

EQUITY RESEARCH

May 25, 2023

Industry Update

TIC 11.0 Recap – Bits & Bytes Weekly

Takeaways From Our Annual Tech & Innovation Conference

Our Conclusion

This week, CIBC hosted the 11th edition of our Technology & Innovation conference, with 22 presenting companies. We've highlighted three key themes from our conversation with companies under coverage: 1) Demand environment - the general view was that the demand environment is stabilizing. Presenters noted strong sales funnels and the hope that deals will start to convert at a more normalized rate in the back half of the year. 2) AI – every company spoke about AI in some form, whether as a benefit to internal operations or a potential source of new revenue streams. 3) M&A - there was no consensus view on the M&A valuation environment, although several presenters noted an increase in private companies in need of funding in their M&A funnels. Given current share prices, several companies stated that buying back their own shares was their best use of capital. We have summarized some of the key takeaways from each of our companies below.

Key Points

Constellation: CFO Jamal Baksh provided some colour on spinouts, noting that he expects CSU to continue to look at more spinouts as part of larger acquisitions. He further noted that they do not view the stock price performance of spinouts as a measure of success. On Lumine Group, the organic growth profile is being impacted by an acquisition that came with known customer attrition on the horizon, and Mr. Baksh expects Lumine will eventually be a larger growth organic business given management's reluctance to buy declining growth businesses. Large deals remain more difficult to get done, with competition from PE (which can lever up significantly in expectation of a future sale) the main barrier.

Open Text: Executive Vice President and CFO Madhu Ranganathan spoke in detail on the integration of Micro Focus, highlighting the fact that Micro Focus is not being run as a separate segment, and will be fully integrated into OTEX despite the lack of overlapping products. OTEX is looking to get MCRO products in the private cloud but will not sacrifice MCRO's on-premise business. The company expects flat organic growth from MCRO in fiscal 2024, with organic growth returning in 2025, driven by security, content, and IDOL.

Descartes: CFO Allan Brett highlighted Descartes M&A plans, noting the company is not interested in being a service provider, preferring to buy technology that enhances the portfolio. The market for logistics tech remains largely fragmented; however, valuations are becoming more reasonable and DSGX sees opportunities with companies that have poor balance sheets. In the event of a potential recession, Descartes will feel pressure on organic growth - but will supplement that growth with M&A to hit its 10%-15% EBITDA growth target.

All figures in U.S. dollars unless otherwise stated.

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

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Sector:
Information Technology

Thomson Reuters: Head of IR Gary Bisbee and Legal Professionals Head of Finance Dave Hindt highlighted TRI's strong positioning on generative AI, providing four reasons the company is well positioned: 1) TRI's legacy of investing in AI; 2) A product roadmap that already includes GenAI with products expected to be rolled out in H2/23; 3) Proprietary data/content and industry knowledge on which GenAI can be trained; 4) A commitment to invest more than \$100MM annually in Artificial Intelligence. Regarding M&A, TRI remains very open to the possibility of M&A larger than the \$500MM spent on SurePrep. Potential areas for M&A include Risk, Fraud and Compliance solutions for the Corporates segment, workflow automation and software automation that leverages TRI's content and insight, and geographic expansion as TRI looks to grow non-North American revenue from 20% to 30% of total revenue.

Telus International: CFO Vanessa Kanu highlighted WillowTree, where integration is still in the early stages but progressing well. WillowTree revenue per team member is relatively high, with the rapid prototyping approach allowing them to charge premium fees. On AI, Ms. Kanu noted that 13% of TIXT's revenue is from data annotation and model training, and overall TIXT views the generative AI boom as a tailwind for this segment, noting peers don't have capacity at scale. On content moderation, Ms. Kanu noted that 90%-95% of content moderation is already done by AI, and this area of AI adoption is not new and not viewed as a threat.

Kinaxis: CFO Blaine Fitzgerald spoke to Kinaxis' margin profile, noting he continues to view KXS as a 30% margin business, with current margins only lower as the company invests in growth and takes advantage of the momentum in the supply chain. The company expects to return to 30% margins post reinvestments. The MPO acquisition allows Kinaxis to become even more of an end-to-end solution as it adds supply chain execution, and MPO will eventually become a module for KXS rather than a separately branded product. On the QSR vertical, Mr. Fitzgerald indicated that the deal with HAVI has Kinaxis now working with the largest QSR globally, and AI-powered forecasting tools are driving growth by improving accuracy.

Enghouse: Founder and CEO Steve Sadler presented the company's M&A approach – indicating he views the current environment as great for M&A, and they are well positioned to deploy capital. Enghouse's strategy of preserving capital in a frothy environment has left the company with a healthy cash balance and the ability to acquire companies that now cannot raise or borrow money, at much more reasonable valuations. Enghouse has added additional M&A staff over the last year, most recently hiring a VP of Corporate Development. Regarding organic growth, Mr. Sadler noted that ENGH isn't in the business of delivering organic growth, preferring to allocate capital to M&A and grow cash flows and the dividend as a result of doing good deals.

Docebo: CFO Sukaran Mehta highlighted government as a new vertical where the company is starting to see traction, noting the company is planning to invest some incremental EBITDA into growing this business. With government learning systems typically very dated, there is great opportunity in this vertical. On M&A, Mr. Mehta noted the company has a healthy balance sheet with a strong cash balance and will focus on tuck-ins, further noting DCBO is not interested in buying legacy competitors. Regarding generative AI, DCBO believes content automation will be completely disrupted, and DCBO Shape can be leveraged to train algorithms on customer data to create hyper-personalized learning experiences that differ by end user. DCBO believes it can invest in generative AI capabilities while maintaining R&D at 17%-18% of revenue.

WELL Health: Chairman & CEO Hamed Shahbazi highlighted WELL Health's use of AI in practices, including AI Voice, WELL's new product, a voice-based integration with EMR that summarizes patient interactions. WELL estimates AI Voice can save up to one-third of a doctor's time, freeing up time to see more patients. With limited development spending required to build the product, these types of generative AI products are likely to be relatively commonplace; however, WELL sees itself as well positioned given it is already in the clinic and is providing the EMR, with a view that it is easier to upsell an AI voice interface than to

add a net new vendor. On the M&A front, Primary Care and provider-rich businesses are still the focus.

Dye & Durham: CEO Matt Proud and CFO Frank Di Liso focused on Dye & Durham's diversification away from real estate, hoping to reduce the business from 50% of revenue from real estate conveyancing transactions down to ~33%. The company is focused on increasing total ARR, which is now at \$70MM, up from no ARR as recently as 18 months ago. Bundling solutions for law firms is leading to increased ARR as DND is lowering the price on certain portions of the bundle in exchange for minimum transaction value contracts. Regarding margins, DND noted that cost cutting has eliminated 19% of costs on a Y/Y basis (\$42MM annually), and the company estimates that a return to average levels of housing market transactions could lift adj. EBITDA margins north of 60%.

Converge: CEO Shaun Maine and CFO Avjit Kamboj spoke to the recently concluded strategic review, noting the recent banking crisis changed what banks were willing to lend or underwrite and shareholders were clear in what was expected; therefore, the best road forward was to continue as is. The company's capital allocation focus is now on the NCIB given the current valuation, and if this were to change, it would look to do M&A with \$250MM in capacity. Converge is investing in sales capabilities in order to improve its sales capacity and ability to sell and cross-sell, and the company expects EBITDA margins to remain at the level of the previous few quarters, hoping to see 9%-10% margins in the future.

Information Services: CEO Shaun Peters emphasized that M&A is still on the table, and management is still willing to pay its historical 7x-9x multiple for the right deal despite ISV shares trading below that range. Mr. Peters noted that with ISV now larger, it's easier for the company to realize cost synergies and drive that multiple down. ISV has no preference between registry and services when it comes to M&A and is willing to take on lower margin Services business if the business is complimentary. While there is nothing imminent on future provincial privatizations, ISV remains open to opportunities if they do come up. On margins, management believes the tech segment can eventually get to 30% EBITDA margins, in line with the rest of the company, through increased scale and better speed/efficiency on project execution.

Q4: Founder and CEO Darrell Heaps reiterated the company's profitability and cost savings targets, noting the company is tracking well towards positive EBITDA in Q4, and QFOR eventually wants to be a Rule of 40 company with 20% revenue growth and 20% EBITDA margins. Gross margins are continuing to improve, from 57% at IPO to high 60% by year end, targeting mid-70% in the next two years. Regarding the impact of AI, Mr. Heaps pointed to QFOR's access to proprietary data that will create value. QFOR has 2,600 public companies on its platform, and believes it is well positioned here. One example provided was the use of AI to help answer the question of which investors IR should target based on those doing work in the space.

News Impacting Our Coverage

Sophie Brochu Joins CGI Board of Directors

CGI announced the appointment of Sophie Brochu to its Board of Directors beginning in September 2023. Sophie holds a bachelor's degree in economics from Université Laval and sits on the board of Banque de Montréal (BMO), and has over 30 years of experience in the energy sector, most recently serving as the president and CEO of Hydro-Quebec from 2020-April 2023.

Accell Group Choosing Kinaxis

Kinaxis announced that Accell Group has deployed Kinaxis' RapidResponse platform to transform its supply chain. Accell will use RapidResponse to enable end-to-end visibility of its supply chain, balancing all aspects of demand and supply plans while taking into consideration material restrictions, production capacity and market volatility.

CGI & Helsinki University Hospital Develop AI Solution

CGI has partnered with Helsinki University Hospital and Planmeca to develop an AI solution that assists radiologists in interpreting brain CT scans and detecting the most common types of non-traumatic brain hemorrhages. The solution is named AI Head Analysis and has been approved to be retrospectively tested, allowing the radiologist to first analyse the images and make an assessment, and then do a comparison of their diagnosis with the results of AI.

Exhibit 1: CIBC Coverage – Price Returns, For The Period Ending May 25, 2023

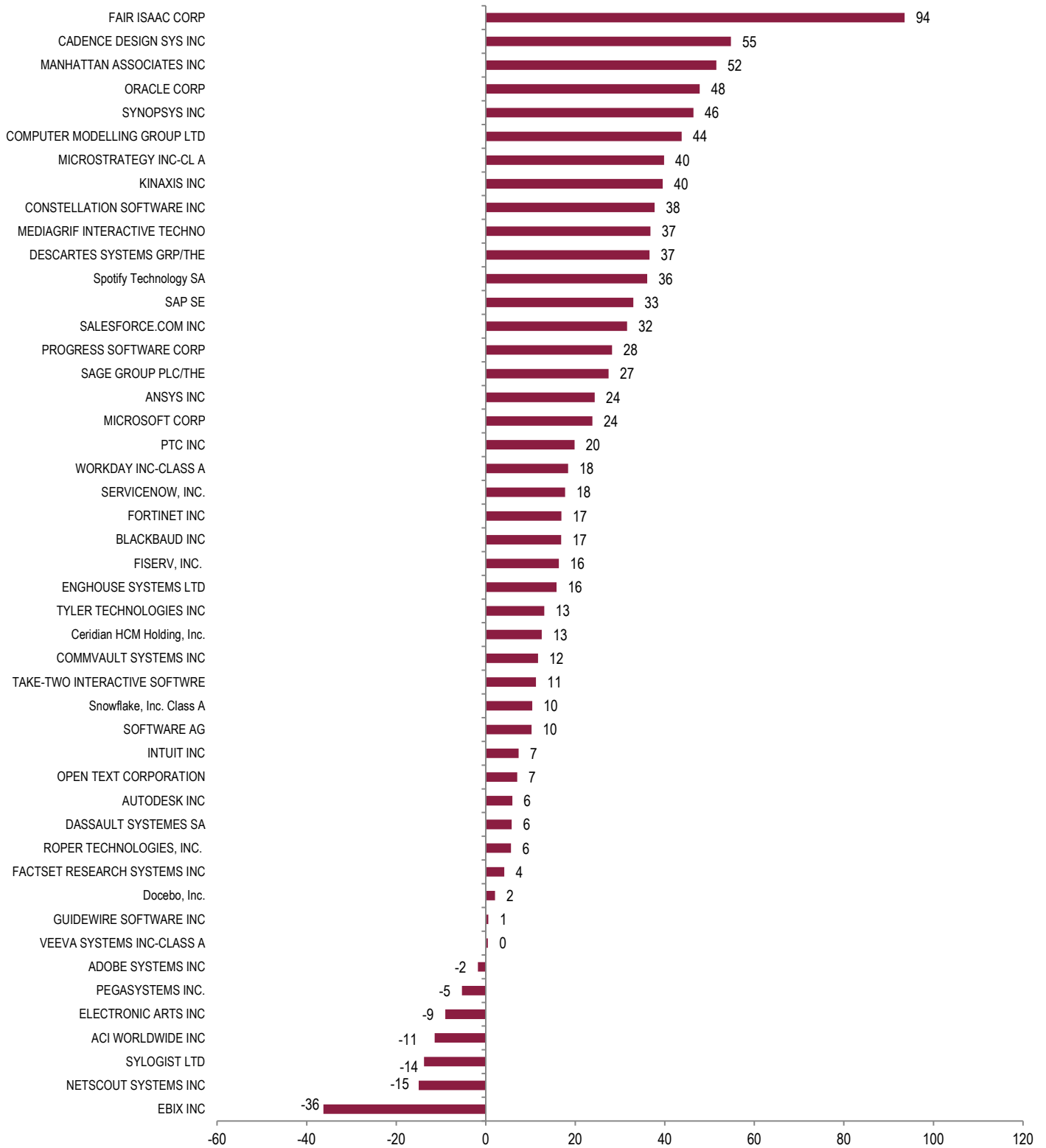
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,645.98	0.0	0.4	14.2	28.7	37.7	27.8	2782.56	1747.83
Descartes Systems	76.01	(2.8)	(2.4)	3.1	9.7	28.5	9.1	82.02	58.58
Enghouse Systems Limited	37.98	0.8	1.7	(9.6)	25.8	15.8	5.6	44.59	23.96
Open Text Corp	41.08	(1.5)	10.6	20.4	37.8	7.0	38.6	42.35	24.91
Kinaxis	183.80	(1.1)	2.2	17.8	21.9	39.5	21.0	190.31	119.48
Docebo, Inc.	43.57	0.8	(10.8)	(7.3)	5.3	2.1	(2.6)	55.72	31.66
Dye & Durham	16.04	(10.6)	7.6	(16.5)	16.5	(21.6)	(2.3)	23.91	11.62
Altus Group	41.54	0.6	(22.1)	(31.5)	(20.0)	(4.5)	(23.1)	61.60	40.00
Q4 Inc.	3.34	2.1	(8.2)	28.5	23.2	NA	4.0	5.04	1.88
Average		(1.3)	(2.3)	2.1	16.6	13.1	8.7		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
CGI Group Inc	139.27	(1.0)	4.9	13.0	21.7	31.1	19.3	141.90	95.45
Converge Technologies	3.22	(5.2)	(1.1)	(31.3)	(36.2)	(53.9)	(30.0)	8.07	2.59
Information Services Corp	20.50	(1.3)	(8.9)	(9.3)	(9.7)	4.6	(15.2)	25.36	19.12
Softchoice Corporation	17.83	3.4	11.1	8.9	11.4	(18.1)	(2.4)	25.56	13.57
Telus International	21.20	(5.0)	(22.7)	(27.3)	(22.5)	(30.7)	(20.7)	40.55	21.28
Average		(1.9)	(2.0)	(9.2)	(6.4)	(17.9)	(8.4)		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	19,785.22	(2.5)	(3.2)	(2.1)	(2.9)	(2.9)	2.1
S&P 500 Index	4,145.75	(1.2)	1.8	4.4	3.0	4.2	8.0
S&P/TSX Software Index	182.77	(1.5)	9.4	20.1	33.3	37.8	34.0
S&P500 Software Index	5,394.70	1.6	14.5	24.7	27.2	22.3	31.7

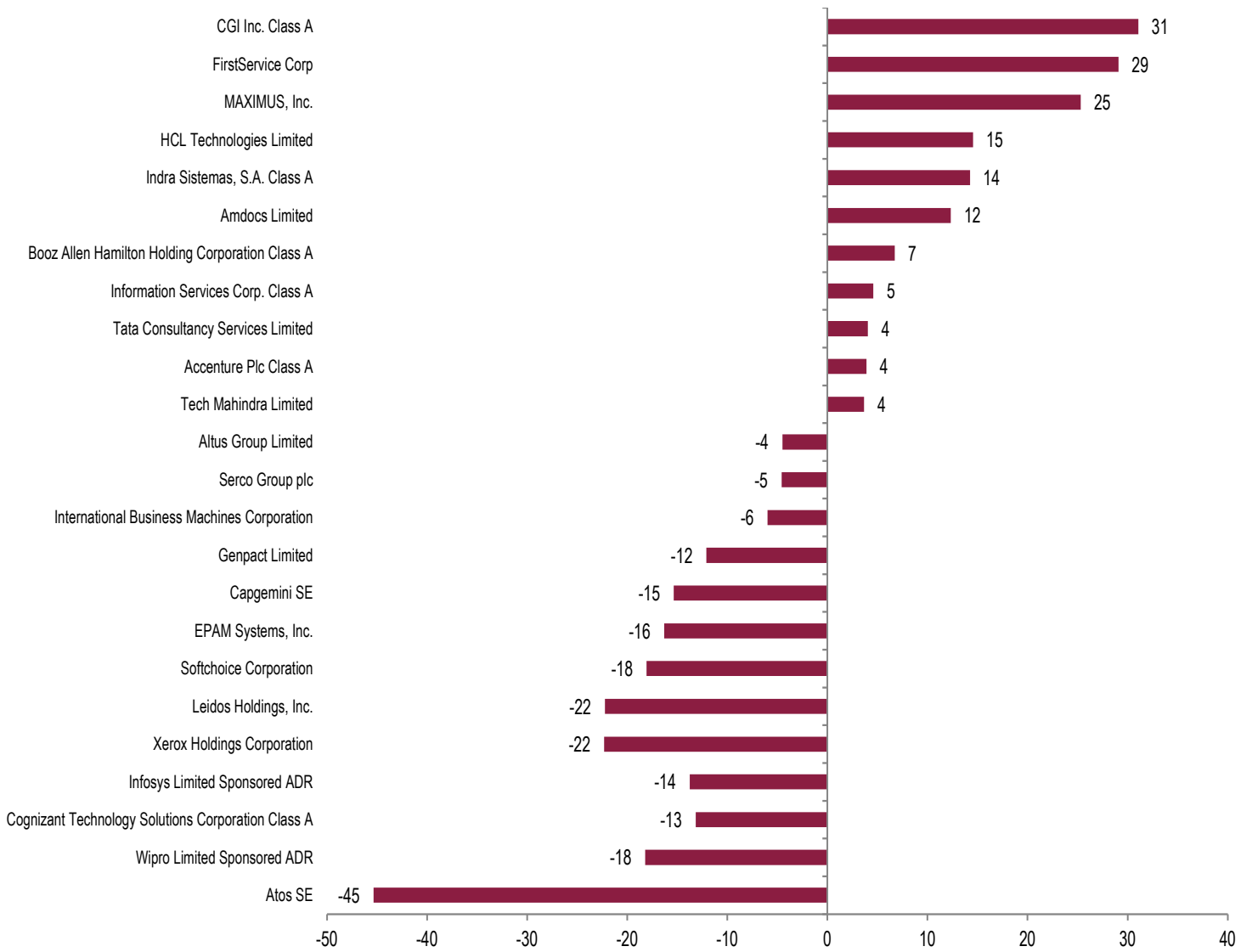
Source: Company reports, FactSet and CIBC World Markets Inc.

Exhibit 2: Software Stocks – Return Performance (%), 5/25/2022–5/25/2023



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

Exhibit 3: Business Services Stocks – Return Performance (%), 5/25/2022–5/25/2023



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

Exhibit 4: Software Stocks – Comp Table, 2022–2024E

	Enterprise Value (\$mlns.)	EV/S			EV/EBITDA			P/E		
		C22	C23E	C24E	C22	C23E	C24E	C22	C23E	C24E
Enterprise Application Software										
Constellation Software Inc.*	43,041	6.5x	5.4x	4.7x	25.3x	21.2x	18.3x	34.1x	33.2x	26.7x
BlackBerry Limited*	3,022	4.5x	3.3x	2.9x	NEG	NEG	>50	NEG	NEG	NEG
Sage Group plc	9,427	4.7x	4.3x	4.0x	20.7x	18.5x	16.6x	31.6x	26.6x	23.9x
Tyler Technologies, Inc.	17,056	9.2x	8.7x	8.0x	35.9x	35.5x	31.8x	>50	>50	44.7x
Roper Technologies, Inc.	54,009	10.1x	9.0x	8.4x	24.7x	22.1x	20.6x	31.5x	27.6x	25.6x
Enghouse Systems Limited	1,866	4.4x	4.31x	4.25x	13.5x	13.9x	12.81x	19.2x	29.7x	26.34x
Oracle Corporation	336,325	7.2x	6.5x	6.0x	14.3x	12.8x	11.6x	20.7x	19.3x	17.2x
SAP SE	151,789	4.5x	4.9x	4.5x	19.2x	16.5x	14.3x	29.6x	23.2x	19.6x
Enterprise Application Software Average		6.4x	5.8x	5.3x	21.9x	20.1x	18.0x	27.8x	26.6x	26.3x
Extended ERP										
Adobe Incorporated	179,881	10.1x	9.2x	8.2x	20.7x	19.0x	17.2x	28.5x	25.4x	22.3x
Open Text Corporation	19,165	5.4x	3.4x	3.1x	15.4x	11.1x	8.2x	13.0x	12.2x	7.5x
Manhattan Associates, Inc.	10,714	14.0x	12.4x	11.1x	49.0x	46.3x	40.7x	>50	>50	>50
Pegasystems Inc.	4,145	3.1x	3.0x	2.7x	>50	24.2x	16.3x	>50	32.3x	21.2x
Software AG	2,701	2.8x	2.7x	2.5x	15.2x	15.5x	13.1x	36.8x	23.9x	19.7x
Fiserv, Inc.	91,262	5.4x	5.1x	4.7x	12.6x	11.5x	10.6x	17.5x	15.4x	13.5x
Extended ERP Average		6.8x	6.0x	5.4x	22.6x	21.3x	17.7x	24.0x	21.8x	16.8x
Software As A Service										
Descartes Systems Group Inc.	6,178	12.7x	11.2x	10.2x	28.7x	25.3x	22.4x	>50	>50	49.9x
Kinaxis, Inc.*	3,551	9.7x	8.2x	6.9x	44.7x	>50	42.3x	>50	>50	>50
Docebo, Inc.*	842	5.9x	4.7x	3.6x	>50	>50	27.6x	>50	>50	45.3x
Lightspeed Commerce Inc*	1,156	1.7x	1.4x	1.1x	NEG	NEG	31.2x	NEG	>50	>50
Veeva Systems Inc Class A	22,897	10.8x	9.8x	8.3x	27.1x	27.7x	22.3x	38.3x	37.7x	31.5x
Shopify, Inc. Class A	70,182	12.5x	10.4x	8.8x	>50	>50	>50	>50	>50	>50
Q4 Inc*	76	1.4x	1.4x	1.2x	NEG	NEG	NEG	NEG	NEG	NEG
Ceridian HCM Holding, Inc.	10,358	8.3x	7.0x	6.0x	41.4x	27.8x	22.4x	>50	>50	39.1x
ServiceNow, Inc.	106,384	14.7x	12.0x	9.9x	46.5x	38.8x	30.7x	>50	>50	44.8x
Workday, Inc. Class A	47,536	7.8x	6.7x	5.7x	30.3x	23.8x	19.9x	>50	39.0x	31.8x
Software As A Service Average		8.5x	7.3x	6.2x	36.4x	28.7x	27.3x	>50	>50	>50
Infrastructure Vendors										
Microsoft Corporation	2,390,474	11.7x	10.7x	9.5x	23.7x	21.6x	18.7x	34.5x	31.5x	27.4x
Infrastructure Vendors Average		11.7x	10.7x	9.5x	23.7x	21.6x	18.7x	34.5x	31.5x	27.4x
Software Average		7.6x	6.6x	5.9x	26.8x	22.8x	21.3x	28.0x	26.9x	28.3x

*Share Price Converted to USD

Note: Bolded names are covered by CIBC World Markets Inc.

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

Exhibit 5: Business Services Stocks – Comp Table, 2022–2024E

	Enterprise Value (\$mlns.)	EV/EBITDA			P/E			EV/S		
		C22	C23E	C24E	C22	C23E	C24E	C22	C23E	C24E
Business & IT Services										
CGI Inc. Class A	35,773	13.8x	12.6x	11.7x	22.2x	19.1x	18.1x	2.7x	2.4x	2.3x
TELUS International (CDA), Inc.	6,021	9.9x	8.5x	7.4x	12.6x	12.4x	10.3x	2.4x	2.0x	1.8x
Accenture Plc Class A	187,923	16.4x	15.7x	14.5x	26.4x	24.4x	22.4x	3.0x	2.9x	2.7x
Booz Allen Hamilton	14,351	14.4x	13.6x	12.6x	20.4x	18.9x	17.0x	1.6x	1.5x	1.4x
CACI International Inc Class A	8,736	12.9x	11.8x	11.1x	16.3x	15.3x	13.8x	1.4x	1.3x	1.2x
DXC Technology Co.	8,616	3.6x	3.8x	3.7x	7.0x	6.4x	5.5x	0.6x	0.6x	0.6x
Genpact Limited	7,937	10.1x	9.5x	8.5x	13.6x	12.7x	11.3x	1.8x	1.7x	1.6x
International Business Machines	159,913	10.1x	10.7x	10.3x	13.8x	13.4x	12.7x	2.6x	2.6x	2.5x
Atos SE	3,234	3.3x	2.9x	2.8x	NEG	6.0x	4.4x	0.3x	0.3x	0.3x
Capgemini SE	32,163	9.2x	8.8x	8.2x	13.4x	13.7x	12.4x	1.5x	1.4x	1.3x
Sopra Steria Group SA	4,924	8.3x	7.3x	6.7x	13.1x	10.7x	9.4x	1.0x	0.9x	0.8x
Converge Technology Solutions Corp	992	6.9x	5.9x	5.4x	30.4x	>50	34.9x	0.5x	0.4x	0.4x
Business & IT Services Average		10.2x	9.6x	8.9x	15.9x	13.9x	12.5x	1.7x	1.6x	1.5x
HR Outsourcing										
		EV/EBITDA			P/E			EV/S		
Ceridian HCM Holding, Inc.	10,358	41.4x	27.8x	22.4x	>50	>50	39.1x	8.3x	7.0x	6.0x
Willis Towers Watson	27,696	11.6x	11.5x	10.4x	16.5x	15.4x	13.1x	3.1x	3.0x	2.8x
Aon Plc Class A	74,029	18.6x	17.0x	15.9x	23.2x	21.7x	19.3x	5.9x	5.6x	5.3x
Automatic Data Processing, Inc.	88,933	19.3x	17.3x	15.7x	27.7x	24.6x	22.2x	5.2x	4.8x	4.5x
Paychex, Inc.	38,381	17.9x	16.6x	15.4x	26.4x	24.1x	22.3x	7.9x	7.4x	7.0x
HR Outsourcing Average		21.7x	18.1x	16.0x	23.4x	21.4x	23.2x	6.1x	5.5x	5.1x
Information Services										
		EV/EBITDA			P/E			EV/S		
Broadridge Financial Solutions, Inc.	21,382	16.3x	15.1x	14.1x	22.2x	20.6x	18.9x	3.6x	3.4x	3.2x
Dye & Durham Ltd.	2,134	13.4x	12.2x	10.7x	0.1x	0.1x	0.1x	4.5x	4.6x	4.4x
Deluxe Corporation	2,008	4.8x	5.0x	4.9x	3.6x	4.7x	4.5x	0.9x	0.9x	0.9x
Information Services Corp	403	6.3x	5.9x	5.6x	10.2x	9.9x	9.0x	2.1x	2.0x	1.9x
Information Services Average		10.2x	9.5x	8.8x	9.0x	8.8x	8.1x	2.8x	2.7x	2.6x
Financial Services Technology										
		EV/EBITDA			P/E			EV/S		
Fidelity National Information Services	49,863	8.0x	8.2x	7.7x	8.0x	8.9x	8.2x	3.4x	3.4x	3.3x
Fiserv, Inc.	91,262	12.6x	11.5x	10.6x	17.5x	15.4x	13.5x	5.4x	5.1x	4.7x
Jack Henry & Associates, Inc.	10,971	17.4x	16.0x	14.7x	30.3x	29.1x	26.3x	5.5x	5.2x	4.8x
ACI Worldwide, Inc.	3,520	9.4x	9.2x	8.5x	18.5x	22.7x	15.8x	2.5x	2.4x	2.3x
Temenos AG	6,348	17.3x	16.5x	14.5x	26.5x	24.7x	21.4x	6.7x	6.4x	5.8x
Global Payments Inc.	38,461	9.9x	8.9x	8.2x	10.6x	9.5x	8.3x	4.8x	4.4x	4.1x
Financial Services Technology Average		12.4x	11.7x	10.7x	18.5x	18.4x	15.6x	4.7x	4.5x	4.2x
Diversified Real Estate Services										
		EV/EBITDA			P/E			EV/S		
Colliers International Group Inc.	5,925	9.4x	8.8x	8.0x	13.4x	13.5x	11.9x	1.3x	1.3x	1.2x
Altus Group Limited	2,049	15.1x	15.3x	12.4x	21.8x	25.5x	22.8x	2.8x	2.6x	2.4x
CBRE Group, Inc. Class A	25,503	8.7x	10.0x	8.8x	13.2x	15.5x	12.9x	0.8x	0.8x	0.7x
Jones Lang LaSalle Incorporated	9,194	7.3x	8.4x	7.0x	9.0x	11.0x	8.4x	0.4x	0.4x	0.4x
Diversified Real Estate Services Average		10.2x	10.6x	9.0x	14.3x	16.4x	14.0x	1.3x	1.3x	1.2x
Software Focused IT Solutions/VARs										
		EV/EBITDA			P/E			EV/S**		
Softchoice Corporation* USD	874	10.7x	10.1x	9.1x	16.4x	17.1x	15.0x	2.8x	2.6x	2.5x
Softcat Plc*	2,495	14.7x	13.4x	12.4x	19.8x	18.7x	17.7x	6.1x	5.2x	4.7x
Crayon Group Holding ASA*	11,381	>50	>50	>50	>50	>50	>50	25.7x	23.0x	19.9x
Bytes Technology Group Plc*	1,016	15.0x	13.3x	11.8x	20.6x	19.0x	17.1x	NA	NA	NA
Bytes Technology Group Plc* Average		13.5x	12.2x	11.1x	18.9x	18.2x	16.6x	11.5x	10.3x	9.0x
Business Services Average		12.6x	11.6x	10.5x	16.6x	15.8x	14.7x	3.9x	3.6x	3.3x

*Share Price Converted to USD

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

Note: Bolded names are covered by CIBC World Markets Inc.

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

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