

EQUITY RESEARCH

August 24, 2023

Industry Update

**Microsoft Mediates – Bits & Bytes Weekly**

Activision Blizzard Deal Restructured

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

**Our Conclusion**

After UK regulators **blocked** Microsoft’s \$69B purchase of Activision Blizzard earlier this year, Microsoft announced a restructuring of the proposed acquisition that involves transferring cloud gaming rights for current and new Activision Blizzard games to Ubisoft. The UK Competition and Markets Authority (CMA) is treating the revised offer as a new transaction, and has initiated a phase 1 investigation. Elsewhere, EU antitrust regulators are closely monitoring the move to determine if the new transaction will impact concessions Microsoft previously made to the European Commission. With the changes, experts believe the deal will now address the CMA’s concerns.

**Sector:**  
Information Technology

**Key Points**

**New Deal Structure Aims To Address Competitive Concerns:** Under the new terms of the agreement, Microsoft will not be able to release Activision Blizzard games exclusively on its own cloud streaming service or control licensing terms extended to rival services. Instead, Microsoft will sell the rights to stream Activision PC and console games to Ubisoft. Microsoft stated that the transaction is intended to provide an independent third-party content supplier (Ubisoft) with the ability to supply Activision’s gaming content to all cloud gaming service providers including Microsoft itself, and that Ubisoft would have the ability to require Microsoft to provide versions that operate on systems other than Windows.

**CMA Treating Restructured Transaction As New Deal:** The UK Competition and Markets Authority is opening a new phase 1 investigation into the restructured deal after it had imposed a Final Order that prohibited the original deal on a worldwide basis. The CMA’s Chief Executive identified the new deal as substantially different, but also indicated that the CMA’s consideration is not a green light. The CMA is inviting comments from any interested party on the impact the new deal could have on competition in the UK. The statutory deadline for a decision is on October 18, 2023.

**Restructuring Triggers Renewed Scrutiny From The EU:** Regulators in the EU approved Microsoft’s original bid after the tech-giant agreed to make concessions that would allow rival companies to continue to have access to games developed by Activision. During negotiations for the original transaction, Microsoft agreed to guarantee that consumers in the EU would be able to stream Activision games on any cloud gaming services of choice for 10 years. After reaching these concessions with the EU, Microsoft planned to apply this globally, confirmed in a tweet from President Brad Smith on May 15. However, the new transaction now gives Ubisoft control of licensing outside of EU markets. Microsoft stated that the restructuring won’t impact the company’s obligation to the European Commission, in that licensing of Activision games will still be provided automatically to all competing cloud gaming services in the EU; however, with this no longer being the global approach, there is a risk the EU could reassess.

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

For required regulatory disclosures please refer to "Important Disclosures" beginning on page 9.

## How We Got Here: A Timeline Of Events

The Microsoft-Activision deal has been a hot topic over the last year and a half. The transaction was first announced in January 2022 and needed to be reviewed in 16 countries. Microsoft's largest hurdles to the deal are the US, European Union and UK regulatory bodies, the FTC, European Commission and the CMA.

The US Federal Trade Commission sued to block the acquisition through an in-house court in December 2022, stating that the deal would harm consumers because it would give Microsoft the ability to lure gamers from rivals given Activision's widely popular suite of games, including Call of Duty.

The UK antitrust regulator announced it would block Microsoft's purchase in April of this year, issuing a statement indicating concerns that the deal would lead to "reduced innovation and less choice for UK gamers over the years to come" indicating the deal would reduce competition in the cloud gaming market.

In May 2023, EU regulators said they would allow the acquisition after Microsoft made concessions that would allow Activision games to be licensed to competing cloud gaming providers. Microsoft President Brad Smith announced Microsoft's plans in a Twitter post on May 15, 2023, stating: "The European Commission has required Microsoft to license popular Activision Blizzard games automatically to competing cloud gaming services. This will apply globally and will empower millions of consumers worldwide to play these games on any device they choose."

In June, the FTC took another swing at the deal, filing a lawsuit in federal court to prevent the deal from closing; however, two months later a federal judge ruled against the FTC's attempt.

After the EU's approval and the FTC's failed attempt to block the deal, the CMA faced additional pressure to reconsider. The UK watchdog agreed to halt its legal battle over the acquisition, stating it was willing to reconsider any proposals from Microsoft to restructure the transaction in a way that would address the concerns set out in its final report.

## News Impacting Our Coverage

**Research Highlight - [CSU Announces Filing Of Rights Offering Prospectus & Details Of Rights Dividend](#):** Constellation filed a short-form prospectus and announced details of its rights dividend related to the previously announced C\$700MM debenture offering. All common shareholders as of September 1, 2023 will receive one “Right” per common share. For every 3.03 Rights held, the holder can subscribe to C\$100 principal amount of Series 1 debentures. The Rights will be exercisable until their expiry date of September 29, 2023. Financial details of the debentures were previously announced on August 3, 2023 and remain unchanged. While we believe that Constellation could obtain bank debt at a lower initial interest rate, we view the debentures as an alternative source of covenant-free funding, with the rights premium reducing the implied interest rate.

### **Juniper Group Acquires Vervotech**

Juniper Group, a portfolio company of Vela Software (CSU), announced the acquisition of Vervotech, a tech start-up in the travel industry focusing on hotel mapping and room mapping solutions. Juniper expects the acquisition to compliment its own booking engine. Vervotech will continue to operate independently.

### **Fabbrica Italiana Sintetici Selects Kinaxis For Supply Chain Planning**

Kinaxis announced it was selected by Fabbrica Italiana Sintetici (FIS) to enable concurrent planning in its supply chain. FIS is one of Europe’s leading manufacturers of active ingredients for the pharmaceutical industry, and is a privately owned company headquartered in Vicenza, Italy. FIS will rely on Kinaxis’ Italian system integrator partner Aeonvis for the implementation of Kinaxis’ RapidResponse platform.

### **OpenText Buys KineMatik**

OpenText announced the addition of automated business process and project management solutions to its Content business through the acquisition of KineMatik. KineMatik offers business process solutions that are built on top of OTEX’s core Content server.

### **Softchoice Announces Launch Of Cloud Cost Optimization**

Softchoice announced the addition of Cloud Cost Optimization powered by VMware Aria Cost to its managed services portfolio. Cloud Cost Optimization will be delivered as a managed subscription-based service, designed to help customers maximize the value of each dollar spent in the cloud by adopting FinOps.

### **Dialogue Announces Filing Of Management Proxy Circular**

Dialogue Health Technologies announced the filing of the company’s management proxy circular in connection with the proposed acquisition of Dialogue by Sun Life. The special meeting of the shareholders of Dialogue to vote upon a special resolution approving the proposed transaction will be held on September 19, 2023 at 10:00 a.m. ET.

**Exhibit 1: CIBC Coverage – Price Returns, For The Period Ending August 24, 2023**

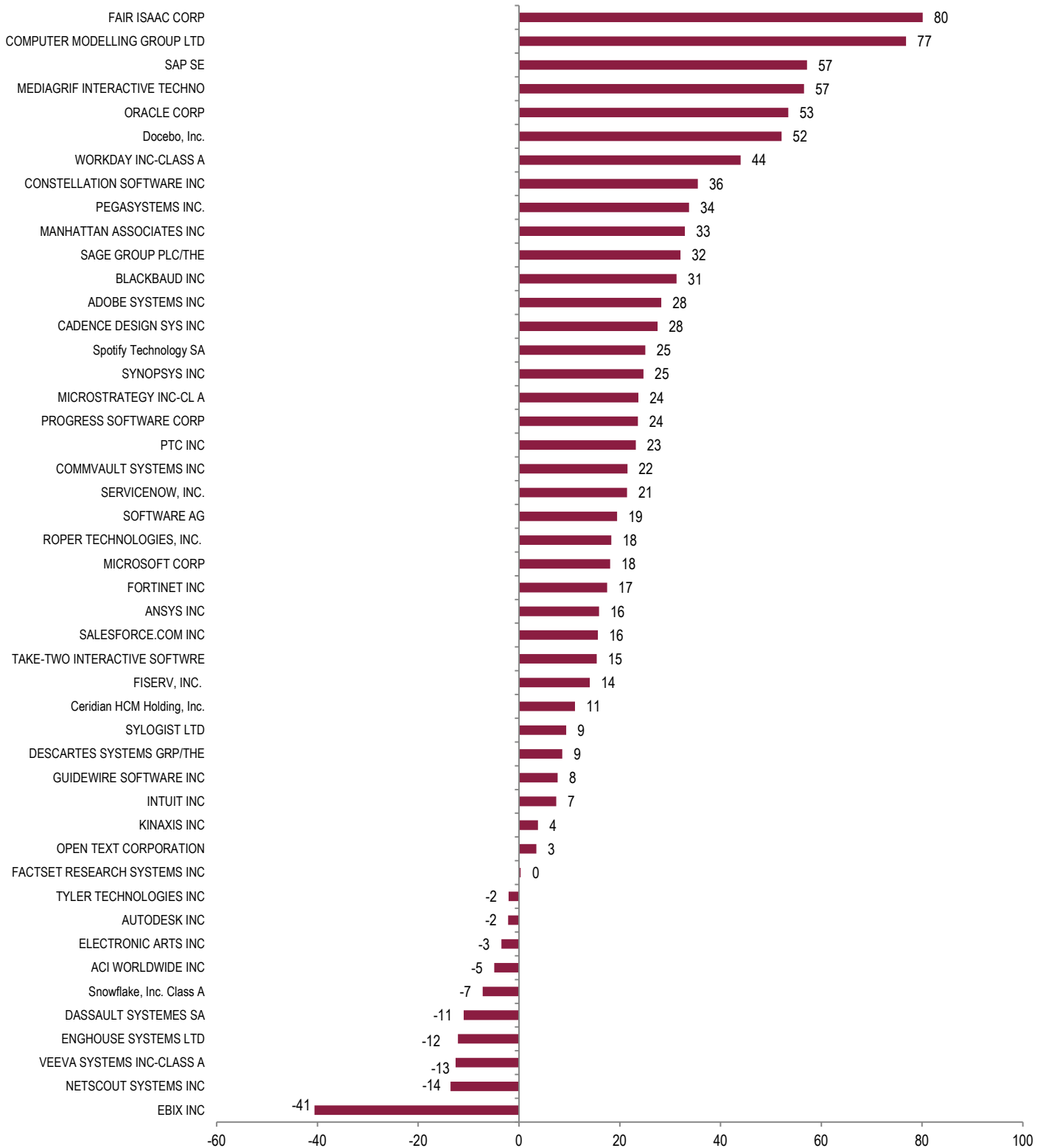
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,738.00	3.4	(2.4)	5.3	18.1	35.5	32.2	2829.34	1747.83
Descartes Systems	73.18	1.9	(7.6)	(2.6)	(0.7)	3.8	5.1	82.02	61.26
Enghouse Systems Limited	28.97	(1.0)	(5.5)	(23.0)	(31.1)	(12.1)	(19.5)	44.59	27.30
Open Text Corp	38.52	4.2	(8.8)	(4.3)	12.9	3.4	30.0	43.25	24.91
Kinaxis	166.13	3.2	(9.9)	(8.0)	6.5	3.8	9.4	191.80	124.90
Docebo, Inc.	61.88	20.4	19.6	41.9	31.7	52.1	38.3	62.95	31.66
Dye & Durham	17.63	(4.2)	(6.2)	17.1	(8.2)	5.7	7.4	23.14	11.62
Altus Group	49.74	1.0	14.2	20.8	(17.9)	(6.0)	(8.0)	61.60	40.00
Q4 Inc.	4.00	(2.9)	(0.2)	19.0	53.8	NA	24.6	4.64	1.88
<b>Average</b>		<b>2.9</b>	<b>(0.8)</b>	<b>7.4</b>	<b>7.2</b>	<b>10.8</b>	<b>13.3</b>		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
CGI Group Inc	136.91	1.5	1.3	(0.5)	11.1	28.9	17.3	142.31	100.74
Converge Technologies	2.53	2.8	(20.2)	(21.2)	(45.9)	(60.3)	(44.9)	7.18	2.39
Information Services Corp	23.78	0.5	(8.7)	14.8	5.6	(0.1)	(1.2)	26.98	20.16
Softchoice Corporation	16.29	6.5	(5.0)	(6.9)	(0.5)	(19.3)	(10.8)	21.70	13.57
Telus International	12.05	6.2	(6.8)	(44.6)	(58.7)	(69.4)	(54.9)	39.89	11.05
<b>Average</b>		<b>4.3</b>	<b>(7.7)</b>	<b>(18.3)</b>	<b>(23.5)</b>	<b>(30.0)</b>	<b>(23.3)</b>		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	19,859.39	0.2	(3.5)	(0.3)	(1.8)	(0.8)	2.4
S&P 500 Index	4,427.39	1.3	(2.8)	7.6	11.5	6.9	15.3
S&P/TSX Software Index	181.08	3.1	(5.3)	(0.4)	19.0	32.9	32.8
S&P500 Software Index	5,570.21	2.7	(4.9)	6.9	28.8	18.7	36.0

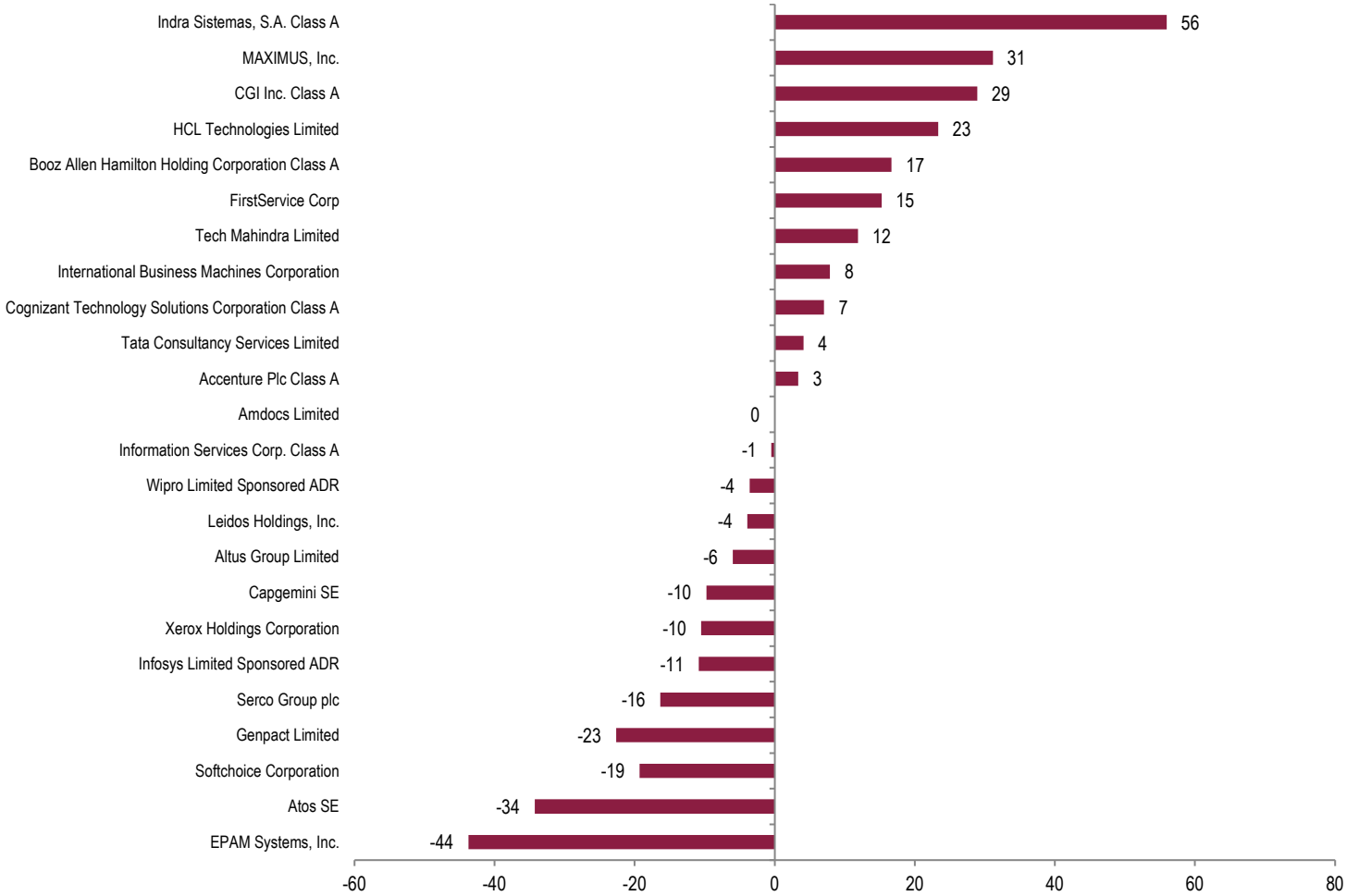
Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 2: Software Stocks – Return Performance (%), 8/24/2022 - 8/24/2023**



Source: Company reports and CIBC World Markets Inc.

**Exhibit 3: Business Services Stocks – Return Performance (%), 8/24/2022 - 8/24/2023**



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
<b>Enterprise Application Software</b>										
Constellation Software Inc.*	45,044	6.8x	5.5x	4.7x	26.5x	21.7x	18.1x	35.4x	37.6x	27.2x
BlackBerry Limited*	2,649	4.0x	2.3x	2.6x	NEG	>50	>50	NEG	NEG	NEG
Sage Group plc	10,494	5.2x	4.7x	4.4x	22.9x	20.1x	18.0x	35.4x	29.6x	26.4x
Tyler Technologies, Inc.	16,796	9.1x	8.6x	7.9x	35.3x	34.4x	30.4x	>50	49.4x	43.5x
Roper Technologies, Inc.	58,941	11.0x	9.7x	9.1x	26.9x	23.8x	22.3x	34.7x	30.1x	27.8x
Enghouse Systems Limited	1,384	3.3x	3.07x	3.05x	10.0x	10.9x	9.90x	14.6x	27.0x	22.48x
Oracle Corporation	402,334	8.6x	7.7x	7.1x	17.3x	15.3x	13.7x	23.2x	21.7x	19.4x
SAP SE	158,964	4.7x	5.1x	4.7x	20.1x	17.6x	15.3x	31.0x	24.7x	20.7x
<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>18.3x</b>	<b>29.1x</b>	<b>31.4x</b>	<b>26.8x</b>
<b>Extended ERP</b>										
Adobe Incorporated	235,649	13.3x	12.1x	10.8x	27.0x	24.6x	22.5x	37.5x	32.7x	28.9x
Open Text Corporation	18,469	5.2x	3.4x	3.1x	14.9x	11.2x	8.0x	12.2x	11.8x	7.1x
Manhattan Associates, Inc.	11,735	15.3x	13.2x	11.8x	>50	48.1x	42.1x	>50	>50	>50
Pegasystems Inc.	4,462	3.4x	3.3x	3.0x	>50	25.3x	17.0x	>50	34.7x	22.2x
Software AG	2,562	2.7x	2.6x	2.4x	14.4x	14.5x	12.2x	34.8x	22.1x	18.2x
Fiserv, Inc.	95,092	5.7x	5.3x	4.9x	13.2x	11.8x	10.9x	18.7x	16.3x	14.2x
<b>Extended ERP Average</b>		<b>7.6x</b>	<b>6.6x</b>	<b>6.0x</b>	<b>17.4x</b>	<b>22.6x</b>	<b>18.8x</b>	<b>25.8x</b>	<b>23.5x</b>	<b>18.1x</b>
<b>Software As A Service</b>										
Descartes Systems Group Inc.	6,050	12.4x	10.7x	9.7x	28.1x	24.7x	21.6x	>50	>50	46.8x
Kinaxis, Inc.*	3,242	8.8x	7.6x	6.3x	40.8x	>50	41.6x	>50	>50	>50
Docebo, Inc.*	1,250	8.7x	6.9x	5.5x	>50	>50	42.9x	>50	NEG	>50
Lightspeed Commerce Inc*	1,518	2.2x	1.8x	1.4x	NEG	NEG	38.0x	NEG	>50	49.7x
Veeva Systems Inc Class A	26,909	12.6x	11.5x	9.7x	32.7x	32.4x	26.0x	44.2x	41.1x	34.6x
Shopify, Inc. Class A	67,523	12.1x	9.7x	8.2x	>50	>50	>50	>50	>50	>50
Q4 Inc*	97	1.8x	1.7x	1.6x	NEG	NEG	NEG	NEG	NEG	NEG
Ceridian HCM Holding, Inc.	11,766	9.4x	7.9x	6.8x	47.0x	30.4x	25.0x	>50	>50	43.4x
ServiceNow, Inc.	111,403	15.4x	12.5x	10.3x	48.7x	39.8x	31.6x	>50	>50	45.4x
Workday, Inc. Class A	57,420	9.4x	8.1x	6.9x	36.6x	30.2x	24.8x	>50	44.6x	36.8x
<b>Software As A Service Average</b>		<b>9.3x</b>	<b>7.8x</b>	<b>6.6x</b>	<b>39.0x</b>	<b>31.5x</b>	<b>31.4x</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>&gt;50</b>
<b>Infrastructure Vendors</b>										
Microsoft Corporation	2,388,164	11.6x	10.7x	9.5x	23.6x	21.5x	18.8x	34.2x	31.4x	27.5x
<b>Infrastructure Vendors Average</b>		<b>11.6x</b>	<b>10.7x</b>	<b>9.5x</b>	<b>23.6x</b>	<b>21.5x</b>	<b>18.8x</b>	<b>34.2x</b>	<b>31.4x</b>	<b>27.5x</b>
<b>Software Average</b>		<b>8.1x</b>	<b>7.0x</b>	<b>6.2x</b>	<b>27.0x</b>	<b>24.1x</b>	<b>23.2x</b>	<b>29.7x</b>	<b>30.3x</b>	<b>29.6x</b>

\*Share Price Converted to USD

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
<b>Business &amp; IT Services</b>										
<b>CGI Inc. Class A</b>	<b>34,519</b>	<b>13.3x</b>	<b>12.0x</b>	<b>11.4x</b>	<b>21.9x</b>	<b>19.3x</b>	<b>18.2x</b>	<b>2.6x</b>	<b>2.4x</b>	<b>2.3x</b>
<b>TELUS International (CDA), Inc.</b>	<b>4,189</b>	<b>6.9x</b>	<b>7.2x</b>	<b>6.0x</b>	<b>7.2x</b>	<b>9.4x</b>	<b>7.8x</b>	<b>1.7x</b>	<b>1.5x</b>	<b>1.4x</b>
Accenture Plc Class A	205,647	17.9x	17.1x	15.8x	28.7x	26.6x	24.6x	3.3x	3.1x	3.0x
Booz Allen Hamilton	17,717	17.8x	16.2x	15.0x	25.7x	23.3x	20.9x	2.0x	1.8x	1.6x
CACI International Inc Class A	9,509	14.0x	12.8x	12.0x	18.1x	17.1x	15.7x	1.5x	1.4x	1.3x
DXC Technology Co.	7,787	3.3x	3.7x	3.6x	6.0x	6.4x	5.5x	0.5x	0.6x	0.6x
Genpact Limited	7,692	9.8x	9.3x	8.3x	13.4x	12.5x	11.1x	1.8x	1.7x	1.5x
International Business Machines	176,102	11.1x	11.9x	11.3x	15.7x	15.0x	14.3x	2.9x	2.8x	2.7x
Atos SE	2,528	2.9x	2.2x	2.3x	NEG	3.0x	2.3x	0.2x	0.2x	0.2x
Capgemini SE	33,925	9.7x	9.4x	8.7x	14.3x	14.6x	13.3x	1.5x	1.5x	1.4x
Sopra Steria Group SA	5,310	8.9x	7.7x	7.2x	14.5x	11.7x	10.0x	1.0x	0.9x	0.9x
<b>Converge Technology Solutions Corp</b>	<b>868</b>	<b>6.1x</b>	<b>5.1x</b>	<b>4.6x</b>	<b>23.9x</b>	<b>&gt;50</b>	<b>19.1x</b>	<b>0.4x</b>	<b>0.3x</b>	<b>0.3x</b>
<b>Business &amp; IT Services Average</b>		<b>10.5x</b>	<b>10.0x</b>	<b>9.2x</b>	<b>16.5x</b>	<b>14.4x</b>	<b>13.1x</b>	<b>1.7x</b>	<b>1.6x</b>	<b>1.5x</b>
<b>HR Outsourcing</b>										
<b>Ceridian HCM Holding, Inc.</b>	<b>11,766</b>	<b>47.0x</b>	<b>30.4x</b>	<b>25.0x</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>43.4x</b>	<b>9.4x</b>	<b>7.9x</b>	<b>6.8x</b>
Willis Towers Watson	25,525	10.7x	10.9x	10.0x	15.2x	14.7x	12.8x	2.9x	2.7x	2.6x
Aon Plc Class A	76,963	19.3x	17.8x	16.5x	24.5x	23.1x	20.4x	6.2x	5.8x	5.5x
Automatic Data Processing, Inc.	105,152	22.7x	20.1x	18.5x	33.0x	29.0x	26.3x	6.1x	5.7x	5.3x
Paychex, Inc.	43,191	20.1x	18.6x	17.4x	30.0x	27.1x	25.0x	8.9x	8.3x	7.8x
<b>HR Outsourcing Average</b>		<b>24.0x</b>	<b>19.6x</b>	<b>17.5x</b>	<b>25.7x</b>	<b>23.5x</b>	<b>25.6x</b>	<b>6.7x</b>	<b>6.1x</b>	<b>5.6x</b>
<b>Information Services</b>										
<b>Broadridge Financial Solutions, Inc.</b>	<b>24,902</b>	<b>18.9x</b>	<b>17.2x</b>	<b>15.9x</b>	<b>27.0x</b>	<b>24.8x</b>	<b>22.6x</b>	<b>4.2x</b>	<b>4.0x</b>	<b>3.7x</b>
<b>Dye &amp; Durham Ltd.</b>	<b>2,224</b>	<b>14.0x</b>	<b>12.7x</b>	<b>11.4x</b>	<b>&gt;50</b>	<b>NEG</b>	<b>NEG</b>	<b>4.6x</b>	<b>4.8x</b>	<b>4.7x</b>
Deluxe Corporation	2,213	5.3x	5.4x	5.4x	4.8x	5.9x	5.9x	1.0x	1.0x	1.0x
<b>Information Services Corp</b>	<b>463</b>	<b>7.2x</b>	<b>6.4x</b>	<b>5.2x</b>	<b>11.9x</b>	<b>11.8x</b>	<b>9.6x</b>	<b>2.4x</b>	<b>2.2x</b>	<b>2.0x</b>
<b>Information Services Average</b>		<b>11.4x</b>	<b>10.4x</b>	<b>9.5x</b>	<b>14.6x</b>	<b>14.2x</b>	<b>12.7x</b>	<b>3.1x</b>	<b>3.0x</b>	<b>2.9x</b>
<b>Financial Services Technology</b>										
<b>Fidelity National Information Services</b>	<b>51,180</b>	<b>8.3x</b>	<b>8.4x</b>	<b>8.0x</b>	<b>8.3x</b>	<b>9.2x</b>	<b>8.6x</b>	<b>3.5x</b>	<b>3.5x</b>	<b>3.4x</b>
Fiserv, Inc.	95,092	13.2x	11.8x	10.9x	18.7x	16.3x	14.2x	5.7x	5.3x	4.9x
Jack Henry & Associates, Inc.	11,612	18.5x	17.4x	16.3x	31.5x	31.5x	29.6x	5.8x	5.4x	5.1x
ACI Worldwide, Inc.	3,570	9.6x	9.2x	8.5x	18.8x	24.3x	16.1x	2.5x	2.5x	2.3x
Temenos AG	5,871	16.0x	15.0x	13.4x	24.2x	22.2x	19.5x	6.2x	5.9x	5.4x
Global Payments Inc.	44,531	11.4x	10.3x	9.4x	13.2x	11.8x	10.3x	5.5x	5.1x	4.8x
<b>Financial Services Technology Average</b>		<b>12.8x</b>	<b>12.0x</b>	<b>11.1x</b>	<b>19.1x</b>	<b>19.2x</b>	<b>16.4x</b>	<b>4.9x</b>	<b>4.6x</b>	<b>4.3x</b>
<b>Diversified Real Estate Services</b>										
<b>Colliers International Group Inc.</b>	<b>7,115</b>	<b>11.3x</b>	<b>10.7x</b>	<b>9.6x</b>	<b>15.8x</b>	<b>16.5x</b>	<b>14.3x</b>	<b>1.6x</b>	<b>1.6x</b>	<b>1.5x</b>
<b>Altus Group Limited</b>	<b>2,426</b>	<b>17.9x</b>	<b>16.6x</b>	<b>13.9x</b>	<b>26.1x</b>	<b>27.5x</b>	<b>26.4x</b>	<b>3.3x</b>	<b>3.0x</b>	<b>2.8x</b>
CBRE Group, Inc. Class A	28,254	9.7x	11.5x	9.9x	14.8x	19.3x	15.2x	0.9x	0.9x	0.8x
Jones Lang LaSalle Incorporated	10,506	8.4x	11.3x	8.2x	10.7x	17.3x	10.9x	0.5x	0.5x	0.5x
<b>Diversified Real Estate Services Average</b>		<b>11.8x</b>	<b>12.5x</b>	<b>10.4x</b>	<b>16.9x</b>	<b>20.1x</b>	<b>16.7x</b>	<b>1.6x</b>	<b>1.5x</b>	<b>1.4x</b>
<b>Software Focused IT Solutions/VARs</b>										
<b>Softchoice Corporation* USD</b>	<b>801</b>	<b>9.8x</b>	<b>9.4x</b>	<b>8.4x</b>	<b>15.0x</b>	<b>15.4x</b>	<b>13.3x</b>	<b>2.6x</b>	<b>2.5x</b>	<b>2.3x</b>
Softcat Plc*	2,745	15.9x	14.1x	12.8x	21.3x	19.7x	18.5x	6.6x	5.6x	5.0x
Crayon Group Holding ASA*	9,222	>50	>50	>50	>50	>50	>50	20.8x	17.7x	15.2x
Bytes Technology Group Plc*	1,075	15.7x	13.6x	12.0x	21.1x	19.1x	17.1x	NA	NA	NA
<b>Software Focused IT Solutions/VARs Average</b>		<b>13.8x</b>	<b>12.4x</b>	<b>11.1x</b>	<b>19.1x</b>	<b>18.1x</b>	<b>16.3x</b>	<b>10.0x</b>	<b>8.6x</b>	<b>7.5x</b>
<b>Business Services Average</b>		<b>13.5x</b>	<b>12.4x</b>	<b>11.2x</b>	<b>18.4x</b>	<b>17.6x</b>	<b>16.4x</b>	<b>3.9x</b>	<b>3.6x</b>	<b>3.3x</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 24 Aug 2023)	Count	Percent	Inv. Banking Relationships	Count	Percent
Outperformer	153	51%	Outperformer	153	100%
Neutral	132	44%	Neutral	132	100%
Underperformer	6	2%	Underperformer	6	100%
Tender	1	0%	Tender	1	100%
Restricted	6	2%	Restricted	6	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.