

EQUITY RESEARCH

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

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

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Industry Update

No News Is Bad News – Bits & Bytes Weekly

Sector:

Tech Firms Push Back On Bill C-18

Information Technology

Our Conclusion

Discussion over the federal government’s online news bill has grown louder in the last month, with META and Google each taking stands in opposition to the legislation. Bill C-18 aims to support Canadian news organizations by forcing tech platforms to pay for news content hosted on their sites. The Canadian government is expecting tech companies to fund Canadian news expenditures through a combination of privately negotiated deals and payments for linked content. We wrote about Bill C-18 [last year](#), noting the similarities to an Australian bill that led Facebook to remove news content from the platform, eventually forcing the Australian government to make amendments. We expect that Bill C-18 might result in a similar compromise, given the threat of news content being removed from major tech platforms, valid concerns around the threats to journalistic independence, and the impact that the removal of news would have on independent publications.

Key Points

An Increasing Reliance On Tech: The Trudeau government has mentioned that Bill C-18 could result in tech companies supporting up to 35% of the costs of Canadian newsrooms. In relying so heavily on tech platforms to support journalism, valid concerns have been raised over the ability of Canadian news organizations to remain fully independent. Further, there is an argument that news publishers are actually benefitting from free advertising and linked content on tech platforms, and a payment from the tech companies to the publishers inverts the economic reality of the situation.

Tech Companies Push Back: META and Google have both been vocal in their criticism of the bill, with META Canada explicitly stating it would remove news content from Facebook and Instagram if the bill passed in its current form, and Google having already carried out a test that removed news content from a portion of Canadians’ search results. From Facebook’s perspective, the bill could add \$300 million in costs for a feature that is being de-emphasized by the service. With META and other tech companies focused on cutting costs in 2023, we would assume that the decision between making significant payments to Canadian news organizations and turning off news services in the country is not a particularly difficult one.

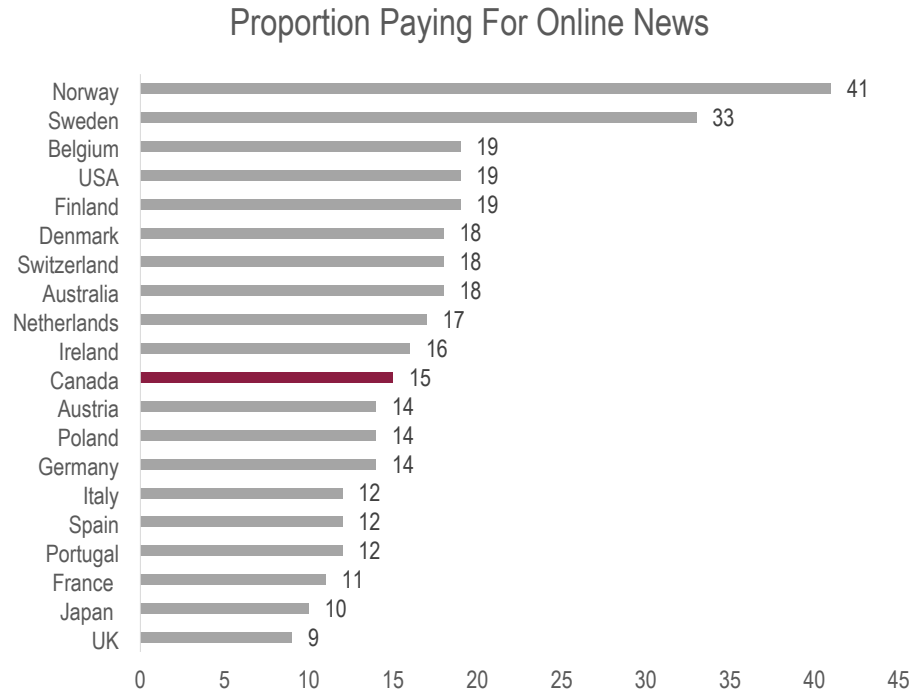
News Is Less Important On Social Platforms: The timing of the bill is less than ideal, as news content is no longer a focus for social media platforms. Industry data shows that social media referrals to external content have been declining since 2016, with Facebook only contributing 10% of total traffic to external websites. News has been de-emphasized as a result, making the companies less willing to take on the added cost burden proposed by the bill.

All figures in Canadian dollars unless otherwise stated.

How Canadians Are Getting Their News

The Canadian news business has faced significant struggles following the advent of digital media. Local news outlets are unable to generate advertising revenue as digital platforms allow local advertisers to target their customers with much better precision. A shift to paid online subscription models has seen limited uptake in Canada and across the world (see bar chart in Exhibit 1), making it harder for publishers to stay above water. These challenges are what led the Trudeau government to draft C-18 in an attempt to support Canadian news.

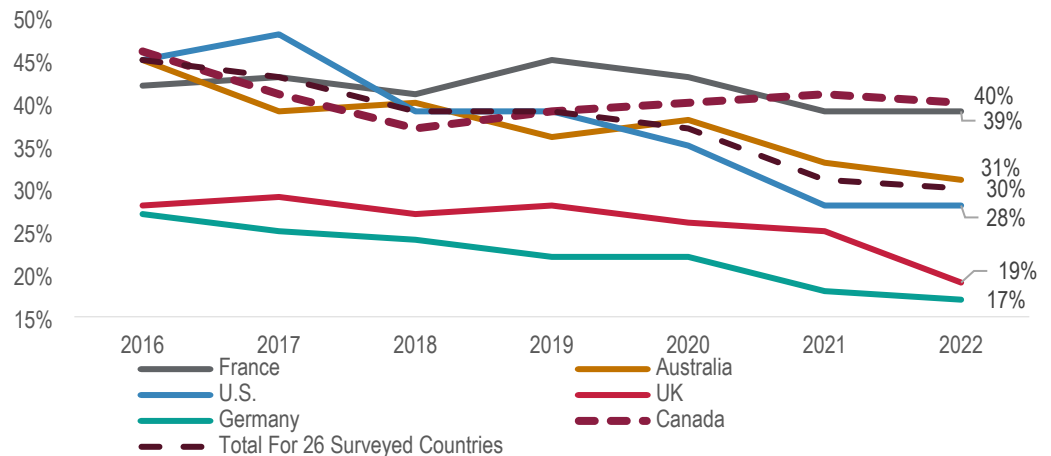
Exhibit 1: Percentage Of Population Willing To Pay For Online News



Source: Reuters Institute and CIBC World Markets Inc.

The line charts in Exhibit 2 show an overall decline among various countries in willingness to use Facebook for news sources. Canada's willingness to use Facebook does top the list of countries in the survey at 40%, compared to the overall total of 30%.

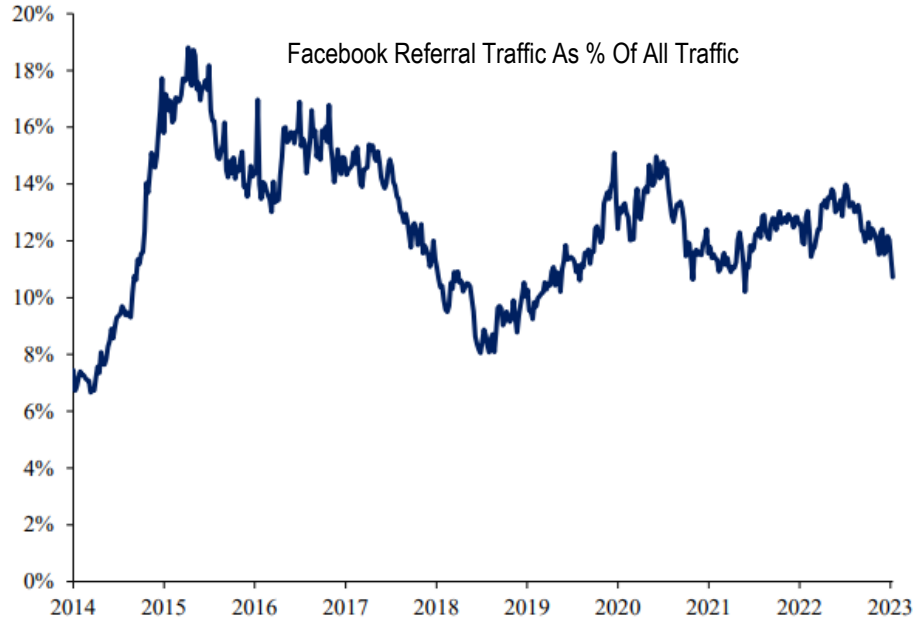
Exhibit 2: Percentage Of Population Using Facebook For News – 2016 - 2022



Source: Reuters Institute and CIBC World Markets Inc.

Another interesting data point is how prevalent Facebook and other social media sources actually are in driving content to third-party traffic. Facebook remains the largest source of referral traffic, but that total is limited at only 10% of all referral traffic (see graph, Exhibit 3). Given these statistics, it seems difficult to justify relying on big tech firms to fund up to 35% of newsroom expenses when they are contributing far less than that in terms of referral traffic.

Exhibit 3: Facebook Referrals As A Percentage Of Traffic – 2014 - 2023



Source: Echobox

News Impacting Our Coverage

Docebo Acquires PeerBoard

Docebo announced it had acquired community-as-a-service platform PeerBoard as it looks to expand its external training offerings. PeerBoard is a plug-and-play platform that helps companies connect with their customers and should fit well with Docebo's approach to social learning. Docebo management had indicated it would be pursuing tuck-in M&A as the business is now cash flow positive with significant cash balances. Financial terms of the deal were not disclosed.

Alstom Renews Relationship With Kinaxis

Kinaxis announced that Alstom had confirmed its choice of Kinaxis to support the management of its industrial planning. Alstom had previously been using RapidResponse at nine of its production sites and following the renewal Alstom will progressively extend the use of RapidResponse to all of its product sites.

Swedish Social Insurance Agency Selects CGI

CGI announced that the Swedish Social Insurance Agency (Försäkringskassan) had selected CGI to support its business transformation program. CGI will work with the agency to modernize operations and provide a higher level of service to citizens. The initial two-year agreement is valued at SEK 500 million (\$64.9 million), with options to extend up to another two years.

Research Highlight: Thomson Reuters: Returning \$2.2 Billion Through Cash Distribution

Thomson Reuters announced plans to return \$2.2 billion to shareholders through a cash distribution of \$4.67/share in combination with a reverse share split that will reduce the number of common shares outstanding. The return-of-capital plan is in keeping with management's previous commentary and allows TRI to return proceeds from its 2023 LSEG share sales in relatively short order. With ~17.5 million LSEG shares still available to be sold in 2023, we believe further capital return remains on the horizon for TRI shareholders. [Link To Note](#)

Research Highlight: Thomson Reuters: Selling Majority Stake In Elite At \$500 Million Valuation

TRI announced yesterday that it had sold a majority stake in its Elite business to TPG, with TPG planning to establish the business as an independent legal tech company. The transaction values Elite at \$500 million and we calculate a rough valuation multiple in the 10-15x EBITDA range. We note that the EV/EBITDA multiple TRI sold at is light relative to TRI's own multiple (25.5x on 2022 EBITDA), but a limited growth profile and lower margin profile led to a lower multiple. We believe that TRI was willing to sell the Elite practice management business due to a lack of integration with the majority of its research and workflow products that are directly built for lawyers rather than finance/accounting/operations staff. We expect management to provide further financial details with Q1 results (May 2nd) and will update our model when more concrete details are made available. [Link To Note](#)

Exhibit 4: CIBC Coverage – Price Returns, For The Period Ending Mar 30, 2023

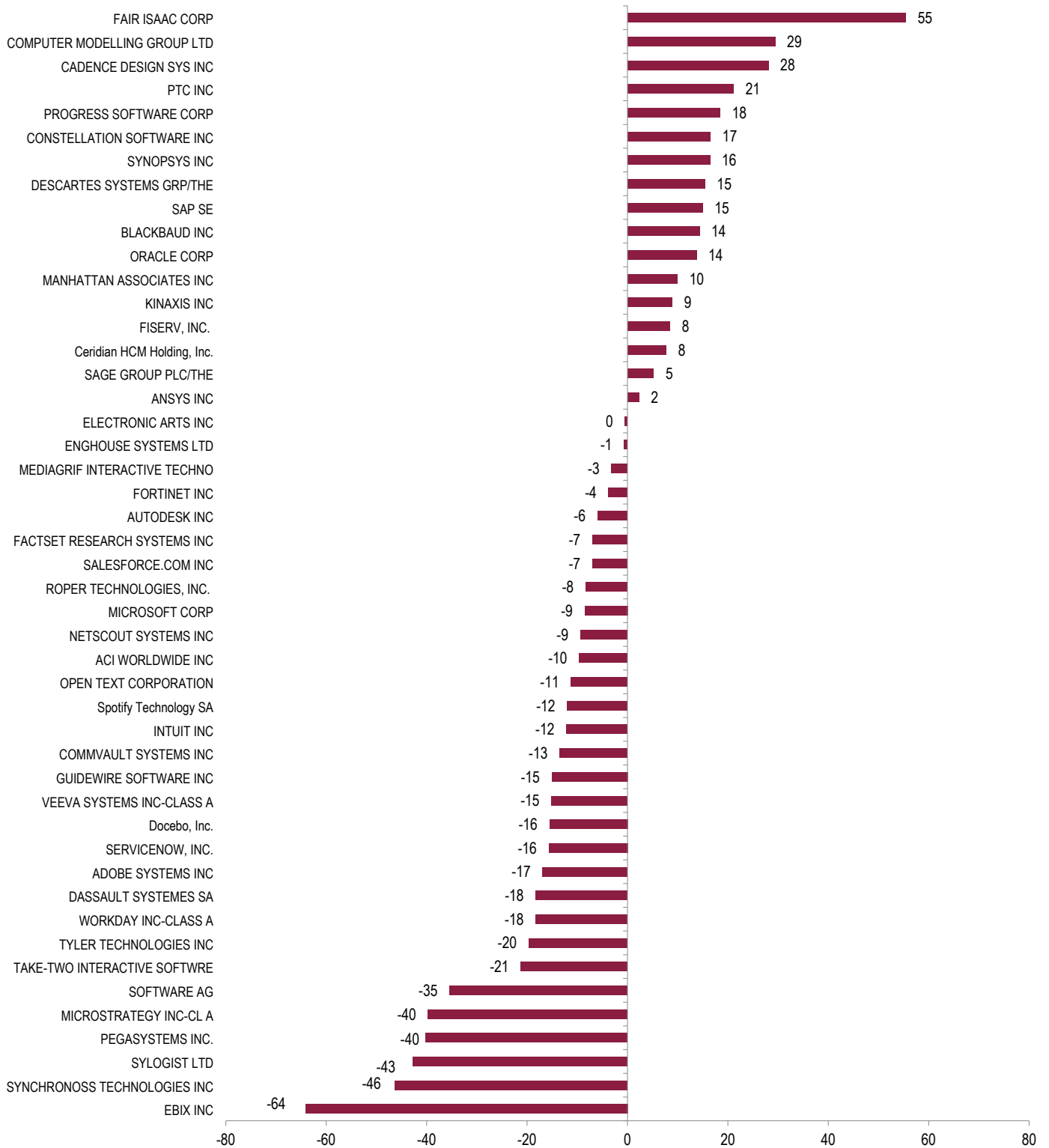
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52 Week High	52 Week Low
Constellation Software Inc	2,566.29	5.5	13.1	20.6	29.0	16.5	11.3	2582.00	1752.90
Descartes Systems	80.24	2.5	5.2	15.9	14.6	7.3	(3.0)	81.57	56.19
Enghouse Systems Limited	39.50	3.0	(9.5)	9.2	34.7	(0.7)	(18.4)	44.59	23.96
Open Text Corp	38.20	1.5	8.3	22.8	35.9	(11.2)	(19.5)	43.61	24.91
Kinaxis	184.19	2.7	7.7	19.7	30.8	8.9	3.9	187.01	119.48
Docebo, Inc.	52.28	(1.0)	5.5	15.0	31.9	(15.5)	(38.4)	64.48	31.66
Altus Group	56.57	0.3	(4.7)	(2.5)	21.6	12.9	(20.3)	61.60	41.27
Dye & Durham	16.64	(8.8)	(11.5)	(9.4)	0.1	(31.3)	(62.9)	25.51	11.62
Magnet Forensics R	44.21	0.0	(0.2)	12.4	85.2	55.6	34.5	45.20	14.89
Q4 Inc.	3.85	(7.5)	52.8	45.3	(1.3)	(19.8)	(54.7)	5.14	1.88
Software & Systems Average		(0.2)	6.7	14.9	28.2	2.3	(16.8)		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52 Week High	52 Week Low
CGI Group Inc	131.24	3.1	5.9	12.6	21.2	26.9	17.3	131.91	95.45
Converge Technologies	3.84	(4.1)	(15.3)	(18.6)	(44.5)	(62.4)	(64.7)	10.35	3.60
Softchoice Corporation	17.68	4.4	6.8	(4.4)	(13.8)	(33.0)	(17.2)	27.34	13.57
Telus International	19.27	(3.2)	(12.2)	(5.4)	(29.4)	(21.1)	(41.7)	31.52	17.65
Business Services Average		0.1	(3.7)	(4.0)	(16.6)	(22.4)	(26.6)		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	20,116.34	1.4	(1.9)	2.7	3.8	(8.3)	(5.2)
S&P 500 Index	4,077.89	1.2	0.7	5.8	7.6	(9.9)	(14.4)
S&P/TSX Software Index	166.23	1.7	6.6	18.0	26.5	(4.0)	(21.7)
S&P500 Software Index	4,835.71	1.0	8.0	20.8	15.5	(7.7)	(17.3)

Source: FactSet and CIBC World Markets Inc.

Exhibit 5: Software Stocks – Return Performance (%), 4/06/2022 – 4/06/2023



Source: FactSet and CIBC World Markets Inc.

Exhibit 6: Business Services Stocks – Return Performance (%), 4/06/2022 – 4/06/2023



Source: FactSet and CIBC World Markets Inc.

Exhibit 7: 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.*	41,900	6.3x	5.3x	4.7x	24.7x	20.9x	18.5x	33.5x	30.9x	27.0x
BlackBerry Limited*	2,654	4.0x	2.9x	2.6x	NEG	NEG	>50	NEG	NEG	NEG
Sage Group plc	8,626	4.3x	3.9x	3.6x	18.9x	16.8x	15.3x	29.0x	25.0x	22.4x
Tyler Technologies, Inc.	15,576	8.4x	8.0x	7.3x	32.8x	32.5x	28.8x	47.0x	46.5x	40.8x
Roper Technologies, Inc.	52,525	9.8x	8.8x	8.3x	24.0x	21.5x	20.1x	30.6x	27.1x	25.3x
Enghouse Systems Limited	1,950	4.6x	4.51x	4.44x	14.1x	14.5x	13.39x	19.9x	30.9x	27.39x
Oracle Corporation	312,364	6.7x	6.0x	5.6x	13.3x	12.0x	10.8x	19.0x	17.6x	15.6x
SAP SE	146,630	4.4x	4.5x	4.2x	18.5x	16.2x	14.0x	28.6x	21.8x	18.8x
Enterprise Application Software Average		6.1x	5.5x	5.1x	20.9x	19.2x	17.3x	29.7x	28.5x	25.3x
Extended ERP										
Adobe Incorporated	173,306	9.8x	8.9x	8.0x	19.9x	18.3x	16.5x	27.5x	24.4x	21.4x
Open Text Corporation	12,966	3.7x	2.4x	2.1x	10.4x	7.6x	5.6x	12.1x	13.7x	7.1x
Manhattan Associates, Inc.	9,358	12.2x	11.3x	10.1x	42.8x	42.5x	37.5x	>50	>50	49.0x
Pegasystems Inc.	4,253	3.2x	3.0x	2.7x	>50	23.7x	16.5x	>50	31.3x	22.1x
Software AG	1,736	1.8x	1.7x	1.6x	10.2x	9.6x	7.9x	19.9x	13.9x	11.8x
Fiserv, Inc.	91,681	5.5x	5.1x	4.7x	12.7x	11.7x	10.7x	17.3x	15.3x	13.5x
Extended ERP Average		6.0x	5.4x	4.9x	19.2x	18.9x	15.8x	19.2x	19.7x	20.8x
Software As A Service										
Descartes Systems Group Inc.	6,537	13.4x	11.9x	10.8x	30.4x	26.8x	23.7x	>50	>50	>50
Kinaxis, Inc.*	3,644	9.9x	8.5x	7.1x	45.9x	>50	44.8x	>50	>50	>50
Docebo, Inc.*	1,064	7.4x	5.8x	4.4x	>50	>50	34.0x	>50	>50	>50
Lightspeed Commerce Inc*	1,287	1.9x	1.5x	1.2x	NEG	NEG	37.7x	NEG	>50	>50
Veeva Systems Inc Class A	25,778	12.1x	11.0x	9.3x	30.5x	31.0x	25.0x	42.6x	42.0x	35.2x
Shopify, Inc. Class A	55,578	9.9x	8.4x	6.9x	>50	>50	>50	>50	>50	>50
Q4 Inc*	87	1.6x	1.5x	1.4x	NEG	NEG	NEG	NEG	NEG	NEG
Ceridian HCM Holding, Inc.	11,737	9.4x	7.9x	6.8x	46.9x	32.0x	25.9x	>50	>50	44.9x
ServiceNow, Inc.	92,622	12.8x	10.5x	8.6x	40.5x	33.6x	26.7x	>50	>50	41.0x
Workday, Inc. Class A	47,940	7.8x	6.7x	5.7x	30.5x	24.0x	20.0x	>50	39.4x	32.1x
Software As A Service Average		9.0x	7.5x	6.3x	37.4x	31.4x	29.7x	42.6x	40.7x	38.3x
Infrastructure Vendors										
Microsoft Corporation	2,092,894	10.3x	9.5x	8.5x	21.0x	19.4x	16.6x	30.7x	28.3x	24.5x
Infrastructure Vendors Average		10.3x	9.5x	8.5x	21.0x	19.4x	16.6x	30.7x	28.3x	24.5x
Software Average		7.4x	6.5x	5.7x	25.7x	22.8x	21.7x	27.5x	27.2x	26.7x

*Share Price Converted to USD

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

Exhibit 8: 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	33,800	13.7x	12.1x	11.7x	21.0x	18.8x	17.9x	2.6x	2.4x	2.3x
TELUS International (CDA), Inc.	6,101	10.1x	8.6x	7.5x	15.6x	15.5x	12.9x	2.5x	2.0x	1.8x
Accenture Plc Class A	183,947	16.1x	15.4x	14.2x	25.8x	23.9x	21.9x	2.9x	2.8x	2.6x
Booz Allen Hamilton	15,031	15.2x	14.2x	13.0x	21.6x	20.0x	17.9x	1.7x	1.5x	1.4x
CACI International Inc Class A	9,076	13.5x	12.5x	11.7x	16.8x	15.8x	14.3x	1.4x	1.3x	1.3x
DXC Technology Co.	9,153	3.8x	3.9x	4.0x	7.1x	6.4x	5.6x	0.6x	0.6x	0.6x
Genpact Limited	9,428	12.0x	11.0x	9.9x	16.6x	15.3x	13.7x	2.2x	2.0x	1.9x
International Business Machines	165,327	10.6x	11.0x	10.7x	14.5x	14.0x	13.2x	2.7x	2.6x	2.5x
Atos SE	3,009	3.0x	2.7x	2.4x	>50	5.2x	3.6x	0.3x	0.3x	0.3x
Capgemini SE	34,628	9.9x	9.4x	8.7x	14.6x	15.0x	13.5x	1.6x	1.5x	1.4x
Sopra Steria Group SA	5,130	8.7x	7.5x	6.9x	13.8x	11.4x	10.0x	1.0x	0.9x	0.9x
Converge Technology Solutions Corp	1,062	7.4x	6.2x	5.9x	36.2x	21.1x	25.3x	0.5x	0.4x	0.4x
Business & IT Services Average		10.6x	9.9x	9.2x	16.8x	14.7x	13.1x	1.8x	1.6x	1.6x
HR Outsourcing										
		EV/EBITDA			P/E			EV/S		
Ceridian HCM Holding, Inc.	11,737	46.9x	32.0x	25.9x	>50	>50	44.9x	9.4x	7.9x	6.8x
Willis Towers Watson	29,305	12.3x	12.0x	10.8x	17.6x	16.3x	13.7x	3.3x	3.2x	3.0x
Aon Plc Class A	76,511	19.2x	17.8x	16.6x	24.0x	22.0x	19.7x	6.1x	5.8x	5.5x
Automatic Data Processing, Inc.	90,650	19.7x	17.6x	16.1x	28.2x	25.0x	22.4x	5.3x	4.9x	4.6x
Paychex, Inc.	39,032	18.2x	16.9x	15.6x	26.9x	24.6x	22.7x	8.1x	7.5x	7.1x
HR Outsourcing Average		23.3x	19.3x	17.0x	24.2x	22.0x	24.7x	6.4x	5.9x	5.4x
Information Services										
		EV/EBITDA			P/E			EV/S		
Broadridge Financial Solutions, Inc.	20,709	15.7x	14.5x	13.8x	21.4x	19.9x	18.1x	3.5x	3.3x	3.1x
Dye & Durham Ltd.	2,089	13.2x	11.9x	9.5x	0.1x	0.1x	0.1x	4.4x	4.4x	4.1x
Deluxe Corporation	2,030	4.9x	5.1x	5.0x	3.8x	5.1x	4.6x	0.9x	0.9x	0.9x
Information Services Corp	431	6.7x	6.6x	6.3x	11.0x	11.0x	10.2x	2.3x	2.1x	2.1x
Information Services Average		10.1x	9.5x	8.6x	9.1x	9.0x	8.3x	2.8x	2.7x	2.6x
Financial Services Technology										
		EV/EBITDA			P/E			EV/S		
Fidelity National Information Services	49,813	8.0x	8.2x	7.7x	8.0x	9.0x	8.2x	3.4x	3.5x	3.3x
Fiserv, Inc.	91,681	12.7x	11.7x	10.7x	17.3x	15.3x	13.5x	5.5x	5.1x	4.7x
Jack Henry & Associates, Inc.	11,091	17.6x	16.3x	15.0x	30.6x	29.4x	26.6x	5.6x	5.2x	4.9x
ACI Worldwide, Inc.	3,842	10.3x	10.0x	9.2x	21.0x	23.9x	19.4x	2.7x	2.7x	2.5x
Temenos AG	5,519	15.2x	14.5x	12.7x	22.6x	21.4x	18.2x	5.8x	5.6x	5.1x
Global Payments Inc.	39,930	10.2x	9.4x	8.6x	11.2x	10.1x	8.8x	4.9x	4.7x	4.3x
Financial Services Technology Average		12.3x	11.7x	10.7x	18.4x	18.2x	15.8x	4.6x	4.4x	4.1x
Diversified Real Estate Services										
		EV/EBITDA			P/E			EV/S		
Colliers International Group Inc.	6,106	9.7x	8.4x	7.8x	14.5x	13.2x	12.2x	1.4x	1.3x	1.2x
Altus Group Limited	2,689	19.9x	19.8x	15.5x	29.7x	27.5x	23.9x	3.7x	3.4x	3.0x
CBRE Group, Inc. Class A	23,874	8.2x	9.0x	8.0x	12.3x	14.0x	11.8x	0.8x	0.7x	0.7x
Jones Lang LaSalle Incorporated	9,086	7.3x	7.7x	6.7x	8.8x	9.4x	7.9x	0.4x	0.4x	0.4x
Diversified Real Estate Services Average		11.2x	11.2x	9.5x	16.3x	16.0x	13.9x	1.6x	1.5x	1.3x
Software Focused IT Solutions/VARs										
		EV/EBITDA			P/E			EV/S**		
Softchoice Corporation* USD	877	10.7x	9.9x	9.1x	16.5x	16.2x	14.5x	2.8x	2.6x	2.5x
Softcat Plc*	2,511	14.8x	13.4x	12.3x	19.8x	18.7x	17.7x	6.1x	5.2x	4.7x
Crayon Group Holding ASA*	9,531	>50	>50	>50	>50	>50	>50	21.5x	18.5x	15.8x
Bytes Technology Group Plc*	859	12.8x	11.3x	10.1x	17.3x	16.1x	14.4x	NA	NA	NA
Bytes Technology Group Plc* Average		12.8x	11.6x	10.5x	17.9x	17.0x	15.5x	10.1x	8.8x	7.7x
Business Services Average		13.0x	11.9x	10.7x	17.1x	15.9x	15.1x	3.9x	3.5x	3.3x

*Share Price Converted to USD

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

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

Exhibit 9: SaaS 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	33,800	13.7x	12.1x	11.7x	21.0x	18.8x	17.9x	2.6x	2.4x	2.3x
TELUS International (CDA), Inc.	6,101	10.1x	8.6x	7.5x	15.6x	15.5x	12.9x	2.5x	2.0x	1.8x
Accenture Plc Class A	183,947	16.1x	15.4x	14.2x	25.8x	23.9x	21.9x	2.9x	2.8x	2.6x
Booz Allen Hamilton	15,031	15.2x	14.2x	13.0x	21.6x	20.0x	17.9x	1.7x	1.5x	1.4x
CACI International Inc Class A	9,076	13.5x	12.5x	11.7x	16.8x	15.8x	14.3x	1.4x	1.3x	1.3x
DXC Technology Co.	9,153	3.8x	3.9x	4.0x	7.1x	6.4x	5.6x	0.6x	0.6x	0.6x
Genpact Limited	9,428	12.0x	11.0x	9.9x	16.6x	15.3x	13.7x	2.2x	2.0x	1.9x
International Business Machines	165,327	10.6x	11.0x	10.7x	14.5x	14.0x	13.2x	2.7x	2.6x	2.5x
Atos SE	3,009	3.0x	2.7x	2.4x	>50	5.2x	3.6x	0.3x	0.3x	0.3x
Capgemini SE	34,628	9.9x	9.4x	8.7x	14.6x	15.0x	13.5x	1.6x	1.5x	1.4x
Sopra Steria Group SA	5,130	8.7x	7.5x	6.9x	13.8x	11.4x	10.0x	1.0x	0.9x	0.9x
Converge Technology Solutions Corp	1,062	7.4x	6.2x	5.9x	36.2x	21.1x	25.3x	0.5x	0.4x	0.4x
Business & IT Services Average		10.6x	9.9x	9.2x	16.8x	14.7x	13.1x	1.8x	1.6x	1.6x
HR Outsourcing										
		EV/EBITDA			P/E			EV/S		
Ceridian HCM Holding, Inc.	11,737	46.9x	32.0x	25.9x	>50	>50	44.9x	9.4x	7.9x	6.8x
Willis Towers Watson	29,305	12.3x	12.0x	10.8x	17.6x	16.3x	13.7x	3.3x	3.2x	3.0x
Aon Plc Class A	76,511	19.2x	17.8x	16.6x	24.0x	22.0x	19.7x	6.1x	5.8x	5.5x
Automatic Data Processing, Inc.	90,650	19.7x	17.6x	16.1x	28.2x	25.0x	22.4x	5.3x	4.9x	4.6x
Paychex, Inc.	39,032	18.2x	16.9x	15.6x	26.9x	24.6x	22.7x	8.1x	7.5x	7.1x
HR Outsourcing Average		23.3x	19.3x	17.0x	24.2x	22.0x	24.7x	6.4x	5.9x	5.4x
Information Services										
		EV/EBITDA			P/E			EV/S		
Broadridge Financial Solutions, Inc.	20,709	15.7x	14.5x	13.8x	21.4x	19.9x	18.1x	3.5x	3.3x	3.1x
Dye & Durham Ltd.	2,089	13.2x	11.9x	9.5x	0.1x	0.1x	0.1x	4.4x	4.4x	4.1x
Deluxe Corporation	2,030	4.9x	5.1x	5.0x	3.8x	5.1x	4.6x	0.9x	0.9x	0.9x
Information Services Corp	431	6.7x	6.6x	6.3x	11.0x	11.0x	10.2x	2.3x	2.1x	2.1x
Information Services Average		10.1x	9.5x	8.6x	9.1x	9.0x	8.3x	2.8x	2.7x	2.6x
Financial Services Technology										
		EV/EBITDA			P/E			EV/S		
Fidelity National Information Services	49,813	8.0x	8.2x	7.7x	8.0x	9.0x	8.2x	3.4x	3.5x	3.3x
Fiserv, Inc.	91,681	12.7x	11.7x	10.7x	17.3x	15.3x	13.5x	5.5x	5.1x	4.7x
Jack Henry & Associates, Inc.	11,091	17.6x	16.3x	15.0x	30.6x	29.4x	26.6x	5.6x	5.2x	4.9x
ACI Worldwide, Inc.	3,842	10.3x	10.0x	9.2x	21.0x	23.9x	19.4x	2.7x	2.7x	2.5x
Temenos AG	5,519	15.2x	14.5x	12.7x	22.6x	21.4x	18.2x	5.8x	5.6x	5.1x
Global Payments Inc.	39,930	10.2x	9.4x	8.6x	11.2x	10.1x	8.8x	4.9x	4.7x	4.3x
Financial Services Technology Average		12.3x	11.7x	10.7x	18.4x	18.2x	15.8x	4.6x	4.4x	4.1x
Diversified Real Estate Services										
		EV/EBITDA			P/E			EV/S		
Colliers International Group Inc.	6,106	9.7x	8.4x	7.8x	14.5x	13.2x	12.2x	1.4x	1.3x	1.2x
Altus Group Limited	2,689	19.9x	19.8x	15.5x	29.7x	27.5x	23.9x	3.7x	3.4x	3.0x
CBRE Group, Inc. Class A	23,874	8.2x	9.0x	8.0x	12.3x	14.0x	11.8x	0.8x	0.7x	0.7x
Jones Lang LaSalle Incorporated	9,086	7.3x	7.7x	6.7x	8.8x	9.4x	7.9x	0.4x	0.4x	0.4x
Diversified Real Estate Services Average		11.2x	11.2x	9.5x	16.3x	16.0x	13.9x	1.6x	1.5x	1.3x
Software Focused IT Solutions/VARs										
		EV/EBITDA			P/E			EV/S**		
Softchoice Corporation* USD	877	10.7x	9.9x	9.1x	16.5x	16.2x	14.5x	2.8x	2.6x	2.5x
Softcat Plc*	2,511	14.8x	13.4x	12.3x	19.8x	18.7x	17.7x	6.1x	5.2x	4.7x
Crayon Group Holding ASA*	9,531	>50	>50	>50	>50	>50	>50	21.5x	18.5x	15.8x
Bytes Technology Group Plc*	859	12.8x	11.3x	10.1x	17.3x	16.1x	14.4x	NA	NA	NA
Bytes Technology Group Plc* Average		12.8x	11.6x	10.5x	17.9x	17.0x	15.5x	10.1x	8.8x	7.7x
Business Services Average		13.0x	11.9x	10.7x	17.1x	15.9x	15.1x	3.9x	3.5x	3.3x

*Share Price Converted to USD

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

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

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