

EQUITY RESEARCH

August 10, 2023

Industry Update

**Work From Home Finale – Bits & Bytes Weekly**

Zoom Returns To The Office

**Our Conclusion**

Earlier this week, Zoom became the latest company to announce the mandatory return of its workers, requiring those within a 50 mile radius of an office to return in person at least twice a week. Amazon, Apple, Disney, Google, Meta, Salesforce, Tesla, Twitter and Uber are among some of the other tech giants that have made similar announcements over the last year. After two and a half years of a global pandemic that forced corporations and their employees to adapt to a work-from-home environment, 2023 appears to be the year of returning to in-office work. According to a survey by Stanford University, ~59% of U.S. workers are now fully on-site as of July.

**Key Points**

**Zoom’s Announcement Marks A Turning Point:** Zoom’s announcement is more than just the latest push by a major corporation to force employees back into expensive and vacant office space. Given the company’s clear association with the work-from-home lifestyle, the move by Zoom executives appears representative of the overall negative sentiment towards remote work. The sharp fall in Zoom’s market cap also speaks to this feeling, sitting at ~\$20 billion after falling from a peak of ~\$160 billion in October 2020.

**Major Corporations Offering Perks To Convince Employees To Return:**

Over the last year, we’ve seen many major firms attempt to lure employees back to the office with additional perks. In June, Salesforce announced the company would donate \$10 to local charities for every day an employee comes to work over the span of a two-week period. Google is offering a “Summer Special” for employees to stay at its Mountain View on-campus hotel for \$99/night, or ~\$3,000/month, which is less than many currently pay for rent in Silicon Valley. Uber’s San Francisco headquarters that were unveiled in 2022 boasted outdoor terraces, a large wellness centre and on-site daycare. Goldman Sachs attempted to lure workers back by bringing in food trucks serving luxury items such as lobster, and offering free breakfast and lunch in some offices.

**But Could Return To Work Mandates Backfire?** Public commentary from executives regarding fully remote work has become increasingly hostile, while employees appear to be equally hostile towards return-to-work mandates. YouTube contractors in Texas went on strike in February to protest a return-to-office mandate. Public Service Alliance of Canada (PSAC) workers recently went on strike after the Government of Canada announced workers would have to return to the office two to three days a week. The PSAC ultimately won against the government, with a deal that concluded PSAC workers can choose what works best for them. And workers may just have the upper hand: U.S. unemployment levels are sitting at their lowest level in ~50 years despite recession concerns, proving that workers are able to find new jobs relatively quickly.

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

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

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

**Erin Kyle, CPA**  
Associate  
+1 416-313-9851  
Erin.Kyle@cibc.com

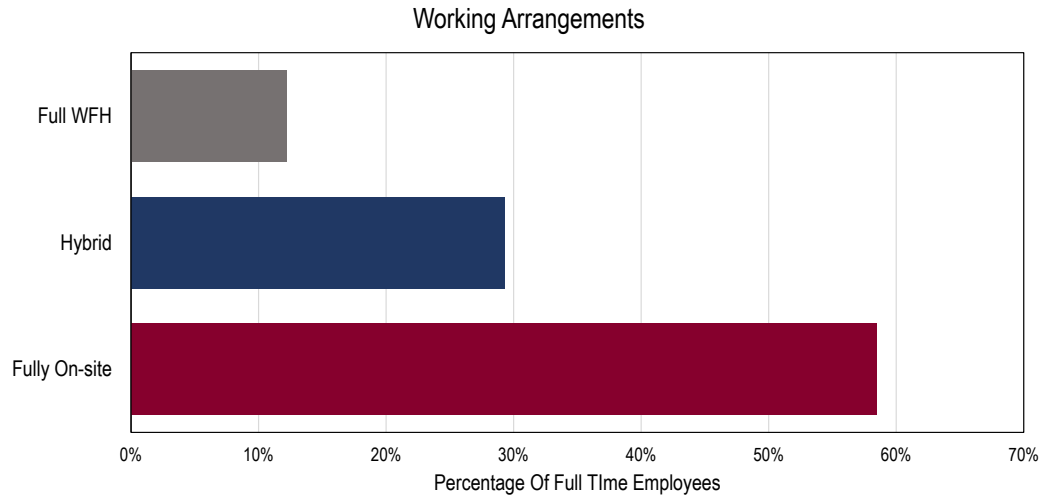
**Sam Schmidt, CPA**  
Associate  
+1 416-980-5448  
sam.schmidt@cibc.com

**Sector:**  
Information Technology

## Return-to-office Stats

A survey conducted by Stanford University in July 2023 showed that the majority of U.S. workers are now fully on site or in office, with only 12% fully working from home.

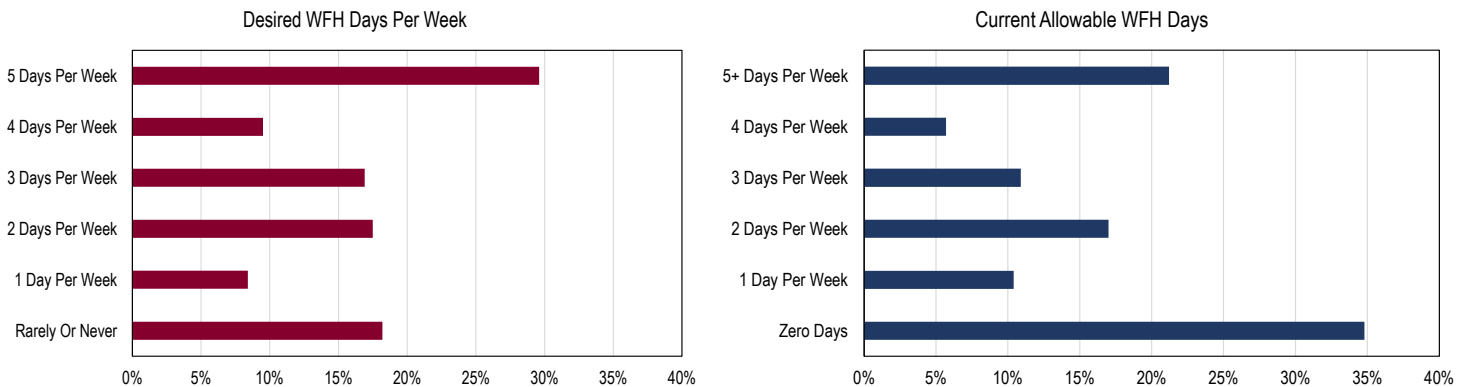
**Exhibit 1: Stanford University Survey Of U.S. Working Arrangements, July 2023**



Source: Stanford University, WFH Research and CIBC World Markets Inc.

However, when it comes to attitudes towards working from home or in the office, data shows that employees and employers are not aligned. When asked the question: *“As the pandemic ends, how often would you like to have paid workdays at home? For each day last week, did you work a full day (6 or more hours), and if so where?”*, 29.6% of workers responded they would prefer to work five days per week from home post-pandemic, even though 34.8% of respondents currently are provided zero WFH days.

**Exhibit 2: Work-from-home Preferences Vs. Company Policy, July 2023**



Source: Stanford University, WFH Research and CIBC World Markets Inc.

## News Impacting Our Coverage

### Research Highlights

#### [OTEX – FQ4 Results In Line; Micro Focus Integration Progressing Well](#)

OTEX reported FQ4 results that were in line with consensus on headline metrics. OTEX reiterated its F2024 outlook with slight tweaks: the F2024 revenue growth outlook is 2%-3% lower, which management attributed to FX, and Micro Focus restructuring expenses have increased by \$30MM through F2025. We calculate roughly flat FQ4 constant currency organic growth in the base Open Text business in what is typically a seasonally strong FQ4, and organic growth of 1.2% for F2023. Management is forecasting organic growth of 1%-2% for F2024; however, we continue to see a challenging path to driving sustained organic growth out of Micro Focus given the mix of legacy businesses.

#### [TIXT – Positioning For Future Growth](#)

Q2 results were in line with TI's pre-announcement and the company reiterated its full-year outlook. TI is seeing weaker demand (especially from the tech and games vertical) amid a difficult macroeconomic environment. While management characterizes the F2023 outlook as conservative, we see potential for near-term volatility given limited visibility into customer demand. In the current environment, TI is focused on cost reduction and positioning the company for future growth once the macro backdrop improves.

#### [QFOR – Signs Of The IPO Market Awakening](#)

QFOR remains focused on achieving positive EBITDA and cash flow by the end of 2023, with the majority of the cost optimization efforts announced in Q1 expected to flow through the P&L in the second half of the year. Gross margins continued to improve in Q2/23, up 1,180 bps Y/Y and 100 bps ahead of consensus. Management reiterated its target of mid-70% gross margins by the end of the year and the company expects continued revenue momentum and margin expansion in H2, with QFOR returning to double-digit revenue growth in the quarter. The step-up to positive adjusted EBITDA implies a significant ramp in the back half of the year, and Q3 results will be an important indicator of the achievability of that target.

#### [CTS – The Integration Continues](#)

After completing 12 acquisitions in 2022, Converge is focused on the integration of recent M&A and cross-selling higher-margin offerings into the acquired customer base. We see upsell as a longer-term opportunity and expect near-term organic growth (1.8% in Q2) to remain depressed as hardware refresh cycles remain elongated. The weaker hardware demand has been translating into weaker working capital as payment cycles lengthen, especially in Europe. We see upside if Converge is able to execute on its organic growth and integration activities more quickly than anticipated.

#### [CSU – Topicus Reports Q2/23 Results](#)

Constellation and Topicus announced Q2 results for Topicus. Organic growth of 6% in Q2/23 was down from 8% sequentially, but in line Y/Y. Margins at Topicus were ~80 bps higher Y/Y and 230 bps above our expectation for Constellation's consolidated margin of 24.7%. Topicus had a relatively low M&A spend (€63.4MM) in the quarter. Overall, we remain comfortable with our Constellation estimates following Topicus results, which were ahead of our expectations.

#### [CSU – Lumine Reports Q2/23 Results](#)

Constellation and Lumine announced Q2 results for Lumine. The company reported organic revenue growth of 1% Y/Y after adjusting for FX. Margins at Lumine were 500 bps above our expectation for Constellation's consolidated margin of 24.7%, but down ~180bps Y/Y prior to

the WideOrbit acquisition. Lumine did not complete any acquisitions in the quarter, likely focusing on the integration process of previous acquisitions, including WideOrbit.

### **Subaru Expands With Kinaxis**

Kinaxis announced that Subaru has expanded its work with Kinaxis to improve demand forecasting operations, optimize inventory, and increase operational efficiency. Subaru's Japan headquarters selected Kinaxis for its operational and implementation experience, functionality and feasibility for business innovation and transparency through the supply chain.

**Exhibit 3: CIBC Coverage – Price Returns, For The Period Ending August 10, 2023**

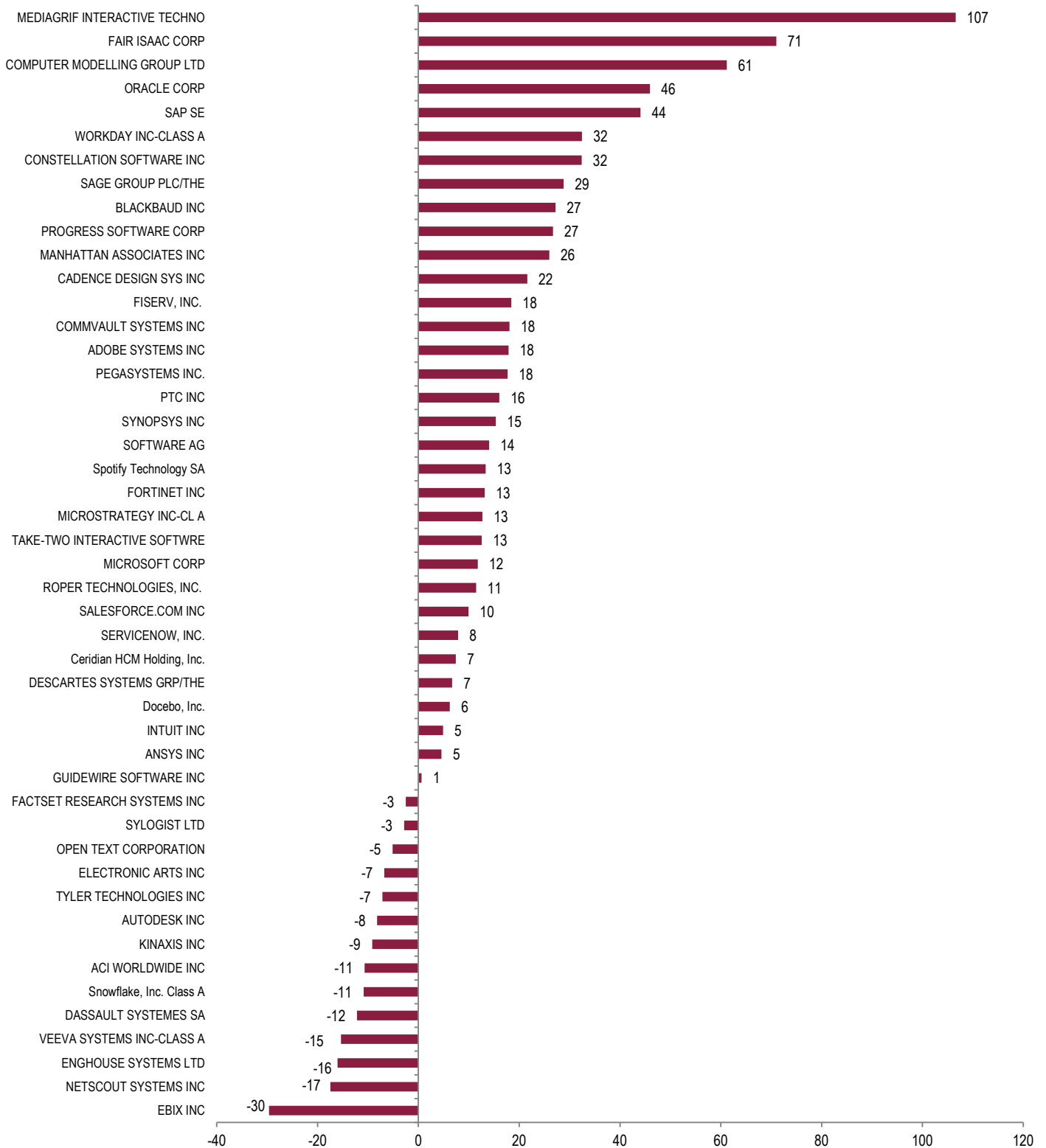
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,755.40	3.4	5.4	4.6	18.6	32.4	33.0	2829.34	1747.83
Descartes Systems	72.80	(3.0)	(8.2)	(7.0)	(1.7)	1.4	4.5	82.02	61.26
Enghouse Systems Limited	27.96	(3.2)	(11.6)	(22.3)	(33.0)	(16.0)	(22.3)	44.59	27.30
Open Text Corp	37.35	(8.5)	(6.4)	(9.9)	5.8	(5.1)	26.0	43.25	24.91
Kinaxis	154.00	(7.1)	(16.8)	(16.4)	(4.5)	(9.2)	1.4	191.80	124.90
Docebo, Inc.	48.52	(5.6)	(3.8)	(2.0)	(2.9)	6.2	8.4	55.72	31.66
Dye & Durham	19.50	8.6	1.7	17.9	(7.7)	1.3	18.8	23.14	11.62
Altus Group	43.84	(3.1)	0.9	4.9	(25.4)	(18.2)	(18.9)	61.60	40.00
Q4 Inc.	4.37	1.5	25.9	37.0	73.4	NA	36.1	4.64	1.88
<b>Average</b>		<b>(1.9)</b>	<b>(1.4)</b>	<b>0.7</b>	<b>2.5</b>	<b>(0.9)</b>	<b>9.7</b>		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
CGI Group Inc	136.06	2.8	(1.5)	(1.0)	9.9	23.4	16.6	142.31	100.74
Converge Technologies	2.69	(14.6)	(17.7)	(0.7)	(50.0)	(62.1)	(41.4)	7.51	2.59
Information Services Corp	25.00	0.8	2.5	15.7	15.7	5.5	3.4	26.98	20.16
Softchoice Corporation	15.14	2.4	(11.8)	(10.9)	(9.2)	(38.1)	(17.1)	25.03	13.57
Telus International	12.09	0.0	(38.5)	(48.4)	(58.5)	(69.5)	(54.8)	40.55	11.65
<b>Average</b>		<b>(2.3)</b>	<b>(17.4)</b>	<b>(15.3)</b>	<b>(26.9)</b>	<b>(36.6)</b>	<b>(24.2)</b>		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	20,337.02	1.1	2.6	(0.8)	(1.3)	2.3	4.9
S&P 500 Index	4,471.70	(0.7)	1.4	8.1	9.3	6.2	16.5
S&P/TSX Software Index	180.28	(1.2)	(2.8)	(2.7)	12.7	22.7	32.2
S&P500 Software Index	5,520.99	(1.6)	(2.2)	7.1	21.8	12.0	34.8

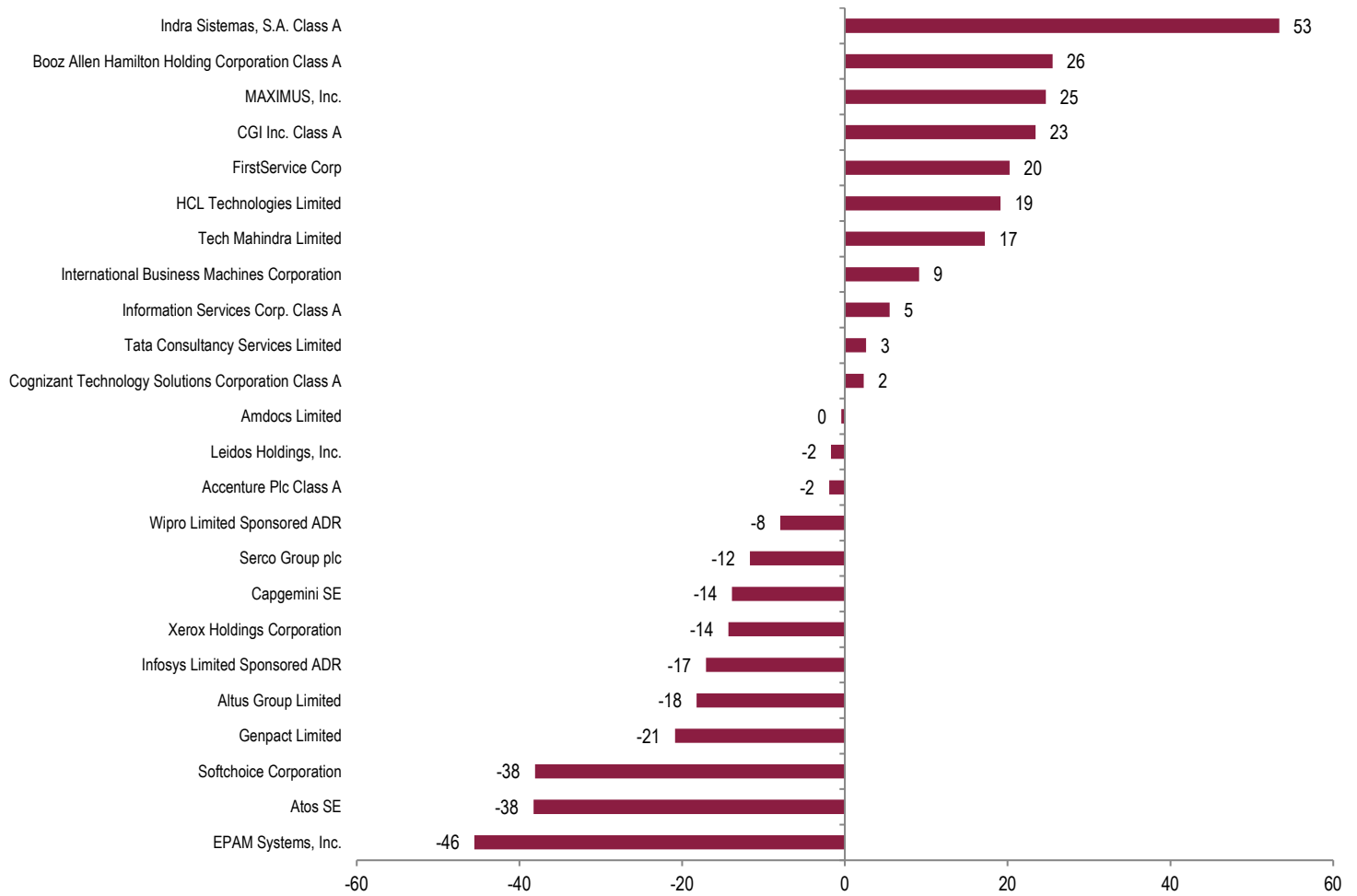
Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 4: Software Stocks – Return Performance (%), 8/10/2022 - 8/10/2023**



Source: Company reports and CIBC World Markets Inc.

**Exhibit 5: Business Services Stocks – Return Performance (%), 8/10/2022 - 8/10/2023**



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

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

	Enterprise Value (\$mlns.)	EV/S			EV/EBITDA			P/E		
		C22	C23E	C24E	C22	C23E	C24E	C22	C23E	C24E
<b>Enterprise Application Software</b>										
Constellation Software Inc.*	45,243	6.8x	5.6x	4.9x	26.6x	22.3x	19.3x	36.0x	35.1x	29.0x
BlackBerry Limited*	2,748	4.1x	2.4x	2.7x	NEG	>50	>50	NEG	NEG	NEG
Sage Group plc	10,522	5.2x	4.8x	4.4x	23.0x	20.2x	18.1x	35.5x	29.6x	26.5x
Tyler Technologies, Inc.	17,071	9.2x	8.7x	8.0x	35.9x	35.0x	30.9x	>50	>50	44.3x
Roper Technologies, Inc.	58,252	10.8x	9.6x	9.0x	26.6x	23.5x	22.0x	34.2x	29.7x	27.4x
<b>Enghouse Systems Limited</b>	<b>1,328</b>	<b>3.1x</b>	<b>2.94x</b>	<b>2.93x</b>	<b>9.6x</b>	<b>10.5x</b>	<b>9.51x</b>	<b>14.1x</b>	<b>26.0x</b>	<b>21.70x</b>
Oracle Corporation	392,223	8.4x	7.5x	6.9x	16.9x	14.9x	13.4x	22.5x	21.0x	18.8x
SAP SE	157,809	4.7x	5.1x	4.7x	19.9x	17.6x	15.3x	30.8x	24.5x	20.5x
<b>Enterprise Application Software Average</b>		<b>6.6x</b>	<b>5.8x</b>	<b>5.4x</b>	<b>22.7x</b>	<b>20.6x</b>	<b>18.4x</b>	<b>28.8x</b>	<b>27.7x</b>	<b>26.9x</b>
<b>Extended ERP</b>										
Adobe Incorporated	234,108	13.2x	12.0x	10.7x	26.9x	24.5x	22.4x	37.2x	32.5x	28.7x
<b>Open Text Corporation</b>	<b>18,150</b>	<b>5.1x</b>	<b>3.2x</b>	<b>3.0x</b>	<b>14.6x</b>	<b>10.5x</b>	<b>7.8x</b>	<b>11.8x</b>	<b>11.8x</b>	<b>6.8x</b>
Manhattan Associates, Inc.	11,317	14.8x	12.7x	11.4x	>50	46.4x	40.6x	>50	>50	>50
Pegasystems Inc.	4,351	3.3x	3.2x	2.9x	>50	24.4x	16.6x	>50	33.7x	21.6x
Software AG	2,565	2.7x	2.6x	2.4x	14.4x	14.4x	12.2x	34.8x	22.2x	18.4x
Fiserv, Inc.	98,195	5.9x	5.4x	5.1x	13.6x	12.2x	11.2x	19.4x	17.0x	14.8x
<b>Extended ERP Average</b>		<b>7.5x</b>	<b>6.5x</b>	<b>5.9x</b>	<b>17.4x</b>	<b>22.1x</b>	<b>18.5x</b>	<b>25.8x</b>	<b>23.4x</b>	<b>18.1x</b>
<b>Software As A Service</b>										
Descartes Systems Group Inc.	6,018	12.4x	10.7x	9.7x	28.0x	24.6x	21.5x	>50	>50	46.5x
Kinaxis, Inc.*	3,025	8.2x	7.0x	5.9x	38.1x	43.8x	36.0x	>50	>50	>50
Docebo, Inc.*	979	6.9x	5.4x	4.2x	>50	>50	32.1x	>50	>50	>50
Lightspeed Commerce Inc*	1,712	2.5x	2.0x	1.5x	NEG	NEG	42.3x	NEG	>50	>50
Veeva Systems Inc Class A	27,898	13.1x	11.9x	10.0x	33.9x	33.6x	26.9x	45.6x	42.5x	35.7x
<b>Shopify, Inc. Class A</b>	<b>68,126</b>	<b>12.2x</b>	<b>9.8x</b>	<b>8.3x</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>&gt;50</b>
Q4 Inc*	109	2.0x	1.9x	1.8x	NEG	NEG	NEG	NEG	NEG	NEG
Ceridian HCM Holding, Inc.	12,241	9.8x	8.2x	7.1x	48.9x	31.7x	26.0x	>50	>50	45.2x
ServiceNow, Inc.	111,704	15.4x	12.5x	10.3x	48.9x	39.9x	31.7x	>50	>50	45.5x
Workday, Inc. Class A	56,347	9.2x	7.9x	6.8x	35.9x	29.5x	24.2x	>50	43.8x	36.1x
<b>Software As A Service Average</b>		<b>9.2x</b>	<b>7.7x</b>	<b>6.5x</b>	<b>38.9x</b>	<b>33.8x</b>	<b>30.1x</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>&gt;50</b>
<b>Infrastructure Vendors</b>										
Microsoft Corporation	2,368,959	11.5x	10.6x	9.4x	23.4x	21.3x	18.5x	34.0x	31.0x	27.2x
<b>Infrastructure Vendors Average</b>		<b>11.5x</b>	<b>10.6x</b>	<b>9.4x</b>	<b>23.4x</b>	<b>21.3x</b>	<b>18.5x</b>	<b>34.0x</b>	<b>31.0x</b>	<b>27.2x</b>
<b>Software Average</b>		<b>8.0x</b>	<b>6.9x</b>	<b>6.2x</b>	<b>26.9x</b>	<b>25.0x</b>	<b>22.7x</b>	<b>29.7x</b>	<b>28.6x</b>	<b>28.6x</b>

\*Share Price Converted to USD

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
<b>Business &amp; IT Services</b>										
<b>CGI Inc. Class A</b>	<b>34,319</b>	<b>13.2x</b>	<b>11.9x</b>	<b>11.4x</b>	<b>21.7x</b>	<b>19.1x</b>	<b>18.1x</b>	<b>2.6x</b>	<b>2.4x</b>	<b>2.3x</b>
<b>TELUS International (CDA), Inc.</b>	<b>4,226</b>	<b>7.0x</b>	<b>7.2x</b>	<b>6.0x</b>	<b>7.3x</b>	<b>9.8x</b>	<b>8.0x</b>	<b>1.7x</b>	<b>1.6x</b>	<b>1.5x</b>
Accenture Plc Class A	201,588	17.5x	16.7x	15.5x	28.2x	26.1x	24.2x	3.2x	3.1x	2.9x
Booz Allen Hamilton	18,471	18.6x	16.9x	15.6x	27.0x	24.5x	21.9x	2.0x	1.8x	1.7x
CACI International Inc Class A	9,606	14.2x	13.0x	12.2x	18.4x	17.4x	15.9x	1.5x	1.4x	1.3x
DXC Technology Co.	7,688	3.2x	3.6x	3.5x	5.9x	6.3x	5.4x	0.5x	0.5x	0.6x
Genpact Limited	8,018	10.2x	9.7x	8.6x	13.8x	12.9x	11.4x	1.8x	1.7x	1.6x
International Business Machines	175,892	11.1x	11.9x	11.3x	15.7x	15.0x	14.2x	2.9x	2.8x	2.7x
Atos SE	2,593	3.0x	2.3x	2.3x	NEG	3.2x	2.5x	0.2x	0.2x	0.2x
Capgemini SE	33,777	9.7x	9.3x	8.7x	14.2x	14.5x	13.3x	1.5x	1.5x	1.4x
Sopra Steria Group SA	5,341	9.0x	7.8x	7.2x	14.6x	11.8x	10.1x	1.0x	0.9x	0.9x
<b>Converge Technology Solutions Corp</b>	<b>912</b>	<b>6.4x</b>	<b>5.4x</b>	<b>5.0x</b>	<b>25.4x</b>	<b>42.4x</b>	<b>29.2x</b>	<b>0.4x</b>	<b>0.4x</b>	<b>0.4x</b>
<b>Business &amp; IT Services Average</b>		<b>10.6x</b>	<b>10.0x</b>	<b>9.3x</b>	<b>16.7x</b>	<b>14.6x</b>	<b>13.2x</b>	<b>1.7x</b>	<b>1.6x</b>	<b>1.5x</b>
<b>HR Outsourcing</b>										
Ceridian HCM Holding, Inc.	12,241	48.9x	31.7x	26.0x	>50	>50	45.2x	9.8x	8.2x	7.1x
Willis Towers Watson	25,375	10.7x	10.8x	10.0x	15.1x	14.5x	12.7x	2.9x	2.7x	2.6x
Aon Plc Class A	74,856	18.8x	17.3x	16.1x	23.7x	22.4x	19.8x	6.0x	5.6x	5.3x
Automatic Data Processing, Inc.	104,646	22.6x	20.1x	18.4x	32.9x	28.9x	26.1x	6.1x	5.6x	5.3x
Paychex, Inc.	44,075	20.5x	19.0x	17.7x	30.6x	27.6x	25.5x	9.1x	8.5x	8.0x
<b>HR Outsourcing Average</b>		<b>24.3x</b>	<b>19.8x</b>	<b>17.6x</b>	<b>25.6x</b>	<b>23.3x</b>	<b>25.9x</b>	<b>6.8x</b>	<b>6.1x</b>	<b>5.7x</b>
<b>Information Services</b>										
Broadridge Financial Solutions, Inc.	24,629	18.7x	17.0x	15.8x	26.7x	24.5x	22.3x	4.2x	3.9x	3.7x
<b>Dye &amp; Durham Ltd.</b>	<b>2,328</b>	<b>14.7x</b>	<b>13.3x</b>	<b>11.9x</b>	<b>&gt;50</b>	<b>NEG</b>	<b>NEG</b>	<b>4.9x</b>	<b>5.0x</b>	<b>4.9x</b>
Deluxe Corporation	2,244	5.4x	5.5x	5.4x	4.9x	6.2x	6.1x	1.0x	1.0x	1.0x
<b>Information Services Corp</b>	<b>483</b>	<b>7.5x</b>	<b>6.5x</b>	<b>5.4x</b>	<b>12.5x</b>	<b>12.0x</b>	<b>10.0x</b>	<b>2.5x</b>	<b>2.3x</b>	<b>2.1x</b>
<b>Information Services Average</b>		<b>11.6x</b>	<b>10.6x</b>	<b>9.6x</b>	<b>14.7x</b>	<b>14.2x</b>	<b>12.8x</b>	<b>3.1x</b>	<b>3.1x</b>	<b>2.9x</b>
<b>Financial Services Technology</b>										
Fidelity National Information Services	52,453	8.5x	8.6x	8.2x	8.7x	9.5x	8.9x	3.6x	3.6x	3.5x
Fiserv, Inc.	98,195	13.6x	12.2x	11.2x	19.4x	17.0x	14.8x	5.9x	5.4x	5.1x
Jack Henry & Associates, Inc.	12,738	20.2x	18.6x	17.2x	35.2x	33.8x	30.6x	6.4x	6.0x	5.6x
ACI Worldwide, Inc.	3,597	9.6x	9.3x	8.6x	19.0x	24.6x	16.3x	2.5x	2.5x	2.3x
Temenos AG	6,206	17.0x	15.9x	14.2x	25.8x	23.6x	20.7x	6.5x	6.3x	5.7x
Global Payments Inc.	45,769	11.7x	10.5x	9.7x	13.7x	12.3x	10.7x	5.7x	5.3x	4.9x
<b>Financial Services Technology Average</b>		<b>13.4x</b>	<b>12.5x</b>	<b>11.5x</b>	<b>20.3x</b>	<b>20.1x</b>	<b>17.0x</b>	<b>5.1x</b>	<b>4.8x</b>	<b>4.5x</b>
<b>Diversified Real Estate Services</b>										
Colliers International Group Inc.	6,536	10.4x	9.8x	8.8x	15.4x	16.0x	14.0x	1.5x	1.5x	1.4x
<b>Altus Group Limited</b>	<b>2,153</b>	<b>15.9x</b>	<b>16.1x</b>	<b>13.0x</b>	<b>23.0x</b>	<b>27.0x</b>	<b>24.1x</b>	<b>2.9x</b>	<b>2.8x</b>	<b>2.5x</b>
CBRE Group, Inc. Class A	28,369	9.7x	11.3x	9.9x	14.9x	19.0x	15.1x	0.9x	0.9x	0.8x
Jones Lang LaSalle Incorporated	10,846	8.7x	11.2x	8.5x	11.2x	16.2x	11.0x	0.5x	0.5x	0.5x
<b>Diversified Real Estate Services Average</b>		<b>11.2x</b>	<b>12.1x</b>	<b>10.1x</b>	<b>16.1x</b>	<b>19.5x</b>	<b>16.0x</b>	<b>1.5x</b>	<b>1.4x</b>	<b>1.3x</b>
<b>Software Focused IT Solutions/VARs</b>										
<b>Softchoice Corporation* USD</b>	<b>757</b>	<b>9.3x</b>	<b>8.8x</b>	<b>7.9x</b>	<b>14.1x</b>	<b>14.2x</b>	<b>12.3x</b>	<b>2.4x</b>	<b>2.3x</b>	<b>2.1x</b>
Softcat Plc*	2,883	16.7x	14.8x	13.5x	22.4x	20.7x	19.4x	6.9x	5.8x	5.3x
Crayon Group Holding ASA*	11,417	>50	>50	>50	>50	>50	>50	25.8x	21.0x	18.1x
Bytes Technology Group Plc*	1,167	17.0x	14.8x	13.0x	22.8x	20.7x	18.5x	NA	NA	NA
<b>Software Focused IT Solutions/VARs Average</b>		<b>14.3x</b>	<b>12.8x</b>	<b>11.5x</b>	<b>19.7x</b>	<b>18.5x</b>	<b>16.7x</b>	<b>11.7x</b>	<b>9.7x</b>	<b>8.5x</b>
<b>Business Services Average</b>		<b>13.7x</b>	<b>12.5x</b>	<b>11.3x</b>	<b>18.6x</b>	<b>17.8x</b>	<b>16.5x</b>	<b>4.2x</b>	<b>3.8x</b>	<b>3.5x</b>

\*Share Price Converted to USD

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

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

## Important Disclosures

**Analyst Certification:** Each CIBC World Markets Inc. research analyst named on the front page of this research report, or at the beginning of any subsection hereof, hereby certifies that (i) the recommendations and opinions expressed herein accurately reflect such research analyst's personal views about the company and securities that are the subject of this report and all other companies and securities mentioned in this report that are covered by such research analyst and (ii) no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by such research analyst in this report.

**Potential Conflicts of Interest:** Equity research analysts employed by CIBC World Markets Inc. are compensated from revenues generated by various CIBC World Markets Inc. businesses, including the CIBC World Markets Investment Banking Department. Research analysts do not receive compensation based upon revenues from specific investment banking transactions. CIBC World Markets Inc. generally prohibits any research analyst and any member of his or her household from executing trades in the securities of a company that such research analyst covers. Additionally, CIBC World Markets Inc. generally prohibits any research analyst from serving as an officer, director or advisory board member of a company that such analyst covers.

In addition to 1% ownership positions in covered companies that are required to be specifically disclosed in this report, CIBC World Markets Inc. may have a long position of less than 1% or a short position or deal as principal in the securities discussed herein, related securities or in options, futures or other derivative instruments based thereon.

Recipients of this report are advised that any or all of the foregoing arrangements, as well as more specific disclosures set forth below, may at times give rise to potential conflicts of interest.

CIBC World Markets Inc. does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that CIBC World Markets Inc. may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Analysts employed outside the U.S. are not registered as research analysts with FINRA. These analysts may not be associated persons of CIBC World Markets Corp. and therefore may not be subject to FINRA Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

## CIBC World Markets Inc. Stock Rating System

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

For price and performance charts, please visit CIBC on the web at <https://researchcentral.cibccm.com/#/disclaimer-central-new> or write to CIBC World Markets Inc., 161 Bay Street, 4th Floor, Toronto, ON M5H 2S8, Attn: Research Disclosure Chart Request.

## Important Disclosure Footnotes

For important disclosure footnotes for companies mentioned in this report that are covered by CIBC World Markets Inc., click here: [CIBC Disclaimers & Disclosures](#)

### Ratings Distribution\*: CIBC World Markets Inc. Coverage Universe

(as of 10 Aug 2023)	Count	Percent	Inv. Banking Relationships	Count	Percent
Outperformer	154	52%	Outperformer	152	99%
Neutral	131	44%	Neutral	131	100%
Underperformer	7	2%	Underperformer	7	100%
Tender	1	0%	Tender	1	100%
Restricted	4	1%	Restricted	4	100%

Important disclosures for each issuer can be found by visiting the Research Central website at <https://researchcentral.cibccm.com/#/disclaimer-central-new> and then entering the issuer name. Access to our research dissemination policy can be found on the same website at <https://researchcentral.cibccm.com/#/dissemination-policy>. These important disclosures can also be obtained by writing to CIBC World Markets Inc., 161 Bay Street, 4th Floor, Toronto, ON M5H 2S8, Attention: Research Disclosures Request.

## Access to CIBC Equity Research

Clients may access CIBC Equity Research online at Research Central at <https://researchcentral.cibccm.com/>, or at the following research aggregators: Bloomberg, Refinitiv, Capital IQ, and FactSet.

## Legal Disclaimer

This report is issued by CIBC Capital Markets.

CIBC Capital Markets is a trademark brand name under which Canadian Imperial Bank of Commerce (“CIBC”), its subsidiaries and affiliates (including, without limitation, CIBC World Markets Inc., CIBC World Markets Corp. and CIBC Capital Markets (Europe) S.A.) provide different products and services to our customers around the world. Products and/or services offered by CIBC include corporate lending services, foreign exchange, money market instruments, structured notes, interest rate products and OTC derivatives. CIBC’s Foreign Exchange Disclosure Statement relating to guidelines contained in the FX Global Code can be found at <https://cibccm.com/en/disclosures/fx-disclosure-statement/>. Other products and services, such as exchange-traded equity and equity options, fixed income securities and futures execution of Canadian securities, are offered through directly or indirectly held subsidiaries of CIBC as indicated below.

CIBC World Markets Inc. is a member of the Canadian Investor Protection Fund and the Investment Industry Regulatory Organization of Canada. In the United States, CIBC World Markets Corp. is a member of the Financial Industry Regulatory Authority and the Securities Investor Protection Fund. In Luxembourg, CIBC Capital Markets (Europe) S.A. (RCS Luxembourg: B236326) is authorised by the European Central Bank (the “ECB”) and supervised by the Luxembourg Financial Supervisory Authority (Commission de Surveillance du Secteur Financier) under the oversight of the ECB. CIBC Australia Ltd (AFSL No: 240603) is regulated by the Australian Securities and Investment Commission (“ASIC”). CIBC World Markets (Japan) Inc. is a member of the Japanese Securities Dealer Association. CIBC (TSX/NYSE: CM) is a bank chartered under the Bank Act (Canada) having its registered office in Toronto, Ontario, Canada, and regulated by the Office of the Superintendent of Financial Institutions. CIBC New York Branch is licensed and supervised by the New York State Department of Financial Services. In the United Kingdom, CIBC London Branch is authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Canadian Imperial Bank of Commerce, Sydney Branch (ABN: 33 608 235 847) is an authorised foreign bank branch regulated by the Australian Prudential Regulation Authority (APRA). Canadian Imperial Bank of Commerce, Hong Kong Branch is a registered institution under the Securities and Futures Ordinance, Cap 571, and a limited liability foreign company registered with the Hong Kong Companies Registry. Canadian Imperial Bank of Commerce, Singapore Branch is a wholesale bank licensed and regulated by the Monetary Authority of Singapore.

This report is issued and approved for distribution by (a) in Canada, CIBC World Markets Inc., a member of the Investment Industry Regulatory Organization of Canada (“IIROC”), the Toronto Stock Exchange, the TSX Venture Exchange and a Member of the Canadian Investor Protection Fund and (b) in the United States either by (i) CIBC World Markets Inc. for distribution only to U.S. Major Institutional Investors (“MII”) (as such term is defined in SEC Rule 15a-6) or (ii) CIBC World Markets Corp., a member of the Financial Industry Regulatory Authority (“FINRA”). U.S. MIIs receiving this report from CIBC World Markets Inc. (the Canadian broker-dealer) are required to effect transactions (other than negotiating their terms) in securities discussed in the report through CIBC World Markets Corp. (the U.S. broker-dealer). CIBC World Markets Corp. accepts responsibility for the content of this research report.

### Distribution to Institutional Customers Only

#### Canada

This report is provided, for informational purposes only, to institutional investor and retail clients of CIBC World Markets Inc. in Canada, and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such offer or solicitation would be prohibited.

## Legal Disclaimer (Continued)

### United States

This report is provided, for informational purposes only, to Major US Institutional Investor clients of CIBC World Markets Corp. in the United States, and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such offer or solicitation would be prohibited.

### United Kingdom

The distribution of this report in the United Kingdom is being made only to, or directed only at, persons falling within one or more of the exemptions from the financial promotion regime in section 21 of the UK Financial Services and Markets Act 2000 (as amended) (“FSMA”) including, without limitation, to the following:

- authorised firms under FSMA and certain other investment professionals falling within article 19 of the FSMA (Financial Promotion) Order 2005 (“FPO”) and directors, officers and employees acting for such entities in relation to investment;
- high value entities falling within article 49 FPO and directors, officers and employees acting for such entities in relation to investment; and
- persons who receive this presentation outside the United Kingdom.

The distribution of this report to any other person in the United Kingdom is unauthorised and may contravene FSMA. No person falling outside such categories should treat this report as constituting a promotion to them or rely or act on it for any purposes whatsoever.

This report is distributed solely to eligible counterparties or professional clients and not retail clients as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018.

### All other jurisdictions

This report is distributed solely to institutional clients and not retail clients as defined by the applicable securities legislation and regulation to which CIBC Capital Markets may be subject in any jurisdiction, and only in compliance with all applicable laws and regulations.

The securities mentioned in this report may not be suitable for all types of investors. This report does not take into account the investment objectives, financial situation or specific needs of any particular client of CIBC World Markets. Recipients should consider this report as only a single factor in making an investment decision and should not rely solely on investment recommendations contained herein, if any, as a substitution for the exercise of independent judgment of the merits and risks of investments. The analyst writing the report is not a person or company with actual, implied or apparent authority to act on behalf of any issuer mentioned in the report. Before making an investment decision with respect to any security recommended in this report, the recipient should consider whether such recommendation is appropriate given the recipient's particular investment needs, objectives and financial circumstances. CIBC World Markets suggests that, prior to acting on any of the recommendations herein, Canadian retail clients of CIBC World Markets contact one of our client advisers in your jurisdiction to discuss your particular circumstances. Non-client recipients of this report who are not institutional investor clients of CIBC World Markets should consult with an independent financial advisor prior to making any investment decision based on this report or for any necessary explanation of its contents. CIBC World Markets will not treat non-client recipients as its clients solely by virtue of their receiving this report.

## Legal Disclaimer (Continued)

Past performance is not a guarantee of future results, and no representation or warranty, express or implied, is made regarding future performance of any security mentioned in this report. The price of the securities mentioned in this report and the income they produce may fluctuate and/or be adversely affected by exchange rates, and investors may realize losses on investments in such securities, including the loss of investment principal. CIBC World Markets accepts no liability for any loss arising from the use of information contained in this report, except to the extent that liability may arise under specific statutes or regulations applicable to CIBC World Markets.

Information, opinions and statistical data contained in this report were obtained or derived from sources believed to be reliable, but CIBC World Markets does not represent that any such information, opinion or statistical data is accurate or complete (with the exception of information contained in the Important Disclosures section of this report provided by CIBC World Markets or individual research analysts), and they should not be relied upon as such. All estimates, opinions and recommendations expressed herein constitute judgments as of the date of this report and are subject to change without notice.

Nothing in this report constitutes legal, accounting or tax advice. Since the levels and bases of taxation can change, any reference in this report to the impact of taxation should not be construed as offering tax advice on the tax consequences of investments. As with any investment having potential tax implications, clients should consult with their own independent tax adviser.

This report may provide addresses of, or contain hyperlinks to, Internet web sites. CIBC World Markets has not reviewed the linked Internet web site of any third party and takes no responsibility for the contents thereof. Each such address or hyperlink is provided solely for the recipient's convenience and information, and the content of linked third party web sites is not in any way incorporated into this document. Recipients who choose to access such third-party web sites or follow such hyperlinks do so at their own risk.

Although each company issuing this report is a wholly owned subsidiary of CIBC, each is solely responsible for its contractual obligations and commitments, and any securities products offered or recommended to or purchased or sold in any client accounts (i) will not be insured by the Federal Deposit Insurance Corporation ("FDIC"), the Canada Deposit Insurance Corporation or other similar deposit insurance, (ii) will not be deposits or other obligations of CIBC, (iii) will not be endorsed or guaranteed by CIBC, and (iv) will be subject to investment risks, including possible loss of the principal invested. CIBC Capital Markets and the CIBC Logo Design are trademarks of CIBC, used under license.

© 2023 CIBC World Markets Inc., CIBC World Markets Corp. and CIBC Capital Markets (Europe) S.A. All rights reserved. Unauthorised use, distribution, duplication or disclosure without the prior written permission of CIBC World Markets is prohibited by law and may result in prosecution.