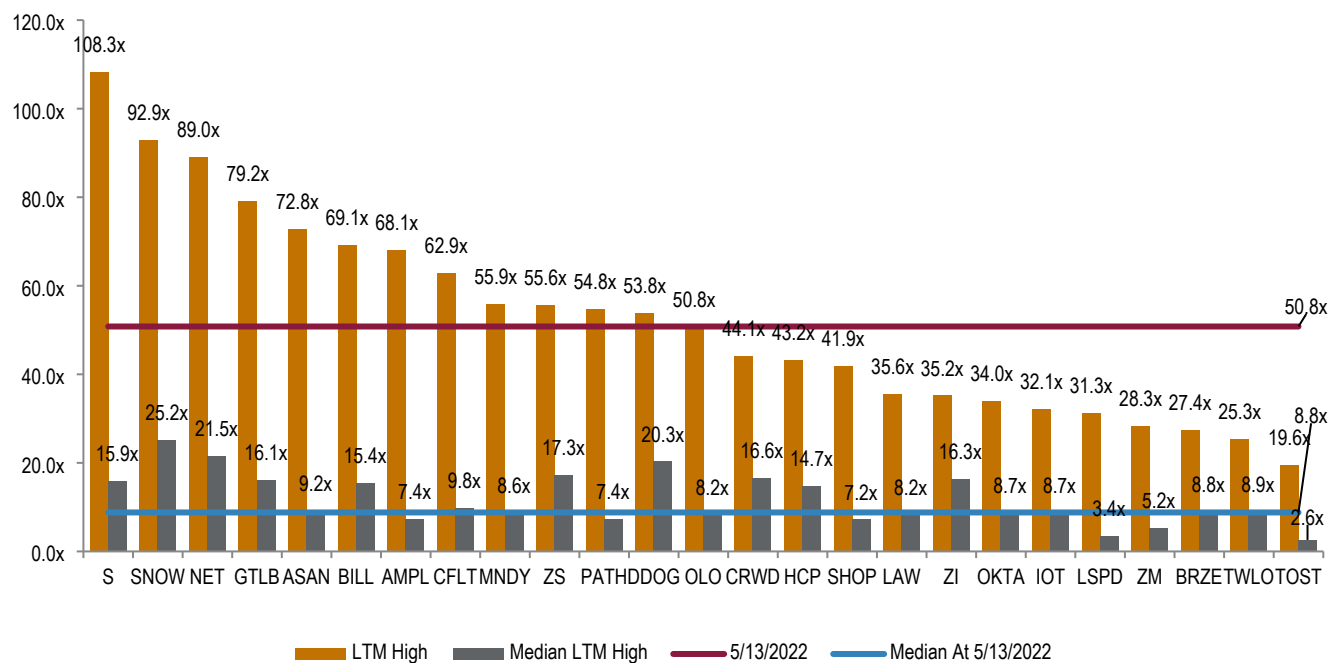
All figures in Canadian dollars unless otherwise stated.

For required regulatory disclosures please refer to "Important Disclosures" beginning on page 10.

**Exhibit 1: Software & Services – Notable Staff Cuts & Freezes Among Tech Companies – 2022 YTD**

Date	Company	Sub-Sector	Freeze/Cut /Slowdown	Details	% Of Cuts
5/17/2022	Netflix	Streaming	Cut	Laying off 150 employees of 11,000-person workforce	1.4%
5/17/2022	Picsart	AI photo-editing app	Cut	Cut 90 employees; valued at US\$1.2B in Series C in August 2021	8%
5/16/2022	Twitter	Social medial	Freeze	Hiring freeze	-
5/12/2022	Zwift	Online physical training program	Cut	Cut nearly 150 employees & stopped plans for a "smart bike"	-
5/11/2022	DataRobot	AI	Cut	Cut 7% of 1,000-person workforce	7%
5/10/2022	Carvana	Online used car retailer	Cut	Cut 2,500 employees	12%
5/10/2022	Reef Technology	Ghost kitchen operator	Cut	Cut as many as 750 employees	5%
5/9/2022	Uber	Transportation	Slowdown	Instituted more selective hiring practices	-
5/5/2022	Cameo	Video greeting platform	Cut	Cut 87 employees	25%
5/5/2022	MainStreet	Financial platform	Cut	Cut 30% of staff	30%
5/5/2022	On Deck	Social platform for startup founders	Cut	Cut 72 staff	25%
5/4/2022	Meta	Social medial	Slowdown	Pullback on hiring across teams	-
4/28/2022	Netflix - Tudum	Editorial arm	Cut	Shuttered Tudum five months post launch; cut 10 writers & 25 marketers	-
4/28/2022	Amazon	E-commerce	Slowdown	Management commented on over-hiring during pandemic	-
4/26/2022	Robinhood	Trading platform	Cut	Cut 340 positions	9%
4/23/2022	Blend Labs	Digital lending platform	Cut	Cut 200 positions	10%

Source: Business Insider, Protocol, Dice.com, The Org, and CIBC World Markets Inc.

**Exhibit 2: Software & Services – Key SaaS Comps Valuation Decline – 5/13/2021-5/13/2022**

Source: MeriTech Capital, CapitalIQ, and CIBC World Markets Inc.

## News Impacting Our Coverage

### Research Highlight – KXS: Takeaways From Kinexions 2022

Kinaxis hosted its first in-person Kinexions user conference since 2019. The event was sold out, with Kinaxis capping attendance at 450 and hosting 1,500 participants virtually. Conference attendees were spread across numerous different industries and the overall environment was upbeat, with management noting a “supply chain renaissance” as the pandemic and supply chain disruptions have illustrated the need for supply chain planning to the C-suite. [Link to research](#)

### Research Highlight – DND: U.K. CMA Provisional Remedy – Sale Of TM Group

The U.K. Competition Authority (CMA) announced this morning that it has provisionally found that the acquisition of the TM Group by DND substantially lessens competition. Its initial view is that the only effective way to address the issue would be for DND to sell TM Group to a suitable buyer. We see the ruling as directionally negative to future M&A, although immaterial from a financial point of view if DND is able to close the Link Group transaction. [Link to research](#)

### DND: Dye & Durham Provides Update On CMA Review Of TM Group Acquisition

DND issued a press release in response to the U.K. Competition and Markets Authority (CMA) Phase 2 review of the TM Group acquisition. DND disagrees with CMA's provisional findings that the acquisition would reduce competition in the U.K. property search services market. For the LTM ending March 31, 2021, TM Group's adjusted EBITDA was £7.7 million.

### Converge Receives The Ingram Micro Clou Summit 2022 Reseller Partner Of The Year Award

Converge received the Ingram Micro Cloud Summit 2022 Partner Award in the reseller category. The award recognizes partners with strong business growth in the past year for selling Ingram Micro Cloud Marketplace related products.

### Magnet Forensics Partners With East Midlands Cyber Resilience Centre

Magnet announced its partnership with the East Midlands Cyber Resilience Centre (EMCRC), a U.K.-based not-for-profit organization. EMCRC will assist Magnet in educating small- and medium-sized businesses on modern cybersecurity strategies and solutions, including Magnet AXIOM Cyber and Magnet IGNITE. Mr. Jad Saliba, CTO of Magnet, will join EMCRC's board.

### TELUS International Launches Better Together Campaign To Help Brands Find The Right Partners For CX Services

TIXT launched its Better Together campaign to help companies select the right partners for implementing digital customer experience, AI data solutions, content moderation, and managed cloud services. The campaign features a series of IDC Info Snapshots outlining insights and criteria to help during the selection process for a CX partner.

### Kinaxis Named A Leader For Completeness Of Vision In Gartner Magic Quadrant

Kinaxis was named a Leader in the 2022 Gartner Magic Quadrant for Supply Chain Planning Solutions. Of the 22 vendors evaluated, Kinaxis is positioned on the Completeness of Vision axis due to its concurrent planning technique, depth of analytics, platform strategy, and growing partner program. This is the eighth year in which Kinaxis has been named a Leader in the Gartner Magic Quadrant.

**Exhibit 3: CIBC Software/Services – Coverage Performance, 5/19/2021 - 5/19/2022**

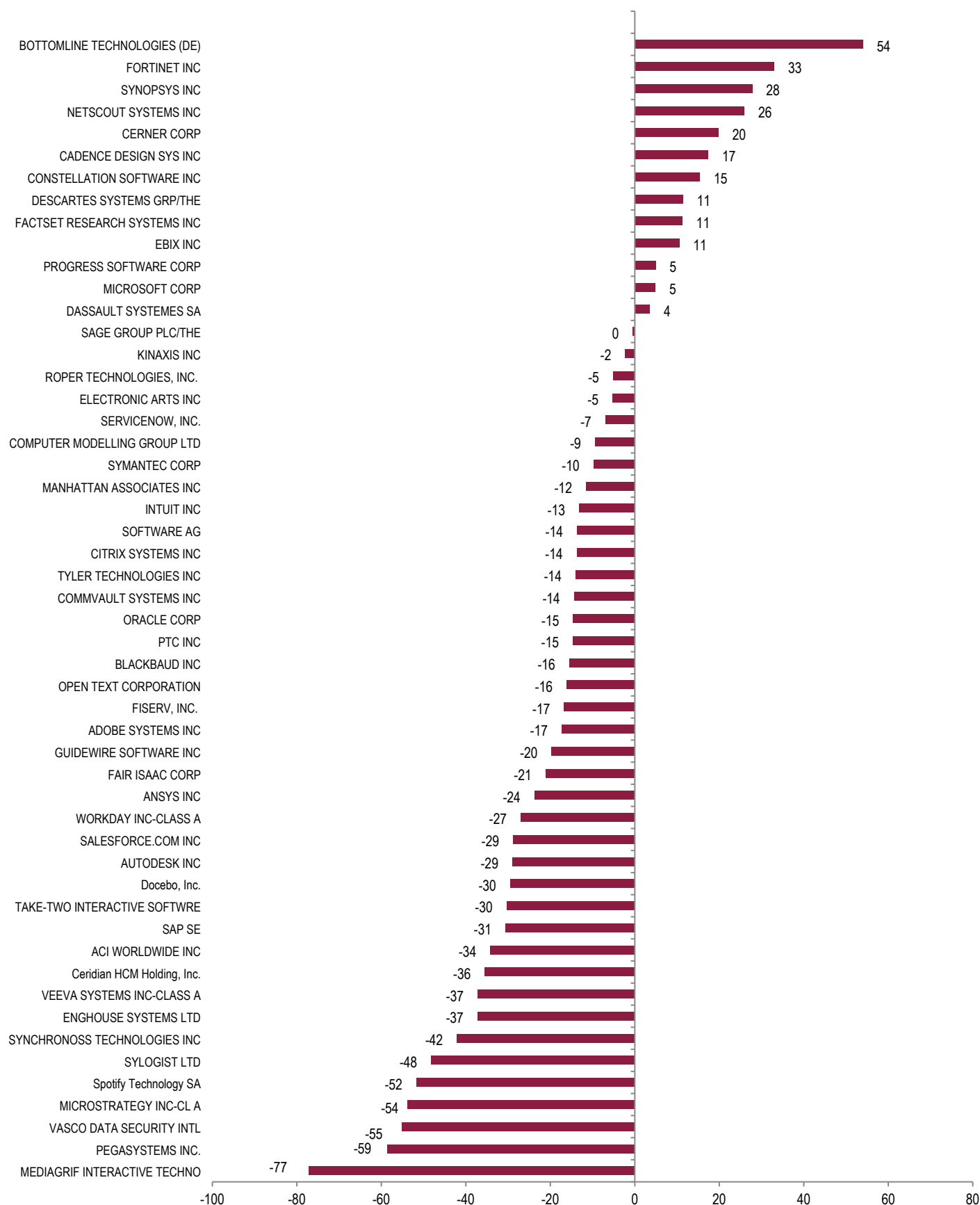
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	1,995.51	5.4	(12.2)	(3.1)	(11.3)	15.4	(15.0)	2385.80	1677.44
Descartes Systems	60.62	3.9	(3.0)	(12.3)	(32.6)	5.1	(26.7)	91.39	56.19
Dye & Durham	21.53	63.9	0.4	(24.6)	(47.9)	NA	(52.0)	50.49	12.95
Enghouse Systems Limited	33.89	4.8	(8.4)	(16.6)	(39.7)	(37.2)	(30.0)	64.42	31.40
Open Text Corp	38.34	4.8	(8.9)	(10.3)	(26.5)	(16.2)	(19.3)	55.25	35.04
Kinaxis	142.51	10.0	(3.9)	(5.6)	(37.8)	(2.3)	(19.6)	229.98	127.24
Docebo, Inc.	43.17	(5.4)	(30.7)	(31.6)	(55.7)	(29.5)	(49.1)	117.55	37.57
Magnet Forensics	17.98	(9.4)	(30.1)	(29.1)	(47.9)	NA	(45.3)	65.80	16.78
Q4 Inc.	4.69	2.9	(1.7)	NA	NA	NA	NA	12.05	4.03
<b>Average</b>		<b>9.0</b>	<b>(11.0)</b>	<b>(16.6)</b>	<b>(37.4)</b>	<b>(10.8)</b>	<b>(32.1)</b>		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
CGI Group Inc	105.31	4.0	2.7	(0.2)	(3.5)	(1.5)	(5.8)	116.88	98.77
Converge Technologies	7.11	16.7	(21.9)	(29.9)	(41.9)	0.4	(34.6)	13.09	5.88
Softchoice Corporation	19.42	5.4	(25.9)	(6.9)	NA	NA	NA	45.74	17.94
Telus International	31.30	8.2	5.8	1.8	(29.3)	NA	NA	49.43	26.75
<b>Average</b>		<b>8.6</b>	<b>(9.8)</b>	<b>(8.8)</b>	<b>(24.9)</b>	<b>(0.5)</b>	<b>(20.2)</b>		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	20,159.45	2.3	(8.4)	(4.0)	(6.5)	3.8	(5.0)
S&P 500 Index	3,903.58	(0.7)	(12.5)	(10.2)	(16.9)	(5.2)	(18.1)
S&P/TSX Software Index	139.07	8.1	(14.4)	(15.5)	(41.0)	(23.2)	(34.5)
S&P500 Software Index	4,312.67	0.7	(11.5)	(11.9)	(29.7)	(2.4)	(26.2)

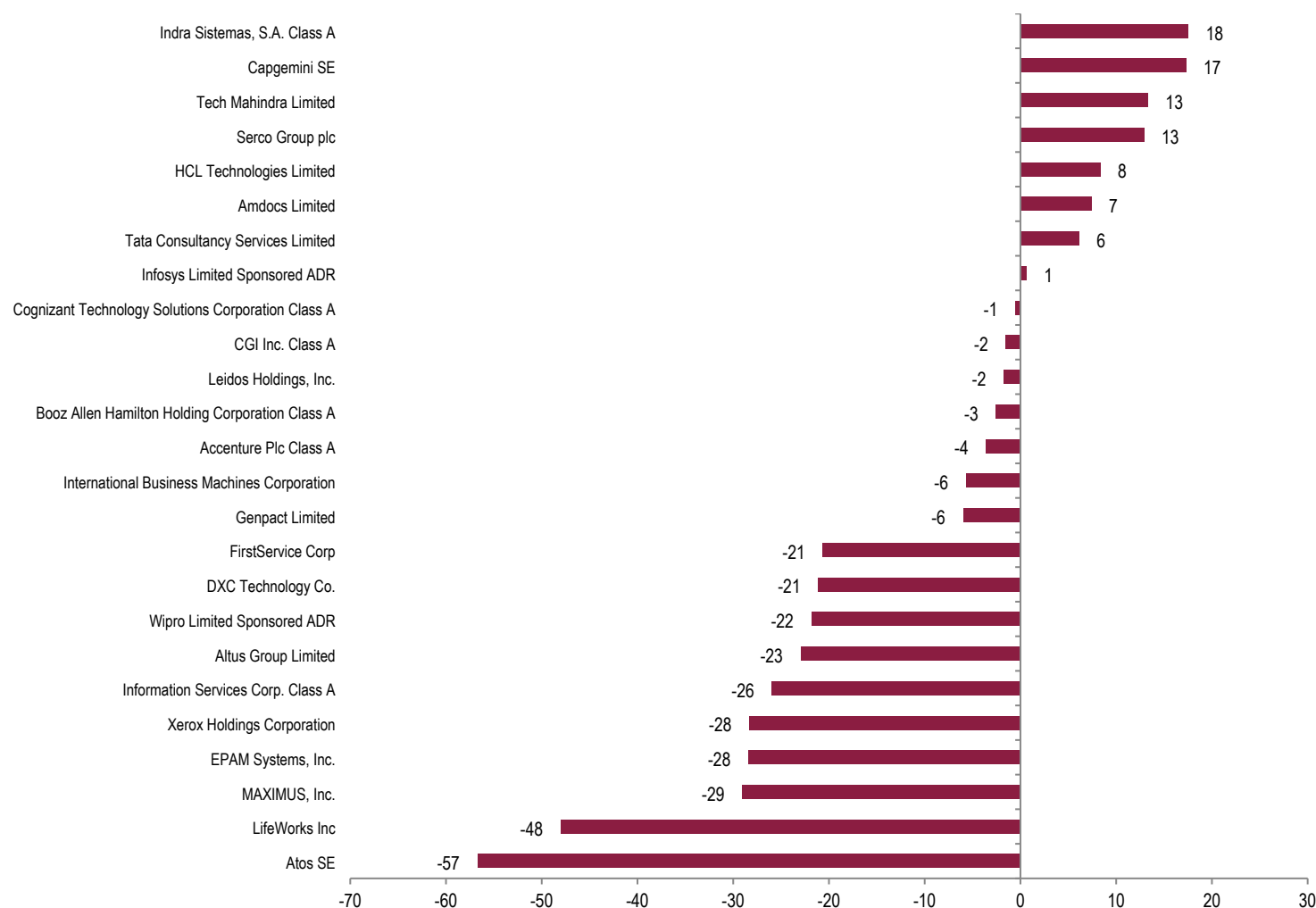
Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 3: Software Stocks – Return Performance (%), 5/19/2021 - 5/19/2022**



Source: Company reports, FactSet and CIBC World Markets Inc.

#### Exhibit 4: Business Services Stocks – Return Performance (%), 5/19/2021 - 5/19/2022



Source: Company reports, FactSet and CIBC World Markets Inc.

## Exhibit 5: Software Stocks – Comp Table, 2021 - 2023E

	Enterprise Value (\$mlns.)	EV/S			EV/EBITDA			P/E		
		C21	C22E	C23E	C21	C22E	C23E	C21	C22E	C23E
Enterprise Application Software										
Constellation Software Inc.*	33,407	6.5x	5.2x	4.6x	22.1x	19.3x	16.3x	49.9x	27.8x	24.0x
BlackBerry Limited*	3,339	3.7x	4.9x	3.6x	>50	NEG	NEG	NEG	NEG	NEG
Sage Group plc	6,906	3.7x	3.5x	3.3x	16.7x	14.8x	13.4x	25.0x	24.3x	21.5x
Tyler Technologies, Inc.	15,100	9.5x	8.1x	7.4x	42.9x	31.3x	28.5x	>50	44.6x	41.0x
Roper Technologies, Inc.	51,179	8.9x	8.2x	7.7x	23.1x	21.3x	19.9x	39.8x	26.1x	24.3x
Enghouse Systems Limited	1,689	3.7x	3.5x	3.4x	10.4x	10.1x	9.7x	20.2x	20.6x	19.4x
Oracle Corporation	219,942	5.4x	5.1x	4.8x	11.8x	9.9x	9.4x	14.8x	13.4x	12.2x
SAP SE	114,119	4.1x	3.6x	3.6x	15.9x	12.8x	11.5x	20.2x	17.9x	15.7x
Enterprise Application Software Average		5.7x	5.3x	4.8x	20.4x	17.1x	15.5x	28.3x	25.0x	22.6x
Extended ERP										
Adobe, Inc.	186,339	11.8x	10.3x	9.0x	27.9x	21.1x	18.4x	39.6x	28.6x	24.4x
Open Text Corporation	13,209	3.8x	3.6x	3.6x	10.3x	10.4x	9.6x	12.1x	12.0x	11.0x
Manhattan Associates, Inc.	7,019	10.6x	9.7x	8.7x	49.3x	38.3x	33.1x	>50	>50	45.6x
Pegasystems Inc.	4,301	3.5x	3.0x	2.5x	NEG	39.4x	23.8x	NEG	>50	35.7x
Software AG	1,897	2.3x	2.0x	1.9x	12.3x	9.8x	7.9x	26.2x	19.1x	15.2x
Fiserv, Inc.	81,952	5.1x	5.0x	4.6x	14.8x	11.6x	10.6x	47.4x	14.5x	12.7x
Extended ERP Average		6.2x	5.6x	5.0x	22.9x	21.7x	17.2x	31.3x	18.6x	24.1x
Software As A Service										
Descartes Systems Group Inc.	4,933	11.6x	10.4x	9.8x	26.6x	24.2x	21.7x	>50	>50	>50
Kinaxis, Inc.*	2,874	11.5x	8.2x	7.3x	>50	45.0x	35.9x	>50	>50	>50
Docebo, Inc.*	885	8.5x	6.1x	4.5x	NEG	NEG	>50	NEG	NEG	NEG
Lightspeed Commerce Inc*	2,444	5.2x	3.5x	2.6x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	22,227	15.2x	10.4x	8.9x	>50	26.3x	22.5x	>50	39.8x	34.4x
Shopify, Inc. Class A	43,524	9.4x	7.5x	5.7x	>50	>50	>50	17.2x	>50	>50
Q4 Inc*	91	1.6x	1.6x	1.3x	NEG	NEG	NEG	NEG	NEG	NEG
Magnet Forensics, Inc.*	462	6.6x	5.0x	3.8x	24.8x	31.5x	22.5x	>50	>50	>50
Ceridian HCM Holding, Inc.	9,376	9.2x	7.7x	6.6x	>50	47.2x	37.6x	NEG	>50	>50
ServiceNow, Inc.	84,629	14.4x	11.4x	9.1x	>50	36.7x	29.2x	>50	>50	45.7x
Workday, Inc. Class A	39,829	9.3x	6.5x	5.4x	>50	26.1x	20.9x	NEG	45.4x	36.7x
Software As A Service Average		9.3x	7.1x	5.9x	25.7x	33.8x	27.2x	17.2x	42.6x	39.0x
Infrastructure Vendors										
Citrix Systems, Inc.	15,624	4.9x	4.7x	4.4x	22.2x	15.7x	14.7x	40.9x	18.2x	15.6x
Microsoft Corporation	1,860,369	11.1x	8.7x	7.7x	23.0x	17.3x	15.0x	31.7x	25.4x	21.8x
Infrastructure Vendors Average		8.0x	6.7x	6.0x	22.6x	16.5x	14.9x	36.3x	21.8x	18.7x
Software Average										
		7.4x	6.2x	5.4x	22.1x	23.6x	19.6x	29.6x	25.2x	25.4x

\*Share Price Converted to USD

Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 6: Business Services Stocks – Comp Table, 2021 - 2023E**

	Enterprise Value (\$mlns.)	EV/EBITDA			P/E			EV/S			
		C21	C22E	C23E	C21	C22E	C23E	C21	C22E	C23E	
Business & IT Services											
CGI Inc. Class A	27,896	11.3x	10.7x	10.2x	18.8x	16.8x	15.6x	2.3x	2.1x	2.0x	
TELUS International (CDA), Inc.	7,495	13.9x	12.1x	10.2x	24.0x	20.4x	16.0x	3.4x	2.9x	2.5x	
Accenture Plc Class A	167,056	17.4x	14.0x	12.8x	29.6x	24.1x	21.6x	3.3x	2.6x	2.4x	
Booz Allen Hamilton	12,254	13.7x	12.8x	12.0x	18.2x	17.7x	16.1x	1.6x	1.4x	1.3x	
CACI International Inc Class A	8,170	11.0x	12.0x	11.2x	14.2x	13.8x	12.8x	1.4x	1.3x	1.2x	
DXC Technology Co.	11,122	5.5x	4.1x	4.0x	NEG	7.1x	6.0x	0.6x	0.7x	0.7x	
Genpact Limited	8,702	13.5x	10.8x	9.7x	21.5x	15.3x	13.5x	2.2x	2.0x	1.8x	
International Business Machines	163,691	12.2x	9.9x	9.6x	20.3x	13.3x	12.2x	2.9x	2.7x	2.6x	
Atos SE	4,361	4.1x	4.0x	3.5x	NEG	9.7x	6.8x	0.4x	0.4x	0.4x	
Capgemini SE	35,996	12.5x	10.7x	9.7x	26.7x	17.6x	15.6x	2.0x	1.7x	1.6x	
Sopra Steria Group SA	4,591	8.7x	7.6x	7.0x	17.7x	12.1x	10.7x	1.0x	0.9x	0.9x	
Converge Technology Solutions Corp	1,292	13.7x	8.9x	7.3x	>50	37.1x	22.8x	0.8x	0.5x	0.5x	
Business & IT Services Average		11.2x	9.9x	9.1x	21.2x	15.3x	13.3x	1.9x	1.7x	1.6x	
HR Outsourcing											
LifeWorks Inc		1,745	9.0x	8.7x	8.1x	NEG	20.8x	17.7x	1.7x	1.6x	1.6x
Ceridian HCM Holding, Inc.	9,376	>50	47.2x	37.6x	NEG	>50	>50	9.2x	7.7x	6.6x	
Willis Towers Watson	23,413	10.5x	9.8x	8.9x	6.1x	14.7x	12.8x	2.6x	2.6x	2.5x	
Aon Plc Class A	65,715	17.2x	16.2x	15.2x	47.6x	20.0x	18.0x	5.4x	5.1x	4.9x	
Automatic Data Processing, Inc.	87,293	22.8x	19.7x	17.9x	34.1x	28.1x	25.2x	5.8x	5.1x	4.8x	
Paychex, Inc.	41,750	25.3x	19.8x	18.5x	38.3x	29.6x	27.4x	10.3x	8.8x	8.3x	
HR Outsourcing Average		16.9x	20.2x	17.7x	31.5x	22.6x	20.2x	5.8x	5.2x	4.8x	
Information Services											
Broadridge Financial Solutions, Inc.		19,956	17.2x	15.2x	14.4x	29.4x	20.3x	18.7x	3.9x	3.4x	3.3x
Dye & Durham Ltd.	2,422	15.3x	15.3x	10.7x	>50	>50	34.4x	6.4x	4.2x	3.6x	
Deluxe Corporation	2,493	6.8x	5.7x	5.4x	16.6x	5.2x	4.7x	1.2x	1.1x	1.1x	
Information Services Corp	360	5.3x	6.5x	6.1x	9.7x	11.3x	11.5x	2.1x	2.1x	2.0x	
Information Services Average		11.1x	10.7x	9.2x	18.6x	12.3x	17.3x	3.4x	2.7x	2.5x	
Financial Services Technology											
Fidelity National Information Services		78,439	12.8x	11.8x	10.8x	>50	13.3x	11.7x	5.7x	5.3x	4.9x
Fiserv, Inc.	81,952	14.8x	11.6x	10.6x	47.4x	14.5x	12.7x	5.1x	5.0x	4.6x	
Jack Henry & Associates, Inc.	12,987	18.6x	20.6x	18.7x	42.9x	35.0x	31.9x	7.4x	6.5x	6.0x	
ACI Worldwide, Inc.	3,946	10.7x	9.7x	9.0x	23.7x	19.2x	16.3x	2.9x	2.8x	2.6x	
Temenos AG	8,102	14.8x	17.3x	15.3x	40.7x	23.8x	20.7x	8.4x	7.7x	6.9x	
Global Payments Inc.	44,058	12.1x	11.0x	10.0x	36.2x	12.5x	10.7x	5.2x	5.2x	4.8x	
Financial Services Technology Average		14.0x	13.7x	12.4x	38.2x	19.7x	17.3x	5.8x	5.4x	5.0x	
Diversified Real Estate Services											
Colliers International Group Inc.		5,785	10.6x	9.1x	8.2x	-12.3x	15.2x	13.9x	1.4x	1.3x	1.2x
Altus Group Limited	2,134	20.6x	20.1x	16.9x	30.0x	30.0x	31.7x	3.4x	3.4x	3.0x	
CBRE Group, Inc. Class A	28,073	13.1x	8.8x	8.0x	14.7x	12.8x	11.7x	1.0x	0.9x	0.8x	
Jones Lang LaSalle Incorporated	11,204	7.7x	7.4x	7.1x	10.2x	9.3x	8.7x	0.6x	0.6x	0.7x	
Diversified Real Estate Services Average		13.0x	11.4x	10.1x	10.7x	16.8x	16.5x	1.6x	1.5x	1.4x	
Software Focused IT Solutions/VARs											
CARE	1,242	18.0x	18.0x	13.2x	30.0x	30.0x	26.9x	4.3x	4.3x	3.9x	
Softcat Plc*	2,528	15.0x	14.7x	13.8x	20.0x	20.2x	19.6x	6.8x	6.3x	5.8x	
Crayon Group Holding ASA*	12,666	>50	>50	>50	>50	>50	>50	>50	29.7x	25.0x	
Bytes Technology Group Plc*	991	20.4x	16.6x	15.3x	22.7x	21.5x	20.5x	NA	NA	NA	
SoftwareONE Holding Ltd.*	1,602	9.7x	6.5x	5.7x	17.1x	15.9x	13.4x	7.7x	1.6x	1.4x	
Bytes Technology Group Plc* Average		15.8x	13.9x	12.0x	22.5x	21.9x	20.1x	6.3x	10.5x	9.0x	
Business Services Average		13.3x	13.0x	11.6x	24.0x	17.9x	16.7x	3.8x	4.0x	3.6x	

\*Software Focused IT Solutions/VARs uses EV/GP metric.

Source: Company reports, FactSet and CIBC World Markets Inc.



## Exhibit 7: SaaS Stocks – Comp Table, 2021 - 2023E

	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C21	C22E	C23E
Tier 1 SaaS (Rule of 40 > 60)										
Zoom Video Communications	55%	36%	11%	33%	91%	43%	20,009	7.5x	4.4x	4.4x
CrowdStrike Holdings, Inc.	66%	31%	48%	30%	97%	78%	30,739	35.2x	14.7x	14.7x
Shopify, Inc.	57%	10%	30%	3%	67%	34%	38,896	8.4x	6.7x	6.7x
Zscaler, Inc.	60%	26%	43%	23%	86%	66%	17,534	26.0x	14.5x	14.5x
Lightspeed POS, Inc.	159%	-22%	40%	-12%	137%	28%	2,254	10.2x	3.3x	3.3x
DocuSign, Inc.	45%	23%	17%	19%	68%	37%	14,624	10.1x	6.0x	6.0x
Veeva Systems Inc	26%	38%	17%	36%	64%	53%	21,311	14.5x	10.0x	10.0x
Atlassian Corp. Plc	33%	29%	25%	22%	62%	48%	40,860	19.6x	13.0x	13.0x
Twilio, Inc.	61%	-3%	36%	-2%	58%	34%	13,662	4.8x	3.5x	3.5x
ServiceNow, Inc.	29%	31%	26%	30%	61%	56%	81,546	13.8x	11.0x	11.0x
HubSpot, Inc.	47%	18%	33%	14%	66%	47%	14,511	11.2x	8.4x	8.4x
Tier 1 SaaS (Rule of 40 > 60) Average								14.7x	8.7x	8.7x
	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C21E	C22E	C22E
Tier 2 SaaS (Rule of 40 b/w 40-60)										
Docebo, Inc.	55%	-4%	42%	-4%	51%	38%	866	8.3x	5.9x	4.4x
Qualys, Inc.	14%	43%	17%	34%	56%	51%	4,131	10.0x	8.5x	8.5x
Descartes Systems	22%	40%	12%	37%	62%	50%	4,842	11.4x	10.2x	9.6x
Avalara Inc	40%	6%	23%	0%	45%	23%	6,102	8.7x	7.0x	7.0x
Five9, Inc.	37%	0%	24%	3%	37%	27%	6,880	11.3x	8.9x	8.9x
Dropbox, Inc.	13%	34%	8%	33%	47%	41%	8,091	3.7x	3.5x	3.5x
Mimecast Limited	19%	28%	15%	22%	48%	37%	5,303	10.6x	7.9x	7.9x
Wix.com Ltd.	28%	5%	14%	3%	33%	18%	3,303	2.6x	2.3x	2.3x
Workday, Inc.	20%	27%	20%	19%	47%	40%	39,353	9.2x	6.4x	6.4x
VMware, Inc.	9%	31%	7%	28%	40%	35%	49,538	4.2x	3.6x	3.6x
Tier 2 SaaS (Rule of 40 b/w 40-60) Average								8.0x	6.4x	6.2x
	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C21E	C22E	C22E
Tier 3 SaaS (Rule of 40 b/w 28-40)										
BlackLine, Inc.	21%	18%	23%	2%	39%	24%	3,606	8.5x	6.9x	6.9x
Zendesk, Inc.	31%	12%	26%	12%	43%	38%	11,982	8.9x	7.0x	7.0x
MongoDB, Inc.	48%	1%	35%	0%	49%	35%	14,949	25.3x	12.9x	12.9x
LivePerson, Inc.	28%	-8%	18%	#N/A	20%	#N/A	1,244	2.6x	2.2x	2.2x
Rapid7 Inc.	30%	8%	28%	7%	39%	35%	4,582	8.6x	6.6x	6.6x
Paylocity Holding Corp.	25%	16%	25%	15%	41%	40%	8,657	13.6x	9.2x	9.2x
Q2 Holdings, Inc.	24%	2%	21%	2%	26%	23%	3,022	6.1x	5.2x	5.2x
Akamai Technologies, Inc.	8%	25%	8%	23%	33%	32%	17,194	5.0x	4.7x	4.7x
Tier 3 SaaS (Rule of 40 b/w 28-40) Average								9.8x	6.9x	6.9x
	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C21E	C22E	C22E
Tier 4 SaaS (Rule of 40 <28)										
RingCentral, Inc.	35%	6%	26%	7%	41%	33%	6,889	4.3x	3.4x	3.4x
Teradata Corporation	4%	23%	0%	21%	27%	21%	3,787	2.0x	2.1x	2.1x
Anaplan, Inc.	32%	-5%	26%	0%	27%	26%	9,455	21.1x	12.9x	12.9x
Zuora, Inc.	14%	7%	16%	0%	20%	16%	1,098	3.6x	2.8x	2.8x
New Relic, Inc.	15%	-4%	16%	4%	11%	20%	2,531	3.8x	2.8x	2.8x
Kinaxis, Inc.	4%	7%	35%	8%	11%	43%	2,893	11.5x	8.3x	7.3x
Yext, Inc.	10%	4%	4%	-1%	14%	3%	514	1.4x	1.3x	1.3x
Splunk Inc.	20%	4%	22%	12%	24%	35%	17,068	7.7x	5.3x	5.3x
Tier 4 SaaS (Rule of 40 <28) Average								6.9x	4.9x	4.7x
SaaS Average								10.1x	6.9x	6.8x

Source: Company reports, FactSet and CIBC World Markets Inc.

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