

EQUITY RESEARCH

June 8, 2023

Industry Update

Go Big Or Go Small? Bits & Bytes Weekly

With Large Cap Tech Ahead, Will Small Cap Rebound?

Our Conclusion

Tech has outperformed this spring, with the NASDAQ Composite beating the Dow Jones Industrial Average by 9% in May, the biggest gap between the two indices since October 2021 according to Dow Jones data. Tech has been surging from trough levels, driven by the expectation of slowing rate hikes and AI commentary. To date, tech's recovery has been driven by the mega-cap tech names, with Nvidia up 156% YTD and Meta up 119%. Small cap names have fared less well, with the (tech heavy) Russell 1000 index of large cap names gaining 11% YTD versus the 5% return of the small cap concentrated Russell 2000. With large cap tech bouncing back, a small cap tech rebound may be on the horizon.

Key Points

Large Cap Tech Surges Ahead: Returns of the Russell 1000 and Russell 2000 had been relatively aligned over the past year, until April 2023, when returns on large cap stocks surged ahead of small cap peers, with the large cap Russell 1000 returning 3% vs. a 5% decline in the smaller cap Russell 2000. This 8% gap in April is the largest gap in monthly average return in three years. Large cap gains were driven primarily by mega-cap tech stocks, with seven of the top 10 Russell 1000 constituents by market cap in the tech sector.

Why Size Is A Factor: Investors tend to see large cap stocks with solid cash balances as safer bets in an uncertain environment. This year investors may have been even warier than usual, with a potential recession on the horizon, U.S. debt ceiling concerns, uncertainty around the interest rate path, and regional bank failures. As we emerge from a period of free-flowing capital and high levels of M&A activity, smaller companies may find themselves with depleted resources and have difficulty securing financing at attractive rates in the current environment.

Small Cap Comeback: Historical macro data tells us that small cap stocks tend to outperform large caps immediately following periods of economic turbulence. Specifically, small caps are often quicker to rebound after periods of high inflation, interest rate volatility, and economic downturns. Small cap valuations remain attractive at current levels, in our view, with the smaller cap Russell 2000 Index trading at 12.8x NTM earnings, well below its historical average of 15.8x. We expect that as the interest rate environment stabilizes and the economy normalizes, we could start to see a small cap recovery.

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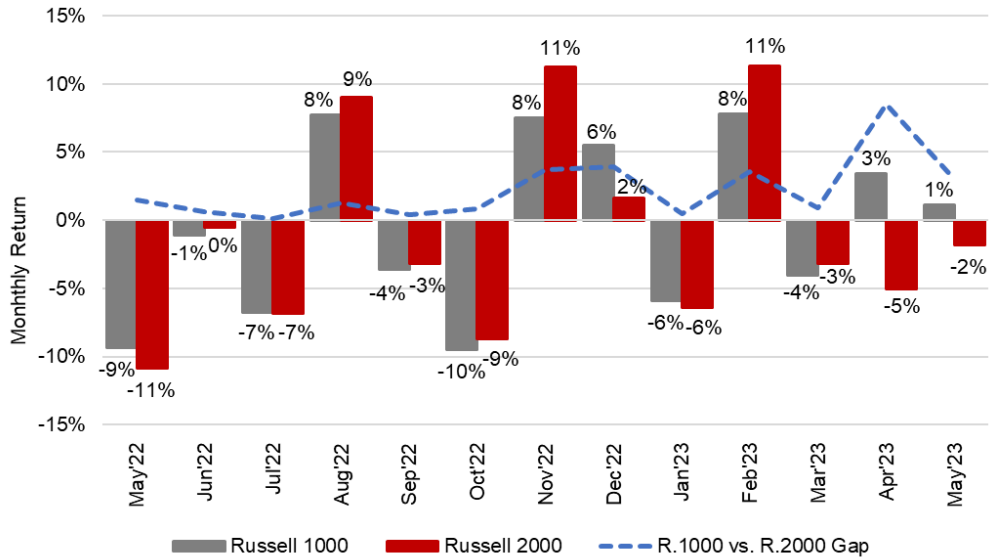
Sector:
Information Technology

Large Cap Tech Up YTD, Small Cap Lagging

Returns on large and small cap tech stocks have followed each other fairly closely over the past few years. In Exhibit 1, we track monthly returns of the Russell 1000 vs. Russell 2000 over the past year. Large cap returns outpaced small cap names in April and May, marking a change from the previously similar performance.

We have also seen strong large cap gains in our coverage universe, with our three largest cap tech names posting impressive returns YTD. Constellation, CGI, and OpenText are up 31%, 19%, and 41% YTD, respectively.

Exhibit 1: Russell 1000 vs. Russell 2000 Monthly Return, May 2022-May 2023



Source: FactSet and CIBC World Markets Inc.

While large cap has performed better than its small cap counterparts overall on a YTD basis, a handful of large cap tech stocks have been responsible for a large portion of that outperformance (see table in Exhibit 2). Notably, Nvidia and Meta stock prices have both more than doubled in 2023. Apple, Microsoft, Amazon, and Alphabet have also yielded significant returns, all up 35% or more YTD. The Russell 1000 is market cap weighted, with seven of the top 10 constituents in the tech sector, and strong performance in these large tech names can amplify the index's gains.

Exhibit 2: YTD Return, Russell 1000 Top 10 Constituents By Market Cap, June 7, 2023

	FY2023 YTD Stock Price Return
Apple Inc.	37%
Microsoft Corporation	35%
Alphabet Inc. Class A	39%
Alphabet Inc. Class C	39%
Amazon.com, Inc.	44%
NVIDIA Corporation	156%
Berkshire Hathaway Inc. Class A	9%
Tesla, Inc.	82%
Meta Platforms Inc. Class A	119%
Visa Inc. Class A	8%

Source: FactSet, Bloomberg, and CIBC World Markets Inc.

News Impacting Our Coverage

Q4 Introduces New Event Management App To Its Platform

Q4 announced that it will be adding a new event management app to the Q4 platform next month. Q4's goal in launching this app is to increase client control over event planning and streamline the planning process. The app will also make suggestions based on previous event performance, peer performance, and market size comparison to assist with overall event strategy. Q4 cited customer migration to its virtual events platform as a key driver of its gross margin improvement in Q1'23 and is focused on expanding this area of its business.

Dye & Durham Announces OSC Relief In Substantial Issuer Bid

Dye & Durham announced that the OSC has granted an exemptive relief order, which gives Dye & Durham the option to extend its ongoing substantial issuer bid without first taking up any common shares previously deposited. The original expiration date of the substantial issuer bid is June 16 and at this time Dye & Durham does not anticipate that it will extend this time frame. Details of the substantial issuer bid were announced in May, with the company offering to repurchase for cancellation up to \$15 million of its outstanding common shares.

SCOTUS Ruling Knocks Direct Listings

A recent U.S. Supreme Court ruling tells investors that direct listing registration statements should not be relied upon. An investor in Slack's 2019 direct listing brought a prospective class action suit against the company over alleged misstatements in the registration statement. While the lower level courts ruled in favor of investors, SCOTUS ruled unanimously in favor of Slack. SCOTUS's decision was based on the fact that the investors cannot rely on a registration statement when purchasing unregistered shares. Because direct listing investors often don't know whether they are receiving registered or unregistered shares, this ruling calls into question the viability of future direct listings.

Microsoft Offers Government AI Model Access

Two of OpenAI's large language models (LLMs) will be made available to users of Microsoft's Azure Government platform. Users include American federal, state, and local governments. The two LLMs to be made available are GPT-4 (newest model) and GPT-3. Microsoft is a large investor in OpenAI and uses OpenAI's LLMs to power its search engine, Bing. This decision paves a new path for government usage of AI models.

Google And Meta "Bullying" Trudeau Over New Legislation

Google and Meta are pushing back on Prime Minister Trudeau's Online News Act, which would force digital platforms to pay Canadian news publishers for content. Trudeau has called out the two tech giants for "bullying tactics". Meta and Google have threatened to ban the news functions of their platforms in Canada in response to this bill, with Meta already announcing details of test blocking for some Canadian users. In 2021 Meta blocked news content in Australia in response to similar legislation as a negotiation tactic, which was met with backlash for its sloppy implementation and later reversed.

Exhibit 3: CIBC Coverage – Price Returns, For The Period Ending June 7, 2023

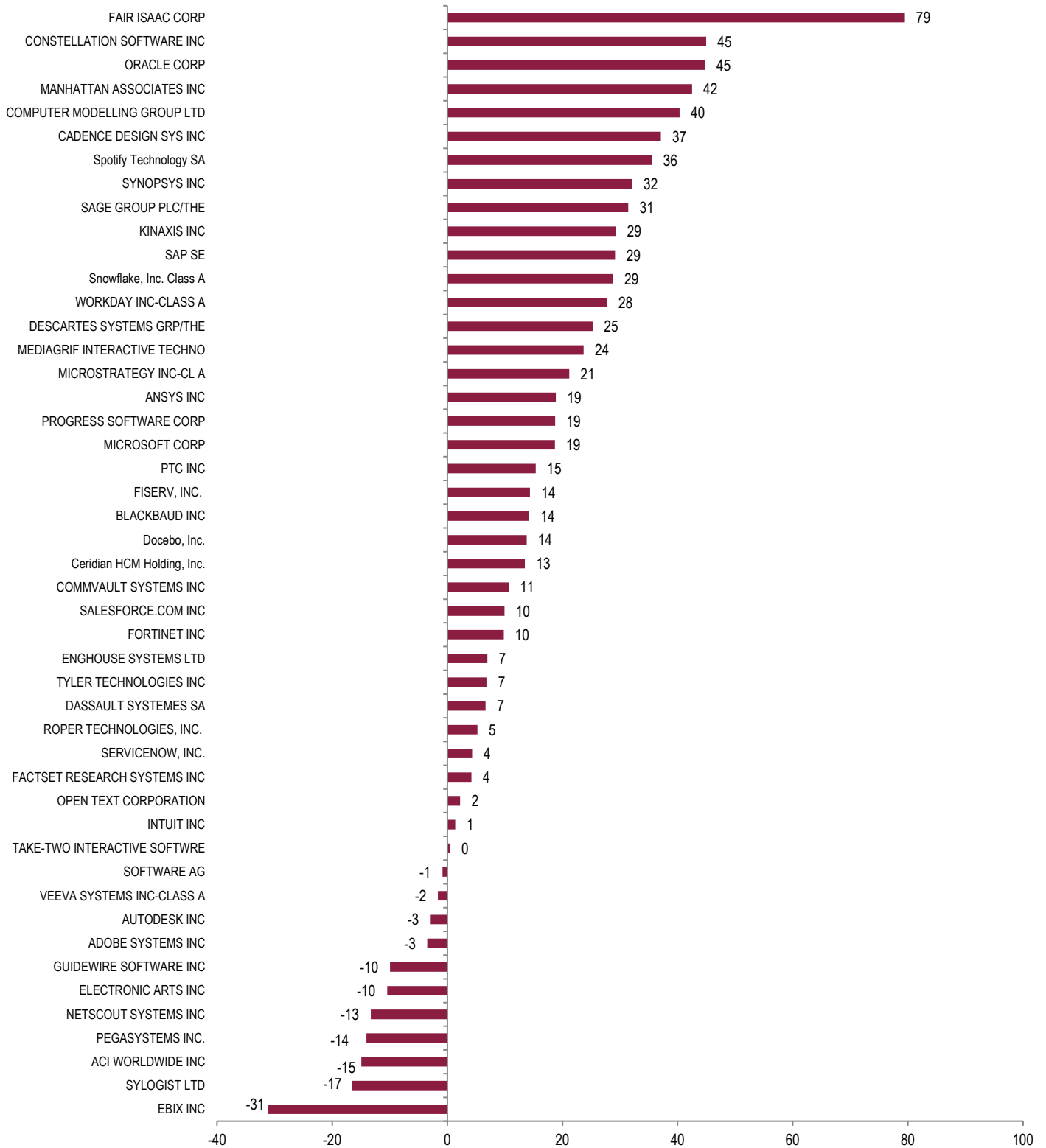
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,718.15	(1.8)	4.4	21.1	32.8	45.0	31.2	2817.38	1747.83
Descartes Systems	75.12	(1.0)	(1.6)	(0.6)	11.7	17.1	7.9	82.02	58.58
Enghouse Systems Limited	36.18	(1.1)	0.0	(16.8)	14.8	6.9	0.6	44.59	23.96
Open Text Corp	41.76	4.2	0.8	20.2	50.9	2.2	40.9	43.20	24.91
Kinaxis	179.28	3.6	(0.9)	5.1	22.5	29.3	18.0	190.97	119.48
Docebo, Inc.	47.76	6.6	(1.7)	(2.4)	12.3	13.8	6.8	55.72	31.66
Dye & Durham	15.68	(4.4)	7.6	(17.8)	20.7	(30.4)	(4.4)	23.40	11.62
Altus Group	47.02	9.3	6.4	(21.8)	(10.1)	(3.9)	(13.0)	61.60	40.00
Q4 Inc.	3.40	(0.3)	(2.9)	36.0	59.6	NA	5.9	5.04	1.88
Average		1.7	1.4	2.6	23.9	10.0	10.4		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
CGI Group Inc	139.03	(1.1)	3.4	12.8	19.1	30.9	19.1	142.31	95.45
Converge Technologies	3.50	(6.9)	3.9	(21.5)	(25.2)	(51.4)	(23.7)	7.51	2.59
Information Services Corp	21.05	1.9	(5.2)	(6.9)	(8.4)	1.1	(12.9)	25.36	19.12
Softchoice Corporation	17.65	(1.5)	5.2	7.3	22.9	(19.6)	(3.3)	25.56	13.57
Telus International	21.34	1.1	(7.7)	(29.5)	(19.4)	(33.5)	(20.2)	40.55	20.48
Average		(2.1)	1.2	(7.7)	(0.7)	(18.4)	(7.0)		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	19,983.69	2.1	(2.7)	(1.4)	0.1	(4.5)	3.1
S&P 500 Index	4,267.52	2.1	3.2	7.1	8.5	2.6	11.1
S&P/TSX Software Index	184.90	(0.6)	1.6	19.9	32.9	34.5	35.6
S&P500 Software Index	5,400.65	(1.8)	5.6	21.9	30.6	16.0	31.8

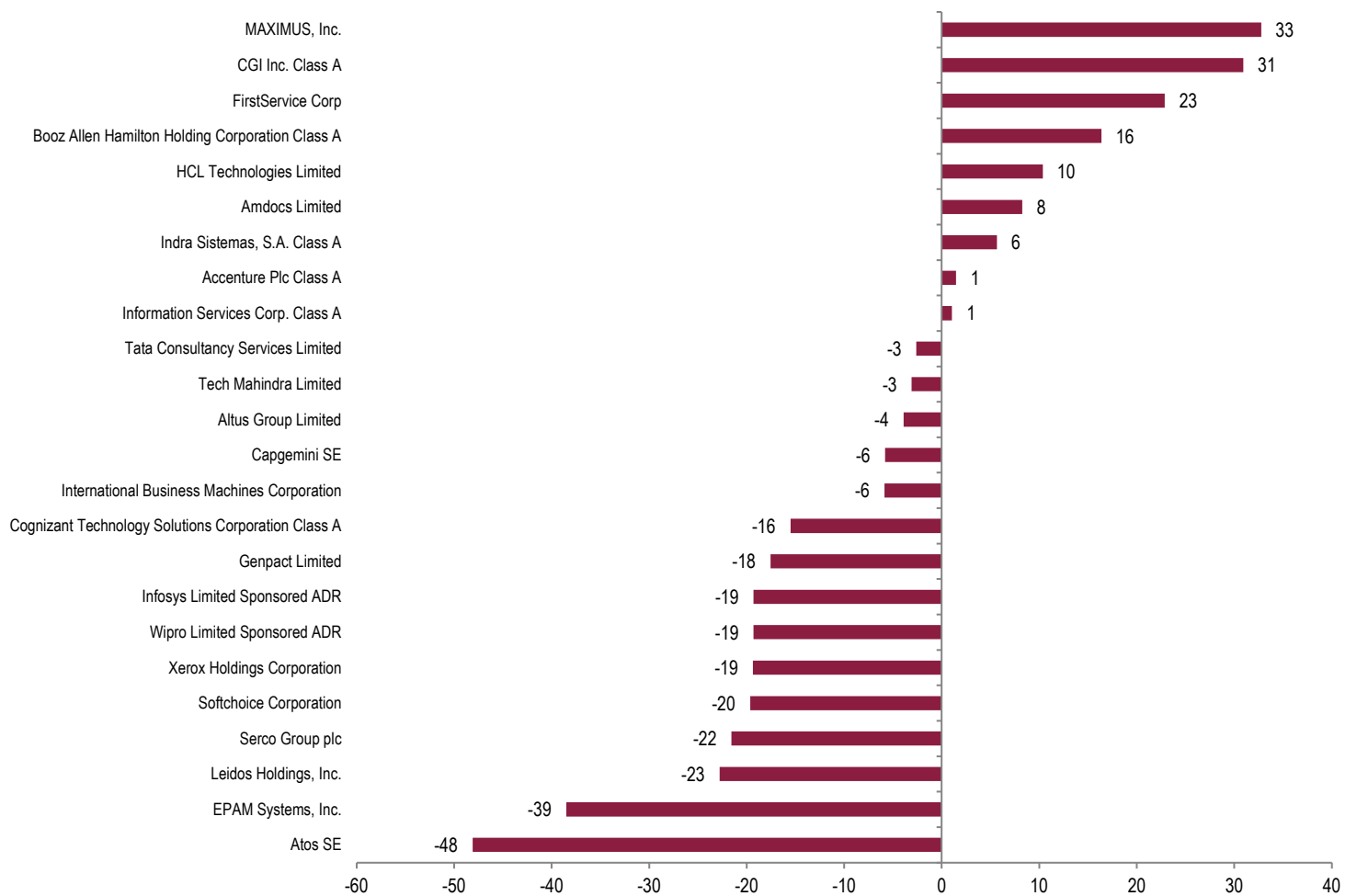
Source: Company reports, FactSet and CIBC World Markets Inc.

Exhibit 4: Software Stocks – Return Performance (%), 6/7/2022–6/7/2023



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

Exhibit 5: Business Services Stocks – Return Performance (%), 6/7/2022–6/7/2023



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

Exhibit 6: Software Stocks – Comp Table, 2022–2024E

	Enterprise Value	EV/S			EV/EBITDA			P/E		
		C22	C23E	C24E	C22	C23E	C24E	C22	C23E	C24E
Enterprise Application Software										
Constellation Software Inc.*	44,722	6.8x	5.6x	4.9x	26.3x	22.0x	19.1x	35.5x	34.6x	27.8x
BlackBerry Limited*	3,002	4.5x	3.3x	2.9x	NEG	NEG	>50	NEG	NEG	NEG
Sage Group plc	9,605	4.8x	4.3x	4.0x	21.1x	18.8x	16.9x	32.2x	27.1x	24.3x
Tyler Technologies, Inc.	17,116	9.3x	8.8x	8.0x	36.0x	35.7x	31.9x	>50	>50	44.8x
Roper Technologies, Inc.	54,107	10.1x	9.0x	8.4x	24.7x	22.2x	20.7x	31.6x	27.7x	25.7x
Enghouse Systems Limited	1,766	4.2x	4.08x	4.02x	12.8x	13.1x	12.13x	18.3x	28.3x	25.09x
Oracle Corporation	341,738	7.3x	6.6x	6.1x	14.6x	13.1x	11.9x	21.1x	19.7x	17.5x
SAP SE	155,106	4.6x	5.0x	4.6x	19.6x	16.8x	14.6x	30.3x	23.7x	20.0x
Enterprise Application Software Average		6.4x	5.8x	5.4x	22.2x	20.3x	18.2x	28.2x	26.8x	26.5x
Extended ERP										
Adobe Incorporated	190,420	10.7x	9.7x	8.6x	21.9x	20.2x	18.2x	30.2x	26.8x	23.6x
Open Text Corporation	19,351	5.5x	3.5x	3.2x	15.6x	11.2x	8.3x	13.2x	12.4x	7.6x
Manhattan Associates, Inc.	11,161	14.6x	13.0x	11.6x	>50	48.2x	42.4x	>50	>50	>50
Pegasystems Inc.	4,242	3.2x	3.1x	2.8x	>50	24.7x	16.7x	>50	33.2x	22.0x
Software AG	2,621	2.7x	2.6x	2.5x	14.7x	15.2x	12.8x	35.6x	22.8x	19.2x
Fiserv, Inc.	92,740	5.5x	5.2x	4.8x	12.8x	11.7x	10.8x	17.8x	15.7x	13.8x
Extended ERP Average		7.0x	6.2x	5.6x	16.3x	21.9x	18.2x	24.2x	22.2x	17.2x
Software As A Service										
Descartes Systems Group Inc.	6,197	12.7x	11.0x	10.0x	28.8x	25.3x	22.1x	>50	>50	48.0x
Kinaxis, Inc.*	3,507	9.6x	8.1x	6.8x	44.1x	>50	41.8x	>50	>50	>50
Docebo, Inc.*	959	6.7x	5.3x	4.1x	>50	>50	31.4x	>50	>50	>50
Lightspeed Commerce Inc*	1,499	2.2x	1.8x	1.4x	NEG	NEG	40.4x	NEG	>50	>50
Veeva Systems Inc Class A	27,221	12.8x	11.6x	9.8x	33.1x	32.8x	26.3x	44.6x	41.7x	35.1x
Shopify, Inc. Class A	72,708	13.0x	10.8x	9.2x	>50	>50	>50	>50	>50	>50
Q4 Inc*	79	1.4x	1.4x	1.3x	NEG	NEG	NEG	NEG	NEG	NEG
Ceridian HCM Holding, Inc.	10,789	8.7x	7.2x	6.3x	43.1x	29.0x	23.3x	>50	>50	40.9x
ServiceNow, Inc.	105,566	14.6x	11.9x	9.8x	46.2x	38.6x	30.6x	>50	>50	44.5x
Workday, Inc. Class A	50,217	8.2x	7.0x	6.0x	32.0x	26.1x	21.7x	>50	39.3x	32.4x
Software As A Service Average		9.0x	7.6x	6.5x	37.9x	30.4x	29.7x	>50	>50	>50
Infrastructure Vendors										
Microsoft Corporation	2,378,131	11.6x	10.6x	9.5x	23.6x	21.5x	18.6x	34.3x	31.3x	27.3x
Infrastructure Vendors Average		11.6x	10.6x	9.5x	23.6x	21.5x	18.6x	34.3x	31.3x	27.3x
Software Average		7.8x	6.8x	6.0x	26.2x	23.5x	22.4x	28.7x	27.4x	27.8x

*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 7: 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	35,306	13.6x	12.4x	11.5x	22.2x	19.1x	18.0x	2.7x	2.4x	2.3x
TELUS International (CDA), Inc.	6,142	10.1x	8.7x	7.6x	13.0x	12.8x	10.6x	2.5x	2.1x	1.8x
Accenture Plc Class A	201,519	17.6x	16.9x	15.5x	28.3x	26.2x	24.0x	3.2x	3.1x	2.9x
Booz Allen Hamilton	16,176	16.3x	15.0x	14.0x	23.1x	21.3x	19.2x	1.8x	1.6x	1.5x
CACI International Inc Class A	9,075	13.4x	12.3x	11.6x	17.1x	16.1x	14.5x	1.4x	1.3x	1.3x
DXC Technology Co.	9,150	3.8x	4.0x	3.9x	7.7x	7.1x	6.1x	0.6x	0.6x	0.6x
Genpact Limited	7,939	10.1x	9.5x	8.5x	13.6x	12.7x	11.3x	1.8x	1.7x	1.6x
International Business Machines	167,195	10.6x	11.2x	10.7x	14.7x	14.3x	13.5x	2.8x	2.7x	2.6x
Atos SE	3,302	3.8x	3.0x	2.9x	NEG	6.2x	4.6x	0.3x	0.3x	0.3x
Capgemini SE	34,827	10.0x	9.6x	8.9x	14.7x	15.1x	13.7x	1.6x	1.5x	1.4x
Sopra Steria Group SA	4,825	8.1x	7.2x	6.6x	12.8x	10.4x	9.2x	0.9x	0.9x	0.8x
Converge Technology Solutions C	1,052	7.4x	6.2x	5.8x	33.1x	>50	38.0x	0.5x	0.4x	0.4x
Business & IT Services Average		10.7x	10.0x	9.2x	16.7x	14.7x	13.2x	1.8x	1.7x	1.6x
HR Outsourcing										
Ceridian HCM Holding, Inc.	10,789	43.1x	29.0x	23.3x	>50	>50	40.9x	8.7x	7.2x	6.3x
Willis Towers Watson	28,077	11.8x	11.7x	10.5x	16.7x	15.8x	13.4x	3.2x	3.0x	2.9x
Aon Plc Class A	74,315	18.7x	17.1x	16.0x	23.3x	21.7x	19.3x	6.0x	5.6x	5.3x
Automatic Data Processing, Inc.	91,536	19.8x	17.8x	16.2x	28.5x	25.3x	22.8x	5.3x	5.0x	4.6x
Paychex, Inc.	39,977	18.6x	17.3x	16.1x	27.5x	25.1x	23.3x	8.3x	7.7x	7.3x
HR Outsourcing Average		22.4x	18.6x	16.4x	24.0x	22.0x	23.9x	6.3x	5.7x	5.3x
Information Services										
Broadridge Financial Solutions, Inc.	22,003	16.8x	15.5x	14.5x	23.0x	21.3x	19.5x	3.7x	3.5x	3.3x
Dye & Durham Ltd.	2,114	13.3x	12.0x	11.1x	0.1x	0.1x	0.1x	4.4x	4.6x	4.4x
Deluxe Corporation	2,132	5.1x	5.3x	5.2x	4.3x	5.6x	5.3x	1.0x	1.0x	1.0x
Information Services Corp	413	6.4x	6.1x	5.7x	10.5x	10.2x	9.2x	2.2x	2.0x	1.9x
Information Services Average		10.4x	9.7x	9.1x	9.5x	9.3x	8.5x	2.8x	2.8x	2.6x
Financial Services Technology										
Fidelity National Information Services	50,983	8.2x	8.4x	7.9x	8.3x	9.3x	8.5x	3.5x	3.5x	3.4x
Fiserv, Inc.	92,740	12.8x	11.7x	10.8x	17.8x	15.7x	13.8x	5.5x	5.2x	4.8x
Jack Henry & Associates, Inc.	11,560	18.3x	16.8x	15.5x	31.9x	30.7x	27.8x	5.8x	5.4x	5.1x
ACI Worldwide, Inc.	3,648	9.8x	9.5x	8.8x	19.5x	25.4x	16.6x	2.6x	2.5x	2.4x
Temenos AG	6,553	17.9x	17.2x	15.1x	27.4x	25.6x	22.1x	6.9x	6.6x	6.0x
Global Payments Inc.	39,276	10.1x	9.1x	8.4x	10.9x	9.9x	8.6x	4.9x	4.5x	4.2x
Financial Services Technology Average		12.9x	12.1x	11.1x	19.3x	19.4x	16.2x	4.9x	4.6x	4.3x
Diversified Real Estate Services										
Colliers International Group Inc.	6,263	9.9x	9.3x	8.5x	14.5x	14.8x	13.0x	1.4x	1.4x	1.3x
Altus Group Limited	2,298	17.0x	17.2x	13.9x	24.7x	28.9x	25.8x	3.1x	3.0x	2.7x
CBRE Group, Inc. Class A	27,026	9.2x	10.5x	9.4x	14.0x	16.6x	13.8x	0.9x	0.9x	0.8x
Jones Lang LaSalle Incorporated	9,855	7.9x	9.4x	7.7x	9.8x	12.4x	9.3x	0.5x	0.5x	0.4x
Diversified Real Estate Services Average		11.0x	11.6x	9.8x	15.8x	18.2x	15.5x	1.5x	1.4x	1.3x
Software Focused IT Solutions/VARs										
Softchoice Corporation* USD	877	10.7x	10.1x	9.1x	16.4x	17.1x	15.0x	2.8x	2.6x	2.5x
Softcat Plc*	2,655	15.6x	14.2x	13.1x	21.0x	19.7x	18.6x	6.4x	5.5x	4.9x
Crayon Group Holding ASA*	12,114	>50	>50	>50	>50	>50	>50	27.4x	24.2x	20.8x
Bytes Technology Group Plc*	1,218	17.8x	15.7x	13.8x	23.7x	22.1x	20.2x	NA	NA	NA
Bytes Technology Group Plc* Average		14.7x	13.3x	12.0x	20.4x	19.7x	17.9x	12.2x	10.8x	9.4x
Business Services Average		13.2x	12.1x	11.0x	17.5x	16.7x	15.5x	4.1x	3.7x	3.4x

*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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Stock Ratings	Abbreviation	Description
Outperformer	OP	Stock is expected to outperform similar stocks in the coverage universe during the next 12-18 months.
Neutral	NT	Stock is expected to perform in line with similar stocks in the coverage universe during the next 12-18 months.
Underperformer	UN	Stock is expected to underperform similar stocks in the coverage universe during the next 12-18 months.
Tender	TR	Shareholders are advised to tender shares to a specific offer as we do not believe a superior offer will materialize.
Not Rated	NR	CIBC World Markets does not maintain an investment recommendation on the stock.
Restricted	R	CIBC World Markets is restricted (due to potential conflict of interest) from rating the stock.

Sector Ratings	Abbreviation	Description
Overweight	O	Sector is expected to outperform the broader market averages.
Marketweight	M	Sector is expected to equal the performance of the broader market averages.
Underweight	U	Sector is expected to underperform the broader market averages.
None	NA	Sector rating is not applicable.

Note: Broader market averages refer to S&P 500 in the U.S. and S&P/TSX Composite in Canada.

CIBC World Markets Inc. Price Chart

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